



## **UTILIZING DIVERSE FUNDING SOURCES TO DEVELOP ADAPTIVE MANAGEMENT STRATEGIES FOR TREATY FISH, WILDLIFE AND PLANT RESOURCES**



**Inland Fish & Wildlife Department – Sault Ste. Marie Tribe of Chippewa Indians**

# INLAND FISH AND WILDLIFE DEPARTMENT

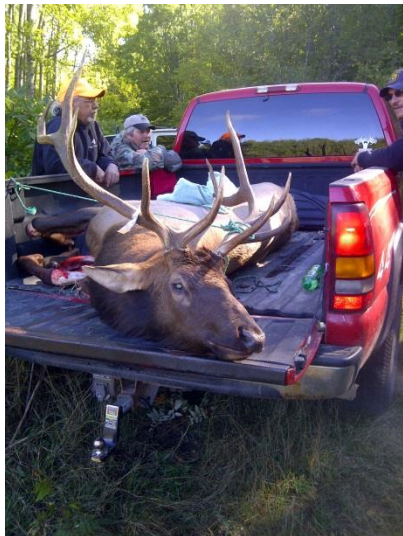
## Programmatic Areas

Harvest Management

Inter-governmental Fish and Wildlife Management

Adaptive Ecosystem Management

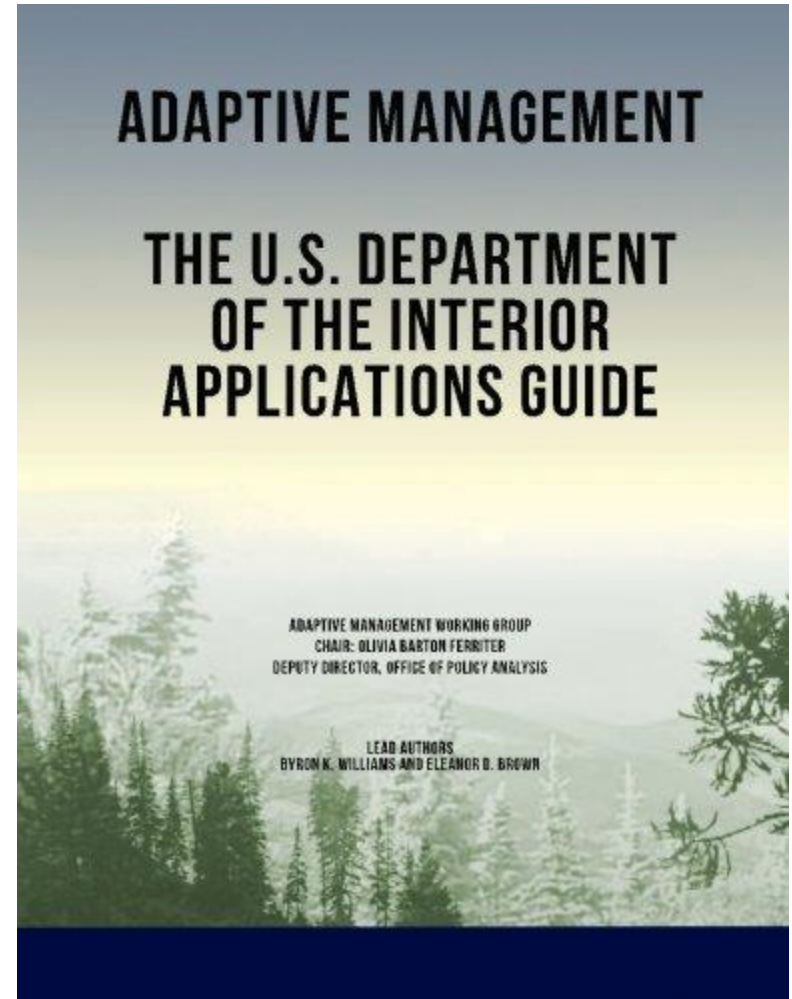
Communication and Outreach



# ADAPTIVE ECOSYSTEM MANAGEMENT

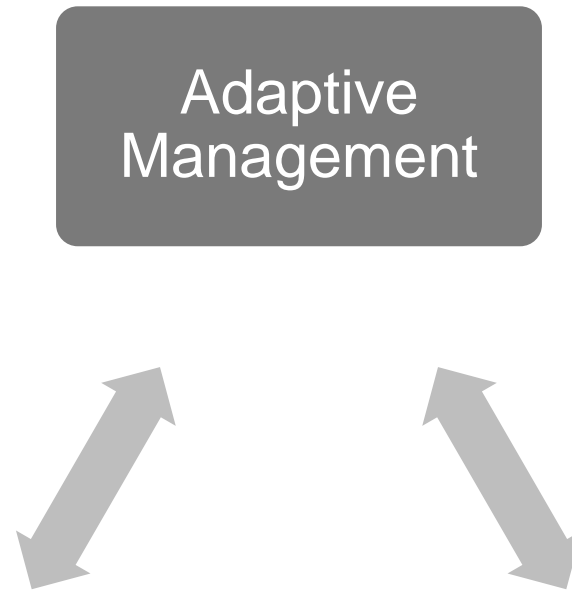
Alternative hypotheses about resource dynamics, and an assessment of these hypotheses with monitoring data.

