Project Objectives

- Build a resilient future
- Protect and enhance resources for 7th generation
- Incorporate community values

Project Framework

- Community based planning process
- RCP 8.5 (business as usual) – Low risk acceptance
- Qualitative assessment
Samish Climate Resilience Planning

**Changing Conditions**

- **Local sea level rise**
  - +5 ft by 2100
  - +10 ft by 2050

- **Avg annual temp**
  - +8.3°F by 2080

- **Extreme heat days**
  - +10.8 days/year by 2080

- **Annual precipitation**
  - +2in (7%) by 2080

- **Summer precipitation**
  - -.7in (8%) by 2080

- **Extreme fire danger days**
  - +13.2 days by 2050
Project Overview

Phase One: Framework and Planning Priorities

*BIA Grant (2017)*

- Research and Build Support
- Identify Potential Climate Impacts

Phase Two: Vulnerability Assessment and Resiliency Planning

*DOE Grant (2018-2019)*

- Assess Vulnerability and Risk
- Prioritize Areas of Significant Concern
- Preliminary Evaluation of Resiliency Strategies
- Resiliency Planning

Samish Climate Resilience Planning
Project Overview

• Complete Phase 2 (2019)
  – Evaluate adaptation strategies
  – Complete Samish Climate Resilience Plan
  – Integrate climate resilience into other Tribal policy
Planning Framework

Completed
- Resiliency Working Group
- Public outreach
- Climate change lit review
- Vulnerability Assessment

In Progress
- Evaluate adaptation strategies
- Integrate findings to tribal planning processes
Key Planning Areas

Natural Environment
• Culturally & economically important plants & animals
• 166 planning areas

Built Environment
• Tribal properties
• Supporting infrastructure
• Economic development
• Transportation
• 27 planning areas

Human Environment
• Physical & mental health
• Community & cultural wellbeing
• 16 planning areas

Samish Climate Resilience Planning
209 total
### Qualitative Assessment

**VULNERABILITY = SENSATIVITY x ADAPTIVE CAPACITY**

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Adaptive Capacity</th>
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<tr>
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<td>Medium-Low Vulnerability</td>
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<tr>
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Samish Climate Resilience Planning
Phase Two Key Findings

- Qualitative assessment
- 209 total planning areas
  - 166 plant & animal species
  - 27 infrastructure & property areas
  - 16 health & culture planning areas

Samish Climate Resilience Planning
Sample Communication Materials

Samish Prepares
Our Promise to Future Generations

We want our children and their children to be healthy, prosperous, and enjoy our natural resources and cultural traditions. Working together to identify and prepare for the impacts of a changing climate, we can fulfill this promise for future generations.

The first step in preparing is to understand more about future climate conditions.

We are already seeing changes in our local climate.

These changes are expected to accelerate and become more pronounced in the coming decades. Even if we stop emissions of harmful gases, the excess gases in the atmosphere would still take many decades to escape. As a result, we have looked in changes to our climate for our children and their children.

Our changing climate will affect our natural resources and quality of life in many ways:

- Water Resources
- Coastal Flooding
- Public Health
- Nature's Benefits
- Culture

We must act S O O N to prepare for these changes.

- Impacts are already being felt and it takes time to put actions into place.
- The impacts are local - you and your family are on the "front line".
- Even if emissions stabilize, climate change impacts will last many years.
- Preparation can reduce costs and improve effectiveness.

Samish Climate Resilience Planning
Our Future Climate in Samish Traditional Territory

Scroll down to view Samish Indian Nation's effort to build resilience for the future impacts of climate change in the San Juan Archipelago, Washington State.

Samish Climate Resilience Planning
Projected 5 Foot Sea Level Rise by 2080

As the normal height of water increases, some areas may be inundated, including tribal facilities (below), cultural sites, and important beaches, salt marshes and other places where Samish have traditionally gathered our first foods, like clams and oysters.

Samish Climate Resilience Planning
Samish Climate Resilience Planning
Projected 5 Foot Sea Level Rise by 2080

In addition, storm surges can temporarily raise sea levels by several feet. As the normal height of the sea increases, storm surges will reach further inland and may be more destructive, causing additional beach loss and coastal cliff erosion and damage to traditional sites and resource areas, as well as buildings and infrastructure.
Rivers discharging into the Salish Sea are anticipated to experience increased average August stream temperatures that are harmful to Salmonids (above 64 degrees F), depicted in **orange** or **red**.
Future Plans

• Climate Resiliency Phase 3 (2019-2020)
  – Update and expand vulnerability assessment
  – Prioritize potential resilience projects
  – Increase capacity to work with regional partners
  – BIA Tribal Resilience Grant

• SLR/Coastal Management Assessment (2019-2020)
  – Assess SLR impacts in Samish Traditional Territory
  – Evaluate coastal habitat restoration opportunities
  – Create GIS-based SLR tool to assess impacts to archeological and cultural sites
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