



# **Using Health Impact Assessments to Assess Potential Health Impacts of Local Infrastructure Projects: A Case Study**

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# Intrinsic Corp.

- Scientific and regulatory consulting firm
- 30+ year corporate history
- 80 employees
- Several offices across North America

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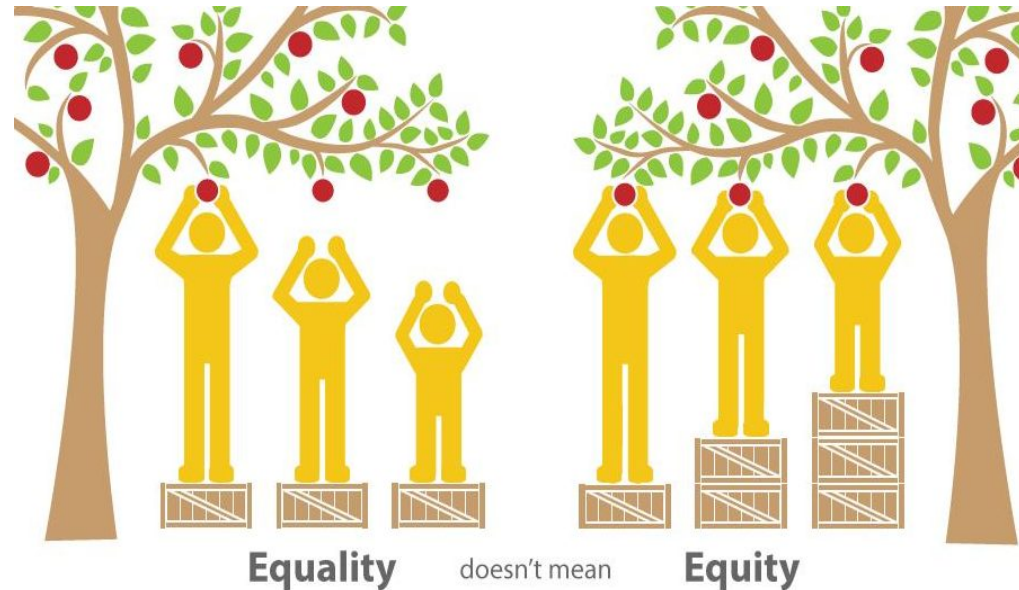
# Objectives



- What is Health Impact Assessment (HIA)?
- Why conduct an HIA?
- Illustrate the use of the HIA framework through an ongoing project

# What is HIA?

- Potential positive and negative health outcomes of an initiative
- Guiding principle – health equity



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# What is HIA?

- Health lens
- Social determinants of health
- Recommendations for decision-makers, which enhance the positive and minimize the negative health effects

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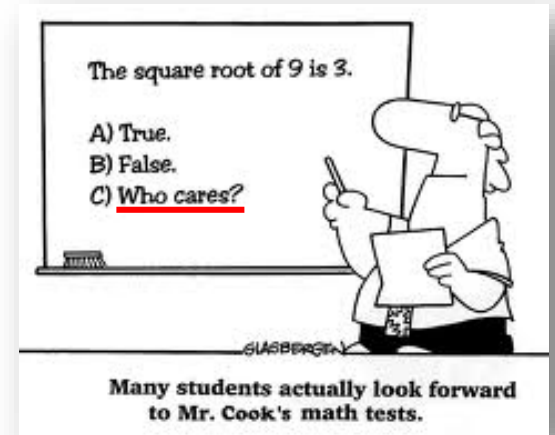
# What is HIA?

- Sometimes conducted as a part of the Environmental Assessment (EA) process in Canada
- Currently, no regulatory requirements for conducting an HIA in Canada

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# Why conduct an HIA?

- Complementary to existing EA process
- Focus on social determinants of health
- Rapid vs comprehensive HIA



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# Why conduct an HIA?

