



SHARED VALUE
SOLUTIONS

Climate Change Planning and Mitigation Funding in Ontario

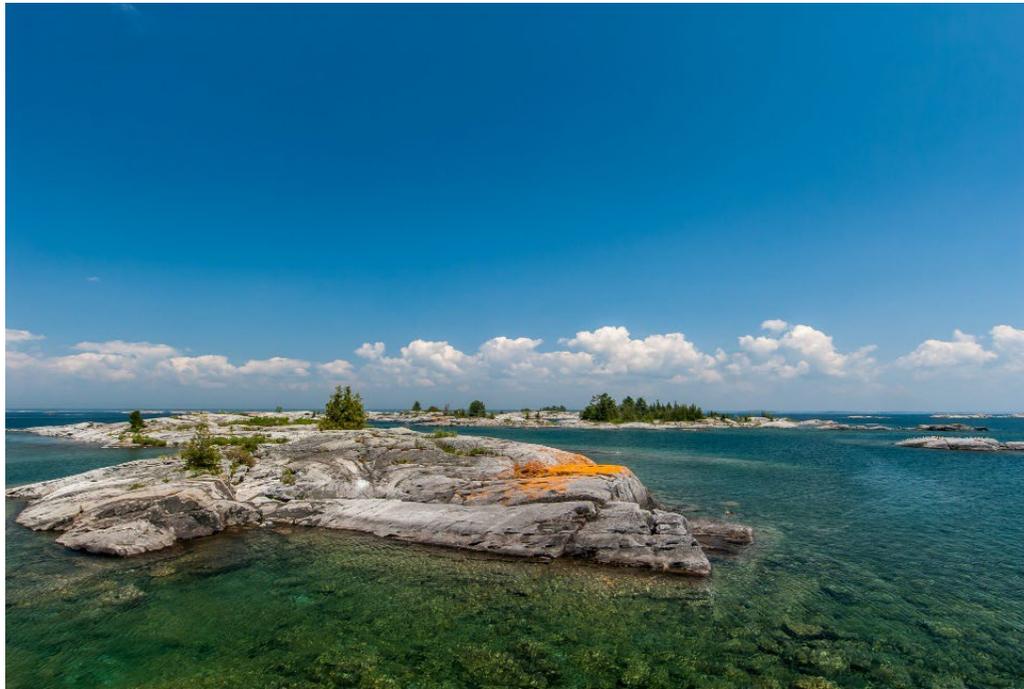
September 8, 2022 – Ontario Communities and Nations

[SHAREDVALUESOLUTIONS.COM](https://sharedvaluesolutions.com)

LAND ACKNOWLEDGEMENT

Guelph, Ontario

Shared Value Solutions was founded in Guelph, Ontario. Now with staff all across Canada from coast-to-coast, we have experienced this land from many perspectives and places of truth. This journey that allows each of us to do the work we do at SVS began in southern Ontario, which we acknowledge, honour, and share is located in the Traditional Territories of the Mississaugas of the Credit First Nation and the Anishinaabeg and is now home to many diverse First Nations, Metis and Inuit people.



OVERVIEW



1. About SVS and Our Team
2. The Cost of Climate Change to Indigenous Communities
3. The Funding Opportunities
4. In Depth: Seeing the Impacts of Climate Change Through an Archaeology Lens
5. More Project Examples
6. Next Steps and Getting in Touch



