#### **JAMES HOOD**

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# Summary

- Post-secondary curriculum delivery
- Development and supervision of student applied research projects (Capstone)
- Success in watershed planning and source water protection
- Manure management planning
- Watershed planning with First Nations, resort communities, rural municipalities, industry, farm and wildlife groups
- · Contract and budget management

## **Educational History**

Master of Natural Resources Management

1997

University of Manitoba

- Thesis: "Expert systems for environmental self-assessment: a case study of Manitoba hydro sub-transmission lines, 66kv, in the rural municipality of Whitemouth."
- Natural resources management, policy development, law, economics and environmental assessment

Bachelor of Science (Biology Major)

University of Winnipeg

Undergraduate thesis: Investigated the effect of combining agricultural herbicides on the growth rate of algae

### **Work History**

2021-Current	Instructor, Land & Water Management Assiniboine Community College	Brandon, MB
2013-2021	Coordinator, Agriculture Extension Assiniboine Community College	Brandon, MB
2009-2013	Senior Watershed Planning Coordinator Water Security Agency of Saskatchewan	Regina, SK
2003-2009	Landscape Stewardship Specialist Manitoba Agriculture, Food & Rural Initiatives	Brandon, MB
2002-2003	Independent Consultant Study Principal	Winnipeg, MB
2001-2002	Associate Symbion Consultants	Winnipeg, MB
2000-2001	Research Analyst InterGroup Consultants Ltd.	Winnipeg, MB
1999-2000	Environmental Analyst Envision Environmental Services	Winnipeg, MB

# **Professional Experience-Applied Research**

- Supervision of student Capstone, industry sponsored, applied research projects (2021)
  - Interpretive Programming for Manitoba's Native Tree Arboretum
  - Native Plant Supplement to the Existing Rain Garden Guide Available through the Brandon Environment Committee
  - Identification Guide for Hazardous Plants in Southwestern Manitoba with a Focus on Educating the Public
  - Constructing Nesting Habitats For Purple Martin at the Brandon Discovery
  - Soil Erosion Mapping on Willow Creek
  - Updating tree inventory in grid cells e10, e11, f10, f11, and g10 at Canadian Forces Base Shilo
  - Educational Guide to link the Interactions between Pollinators, Shelterbelts and Crops and their benefits across Manitoba
  - Landscaping with native plants
  - Assiniboine Community College Medicine Garden
  - Invasive species management plan for Spruce Woods Provincial Park
- Supervision of student Capstone, industry sponsored, applied research projects (2020)
  - A Comprehensive Guide to Native Species Planting in the Neepawa Multi-Use Park
  - A How-To Guide for Building Redesigned Artificial Nesting Structures to Protect and Rehabilitate Ferruginous Hawk Populations in Manitoba
  - A Management Guide for Water Hyacinth (Eichhornia crassipes) to improve water quality in Lake Victoria, Kenya
  - Construction of a Walleye Riffle Project in an Intermittent Stream for Dauphin Lake and Developing a Guide for Intermittent Stream Riffles
  - Guide to Mealworm Husbandry for Recycling Styrofoam
  - Landowners Guide for Dry Dams within the Inter-Mountain Watershed District
  - Restored Wetland Monitoring Manual
  - Tree Selection Guide to Enhance Biodiversity A selection suitable for Brandon Manitoba and surrounding area
  - Wetland Classification Guide for Southwestern Manitoba based on Stewart and Kantrud's Wetland Classification System
  - Wild Pig Management Plan for Central Assiniboine Watershed District

## **Most Significant Contributions**

- 1. Developed and completed the Lower Qu'Appelle River Watershed plan for the Water Security Agency of Saskatchewan (WAS) with community stakeholders and technical experts. This included a plan for source water protection for the Cowessess First Nation. This was the first time that the Nation had participated as an equal partner in the development of a watershed plan. I was responsible for the leadership, facilitation and overall coordination of several watershed committees and stakeholders to develop the watershed plan, an education rollout and capacity building for plan implementation. The finalized plan was released on July 12, 2013 and is still in use today.
- 2. I developed the Riparian Essentials presentation and education materials for the workbook *Managing the Water's Edge- Riparian Health Assessment for Streams and Small Rivers*-Manitoba Forestry Association. This workbook was written for those who can most effectively influence riparian areas with their management-landowners, livestock producers, farmers, agency staff and others. It offers a way to systematically assess riparian areas in a consistent manner as well as provide general riparian related information. The workbook was tailored for

Manitoba but has been modified for use by other groups across Canada.

- 3. I updated and implemented the Assiniboine Community College Land & Water Diploma program Environmental Capstone applied research curriculum. The coursework provides students with the opportunity to structure and research an environmental project and determine scope, time, stakeholders, costs and risks. Students practice environmental management by integrating learned skills, incorporating available concepts and tools linking environmental issues with strategies, product and service development, and public and external industry partners.
- 4. I established the Lower Qu'Appelle Watershed Stewards (LQWS) watershed committees and facilitated the hiring and training of the first Watershed Coordinator for the group. The LQWS is an independent, non-profit organization committed to protecting water sources in the Lower Qu'Appelle River Watershed. The Stewards are responsible for the management and implementation of the Lower Qu'Appelle River Watershed plan.

## **Research Contributions and Practical Applications**

• Developed and presented riparian essentials program for Managing the Water's Edge-Riparian Health Assessment for Streams and Small Rivers-Manitoba Forestry Association

## Other Evidence of Impact and Contributions

- Developed and initiated process to migrate ACC Pesticide Applicator examination testing to online and remote access
- Developed source water protection projects with Cowessess First Nation, Qu'Appelle River watershed
- Formulated a revised watershed planning process for the WSA
- Developed a restoration policy for damage to infrastructure on First Nations lands for the Emergency Flood Damage Reduction Program for the WSA
- Co-developed and delivered the Manitoba Equivalent Agri-Environmental Planning (EAEP) with Beneficial Management Practice (BMP) funding application component across Manitoba

## **Contribution to Highly Qualified Personnel**

 Annually mentor and supervise ten to fifteen second year Land & Water Management Diploma students at Assiniboine Community College in the planning and execution of short term applied research projects.

#### **Publications**

• Thesis: "Expert systems for environmental self-assessment :a case study of Manitoba hydro sub-transmission lines, 66kv, in the rural municipality of Whitemouth." 1997

#### **Extension**

- Environmental Farm Planning presentations to farmers and agriculture professionals
- Manure and Nutrient Management training workshops for farmers and agriculture professionals
- Riparian Field Assessment workshops across Manitoba for land owners, agriculture professionals and government staff