

NORTON SOUND COMMUNITY LOCAL CLIMATE ADAPTATION PLANNING

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NORTON BAY INTER-TRIBAL WATERSHED COUNCIL

**TRADITIONAL KNOWLEDGE & CLIMATE
CHANGE**

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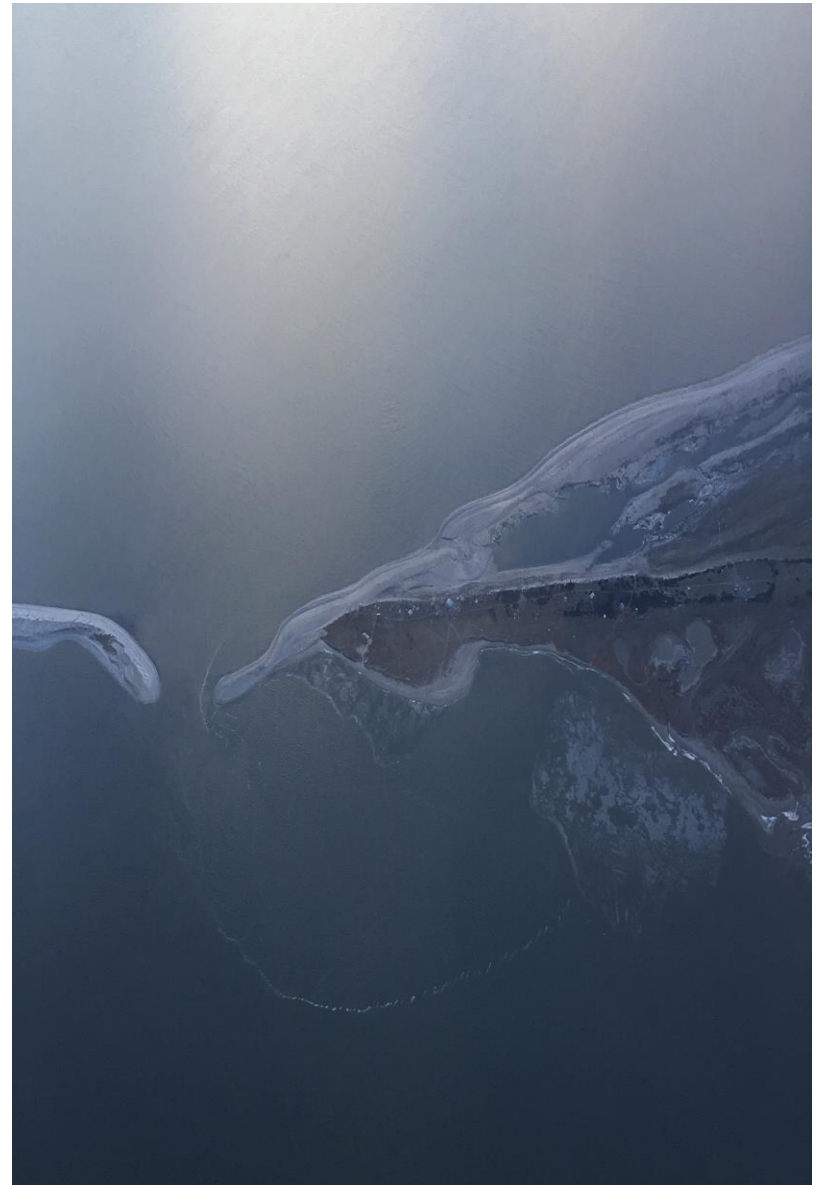


TRADITIONAL KNOWLEDGE

***Indigenous communities are the first to face the adverse consequences of climate change due to our close relationship to our environment.**

- Global-warming related changes, including the shrinking Arctic ice-sheet, have an effect on traditional lifestyles of indigenous people of the circumpolar North.**

***Traditional knowledge is an inseparable part of the indigenous culture livelihoods, beliefs, traditions, & customs. TK incorporates indigenous strategies of relationships to the environment & can/will be used adaptation to climate changes & natural hazards.**



INSTREAM FLOW WATER RIGHTS

- **State In-stream Flow Reservations**
 - +Adjudication of application before any legal effect;
 - +Complex process allowing potentially injured parties to protest application;
 - +Can get political-esp. when the approval of a particular application could impact resource extraction interests;
 - **Backlog-350 applications pending**
 - +None processed in 2008, and only 2-in 2009;
 - *Temporary water use permits TWU-up to 30,000 g/day
 - No environmental or public review;
- HB 77-would have prevented tribal and citizen applications**

Steps to Resilience-What is a local Climate Change Action Plan?