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ABOUT SVS AND OUR TEAM



INTRODUCING OUR TEAM



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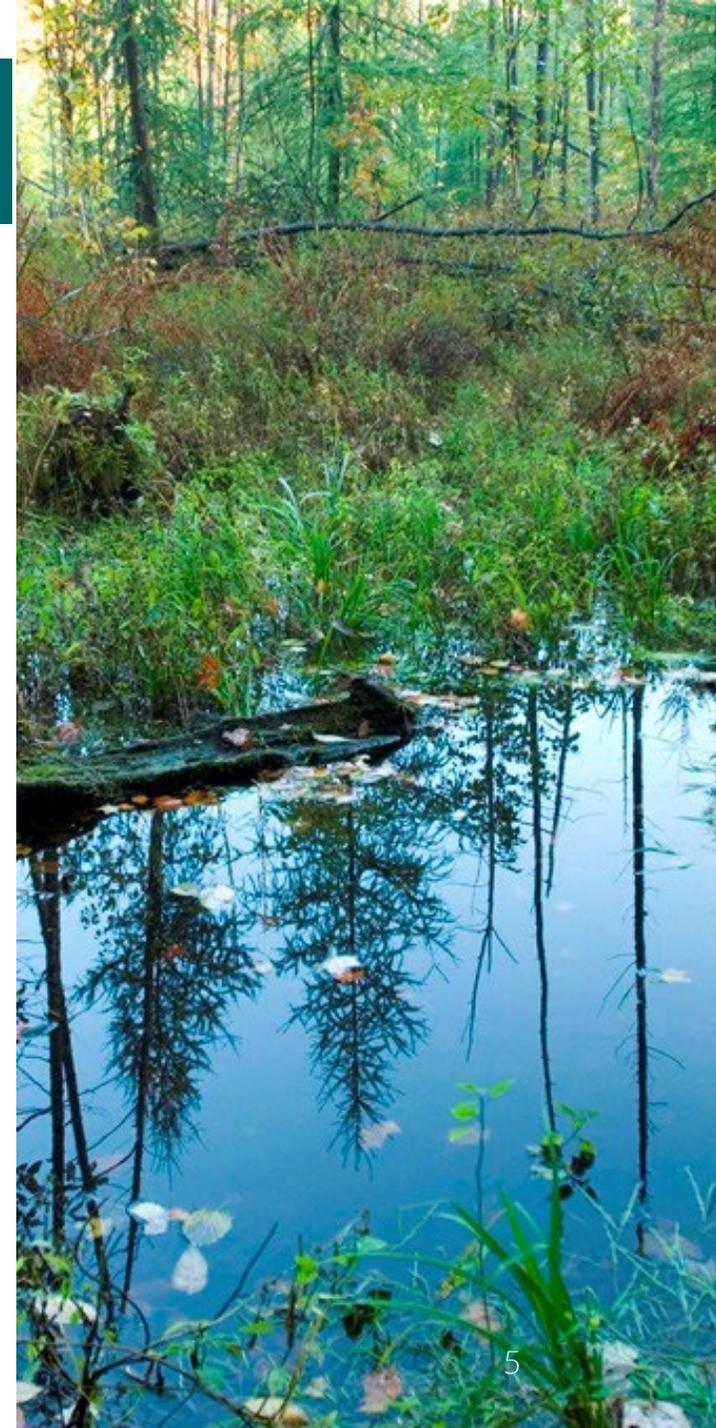
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Jason Stephenson
BA_{Hons} in Anthropology
MES in Landscape & Pre-contact Archeology
Regulatory Specialist/Archeologist
Kitchener, Ontario



WHO IS SHARED VALUE SOLUTIONS?

We Value



Our People

SVS is built on the sharing of the expertise and knowledge of the people who have all come together around our shared goals. We come from many different regions in Canada and have attracted First Nations, Metis, and non-Indigenous cultures and perspectives to our work.

SVS represents the vehicle that each of us has chosen to channel our entire selves and expertise in becoming a part of Reconciliation in Action.

We Honour



Our History

SVS has deep context and experience behind the recommendations we provide, having worked for our clients on almost every major project in Canada over the last 10 years. We assist Indigenous communities with regulatory advice, ESG projects, negotiation and business strategy, relevant supporting studies, and technical reviews related to major development projects such as mines, hydroelectric facilities, transmission lines, highway expansions, oil and gas pipelines, and nuclear power.

