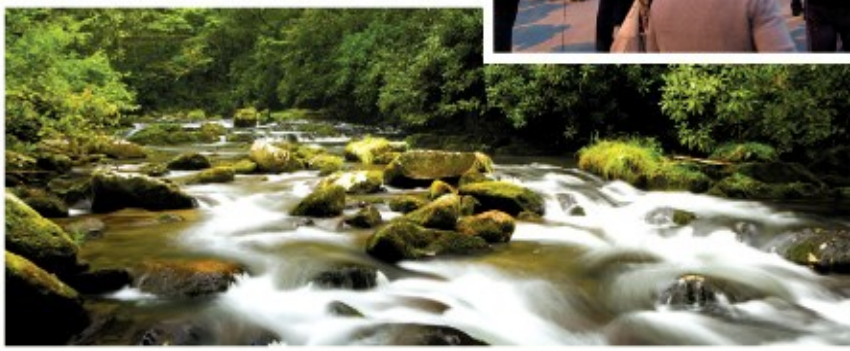
ST. JOHN'S







Agenda

- Quick Review of the ESEP TOR & Membership
- Sustainability Plan Framework
  - Quick Review of Energy and GHG Inventory
  - Quick Review of Climate Profile
- Next Steps
- Discussion: Multi-stakeholder Mitigation and Adaptation Team Invitations

Environment and Sustainability Experts Panel - TOR

The Committee will:

- Provide expert opinion on environment and sustainability matters to Council via the Committee of the Whole to advance the strategic direction of a sustainable City of St. John's.

- Review environmental requirements for new development or re-development within the City when referred by Council or through the development review process.

- Support the development and implementation of the City of St. John's Sustainability Plan.

- Provide recommendations and evidence on best practices enabling Evidence Based Decision Making to support the environmental and sustainability goals and objectives of the City of St. John's.

Environment and Sustainability Experts Panel - TOR

Other Deliverables and Considerations:

- Advising on ways to further public awareness and understanding of environmental and sustainability matters as they relate to the City of St. John's.

- Liaising with and facilitating ongoing dialogue among stakeholders (e.g., sectoral groups, City Council, the Provincial Government, and the Federal Government) on matters relevant to the environment.

- The Committee may be consulted on any City public engagement process where obtaining the perspective of the environmental sector is identified.

- Review of development applications as referred to it by Council or the development review process

Environment and Sustainability Experts Panel

Name	Expertise
Joel Finnis, PhD	Climate Science & Resilience
Dennis Knight, MSc, MCIP	Sustainable Urban Planning & Economic Growth
Kieran Hanley, MBA	Sustainable Economic Growth
Krista Langthorne, BA, SEBT	Resilience & Natural Resources
Pablo Navarro	Socio-cultural & Quality of Life
Joseph Daraio, PhD, PEng	Sustainable Urban Planning & Resilience
Michel Wawrzkow, PEng, PGeo	Natural Environment & Resilience

A Sustainable City

A Sustainable City Demonstrates:

- Robust economic growth, prosperity, competitiveness
- Protection and conservation of natural resources
- Fostering overall city resilience, while reducing greenhouse gas emissions
- Inclusiveness and livability

