

Ontario Ministry of Environment, Conservation and Parks

Sarnia Area Environmental Health Project Overview

Community Information Meeting
November 2020

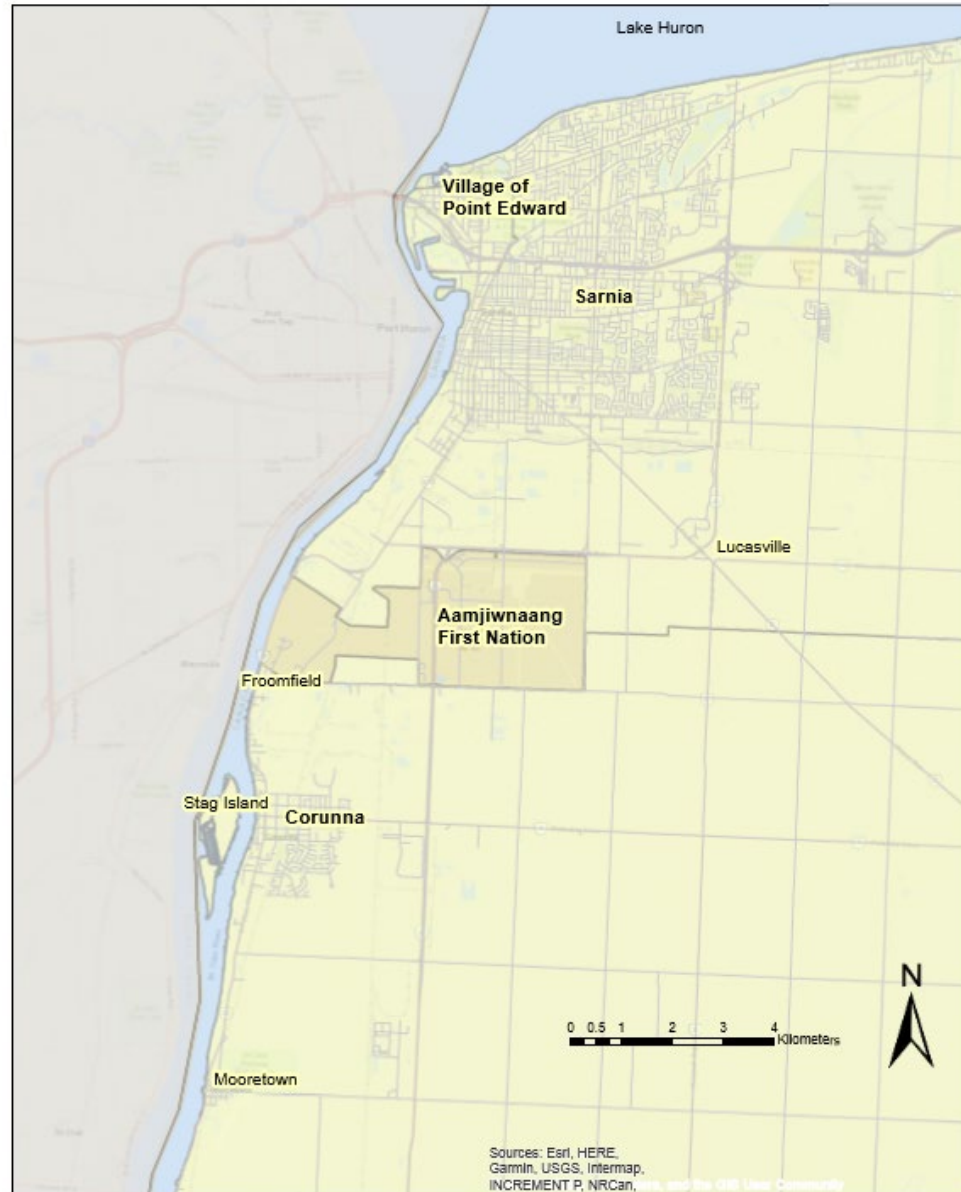
Purpose

- Provide background and an overview of the Sarnia Area Environmental Health Project (the Project)

Background

Sarnia area communities have expressed concerns about potential health effects associated with environmental exposures to chemical substances in local air.

Early work to scope a health study was done by the Lambton Community Health Study Board from 2008 to 2016. One of the Board's recommendations was for the government to carry out a human health risk assessment, and in 2017, we started planning the Sarnia Area Environmental Health Project.