Use of management interventions as experimental treatments, the fundamental goal of which is to improve management.





# ADAPTIVE ECOSYSTEM MANAGEMENT



# **ADAPTIVE ECOSYSTEM MANAGEMENT**

**Works well in Sault Tribe's management context**

**Generation of effective partnerships with diverse interdisciplinary expertise**

**Development of long-term innovative solutions to management issues**

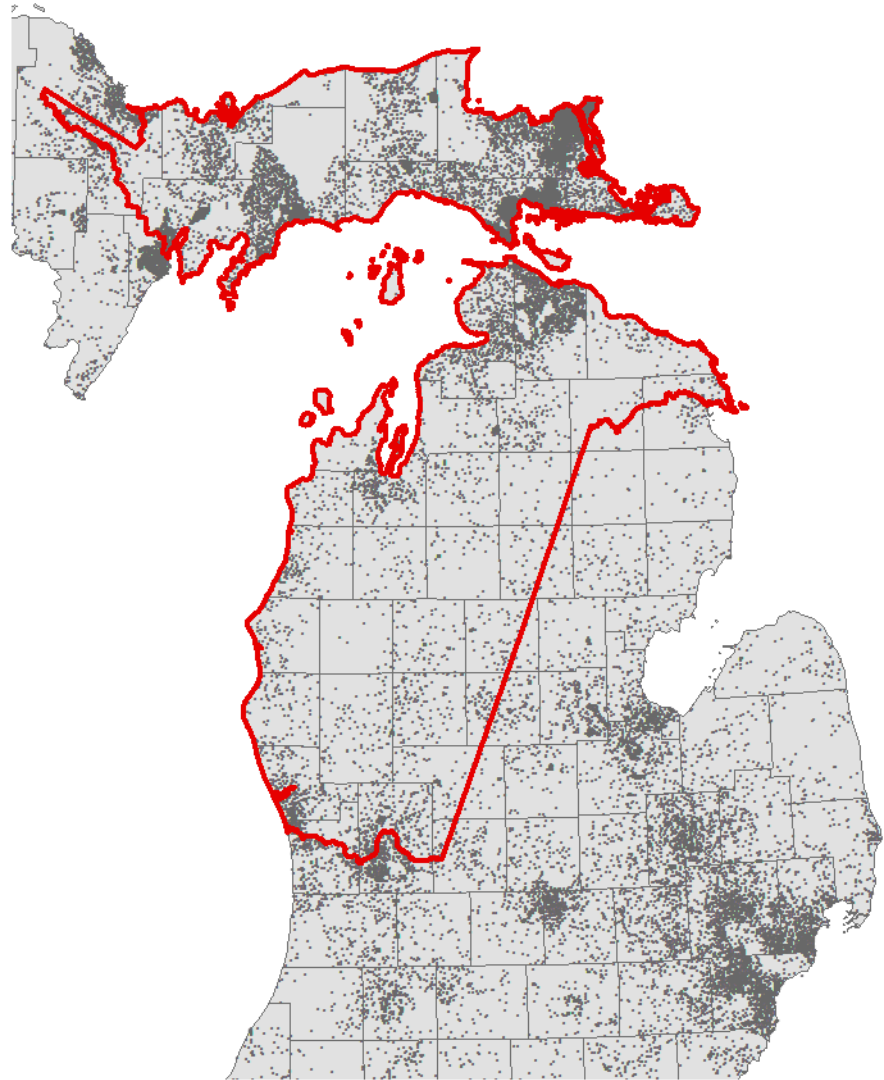


# SAULT TRIBE MANAGEMENT CONTEXT

License approximately 5,000 members to exercise the treaty right annually

Estimated harvest by Sault Tribe members exceeds 144,000 animals per year across in all counties of the 1836 Ceded Territory