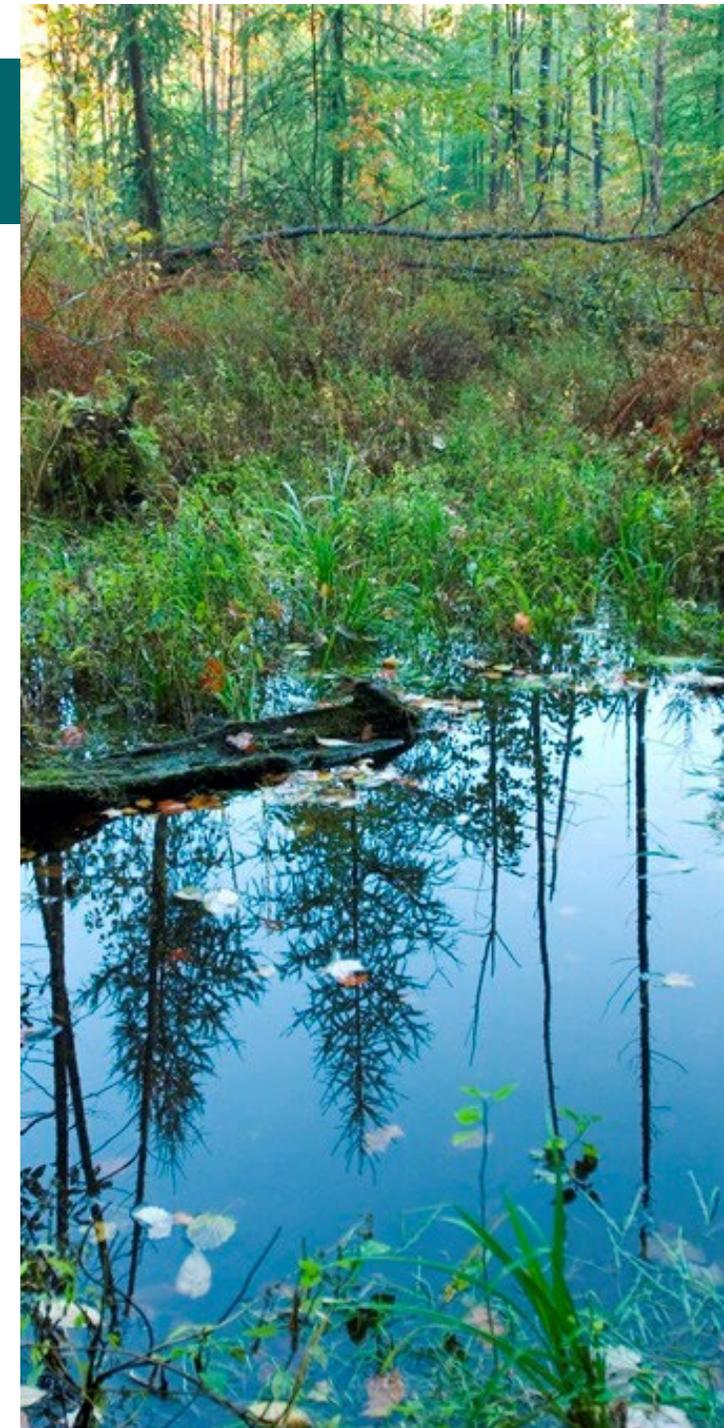
We Celebrate



Our Culture

Shared Value Solutions' culture is a blend of both Indigenous and non-Indigenous perspectives informed by each of our personal and professional experiences and education.

We are a company that has staff in every corner of this country, allowing us to hear the issues facing Canada and its Indigenous Peoples with understanding and perspective along with the talent to become a part of the solutions.



SVS' DESIRE AND ROLE WE CAN PLAY



Question We've Heard A lot: How does an Indigenous community take on such important work when we're already stretched to the limit due to consultation overload, made more difficult by attempting to prioritize immediate community issues where the trade-off is taking attention away from future community planning initiatives?

Our Proposed Solution and SVS' Role: Consider the SVS team and expertise at your disposal in creating a project that allows to you to expand your community's capacity, where you don't have to choose between the issues of today and tomorrow – with SVS, we can do both.

Our Desire: We desire to build a long-term relationship with your community where we believe offering our services – paired with a path to funding – creates a perfect opportunity for us to get to know each other. Climate Change work is particularly meaningful and in order to do it right and authentically it will take expertise, experience, and numerous perspectives. The work we do together will lead to a more safe, vibrant, and prosperous community.



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THE COST OF CLIMATE CHANGE TO INDIGENOUS COMMUNITIES



WHAT IS CLIMATE CHANGE?

- Long term shifts in temperatures and weather patterns. Human activity has been the main driver of climate change since the 1800s, mostly due to burning fossil fuels.
- Limiting global temperature rise to less than 1.5°C would help us avoid the worst climate impacts and maintain a livable climate.



Ontario is a Hot bed of Climate Extremes

Ontario is Home to Four of the Top Ten Most Expensive Natural Disasters in Canadian History

#3



\$1.3B

#5



\$1.2B

#7



\$680M

#8



\$625M



How is Climate Change Affecting Indigenous Communities?

- Rising air and water temperatures
- Changing precipitation patterns
- Extreme weather events, such as wildfires, floods, and droughts
- Sea level rise and storm surges
- Loss of permafrost
- Impacts on plants, wildlife, and their habitats



Flooding of Fisher River at Peguis First Nation, April 4, 2017 (cbc.ca)



How is Climate Change Affecting Indigenous Communities



Indigenous communities are more likely to experience the adverse effects of climate change:

- Diets changed because of changing ecosystems and migration patterns
- Changing modes and routes of transportation
- Cultural ways of life
- Abilities to access essential resources and services such as clean drinking water
- Safe and predictable access to the lands and territory



THE DECISION YOU MUST CONSIDER

If your community doesn't offer insights into how Climate Change has affected your community, the resulting mitigations and supports may not meet your needs.