Developing the Project - Timeline

- 2017 • **Planning starts** - Ministry started to plan an environmental health project with advice from government partners, stakeholders and members of the local communities.
- Early 2018 • **Preliminary ideas proposed** - In March, the Ministry presented preliminary ideas for the project to Sarnia area stakeholders and local First Nations, and heard feedback.

How do we compare to other locations?

Flaring is disruptive

Are garden plants safe to eat? Are traditional medicines OK to use?

Don't focus on just cancer – include other effects (like asthma)

Incidents and emergencies need to be better communicated

Encouraged by the proposed project idea and direction

Air monitoring data is limited and needs to be increased

Consider vulnerable populations (children)

The effects of ongoing pollution are much more than stress – this is affecting mental health

Developing the Project – Timeline (continued)

Late
2018

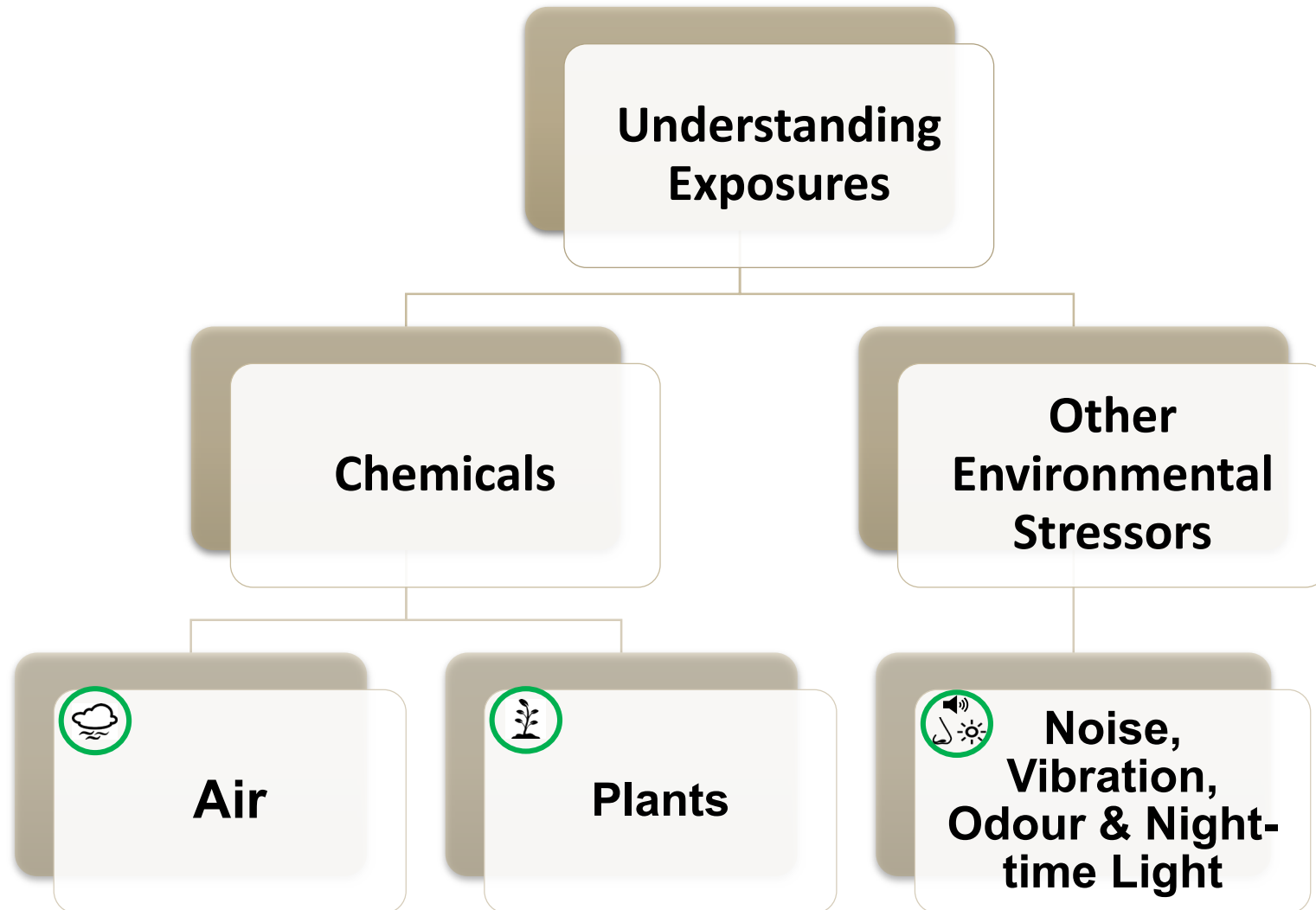
- Commitment included in Ontario's Environment Plan for a:

*...**Sarnia Area Environmental Health Project** to help address concerns about air pollution and other environmental stressors from local industries in the Sarnia area. The project will help enhance our understanding of the links between the environment and health in the community, with a focus on assessing exposures to air contaminants.*

Developing the Project – Timeline (cont'd)

- 2019
 - Ministry reviewed environmental data and sought further input on the project plan.
 - **Call for Proposals** - Ministry launched a call for proposals for assessing health risks from exposure to chemicals in air.
- 2020
 - **Project launched** - Intrinsik, CanNorth and Cambium Aboriginal hired for health risk work.
 - COVID-19 concerns mount in Ontario - March community meetings cancelled.
 - Ministry continued to work with partners on developing other components of the project.
 - In August the ministry formed an Advisory Committee with co-chairs from industry and local community. The first meeting was held in September.
 - Community information update meetings held in November.

Project Overview



Project Components



1. Air Exposure Review: *Are residents' exposures to chemicals in air high enough to pose a risk to human health?*



2. Plants Study: *How do chemicals in traditional medicines grown in Aamjiwnaang First Nation compare to other nearby First Nation communities?*



3. Environmental Stressors Review: *How is quality of life impacted by disturbances from industrial operations (noise, odour, vibrations, light) and what communications and other initiatives could reduce associated stress?*

Project Scope



In Scope



- Ambient (outdoor) air
 - Modelled and monitored air data
 - When possible, will consider a range of emission sources, e.g. industry, vehicles, wood stoves, local air emissions and regional (long-range pollutant transport)



- Medicinal plants



- Environmental stressors associated with proximity to industry:
 - Noise/vibrations
 - Odour
 - Light



Out of Scope

- Indoor Air
 - At home, e.g. from household products
 - At work (occupational exposures)
- Lifestyle-related exposures (e.g. smoking)

- Overall diet (e.g., grocery store foods, garden produce, drinking water)

- Other environmental experiences that could be stressful, e.g. changing climate, loss of natural spaces



Air Exposure Review

- An assessment of community exposures to chemicals in outdoor air, and associated health risks.
- Intrinsic, CanNorth and Cambium Aboriginal are conducting the Review.
- Government partners, including Health Canada, Public Health Ontario, Lambton Public Health and Aamjiwnaang First Nation Environment and Health departments are helping to direct the work.
- To support this component project, the ministry conducted the following work internally:
 - Compiled an inventory of chemicals from ministry data
 - Identified candidate list of chemicals for focus of the assessment
 - Modelled the air quality impacts of multiple emissions sources, for 5 of the priority chemicals (PM_{2.5}, benzene, 1,3-butadiene, benzo[a]pyrene, and sulphur dioxide)



Plant Study

- A comparison of chemicals in medicinal plants in areas near and far from air emissions sources – based on Aamjiwnaang First Nation community concerns about the safety of using locally-grown medicinal plants
- The ministry has been working with Aamjiwnaang First Nation, Health Canada, Indigenous Services Canada and Ryerson University to plan this work and identify funding opportunities.
- The ministry has reviewed and summarized existing information from past studies in the area to help scope this study.
- A project plan has been developed with sampling to be conducted in Spring/Summer 2021.



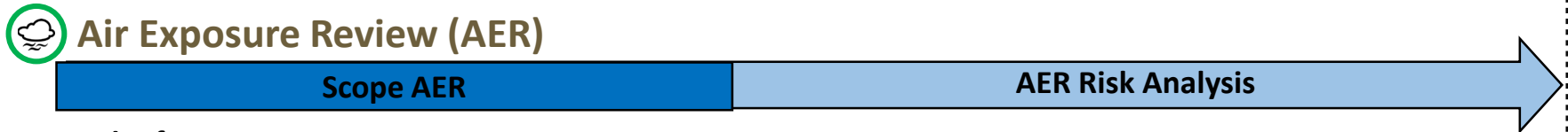
Environmental Stressors Review

- Considers how quality of life is impacted by disturbances from industrial operations (e.g., noise/vibration, odour, and light) to inform enhanced communications and other community initiatives.
- Ministry has been working with project partners and advisors to scope this work.
- Ministry has been reviewing information about complaints and incidents and listening to community perspectives on these stressors including how information is shared during environmental incidents and emergencies.
- Our plan is to work with the Advisory Committee to document local perspectives and experiences and to explore opportunities for enhanced communications during incidents and emergencies.

