



Climate Impacts and Infrastructure

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Our vision is that
“Alaska Native people are the healthiest
people in the world”.



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Climate Change and Indigenous People



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Challenges:

- Soil conditions are site specific
- Timely adaptation restricted to federal regulations and land designation
- Lack of funding for monitoring
- Lack of innovative response to urgency
- Short-term alternative, possibly only alternative

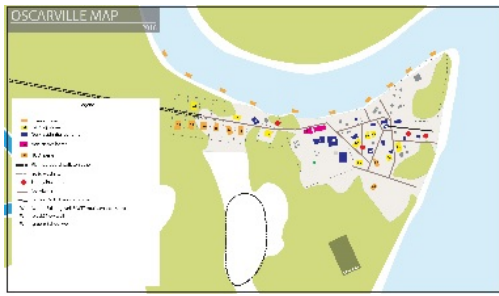


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Opportunities:

- Innovative Engineering and R&D of new infrastructure
- Integrating Indigenous Knowledge and Traditions
- Potential for phased design approach while awaiting infrastructure
- Creative approaches to adaptation



ANTHC Innovative Approaches:

Oscarville Tribal Resiliency Plan – A Holistic Approach to Sustainable Northern Communities



Newtok to Mertarvik Relocation Plan



Portable Alternative Sanitation System (PASS)

Modular Systems – Moveable for Adaptation



Climate Impact Response Team (CIRT) – Planning for adaptation, saving infrastructure





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Identifying health effects of climate change in Alaska

**Allergic
Reactions**



Mental Health



Travel Safety



**Waterborne
Disease**



**Respiratory
Health**



**Ice
Hazards**



**Harmful
Algae**



**Food
Security**



**Infrastructure
Damage**



Allergies



Nutrition



**Vessel
Safety**



**Food
Confidence**



**Food
Spoilage**





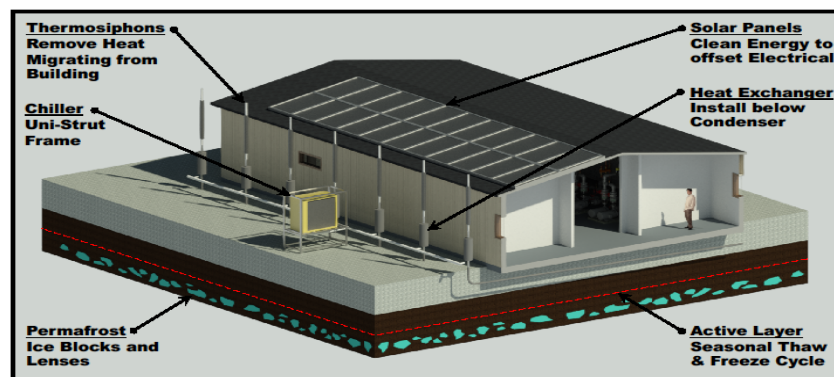
Flexible Arctic Box Design



Modular Water Treatment Plant



Portable Alternative Sanitation System



Solar powered Thermosiphons to control ground temperatures

What can we do in response to adapt?

Climate Change in Quinhagak

- Permafrost Thaw: Settling of infrastructure biggest source of damage
- Erosion
- Flooding



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Climate Change in Quinhagak



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