55 wildlife and 36 fish species



# MANAGEMENT CONTEXT

**Lack of habitat/land management authority**

**Existence of authorities under the 2007 Inland Consent Decree**

**Strong partnerships with major land management agencies which manage over 5 million acres within the 1836 Ceded Territory**



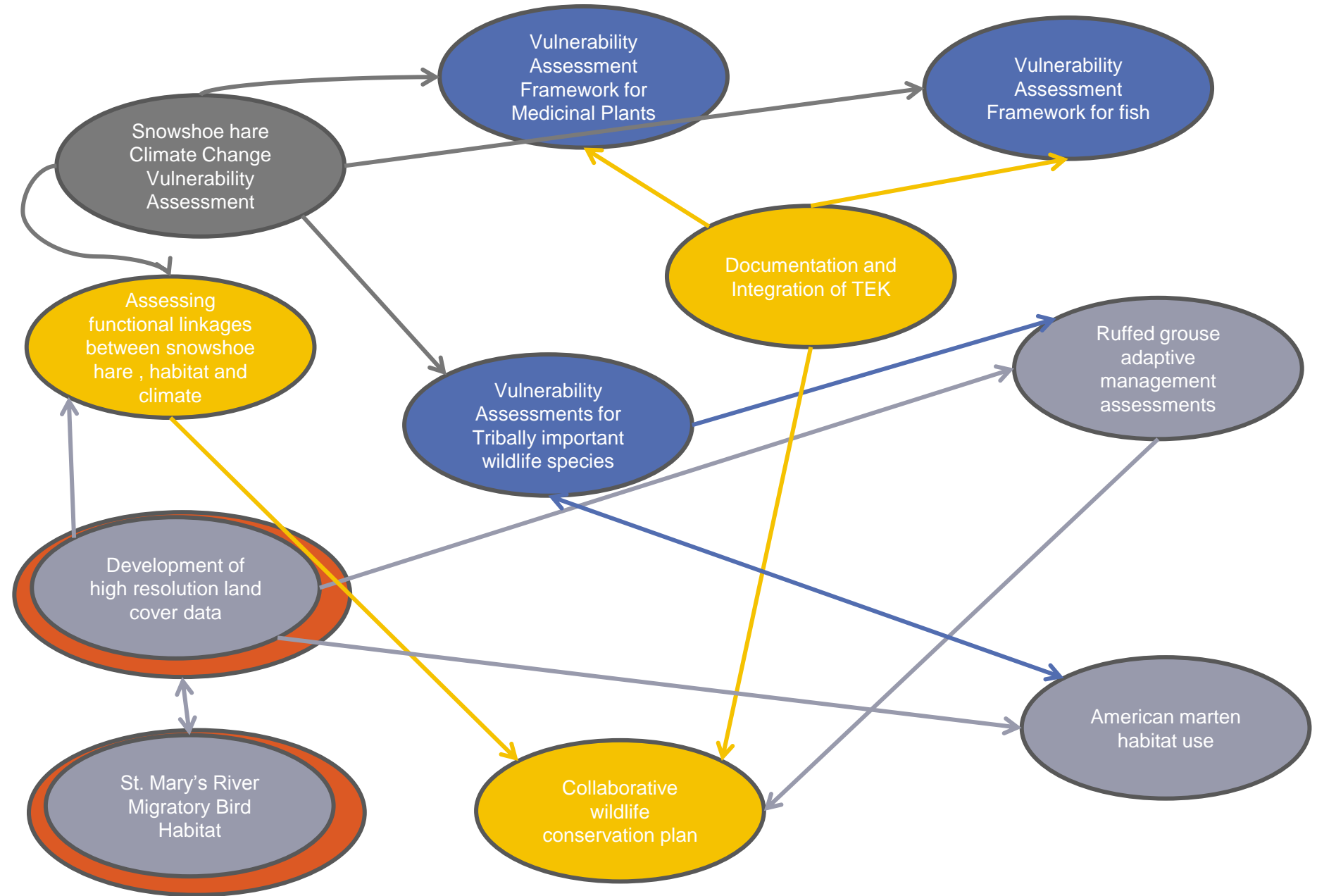


# PARTNERSHIPS, EXPERTISE, FUNDING

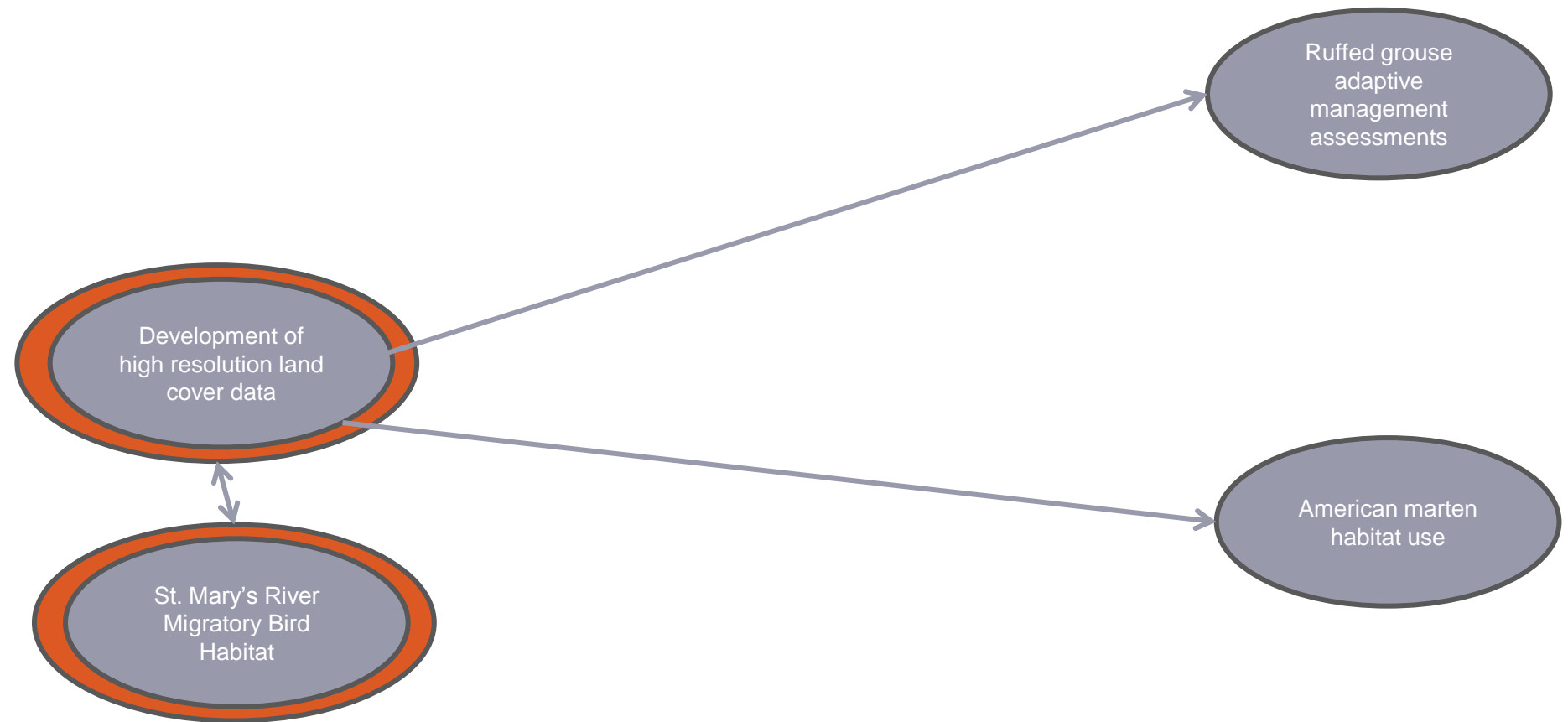




