

---

# INDIGENOUS KNOWLEDGE AND CUMULATIVE EFFECTS

SEEING THE RELATIONSHIPS



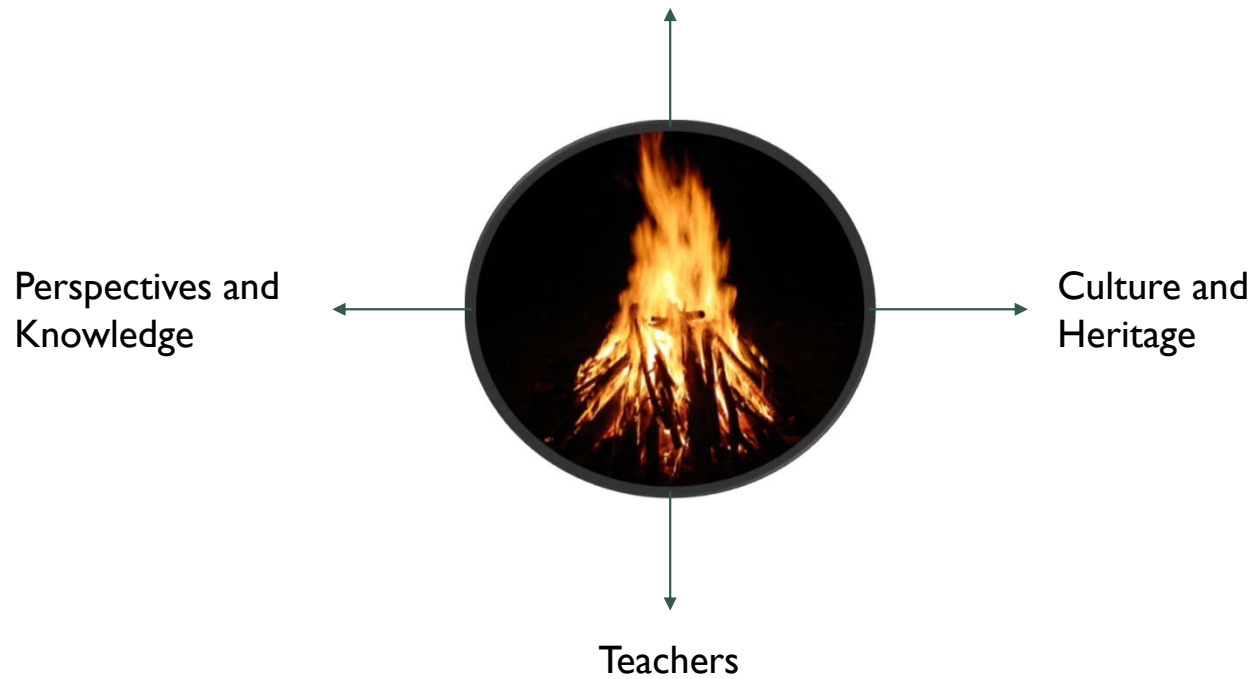
Mary Boyden  
Managing Director  
Eighth Fire Solutions Inc



# POSITIONING



This is the time of the ***Eighth Fire***



# SPECIFIC ENVIRONMENTAL KNOWLEDGE



## *Marc Stevenson: "TK in Environmental Assessment"*

- Value of Indigenous Knowledge in resource development identified by academic system 40 years ago
- Knowledge of land users includes species, climate, hydrology, geography, and other characteristics within an ecosystem
- IK is owned by Indigenous Peoples as a function of heredity, place of origin and language

## Applicability to CE

Hunters, gatherers, and other Indigenous land users are owners of detailed and specific knowledge about the territories they move in and through. They are the first to observe changes created by altered components in an ecosystem, or broad changes originating in other systems.

Community-based monitoring programs, such as the Wahnapiwai First Nation Tagaiwinini Environmental Effects program, alert clients to changes in scientific and local knowledge indicators.

# TRADITIONAL ECOLOGICAL KNOWLEDGE (TEK)



**Robin Kimmerer: “Braiding Sweetgrass”**

- A relationship building approach to bringing IK and Science together
- IK is current knowledge, rooted in the past and oriented to the future
- TEK, although owned by communities, is typically gathered to support proponents and projects

## Applicability to CE

TEK has been utilized by government and industry proponents to gather data to assist in the EA of projects for many years. The BHP and DeBeers Diamond Mines, for example, utilized TEK data to satisfy EA requirements, consultation processes, and accommodations for lost land use.

The value of TEK data and extent of rigour attached to it, is regional in nature.

Since TEK data is gathered to be project specific, its science-based perspective narrows its applicability to landscape models of land use management

# TRADITIONAL KNOWLEDGE



**AMAK Elders Circle** (Anishanaabe Maamwaye Aki Kiigeyewin) *“All people coming together to heal the Earth”*

- Traditional Knowledge is unique to the Knowledge Keepers who transmit it orally. It is learned through observation and experience
- Knowledge Keepers respect the relatedness of the land to the human body, the interdependence of human and environmental systems, and the connections between the environment, community, politics and economy
- TK is a distinct pillar of knowledge that is a way of life

## Applicability to CE

### AMAK's relationship with mining in Timmins

- ❖ Stimulated a landscape view of the many historic mine properties,
- ❖ Built relationships to cross the environmental, social, political and economic divides between industry and the Indigenous community,
- ❖ Developed a monitoring model incorporating IK and Science
- ❖ Encouraged mine design to begin with a consideration of closure

# INDIGENOUS-LED PARTICIPATION

- **Indigenous Knowledge embodies Cumulative Effects**
  - All things are related to each other and depend on each other for existence
  - Imagining a project site and the environment that hosts it post-project demystifies the need for CEA
- **It is time to push the boundaries regarding Indigenous-led participation in Environmental Assessment**
  - Regulatory rigour will ensure that local and Indigenous knowledges are valued by industry
  - Knowledge Holders will speak for themselves, with their own perspectives, and in their own languages
- **Power dynamics between knowledge systems must be acknowledged for paradigm shift**
  - IK-Science collaborations require teeth to circumvent recycling of old strategies
  - Indigenous Knowledge Keepers are accountable for respecting their role in the social-political-economic cycle
- **We are in the time of the Eighth Fire**



## Miigwech!

Mary Boyden  
Eighth Fire Solutions  
[maryb@eighthfire.com](mailto:maryb@eighthfire.com)  
705 266-3215



*WHERE INDIGENOUS KNOWLEDGES AND WESTERN SCIENCES COLLABORATE*

