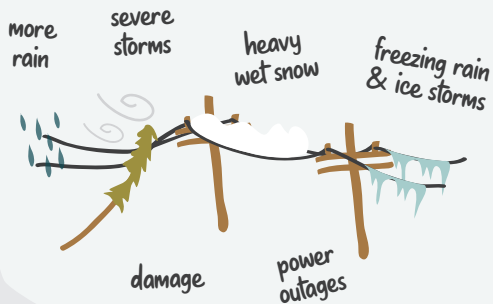


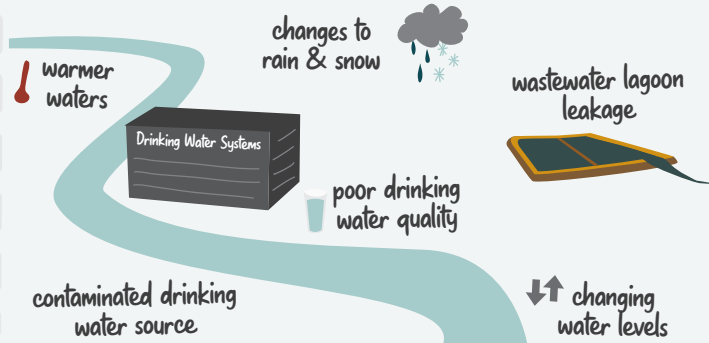


INFRASTRUCTURE

Climate change impacts on energy



Impacts on drinking water systems & wastewater lagoons



Impacts on homes & buildings



Impacts on roads



Assess vulnerability & make a plan

Make sure infrastructure is ready for climate change

Plan for snow load

Monitor wastewater lagoons

Create a plan for power outages

Produce renewable energy

Monitor drinking water quality

Build/retrofit for climate change

Maintain good community drainage

Design roads to let water run off

Drinking Water Treatment Plant

Have an emergency plan to supply water if needed

Homes, community buildings, energy infrastructure & treatment plants

Community-wide & in households

Rely less on diesel generators, provide back-up power

Include ditches & culverts and keep them maintained

INFRASTRUCTURE - ADAPTATION OPTIONS



Produce renewable energy



- Communities can use renewable sources, like wind, solar or micro hydro, to produce energy.
- Renewable energy can reduce dependence on diesel generators or the provincial grid.
- Renewable energy can also provide backup power if the larger electrical grid goes down.

Good community drainage



- Good drainage can help keep water from settling on roads and keep it out of basements and crawlspaces.
- Drainage systems should have:
 - an appropriate slope
 - water holding areas (like wetlands)
 - culverts that are the right size and not damaged
 - clear ditches

Snow load



- Snow load is the weight of snow and ice on the roof of a home or building.
- Know the warning signs of snow load problems for homes/buildings.
- Measure snow amounts and have a plan for snow removal.

Vulnerability assessment



- Climate change will bring many challenges to energy infrastructure, community roads, water systems, homes and buildings. A vulnerability assessment can help identify how these parts of the community are at risk.
- Make a plan to get vulnerable infrastructure ready for climate change.

Build or retrofit for climate change



- Keep climate change (extreme heat, severe storms, flooding, etc.) in mind when planning new projects or repairing/upgrading existing homes, buildings and services.
- Improve community homes with things like insulation, drainage, sump pumps, energy efficient windows, etc.
- Structural changes or improvements might also be needed.

Monitor drinking water quality



- Monitor drinking water sources for potential climate change impacts (lower water levels, water quality changes, problems with intake pipes, etc.).
- Have a community plan if tap water is not safe to drink.

Plan for power outages



- A community plan for power outages could include: an emergency centre (warming in winter, cooling in summer), support for community members, community alerts, etc.
- Having a source of emergency power will be an important part of community planning.
- Households can prepare by: having emergency supplies, knowing how to keep refrigerated foods from spoiling, knowing how to keep pipes from freezing, etc.

Building roads



- Shape roads to help water drain off (water on roads can create potholes & washouts).
- Include ditches and culverts and keep them maintained.
- Limit erosion on roadside slopes by keeping the grade gentle and letting plants grow.

Monitor wastewater lagoons



- Climate change could bring challenges like more heavy rain events. Monitor lagoons for signs of problems, like leakage, that can contaminate surrounding land.