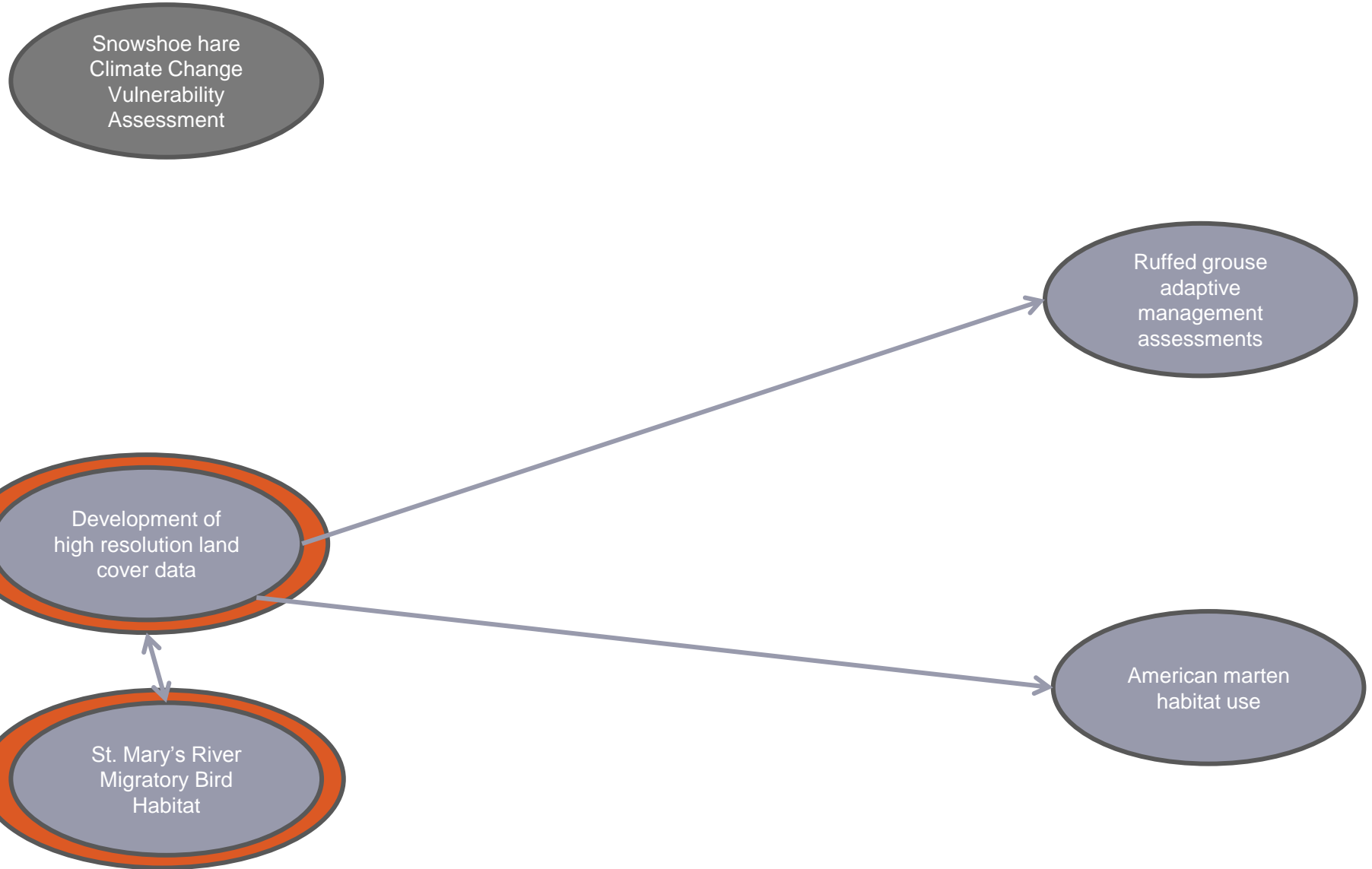
# IFWD ADAPTIVE MANAGEMENT



# GLRI/CIRCLE OF FLIGHT

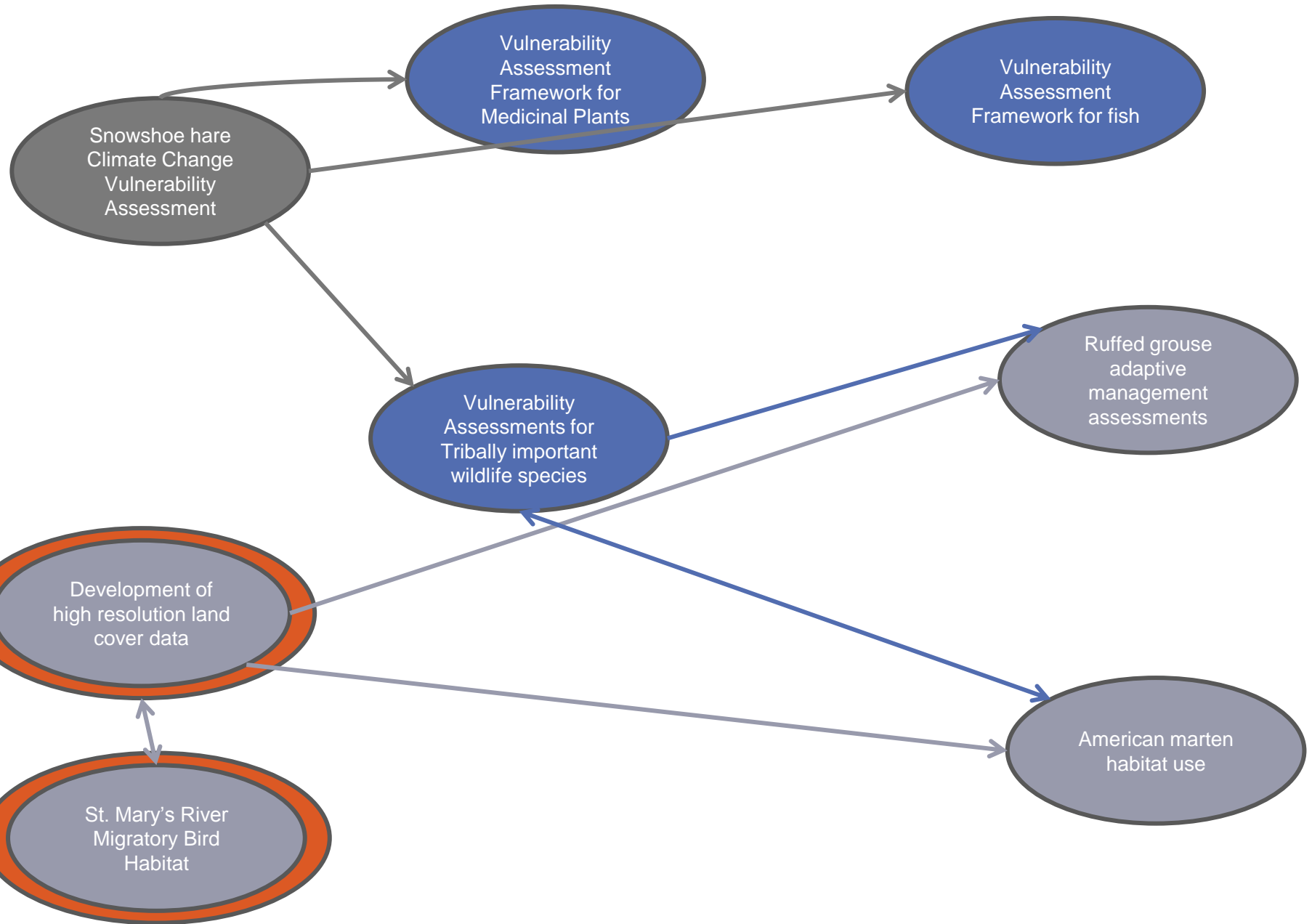


# TRIBAL CLIMATE CHANGE PROGRAM

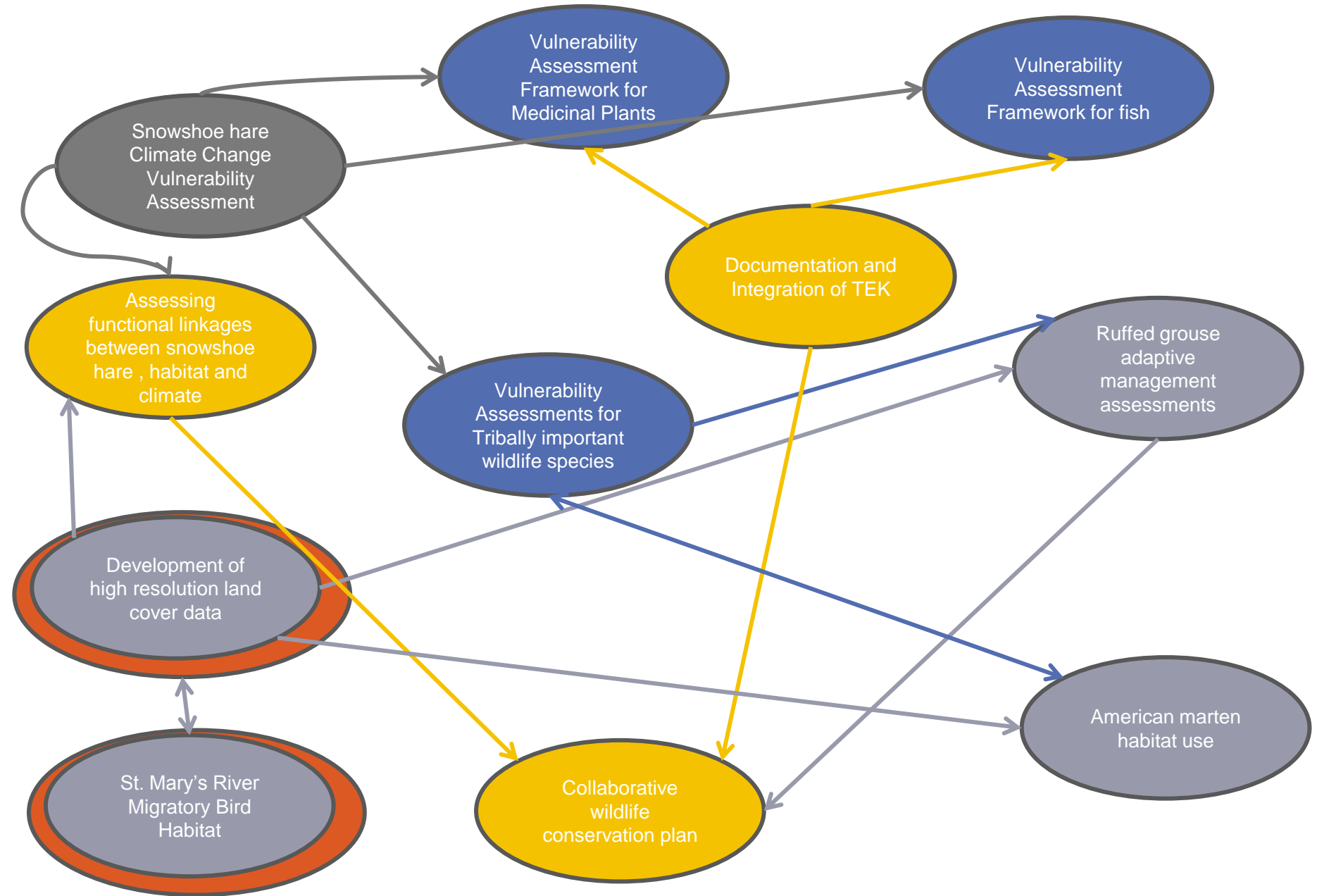




# TRIBAL COOPERATIVE LANDSCAPE CONSERVATION PROGRAM



# RPI CLIMATE CHANGE



# SNOWSHOE HARE AND CLIMATE CHANGE

Investigating landscape scale occupancy models – MSU, MDNR

Initial Climate Change Vulnerability Assessment-TCCP