- With extreme weather predicted to become more frequent, the cost to Ontario and its Indigenous Peoples only escalates.
- There are unique and novel impacts to Indigenous communities that will not be identified through broad mitigation strategies.
- This necessary feedback only exists if Indigenous communities ensure they are on the record with the science, knowledge, and data proving the disproportional weight Indigenous communities carry.
- This science, knowledge, and data can be used to justify the need for extra opportunities be made available by provincial and federal governments to address these Indigenous climate issues with priority.
- Undertaking this work is an act of sovereign jurisdiction where these projects and the information that results from them is the community's to own and use to make informed decisions on further research and/or required mitigations.



UNDERSTANDING INDIGENOUS IMPACTS



Rights

Trapping, Hunting and Fishing

Displacement of Cultural Artifacts

Reduced Capacity to Assert Sovereignty Over Territory

Connection to Land, History and Identity

Higher Death Rates due to Climate Extremes

Loss of Cultural Sites

Stalled Progress in Realizing a True "Nation to Nation" Relationship with Ottawa

Reduced Ability to Travel to Remote Locations in Certain Seasons

Clean Drinking Water Issues

Work has not even begun to understand the costs of climate change on Indigenous communities

Elders' Health and Access to Healthcare

Lasting Impacts to Way of Life

Access to Traditional Herbs/Medicines

Relationships Between Indigenous Communities

Oral History and Tradition

Ability to Practice Ceremony Freely and Authentically

Traditional Harvesting Practices

Poverty Levels

Economic Sovereignty and Self-determination

Youth Choosing to Leave and Never Return

ONE THING IS CERTAIN, HOWEVER...

The cost of Climate Change on Indigenous Nations and Communities is too high to ignore.



Here's Where



Comes In



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FUNDING OPPORTUNITIES



Funding is Available for Your Community



Government
of Canada

- [Clean Energy for Rural and Remote Communities \(CERRC\)](#) – no deadline to apply
- [First Nations Adapt Program](#) – no deadline to apply
- [Climate Change and Health Adaptation Program](#) - **Deadline to apply is Sept. 23**
- [Infrastructure Canada – Natural Infrastructure Fund](#) – **Deadline to apply is Sept. 27**
- [Indigenous Guardians Program Stream 1: Renewed Funding for 2022-2023 Tier 2 & 3 Recipients](#) – **Deadline to apply is Sept. 28**
- [Indigenous Guardians Program Stream 2: First Nations Guardians 2023-24 Open Call \(Tiers 1, 2, and 3\)](#) – **Deadline to apply is Sept. 28**



- [IESO Indigenous Community Energy Plan Program](#) – application window opening Q2 2023



Federal Commitments and Policy

Net Zero Emissions Accountability Act & National Emissions Reduction Plan:

- \$2.2 billion for the [Low Carbon Economy Fund](#) (\$180 million for Indigenous Leadership Fund)
- \$300 million for [transitioning remote and Indigenous communities](#) from diesel to clean energy sources
- \$29.6 million to advance Indigenous climate leadership

Opportunities for consultation and engagement on GoC climate initiatives:

- [National Adaptation Strategy](#) consultations to occur by fall 2022
- 2022-2023 engagement on inclusion of IK in climate initiatives
- Engagement on [new regulations under CEPA](#) to reduce methane emissions





