United States 2010 Stockholm Junior Water Prize

State Winners

**Alabama**
Rebecca Daniels
A Three Year Study of Phytoremediation
Brooks High School
Teacher - Vicki Farina
Sponsored by the Alabama Water Environment Association

**Alaska**
Kaitelyn McDonald
Seasonal Differences in Water Quality on Jordan and Duck Creek in Juneau Alaska
Juneau Douglas High School
Science Teacher - Jonathan Smith
Sponsored by the Alaska Water Wastewater Management Association

**Arizona**
Scott Boisvert
An Innovative Method to Evaluate the Effects of the Aquatic Environment on the Chemotaxis of the Amphibian Pathogen Batrachochytrium dendrobatidis
Basha High School
Science Teacher - Christina Jahr
Sponsored by the Arizona Water and Pollution Control Association

**Arkansas**
James Rose
Leaching Lead Phase 2
Alpena High School
Science Teacher - Roger Rose
Sponsored by the Arkansas Water Environment Association

**California**
Sumit Mitra
The Effect of Photosensitization of Fullerene-based Nanoparticles on Reactive Oxygen Species Generation and Toxicity to Viruses in Various Aqueous Environments
University High School
Science Teacher – David Knight
Sponsored by the California Water Environment Association

**Colorado**
Ben Armstrong
The Uptake of Endocrine Disrupting Chemicals
Monte Vista High School
Science Teacher – Gary Wilkinson
Sponsored by the Rocky Mountain Water Environment Association

**Connecticut**
Joseph Bonavita
Design and testing of two-step arsenic - remediating water filtration system
Oxford High School
Science Teacher - Dr. Frank LaBanca
Sponsored by the New England Water Environment Association

**Delaware**
No Nominations
Sponsored by the Chesapeake Water Environment Association
Florida
Collin McAliley
Florida Harmful Algal Bloom Mitigation, Year 6: Effect of Cysteine Methyl Ester on the Bioaccumulation of Brevetoxin in Mercenaria mercenaria Clams
Cocoa Beach Jr./Sr. High School
Science Teacher - Scott McCord
Sponsored by the Florida Water Environment Association

Georgia
Elizabeth Kornegay
The Relationship Between Precipitation and Water Quality of the Ochlockonee River, Phase III
Thomasville High Scholars Academy
Science Teacher – Laura Kornegay
Sponsored by the Georgia Association of Water Professionals

Hawaii
Robinson Bucaneg and William Fisher
The Effect of Sari Filtration on Bacterial Content of Water Samples
James Campbell High School
Science Teacher - Marites Barangan
Sponsored by the Hawaii Water Environment Association

Idaho
No Nominations
Sponsored by the Pacific Northwest Clean Water Association

Illinois
Allison Ramsey
Bioremediation: Comparing the Ability of PRP Powder and Miracle Gro the Enhance Oil Degradation
Southeastern Jr./Sr. High
Science Teacher - Carolyn Phillips
Sponsored by the Illinois Water Environment Association

Indiana
John Barnes
Acid Mine Drainage Remediation: A Novel Approach Phase II
Northwestern High School
Science Teacher - Patricia Zeck
Sponsored by the Indiana Water Environment Association

Iowa
Meghana Pagadala
Nanotube Filters: A Practical Solution or Unrealistic Wonder
Rivermont Collegiate
Science Teacher - Linda Hampton
Sponsored by the Iowa Water Pollution Control Association

Kansas
Erin Adams
The Effects of Pharmaceutical Pollution on Aquatic Organisms
Blue Valley North High School
Science Teacher - Jan Cyr
Sponsored by the Kansas Water Environment Association

Kentucky
Monica McFadden
Nitrate Reduction in Simulated Nitrate Wastewater by Biobarrier Filtration
Notre Dame Academy
Science Teacher - Mary Ethel Parrott
Sponsored by the Kentucky-Tennessee Water Environment Association
Louisiana
Emily Tassin
The Salt Tolerance of Marsh Plants and Their Ability to Aid in Louisiana Coastal Restoration
St. Joseph’s Academy
Science Teacher - Linda Messina
Sponsored by the Louisiana Water Environment Association

Maine
Rebecca Ye
Nanoparticle-amplified immunobiosensor enables excellent sensitivity in rapid detection of viable E. coli O157:H7
Bangor High School
Science Teacher - Cary James
Sponsored by the New England Water Environment Association

Maryland
Mikhail Slutskiy
Wastewater Filtration
Franklin High School
Science Teacher - Kaitlin Spivak
Sponsored by the Chesapeake Water Environment Association

Massachusetts
Amanda Fragata
CO2 Kills Sea Creatures: The Effect of Carbon Dioxide on Oyster Shells
Plymouth South High School
Science Teacher - Kathy Marks
Sponsored by the New England Water Environment Association

Michigan
Nicole Smith
Researching a Relevant Remedy to Repair Riparian Residences: Exploring the Effectiveness of Ceratophyllum demersum and Lemna valdiviana in Absorbing Nitrates from Freshwater Sources
Saginaw Arts and Sciences Academy
Science Teacher - Matthew Miller
Sponsored by the Michigan Water Environment Association

Minnesota
Logan Pallin
Engineering a rain garden to control road run-off in Scanlon Creek and an assessment of rain gardens as the best storm water management practice-Phase IV
Cloquet Senior High School
Science Teacher – Dr. Cynthia Welsh
Sponsored by the Central States Water Environment Association

Mississippi
No Nominations
Sponsored by the Mississippi Water Environment Association