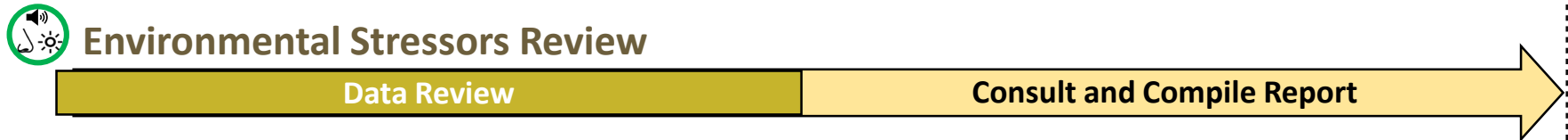


Project Timeline

SAEHP
Completion:
Final Reports
shared with
community



Launch of
the AER





Project Governance



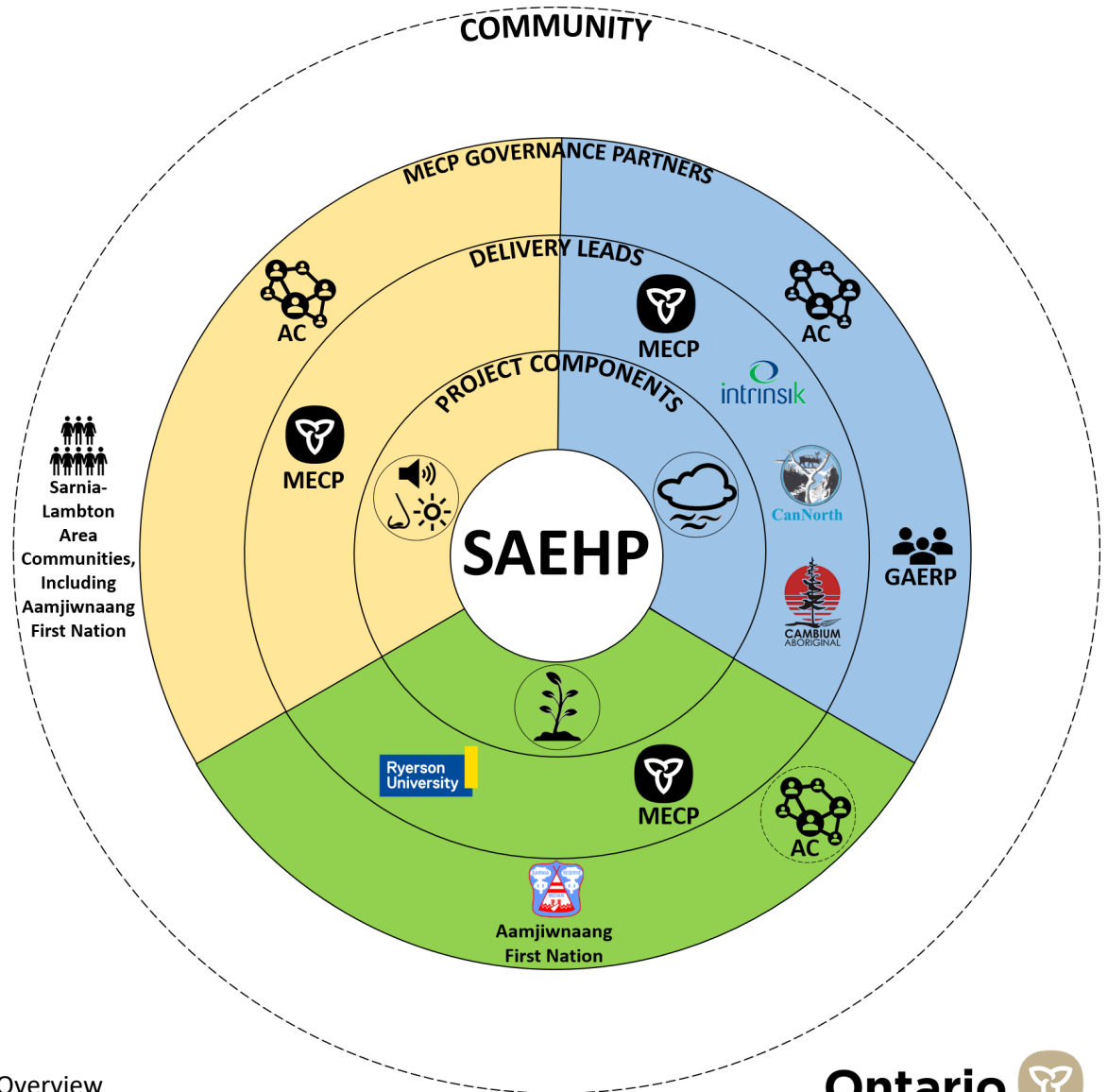
Government Air Exposure Review Panel (GAERP)