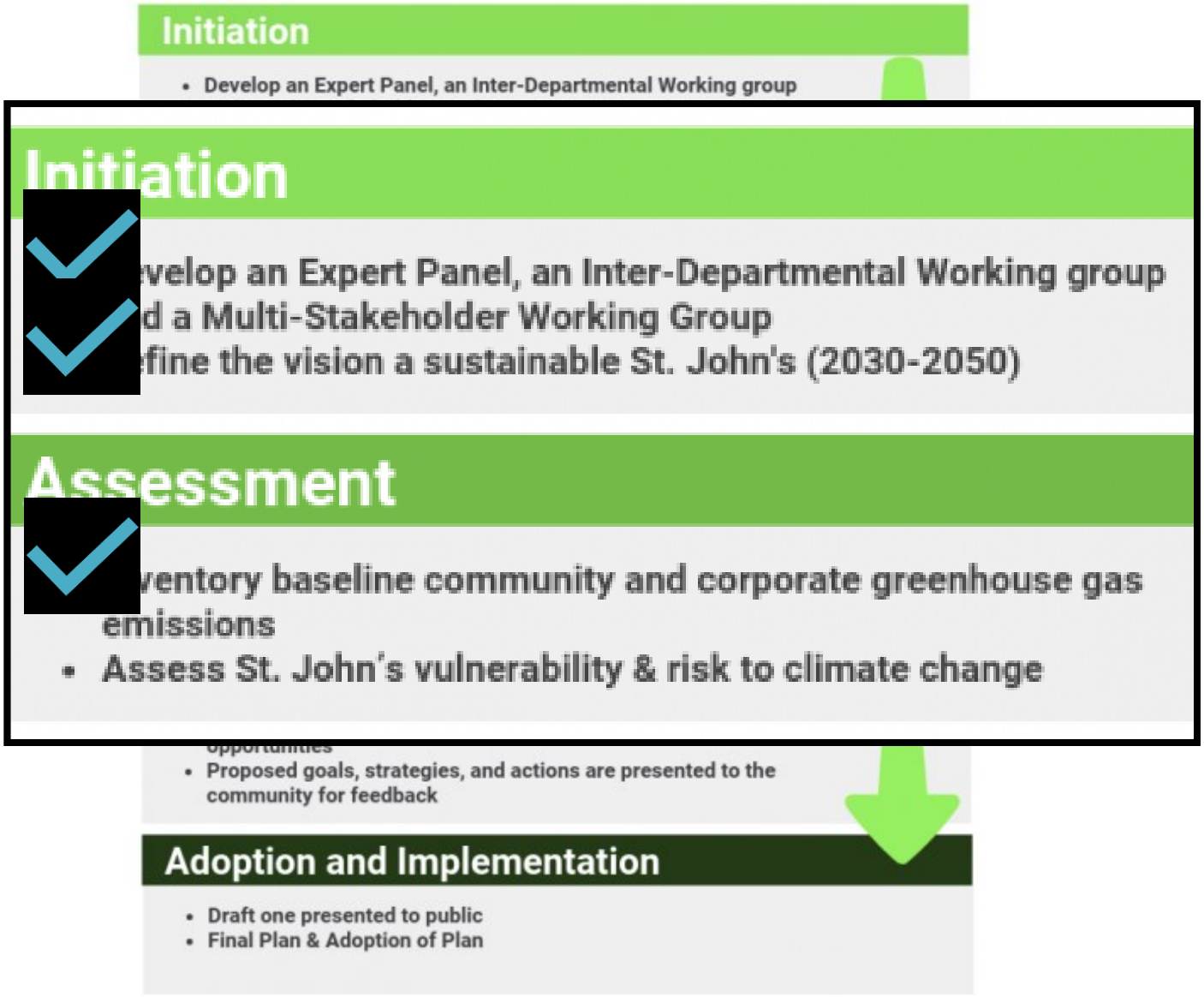
STRATEGIC DIRECTIONS

1 A SUSTAINABLE CITY

A city that is sustainable today and for future generations; economically, environmentally and financially.

Every decision the City makes impacts sustainability today and into the future. Focusing on policy and strategy that supports a vision for a strong economy, values the environment we live in, supports progressive land use planning, and clearly demonstrates value for money to residents, St. John's will be an affordable and sustainable place to live and do business.

Sustainability Plan Framework



Energy and Greenhouse Gas **Inventory:** City of St. John's (2018)

St. John’s Community

Energy & GHGs

ENERGY & EMISSIONS

In 2018, St. John's consumed approximately **14.4 million gigajoules** (GJ) of energy, which emitted **667,113 tonnes of carbon dioxide equivalents** (tCO2e).

Corporately in 2018, City operations and services consumed **365,625 GJ** of energy, which emitted **12,457 tCO2e** (or about 2% of the community inventory).

IN THE COMMUNITY...

Energy used:

Electricity

44%

Gasoline & Diesel

41%

Heating Oil

15%

Greenhouse Gas Emissions:

The **Residential** sector consumed 28% of the total energy and emitted 15% of the GHGs. **15%**