- An HIA can play an important role in addressing community concerns as it gives an opportunity for the community to be involved in the entire HIA process





- ❖ Physical
- ❖ Emotional
- ❖ Mental
- ❖ Spiritual
- ❖ Respect
- ❖ Relationships
- ❖ Responsibility
- ❖ Wisdom
- ❖ Family
- ❖ Land
- ❖ Nations
- ❖ Community
- ❖ Environmental
- ❖ Social
- ❖ Economic
- ❖ Cultural

First Nations Health Authority:

<http://www.fnha.ca/wellness/wellness-for-first-nations>

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# Case Study

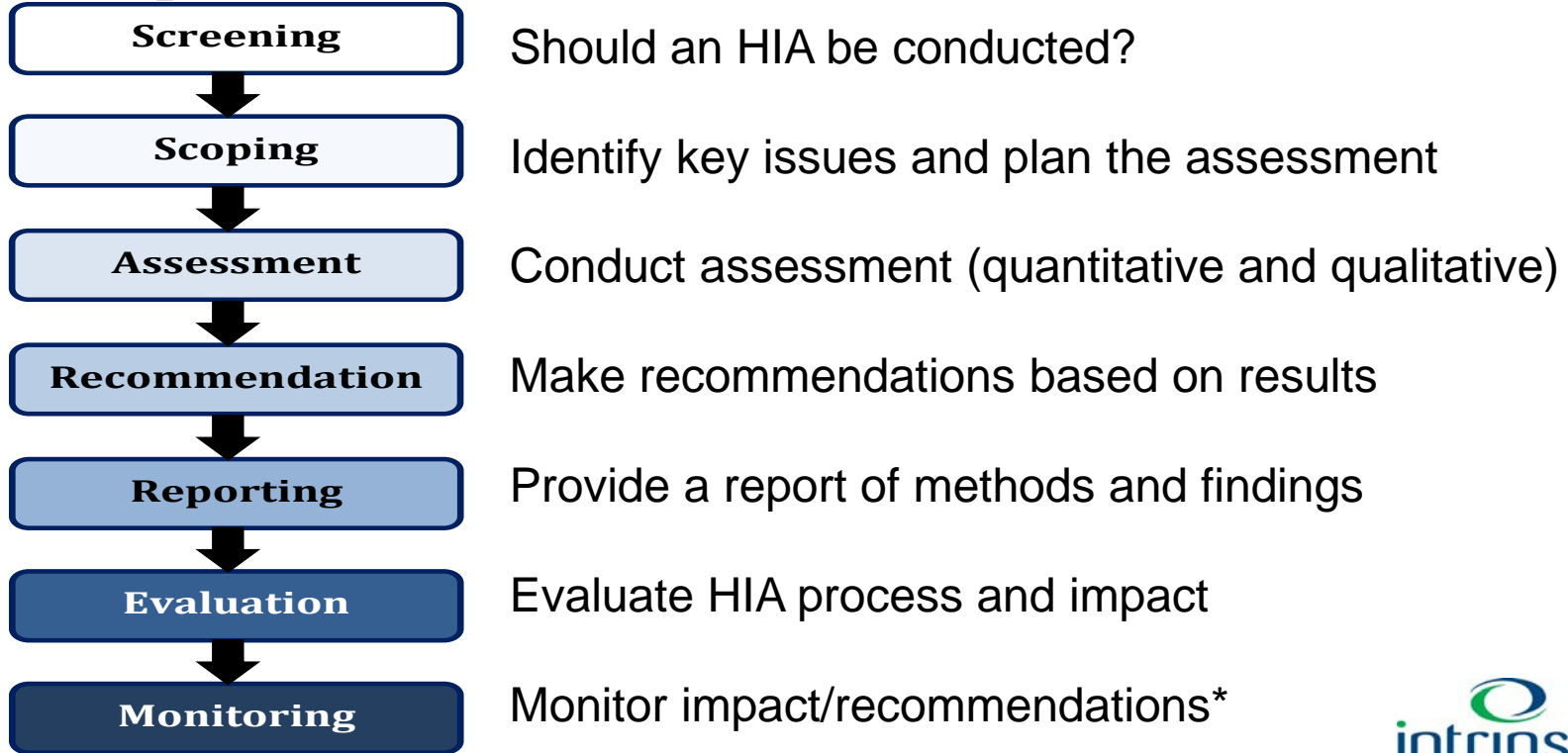
- HIA is currently being conducted to assess the potential positive and negative health impacts of a proposed Wastewater Treatment Plant (WWTP) in Ontario, Canada to a nearby First Nations Community (FNC)