IN DEPTH: SEEING THE IMPACTS OF CLIMATE CHANGE THROUGH AN ARCHAEOLOGY LENS

SVS' ARCHAEOLOGY TEAM



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MSc in Cultural Resource Management Archaeology
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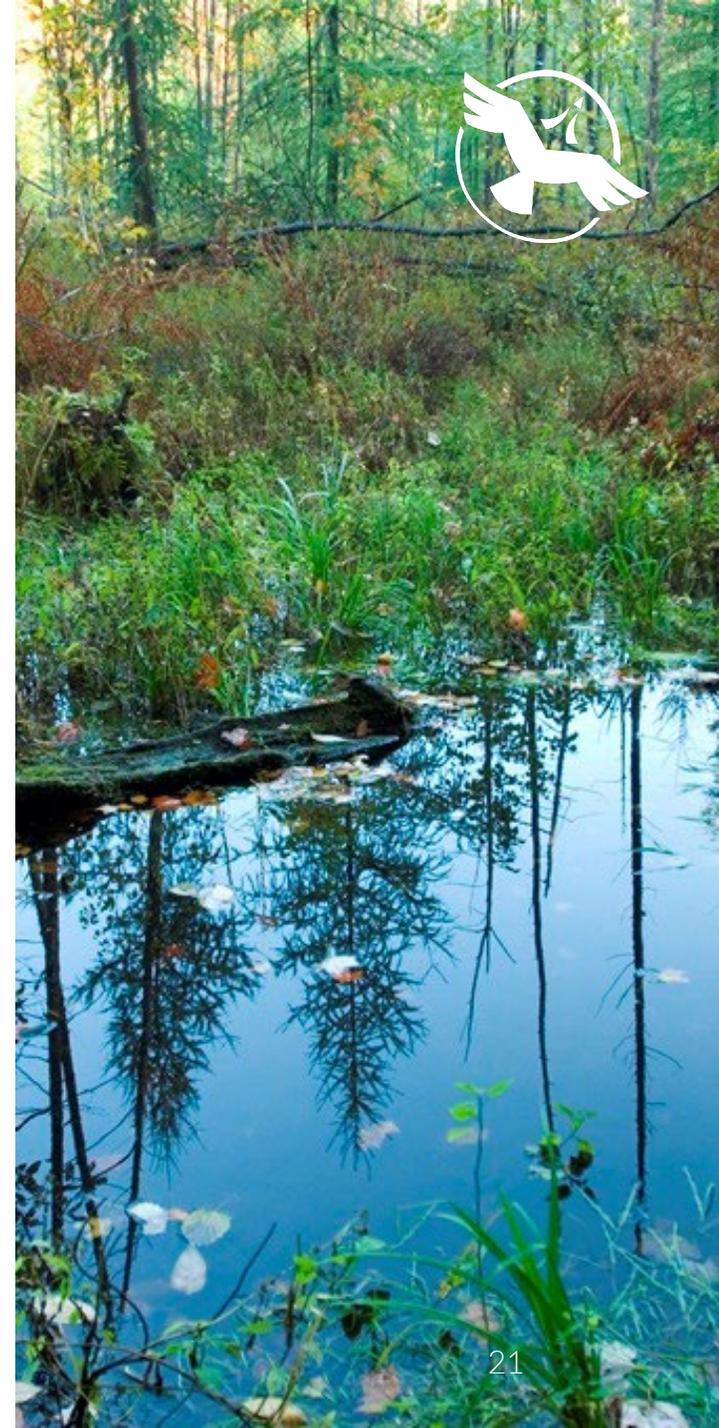
Jason Stephenson
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CLIMATE CHANGE AND ARCHEOLOGY

How Climate Change is Stealing Indigenous Historical and Cultural Evidence Right Before Our Eyes

- 1) Soil erosion affects archaeological sites and disturbs the land through relocating artifacts from the past into unnatural locations.
- 2) Rising sea levels are exposing coastal areas to increased erosion.
- 3) The loss of permafrost, receding glaciers, and rapidly melting snowpacks are increasing and accelerating the loss of delicate organic remains as thawing allows them to be exposed to the elements and microorganisms.
- 4) These impacts increase the further north you go, which mean Indigenous Peoples are disproportionately affected by these examples of climate change simply due to the location of their Traditional Territories.



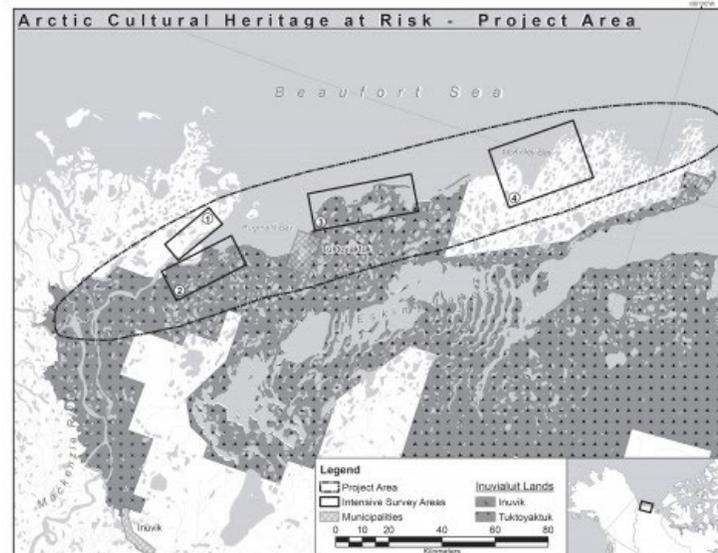
CLIMATE CHANGE AND ARCHEOLOGY

Climate Change Funding: Archaeology Projects Example: the Arctic CHAR Project

Arctic CHAR is a multi-pronged program of research centered in the culturally unique Mackenzie Delta region, northwestern Canada, home to modern Inuvialuit communities.