Partnerships MSU, GVSU, MDNR, USFS

Assessing Functional linkages between climate, habitat, and population performance – Sault Tribe, USFS, and MSU; RPICC



Genetic Capture-Recapture, landscape genetics – Dr. Emily Latch

Glucocorticoids – Dr. Josh Millspaugh



Parasite and Arbovirus assessments – Dr. Dan Grear



Non-harvest mortality, landscape-scale occupancy modeling – Dr. Gary Roloff





# SNOWSHOE HARE AND CLIMATE CHANGE

**Fine-scale vegetation mapping – GLRI, Dr. Jodi Brandt and Jason Tallant**



**Assessing TEK to develop alternative prescriptions – RPICC**

**Collaborative Landscape Adaptive Management Planning – RPICC**

**Other notable collaborations-**

**Consulting Wildlife Vet – Dr. Maria Spriggs**



**Advising Academic Faculty – Dr. Mike Jones, Dr. Kyla Dahlin, and Dr. David Williams**



# OUTCOMES

**Generation of Knowledge that incorporates tribal perspectives and understandings at the outset**

**Development of cutting-edge information that can be utilized by all land management agencies**

**Exponential increases in the quality and quantity of information that can be produced**

**Knowledge directly incorporated in to management actions**



# MIIGWITCH

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