Missouri
Kishan Patel
Developing a Microbial Fuel Cell for Application in Wastewater Treatment Facilities
Camdenton High School
Science Teacher - Chris Reeves
Sponsored by the Missouri Water Environment Association
Montana
Adair Borges
The Effects of Nutrient Supplementation on In-Situ Bioremediation
Billings Senior High School
Science Teacher - Dawn Carson
Sponsored by the Montana Water Environment Association

Nebraska
Nicholas Kinzer
“A Prototype Sewage Treatment Plant Phase II”
Lakeview High School
Science Teacher - Edward Kinzer
Sponsored by the Nebraska Water Environment Association

Nevada
No Nominations
Sponsored by the Nevada Water Environment Association

New Hampshire
No Nominations
Sponsored by the New England Water Environment Association

New Jersey
April Choi
Effects of Bisphenol A on Rotifers and a Dipstick to Detect Bisphenol A Bergen County Academies
Science Teacher - Donna Leonardi
Sponsored by the New Jersey Water Environment Association

New Mexico
Spencer Kent
Bioremedial Effects of Pleurotus Ostreatus on Endocrine-Disrupting Contaminants
Albuquerque High School
Science Teacher - Joan Newsom
Sponsored by the Rocky Mountain Water Environment Association

New York
William Genova, Lauren Herrera, and Ijeamaka Anyene
The Encapsulation of Alcanivorax borkumensis in a Gelatin Hydrogel Membrane for Water Filtration Purposes
Brentwood High School
Science Teacher - Rebecca Grella
Sponsored by the New York Water Environment Association

North Carolina
Ankesh Madan
An Investigation into the Aggregation, Deposition, and Mobility of Silver Nanoparticles through Porous Media
North Carolina School of Science and Mathematics
Science Teacher – Myra Halpin
Sponsored by the North Carolina Water Environment Association

North Dakota
Patrick Gulan
An Inquisition into the Hydro-Conditions of Tile Drainage Runoff
Hankinson High School
Science Teacher – Marcus Friskop
Sponsored by the North Dakota Water Environment Association
Ohio
No Project Selected
Sponsored by the Ohio Water Environment Association

Oklahoma
Nick Shepherd
Tar Creek-Measuring the Recovery of a Superfund Stream Using Macroinvertebrates, and Two Types of Toxicity Tests Phase II
Miami High School
Science Teacher - Sally Fenska
Sponsored by the Oklahoma Water Environment Association

Oregon
Laurie Rumker
Toxicity of Surfactant, Degradation by Straight-Chain Hydrocarbon-Degraders and the Potential for Organoclay Biodegradation
Oregon Episcopal School
Science Teacher - Parmely Pritchard
Sponsored by the Pacific Northwest Clean Water Association

Pennsylvania
Emily Goetz
The Effects of a Low-Head Dam on Water Quality
Trinity High School
Science Teacher - Susan Sweeney
Sponsored by the Pennsylvania Water Environment Association

Puerto Rico
Laura Roldán
"A New Type of Stormwater Treatment System Based on Natural Remedies"
Colegio Maria Auxiliadora
Science Teacher - Maria Lopez
Sponsored by the Puerto Rico Water & Environment Association

Rhode Island
Robert Checani
How are Bodies of Water in Southern New England Affected by Eutrophication in Proximity to Sewage Treatment Plants?
La Salle Academy
Science Teacher - Leslie Martinelli
Sponsored by the New England Water Environment Association

South Carolina
JaJa Liao
Impact of di(2-ethylhexyl)phthalate (DEHP) on the Mortality, Growth, and Reproduction of Caenorhabditis elegans
Wilson High School
Science Teacher – Karen Herbert
Sponsored by the Water Environment Association of South Carolina

South Dakota
No Project Selected
Sponsored by the Water Environment Association

Tennessee
Gregory Markov
Using algae and inorganic nitrogen-polluted water in a photobioreactor for biodiesel generation
Franklin High School
Science Teacher – Sergei Markov
Sponsored by the Kentucky-Tennessee Water Environment Association
Texas
Lin Boynton
Effect of Pharmaceutical Residues in Wastewater on Bioluminescent Dinoflagellates
Bellaire High School
Science Teacher - Anna Loonam
Sponsored by the Water Environment Association of Texas

Utah
Albert Cui
Novel Demonstration of CO2 Enhanced Precipitation Treatment of Heavy Metals in Wastewater
Hillcrest High School
Science Teacher – Jeff Salter
Sponsored by the Water Environment Association of Utah

Vermont
Stephanie Chang
Reduction of E. Coli and Phosphorus in Dairy Effluent through Steel Slag Filtration
South Burlington High School
Science Teacher - Curtis Belton
Sponsored by the New England Water Environment Association

Virginia
Akshar Wunnava
“The First Quantitative Projection of Extreme Precipitation: The Making of a Multi-Model Ensemble”
Thomas Jefferson High School for Science and Technology
Science Teacher - Robert Latham
Sponsored by the Virginia Water Environment Association

Washington
Marley Iredale
An Evaluation of Invasive Tunicates in Pleasant Harbor, Washington
Sequim High School
Science Teacher - Bryan Smelcer
Sponsored by the Pacific Northwest Clean Water Association

West Virginia
Catherine Breault
Reducing BOD in Wastewater
Bishop Donahue
Science Teacher - Robert Ball
Sponsored by the West Virginia Water Environment Association

Wisconsin
Christopher Welker
The Effects of Different Genera of Algae on the Phosphorus Excretion and Oxygen Depletion of Quagga Mussels (Dreissena Bugensis)
Nicolet High School
Science Teacher - Gary Stresman
Sponsored by the Central States Water Environment Association

Wyoming
Sean Sylvester
Effectiveness of Natural Aluminosilicates in the Removal of Heavy Metal
Greybull High School
Science Teacher - Joel Kuper
Sponsored by the Rocky Mountain Water Environment Association