It is intended to investigate spatial patterns in the threats to the archaeological record in this region, and to begin to mitigate them through mapping and excavation of critically important sites.

Figure 1



[Enlarge](#) [Original \(jpeg, 1020k\)](#)

Map of the study area, indicating overall survey area as well as four more intensive survey zones. Kuukpak is in Zone 1; McKinley Bay is in Zone 4

(Data Sources: Geodata.gov; Geobase.ca - © Department of Natural Resources Canada. All rights reserved. Projection: NAD83 Northwest Territories Lambert. Map drafted by Michael O'Rourke)





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MORE PROJECT EXAMPLES



ADAPTATION PLANNING PROCESS

▪ **Get Started**

STEP 1

▪ **Assess Risks and Opportunities**

STEP 2

▪ **Implementation**

STEP 4

▪ **Resilience Planning**

STEP 3



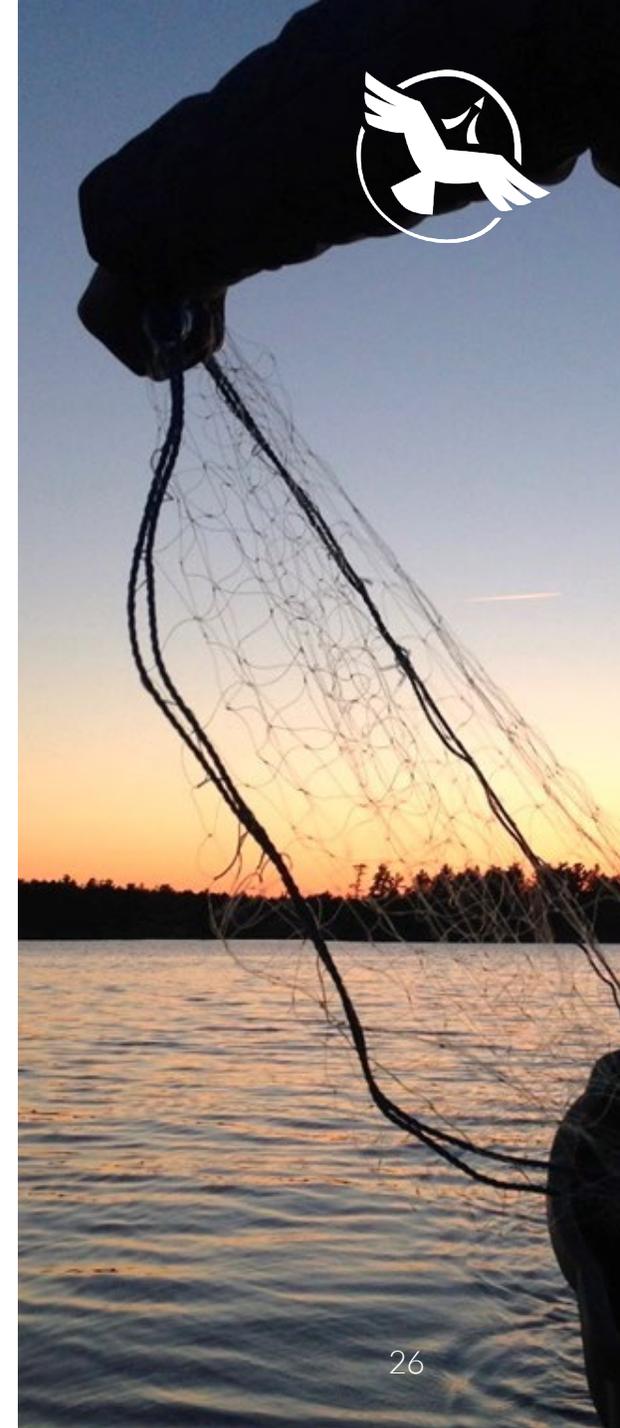
Step 1

- Determine the Scope
- Develop Engagement Plan
- Develop a Climate Profile (Past / Future) including Indigenous Traditional Knowledge



Step 2

- Assess Community Tolerances to Climate Events
- Estimate Climate Event Likelihoods
- Assess Severity of Consequences
- Complete Risk Assessment Matrix



Step 3

- Identify Resilience Actions / Strategies
- Prioritize Implementation
- Document the Climate Adaptation and Resilience Plan