- Ministry of the Environment, Conservation and Parks (MECP)
- Aamjiwnaang First Nation
- Lambton Public Health
- Public Health Ontario (PHO)
- Health Canada (HC)



Advisory Committee (AC)

- Representatives of a range of organizations and agencies with relevant interest or expertise, to ensure engagement and foster discussion, and to gain understanding of different perspectives and priorities that can support the success of the Project.



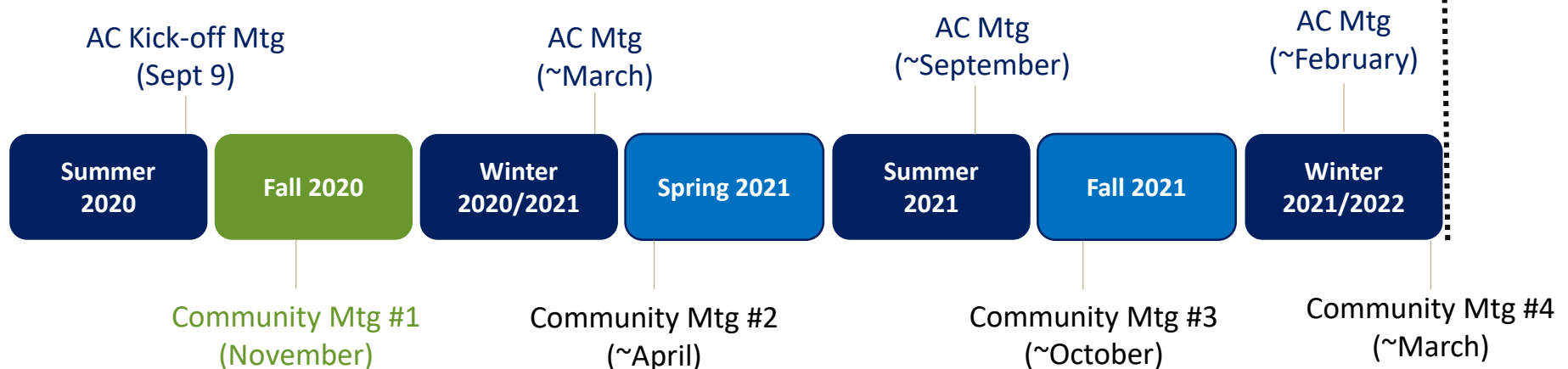


Community Involvement

Your feedback is important. Feedback heard at Advisory Committee and Community meetings shape the project as it progresses.