- **Climate Adaptation & Action Plan for Norton Bay Watershed, Alaska**
- +Google: Norton-Bay-Watershed-Action-Plan_2013Final.pdf
- Link: <http://www.mfpp.org/wp-content/uploads/2011/04/Norton-BayWatershed-Climate-Adaptation-pdf>
- **NBIWC-developed this plan as the first step in long-range goal of addressing this impact in our local communities**
 - +Ongoing planning, documenting changes, integrate existing short/long term documents i.e. coastal erosion, subsistence resources, storm-water mgmt.
 - +Cost? Time, apply for grants etc., persevering in our vision & goals we have established
 - +Key is applying Traditional & Local Ecological knowledge

Hazard Identification & Risk Assessment

non-climate, climate stressors, risk/impacts

- **+Forest Cover & Products:** i.e. invasive species; insect infestations; water quality degradation, sedimentation, **high water temp.** salmon impact
- **+Water: coastal structures,** flood damage, aging infrastructure, salt water intrusion, **reduced subsistence food access,** human health impacts, **drinking water contamination**
- **Crosscutting/Economic:** Coastal erosion, structural damage, loss of food, **shifting hydrology, flood events**



Mitigation Strategy

planning strategy, time for action, short term/long term

+Strategic plan that addresses risk assessment

- understanding changing dynamics of climate on flora & fauna
- with the **Northwest Passage opening up** we have **increased**

vessel

traffic with concerns on marine mammals, **oil spills**, transboundary & existing offshore drilling, **lack of infrastructure** i.e. **oil & spill response equipment-small ports-AIS vessel tracking system-lack of local trained personnel for oil spill/natural disasters**

- melting permafrost bringing sink holes & landslides, greenhouse gasses, carbon emission/methane**

- road funding for berms-mobilizing homes/other critical**

property

& other flood protection planning

Bottom line-**climate change will continue to be debated but our communities**

are not waiting for resolution before acting. We are thinking ahead



Public and Stakeholder Engagement Traditional & western knowledge

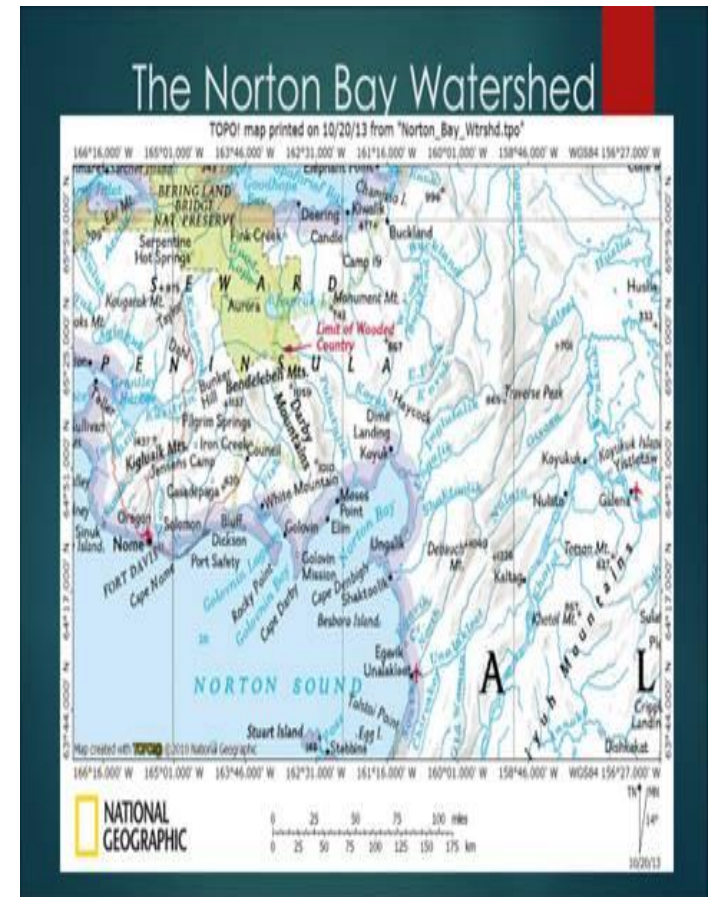
+Requires collaboration & communications with local communities, State, national & international groups of like-mindedness