Step 4

- Climate Adaptation and Resilience Plan
 - Summarize Each of the Previous Three Steps
 - Complete an Implementation Plan
 - Develop a Monitoring Strategy
-
- Take Climate Action!
 - Implement the Strategies Identified



PROJECT EXAMPLE

CLIMATE CHANGE ADAPTATION PLANS

Process

- Feasibility studies
- Climate scenarios and modelling
- Regional studies
- Flood risk modelling / mitigation studies
- Data collection and monitoring

People

- Education and awareness-raising
- Capacity building

Governance

- Land use plans



PROJECT EXAMPLE

CLIMATE CHANGE ADAPTATION PLANS

Projects could involve:

- Assess how climate change could impact your community
- Identify strategies & actions for managing risks/ opportunities
- Design an implementation plan
- Create a monitoring plan to assess effectiveness



Case Study: Tobique First Nation Climate Adaptation Plan



PROJECT EXAMPLE

CLIMATE CHANGE RISK ASSESSMENTS

Projects could involve:

- Identify key climate change variables for your community
- Develop potential climate change scenarios
- Identify climate-based risks that may impact your community
- Evaluate the likelihood & consequences of those risks
- Identify measures to mitigate or adapt to the identified climate change risks

Case Study: Prince Edward Island Climate Change Risk Assessment

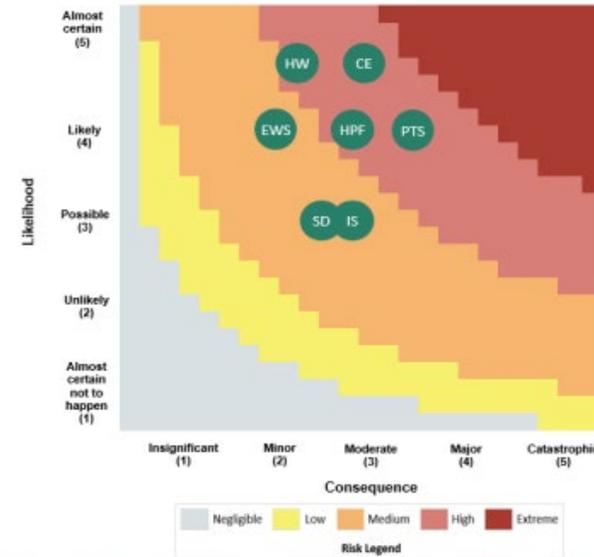


Figure 2. Overall risk rating matrix. Hazard legend: CE = coastal erosion | PTS = post-tropical storm | HW = heat wave | HPF = heavy precipitation/flooding | IS = ice storm/freezing rain | EWS = earlier/warmer spring | SD = seasonal drought

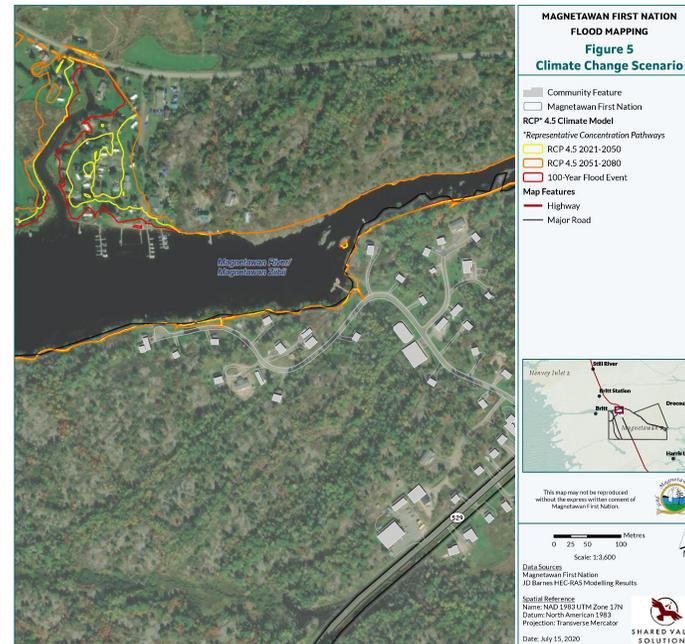


PROJECT EXAMPLE

FLOOD VULNERABILITY MODELLING

Projects could involve:

- Gather elevation data of the land & underwater
- Build the model
- Run possible scenarios & produce maps
- Use the results to inform land use & emergency response planning



Case Study: Magnetawan First Nation Flood Vulnerability Modelling



PROJECT EXAMPLE

EMERGENCY RESPONSE PLANNING

Projects could involve:

- Identify the parties involved, priorities & requirements of the plan
- Assess critical assets/services, potential hazards, vulnerabilities & safeguards
- Engage with the community
- Draft the plan & seeking feedback from the community
- Implement the plan
- On-going training in emergency preparedness, risk assessments, & plan updates



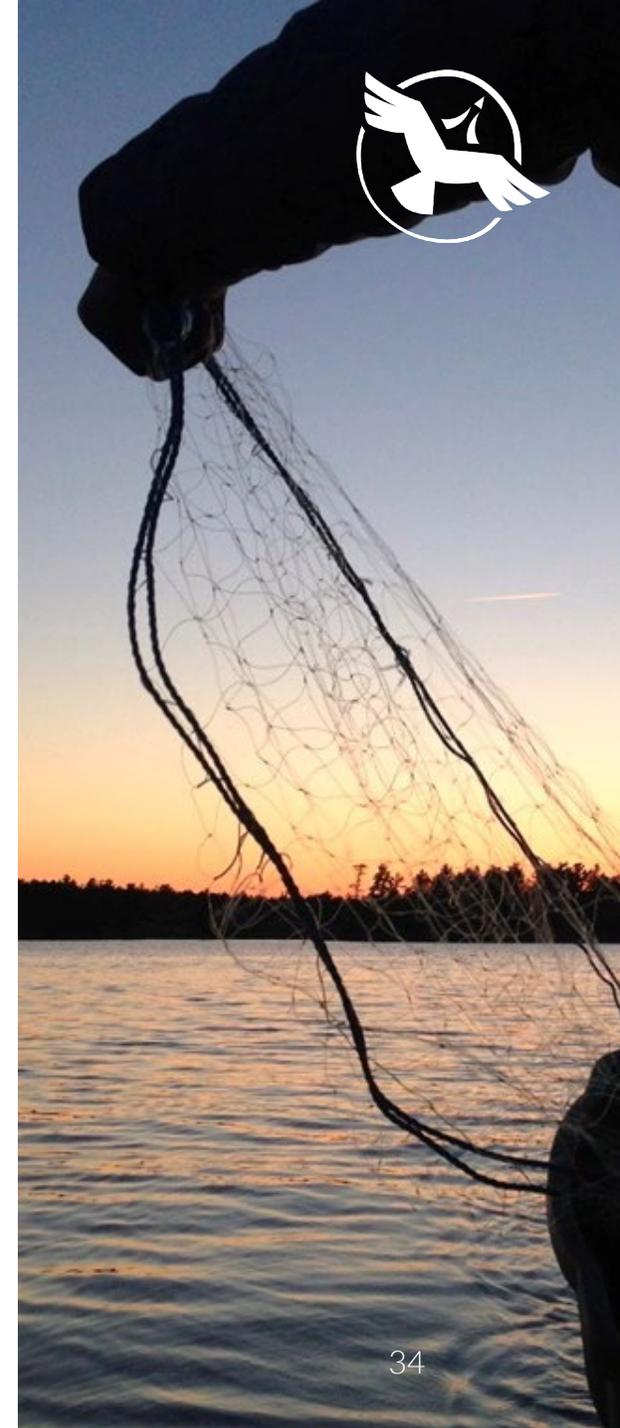
Case Study: Peguis First Nation Climate Vulnerability Study & Integrated Emergency Response Plan

PROJECT EXAMPLE

INDIGENOUS KNOWLEDGE STUDIES AND COMMUNITY ENGAGEMENT

Projects could involve:

- Interviewing Elders to understand the changes they have seen
- Work with you to scope the study & potential interviewees
- Build capacity through training community researchers in IK study methods & interview process
- Conduct interviews where IK is mapped & interview content is transcribed
- Create a final report, or video & mapping that provides a summary of the IK collected



Case Study: Eagle Lake First Nation Climate Change Preparedness and Food Security Adaptation Strategy

PROJECT EXAMPLE

ENVIRONMENTAL MONITORING PLANS

Projects could involve:

- Engage with your community to establish goals & objectives
- Assess methods that can be used to collect environmental data
- Draft a monitoring plan that outlines your goals & objectives, including monitoring methods, analysis & interpretation
- Hands-on training with community environmental monitors



**Case Study: Métis Nation of Ontario
Framework for a Community-based Environmental
Monitoring Program**



NEXT STEPS AND GETTING IN TOUCH

Shared Value Solutions

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THANK YOU!

Discussion and Questions

PROSPERITY.
STEWARDSHIP.
JURISDICTION.