

PUBLIC POLICY PRIORITIES 2020

Sustainable and Climate Resilient Infrastructure

BACKGROUND AND RATIONALE

CPWA Priorities:

- Provide dependable, predictable funding for climate resilient infrastructure and capacity building for climate change adaptation
- Direct public funds towards public infrastructure projects that have been planned and executed in accordance with sustainability principles through the use of sustainability rating systems such as Envision®

Public infrastructure is increasingly vulnerable to a changing climate and yet civil engineering infrastructure projects are falling behind the societal and functional expectations of today and the future. Failing infrastructure disrupts essential services, results in economic loss, and can lead to loss of life. **Dependable, predictable funding for climate resilient infrastructure and capacity building for climate change adaptation is essential.**

The principles of sustainable development are fundamental to how civil engineers and the public can more successfully address critical societal needs, environmental pressures and climate change impacts, and the return on investment in infrastructure. This led three associations – the American Public Works Association (APWA), the American Council of Engineering Companies (ACEC), and the American Society of Civil Engineers (ASCE) – to launch a not-for-profit organization dedicated to sustainable infrastructure, the Institute for Sustainable Infrastructure (ISI). ISI's sustainability rating tool Envision® is a holistic framework for evaluating and rating the community, environmental and economic benefits of all types of infrastructure projects. Envision® also recognizes infrastructure projects that use transformational, collaborative approaches to assess sustainability indicators over the course of a project's life cycle.

The Grand Bend Area Wastewater Treatment Facility, located in Ontario on the shoreline of Lake Huron, was the first project to earn Envision® verification in Canada. Key sustainable features include:

- a constructed wetland to support native wildlife species and further buffer treated effluent
- flexible design that makes the facility responsive to changing sewage flows
- reduced construction and operational costs through a focus on efficiency
- constructing the project within the boundaries of the original facility's footprint to protect prime farmland
- trails and interpretive signage to encourage community visitors

The project design addresses projected changes in population and service area growth and increases in frequency and severity of extreme rainfall events in southern Ontario. The design is also consistent with recommendations incorporated into the "Ontario Adaptation Strategy and Action Plan" based on provincial analysis of expected climate impacts. **Directing public funds towards public infrastructure projects that have been planned and executed in accordance with sustainability principles through the use of sustainability rating systems such as Envision® is key to ensuring safe, healthy communities provide citizens with a high quality of life.**