+**community owners, contractors & developers must consider environmental impacts when planning construction or flood protection improvements along coastal areas & utilize TK & scientific data to predict shore protection**

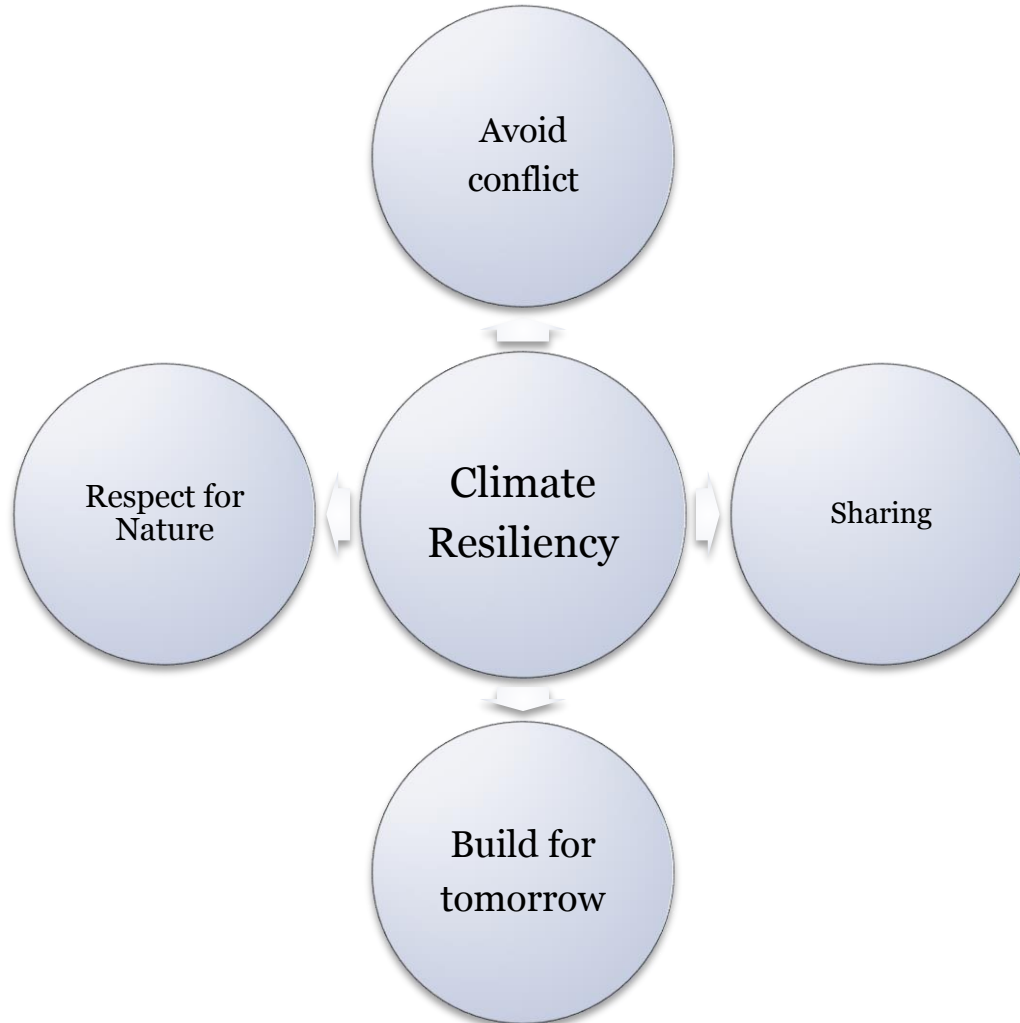
+**work together** with watersheds, climate solutions teams, tribal organizations, **Scientific networking**, & Create & maintain interconnectedness with one another. **We all have differences but our goals remain similar for environmental, economies & social vulnerability of our communities & Future generations**

Visualize & achieve our goals

- **+complete our 7-goals in our climate adaption & implementation plan**
- **Our strength lies in TEK-Norton Bay/Bering Sea communities has accepted & recognizes & remain proactive on climate impacts & risks**
- **Opportunities: obtain funding for climate adaption plans, educate & coalesce collectively with local, state & federal & international stakeholders**
- **+**



Munaaquestevut
OUR LAND THE ONE THAT CARES FOR US





QUESTIONS

THANK YOU FOR LETTING US BE PART
OF THE SOLUTION

Two Worlds-One Spirit