Advisory Committee (AC) to meet at least twice/year

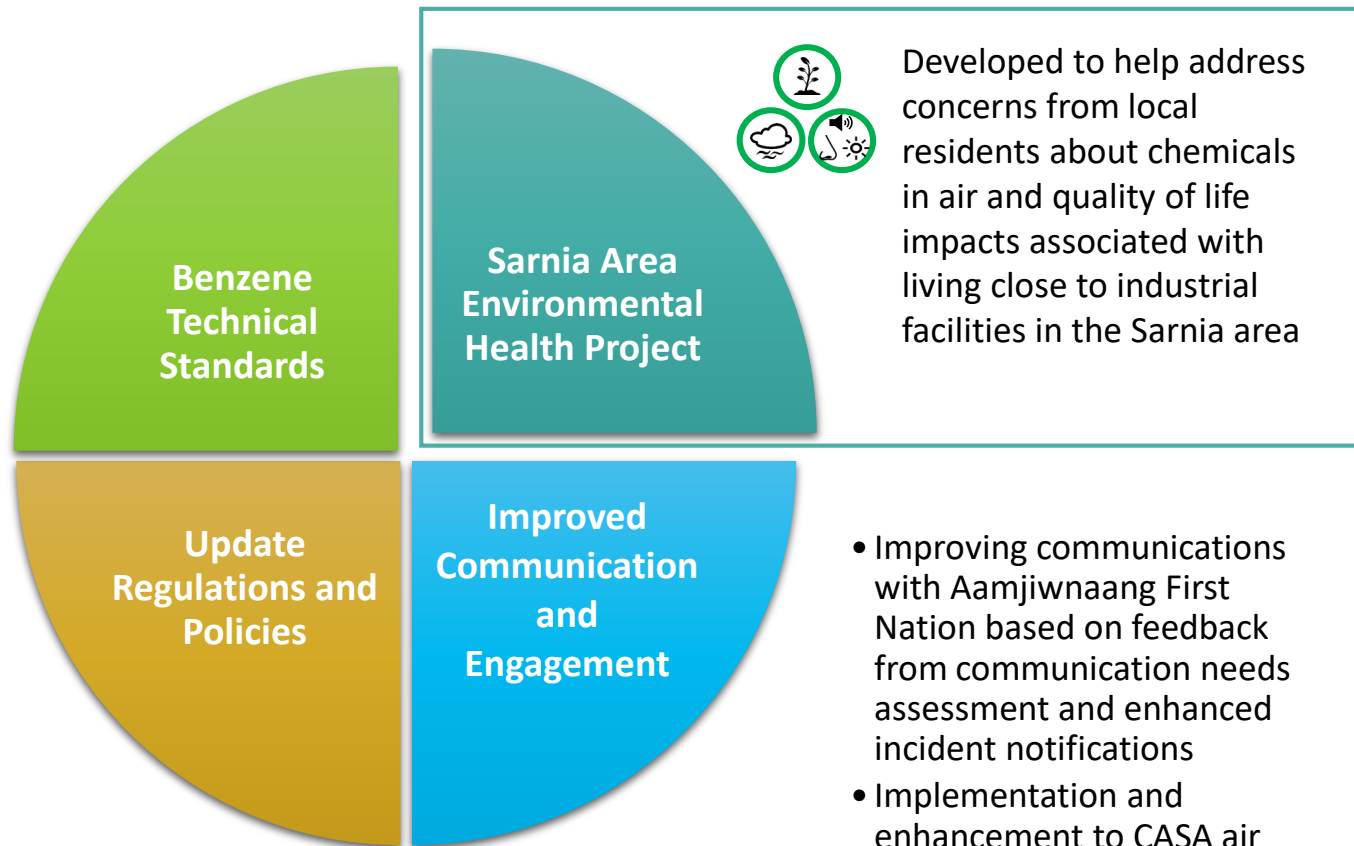
- Co-chaired by community member and industrial representative
- ~15 representatives from industry associations, First Nations, health agencies, municipalities and community groups



This project is part of the Sarnia Air Action Plan

The Sarnia Air Action Plan is a multi-faceted local ministry initiative within a broader ministry framework to achieve better air quality and improve communication and outreach

- Implementation of the benzene technical standards
- Inspections on sources of benzene emissions
- Oversight of Property Line Monitoring results and actions to address higher levels
- Leak Detection and Repair Performance Assessments



- Updated SO₂ standards
- New SO₂ regulations for petroleum refineries to monitor emissions, amendment to Regulation 419 to include modelling incidents and a new tool to issue environmental penalties for SO₂ threshold exceedances.

- Improving communications with Aamjiwnaang First Nation based on feedback from communication needs assessment and enhanced incident notifications
- Implementation and enhancement to CASA air monitoring network and website

Questions? Comments?

Outside of community meetings, we encourage all those who are interested to use the following platforms to receive updates/ provide feedback:



Regular updates on all components of the Project will be posted in future on CASA, the local air quality webpage: www.cleanairsarniaandarea.com



To provide feedback, or ask further questions, please email: SAEHP@Ontario.ca