

Water Resource Management: Research Topics

Here is the beginning of a topic list. Some are quite specific and if someone chooses a topic it is not available for others. Others can be modified. I may add a few more.

As well, you can submit a topic proposal. Follow instructions under Research Topic Guidelines on the course site.

ARCTIC OIL: POLICY, LAW, AND INTERNATIONAL COOPERATION

Canada has four international legal disputes in the Arctic:

- Hans Island dispute
- Lincoln and Beaufort Sea boundary disputes,
- Status of the Northwest Passage

Resolution would help provide certainty concerning the applicability of Canadian law -including safety and pollution prevention regulations, exploration licenses, insurance and liability regimes, royalties, etc. - across all of Canada's Arctic.

DISSOLVED ORGANIC MATTER IN NORTHERN DRINKING WATER

Dissolved organic matter (DOM) plays a dominant role in determining overall water quality. Comprised of thousands of molecules with varying structural and chemical properties, DOM can influence water taste, odour, colour, and treatability. For example, DOM can react with chlorine during the treatment of drinking water to form carcinogenic disinfection by-product.

CAMPUS OR MUNICIPAL STORMWATER MANAGEMENT AND DESIGN

BLUE-GREEN ALGAE BLOOMS (ASSESSMENT AND MANAGEMENT)

IMPLICATIONS OF WATER PRIVATIZATION IN CANADA

BULK WATER SHIPMENTS IMPLICATIONS AND CASE STUDIES

WATER DIVERSIONS AND WATERSHED MANAGEMENT

PHARMACEUTICALS AND THE UNKNOWN IMPACTS TO SOURCE WATER

WATER-BORNE DISEASE IN THE LESS DEVELOPED REGIONS OF THE GLOBE

ARSENIC AND THE HIDDEN CONTAMINANTS OF WATER

MUNICIPAL WATER INFRASTRUCTURE AND THE MANAGEMENT OF AGING SYSTEMS

WHAT DOES WATER SECURITY MEAN IN THE DEVELOPED WORLD VERSUS THE LESS DEVELOPED WORLD?

COMMUNITY-BASED WATERSHED MONITORING AND PROTECTION (COMMUNITY-BASED STREAM MONITORING)

RIVER RESTORATION AND/OR ARTIFICIAL WETLANDS... SUCCESSES AND CHALLENGES

THE CHANGING FOCUS OF THE GREAT LAKES WATER QUALITY AGREEMENT SINCE THE 1970S

ATMOSPHERIC CIRCULATION RESPONSES TO WARMER WATER AND SEA ICE DECLINE ON HUDSON BAY

CHANGES IN TIMING OF FALL UPWELLING EVENTS IN LAKE SUPERIOR: ATMOSPHERIC DRIVERS AND POTENTIAL REGIONAL IMPACTS

GAPS IN UNDERSTANDING OF FOOD SECURITY IN NORTHERN ONTARIO: INSIGHTS AND FUTURE DIRECTIONS

METHYLMERCURY HOTSPOTS AND CYCLING IN NORTHERN ONTARIO

SHOAL LAKE: WINNIPEG'S CONTROVERSIAL WATER SUPPLY

INVASIVE SPECIES IN LAKE SUPERIOR (OR ANOTHER WATER ECOSYSTEM)

THUNDER BAY'S NORTH HARBOUR: SEDIMENT EVALUATION AND MANAGEMENT

WATER QUALITY IN FIRST NATION COMMUNITIES IN CANADA/ONTARIO

PESTICIDES AND THEIR EFFECT ON WATER QUALITY

CHEMICAL CONTAMINANTS IN THE GREAT LAKES

DRINKING WATER ADVISORIES IN CANADA

COMPARISON OF [COUNTRY] AND CANADIAN WATER MANAGEMENT PRACTICES

IMPACTS OF PARKS ON DOWNSTREAM WATER QUALITY

BALLAST WATER TRANSPORTATION OF INVASIVE SPECIES

WATER MANAGEMENT IN THE NETHERLANDS

WATER MANAGEMENT AND TREATMENT IN MINING

SOCIAL RECOVERY AFTER FLOOD AND OTHER EXTREME EVENTS

IMPACTS OF CLIMATE CHANGE ON DISASTER INSURANCE

IMPLICATIONS OF INCREASED ICE MELT AND THE ATLANTIC OCEAN

ECONOMICS OF CONVERTING SALT WATER TO FRESH WATER

Fracking [Hydraulic fracturing to obtain oil and natural gas]