



Indigenous-led Water Security and management research

PROJECT SUMMARY

The Ohneganos project employs an innovative research framework and methodology towards improving water security and water management for Indigenous communities. The holistic, community-led, and ecocentric nature of this research project is further reflective of an Indigenous worldview. The emphasis that has been placed on this approach is reflected in the research findings, citizen science, public outreach, and knowledge mobilization; and in the novel outputs that the project continues to produce.

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OHNEGANOS

Progress

The holistic, community-led, and ecocentric nature of this research reflects a Haudenosaunee worldview:

- **Water quality sensors** monitoring creeks 24 hours/day for 2-4 weeks at a time creates visualization for community; data export for researchers
- **Turtle Tagging** to delineate habitat and movement on website & mobile app
- Development of a Community-led **Indigenous mapping project** using *TerraStories*
- Research conducted with Birthing-Centre on wide-ranging impact of water insecurity on **Maternal Health**
- We established the Ohneganos Six Nations Youth Mental Wellness Advisory & Research Development Committee to guide & inform our work

Knowledge Exchange participants on the Grand River



User Engagement

Ongoing community involvement in research processes is vital to the advancement of meaningful, impactful research.

- In June, we hosted members of Grand Traverse Band of Ottawa & Chippewa Indians at Six Nations for **knowledge exchange** on ecological dam remediation
- In June, engage grade 9 youth from Six Nations Polytechnic & STEAM academy program in **STEM field work** in the Grand River.
- In July, we participated in the ten-day **Two Row on the Grand**, that engaged participants with Haudenosaunee culture. Our research team provided information sessions about water research along the route.
- Ohneganos **Let's Talk Water video podcast** engages Indigenous communities in the dissemination of research findings via discussion.

Results

Water security tends to be normalized among community members at Six Nations of the Grand River:

- **maternal health impacts** research shows anxiety & depression, UTIs, Gestational Diabetes, anemia, yeast or bacterial vaginosis & skin rashes are common.
- Mental health team developed **Water anxiety resilience curriculum** entered into CIHR – Institute of Human Development, Child and Youth Health Talks Video competition
- By participating in our experiential & youth-focused STEAM activities, Indigenous students from local schools have received **Certificates of Completion** from McMaster University.
- Developed a **working group to advance Indigenous management of waters**, involving a network of scientists, University Sr. Administration and Six Nations elected council.



STEAM Academy training with water sensors



Youth participatory mapping engagement

Outcomes and application uptake/ Impact

- Ohneganos was awarded the Princeton University Press “**Supporting Diverse Voices Book Development Grant**”. The Ohneganos team is in the development phase of compiling a volume, and participating in writing workshops and retreats
- Impacts of COVID highlight the barriers to engaging Indigenous community in research and the need to **shift attitudes in Indigenous involvement in community-based research projects**.
- The Indigenous map created using *Terrastories* integrates holistic information gained from project, mapping results of water research with Haudenosaunee language, knowledge, and stories about water.