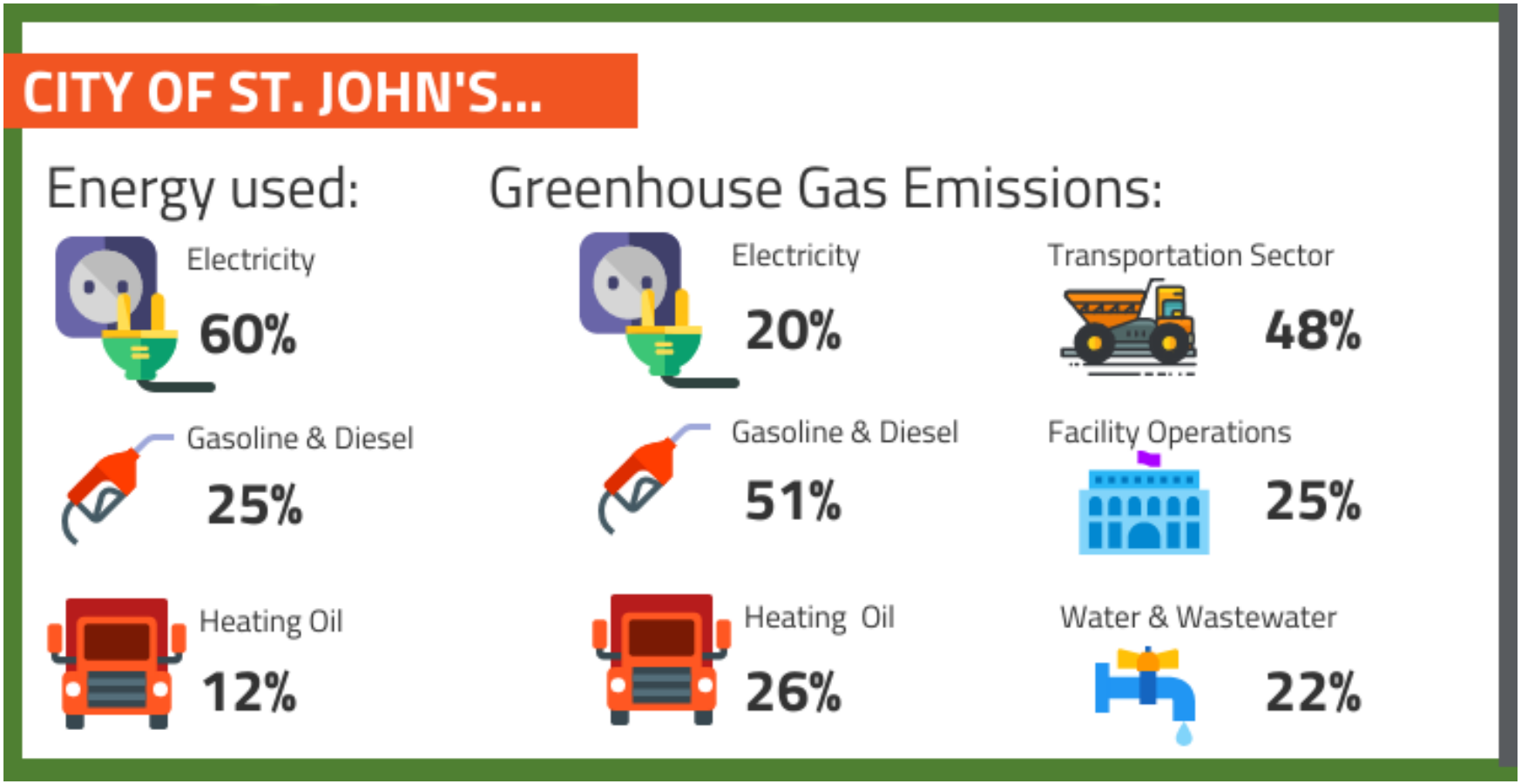
Transportation consumed approximately 41% of the energy use (gasoline and diesel) and emitted 59% of the community’s GHGs. **59%**

The **Institutional/Commercial/Industrial sector** consumed 31% of the energy and emitted 23% of the GHG emissions. **23%**

Waste (solid and wastewater) contributed 3% of the community's GHG emissions. **3%**

City of St. John's Corporate

Energy & GHGs



To Date..

Initiation

- [x] velop an Expert Panel, an Inter-Departmental Working group
- [x] d a Multi-Stakeholder Working Group
- [x] fine the vision a sustainable St. John's (2030-2050)