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# HIA Objectives

- Transparent and unbiased evaluation of the potential health effects on the FNC and their traditional territory due to the proposed WWTP
- Integrate information from Traditional Ecological Knowledge (TEK) Study

# Steps of an HIA



\* If applicable

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# Stakeholder Engagement

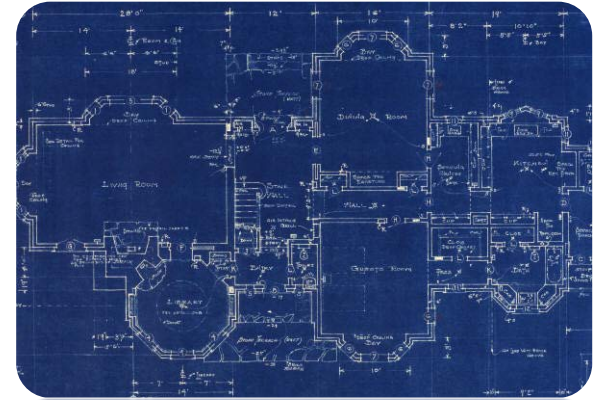
- Engage various stakeholders throughout the process
- This is intended to be a collaborative process among:
  - i. The First Nation Community
  - ii. The HIA Team
  - iii. The TEK Study Team
  - iv. The HIA Steering Committee



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# Scoping

- Extent of the HIA
- Identify specific **determinants of health**
- Consideration of the technical concerns, FNC concerns, and the Steering Committee



# Scoping

- HIA Steering Committee
- FNC members
- HIA Scoping Tool\*
- EA material
- Available literature

## List of Determinants Included in the HIA

### PHYSICAL / ENVIRONMENTAL

1. **Surface Water Quality**
  - Pharmaceuticals and Personal Care Products (PPCPs)
  - Fish Consumption / Food security
  - Access to drinking water
2. **Climate Change**
  - Greenhouse Gases (GHGs)
  - Surface Water (ice formation)

### CULTURAL

3. **Cultural values, customs and traditions**
  - Cultural and spiritual importance of water
  - Traditional hunting and fishing

### SOCIAL

4. **Social and Mental Wellbeing**
  - Recreation and Leisure – swimming
  - Community and Social Cohesion
  - Public Safety / Perception of Safety
  - Employment

\* (McCallum et al., 2015)

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# Assessment



- Identify whether impacts are likely to occur and then quantify or characterize the predicted impacts
- Consists of incorporating information from the EA streams and TEK study, if available



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# Steps for Assessment

1. Develop health baseline or community profile
2. Assess likely health impacts
3. Characterize and summarize health impacts

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# Recommendations

- May be required
- Develop feasible strategies to minimize/mitigate potential negative aspects of a project and to enhance the positive impacts
- Collaboration with the stakeholders

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# Monitoring and Evaluation

- Ensure that mitigation and control measures are operating effectively
- Observe health implications over time
- Stakeholders involvement

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# Final Thoughts

- Establish an unbiased means of communication between proponents and communities
- HIA is not an advocacy tool; rather it encourages further consideration of potential health outcomes

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# *Thank You for Your Interest*



**Anushree Bhatt, B.Sc., M.Env.Sc.**  
Intrinsik Corp.  
[abhatter@intrinsik.com](mailto:abhatter@intrinsik.com)

**Glenn Ferguson, Ph.D.**  
Intrinsik Corp.  
[gferguson@intrinsik.com](mailto:gferguson@intrinsik.com)

Intrinsik Corp.  
[www.intrinsik.com](http://www.intrinsik.com)