**Reports outline**

The report contains 3 pages, double space. Fonts: Times New Roman 12 .

\* Title, Author, Date

\* Abstract

\* Introduction

* Demonstrates knowledge and understanding of the topic

\* Literature Review

* + - Demonstrates the candidates ability to organize and judge academic material
    - Provides a framework for the research

\* Methodology

* Methodology, methods and justification.

\* Findings

\* Conclusions/Recommendations

Intended outcomes. Can include impact, implications and limitations of the research.

\* References

Use numbers (e.g., [1]) for the citation in the text.

For the References:

Articles: [1] Ahlgren NA, Rocap G., Applied and Environmental Microbiology, 2006; 72: 7193-7204.

Books: [2] Marine clastic sedimentology: concepts and case studies. G. Trotman, 1987, pp. 108-123.

**Report topics**

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| 1 | Insights into mechanisms of ecological change from cross-lake comparisons |
| 2 | Nutrient Sources, Transport & Retention Across Scales: Measurement, Modeling & Management |
| 3 | Fitting Dynamic Models to Time-Series Data |
| 4 | Invasive Dreissenid Mussels: Ecology, Impacts, and Management |
| 5 | Protecting & Restoring Urban Watersheds: Using Green Infrastructure to Reduce Urban Runoff |
| 6 | Pathways for invasions into the Great Lakes: detection, monitoring, and new technology |
| 7 | Physical processes in lakes |
| 8 | Application of models to inform water quality management |
| 9 | Real-Time Monitoring of Source Water Quality |
| 10 | Advances in Molecular Methods and their Impact on Management of the Great Lakes |
| 11 | Harmful Algal Blooms (HABs) from watershed influence to ecosystem effects |
| 12 | Restoring Great Lakes Areas of Concern |
| 13 | Remote Sensing, Visualization, and Spatial Data Applications for the Great Lakes |
| 14 | Insights into mechanisms of ecological change from cross-lake comparisons |
| 15 | Plastics Research in the Great Lakes |
| 16 | Using Bioindicators to Monitor Ecological Responses and Restoration Success |
| 17 | Big Data for Great Lakes Decision-Making |
| 18 | The ecological and managerial impacts of Round goby impacts across the Great Lakes |
| 19 | Great Lakes acoustic telemetry - from ecology to the restoration and management of fishes |
| 20 | New Tools for Aquatic Habitat Restoration |
| 21 | Discoveries, trends, and implications of chemicals in the Great Lakes |
| 22 | Application of trophic markers in aquatic ecology |
| 23 | Big Lakes - Small World: Not all Great Lakes are Laurentian |
| 24 | Improving model predictions through coupled system and data assimilation |
| 25 | Great Lakes Fish and Fisheries |
| 26 | Bottom Mapping in the Laurentian Great Lakes: Physical, Biological and Cultural Features |
| 27 | Innovative Observations and Emerging Technologies |