Assessment

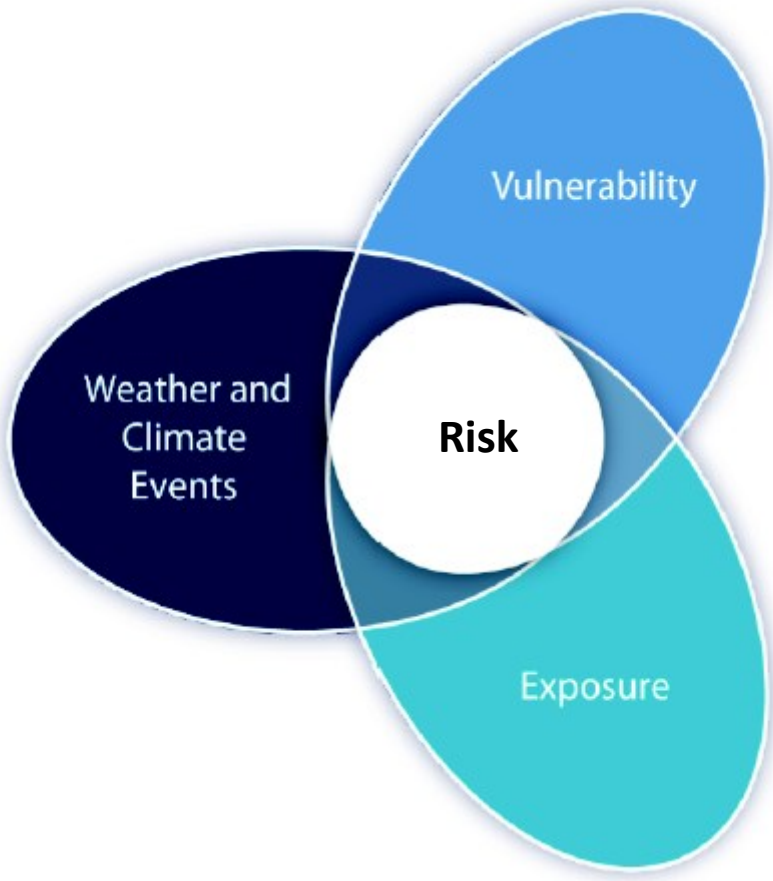
- [x] ventory baseline community and corporate greenhouse gas emissions
- [ ] Assess St. John's vulnerability & risk to climate change

Assess St. John's Vulnerability & Risk to Climate Change

1) Identify Climatic Changes

2) Multi-Stakeholder Group Adaptation Group

3) Vulnerability and Risk Assessment



City of ST. JOHN'S

Climate Profile

Identify Climatic Changes

City of ST. JOHN'S
Climate Profile: Observed Changes

Temperature Increases

Increased Length of Frost-Free Periods

Changes in Precipitation Frequency & Intensity of Some Storms

Decrease in Snow and Snow Cover

Sea Level Rise

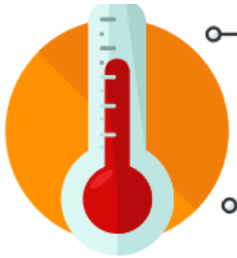
Ocean Temperature Increases

Increase in Wave Heights
(Generally in the North Atlantic)

City of ST. JOHN'S
Climate Profile: Projected Changes

ANNUAL AVERAGE TEMPERATURE

Average, Minimum, and Maximum daily temperatures are projected to increase



9.7°C **2080s**

7.7°C **2050s**

5.1°C **Baseline**

MAXIMUM DAILY TEMPERATURE

Increasing Annual Maximum Temperature

30.4°C **2080s**

28.4°C **2050s**

26.9°C **Baseline**

YEARLY MEAN PRECIPITATION

Yearly precipitation is expected to increase.

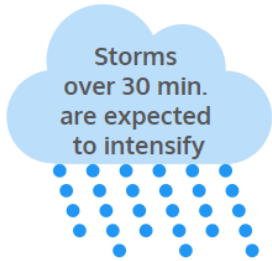
1523 mm **2080s**

1408 mm **2050s**

1400 mm **Baseline**

STORM EVENTS

Heavy precipitation events are expected to become more extreme.



SNOW

Snowfall is expected to decrease, while freezing rain and winter rain increases.

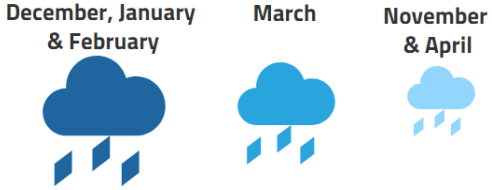
Surface Snow Thickness is Predicted to Decrease

60% by 2050s

90% by 2080s

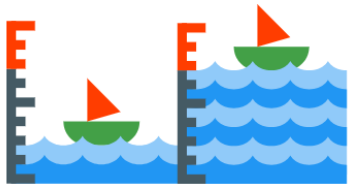
FREEZING RAIN

Freezing rain events are expected to increase during winter, with little to no change in November or April.



SEA LEVEL

Sea Level is expected to rise by 75 to 100 cm *by 2100*



WIND & GUSTS

There is significant uncertainty on wind projections

Wind speed are likely to increase

To read the full report or to learn more about the City's climate change adaptation and mitigation strategies, please visit the Sustainability page at stjohns.ca

Next Assessment Step

1) Multi-Stakeholder Group Teams (Mitigation & Adaptation)

2) Workshops to Identify Vulnerabilities & Risks