

**DOI BUREAU OF RECLAMATION**

WaterSMART Planning and Project Design Grants  
for Fiscal Year 2023 and Fiscal Year 2024  
Notice of Funding Opportunity No. R23AS00109

Swinomish Indian Tribal Community  
Swinomish Utility Authority  
**‘Category A’ Applicant**

Application for:  
**WaterSMART Planning Grant**

To Develop:  
**Integrated Water Resources Management Plan**

Submitted:  
October 17, 2023

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DOI BR WaterSMART FY23-24  
Swinomish Planning Application

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## VI. EXECUTIVE SUMMARY

**Date:** October 9, 2023

**Applicant:** Swinomish Indian Tribal Community (Federally Recognized)  
Category A Applicant

**City/County/State:** La Conner (Swinomish Reservation)/Skagit County/Washington

**Task Area:** Task A: Water Strategy Grant

**Cost Share:** A waiver of cost share will be requested.

**Project Period:** July 1, 2024 to June 30, 2027

**Project Location:** The 10,350-acre Swinomish Reservation located on the southeastern peninsula of Fidalgo Island in western Skagit County. According to Census Bureau 2020 data, there is a population of 3,249 and 1,451 households in the area.

**Proposed Project:** In a collaborative effort, the Swinomish Tribe and the Swinomish Utility Authority will develop a comprehensive water resources management plan that uses a coordinated and integrated approach for managing water supply, wastewater, source water and stormwater systems to achieve operational synergies, to meet the current and future needs of the tribal community, and to sustain the natural environment. The comprehensive plan will improve and ensure the reliability of the water supply for a disadvantaged community and will ensure the management of tribal water, wastewater, and storm water systems, and the protection of source water, to meet community needs and ecological values.

## VII. TECHNICAL PROPOSAL

### C. INTRODUCTION TO TRIBE AND TRIBAL UTILITY

The Swinomish Tribe: The Swinomish Indian Tribal Community (SITC or Tribe) is a Federally-Recognized Tribe representing ~1,000 tribal citizens and exercising jurisdiction over a 10,350-acre Reservation with 3,228 residents.<sup>1</sup> As a modern political entity, the Tribe dates back to 1855 when 81 tribal chiefs representing those four bands gathered to sign the Treaty of Point Elliott, which also created the Swinomish Reservation. The tribal mission is to:

- Protect and enhance the quality of life for the Swinomish members by providing a combination of economic opportunity and safety net of social services;
- Protect the culture and traditional practices of the Swinomish people;
- Respect and protect the spirit of tribal ancestors and generations to come;
- Exercise the powers of self-government secured by the Treaty of Point Elliott;
- Protect and preserve the Swinomish Reservation homeland; to protect treaty rights both on and off the Swinomish Reservation; and
- Provide a safe and healthy environment for everyone living on the Swinomish Reservation and participating in the Swinomish activities.

The Tribal Structure: The tribal organization was created to support government functions and to provide a safety net of services to tribal citizens. It does this through seven administration departments/divisions and twelve direct service departments with fourteen operating divisions. The Tribe has nine regulatory commissions and operating authorities. There is a separate tribal court. A staff of 350-375 supports these various functions/services. Tribal enterprises employ an additional 600 to 650.

The Proposed Project: The proposed *Comprehensive Water Resources Management Plan* will be a collaborative effort of the Tribe and the Tribal Utility. The Swinomish Senate and the Swinomish Utility Commission have approved this application.

Tribal Planning: The Planning and Community Development Department (PCDD) will be the point of contact on the Tribe's side. PCDD oversees community planning, residential permitting, commercial permitting, licensing, public works, construction management, and tribal historic preservation. PCDD is responsible for community and tribal planning and development to meet community needs and tribal priorities.

Tribal Utility: The Swinomish Utility Authority (SUA or Utility) was established in 1985 pursuant to a tribal ordinance that was later codified into [Title 11 Utilities](#) of the *Swinomish Tribal Code*.<sup>2</sup> The purpose of the Utility is to operate water, wastewater, and solid waste

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<sup>1</sup> Source: 2020 Decennial Census data.

<sup>2</sup> See Swinomish Tribal Code posted on the tribal website at <https://swinomish-nsn.gov/government/tribal-code.aspx>.

systems in the Swinomish Reservation area, to maintain supporting supply, distribution, and collection systems, and to enforce Title 11 of the Tribal Code. The Utility operates under the direction and oversight of Swinomish Utility Commission, whose members are appointed by Swinomish Senate and who have the authority to establish rules and regulations regarding the acceptance of, and subscription to, tribally provided utility services.

*Water Distribution System* - The SUA water system has 501 customer connections (463 residential) and consists of ~14 miles of 2-12" water mains, 2 booster pump stations, 2 storage facilities (Main and Pull and Be Damned Reservoirs), 6 pressure reducing stations, a telemetry-supervisory control system, 2 Anacortes water system interties, and 2 back-up tribal wells. The Utility's water distribution system currently covers ~3.2 square miles extending south to the western edge of Martha's Bay near the Shelter Bay community, north to the City of Anacortes near the intersection of Similk Bay Road and Reservation Road, east to the Swinomish Channel near Swinomish Village, and west to Skagit Bay (see map below). The total potential water service area includes an additional 10.8 square miles of reservation land.<sup>3</sup>

*Sewer Collection System* - The SUA sewer collection system has 389 customer connections and consists ~14 miles of gravity pipes, manholes, tanks, lift stations, control structures, and force mains that gather used water from residential/nonresidential customers and convey the flow to treatment plants. SUA operates the wastewater treatment plant for the north commercial district as well as two residential "satellite" water/sewer systems on the reservation. SUA also regulates and manages the wastewater flow from Skagit County Sewer District No. 1 and manages the IHS-funded Scattered Site program that provides water and sewer facilities for new and like-new homes owned by tribal members.

The village system contains a network of ~6.2 miles of sewer main, varying in size from 4 inches to 12 inches. Flow rate data for the Village lift station is calculated based on flow meters downstream and upstream in the sewage collection system. The sewer system collects a total flow of 16-18 million gallons per year. The Village sewer mains were partially replaced in 2010, while the remainder have been in service since 1973.

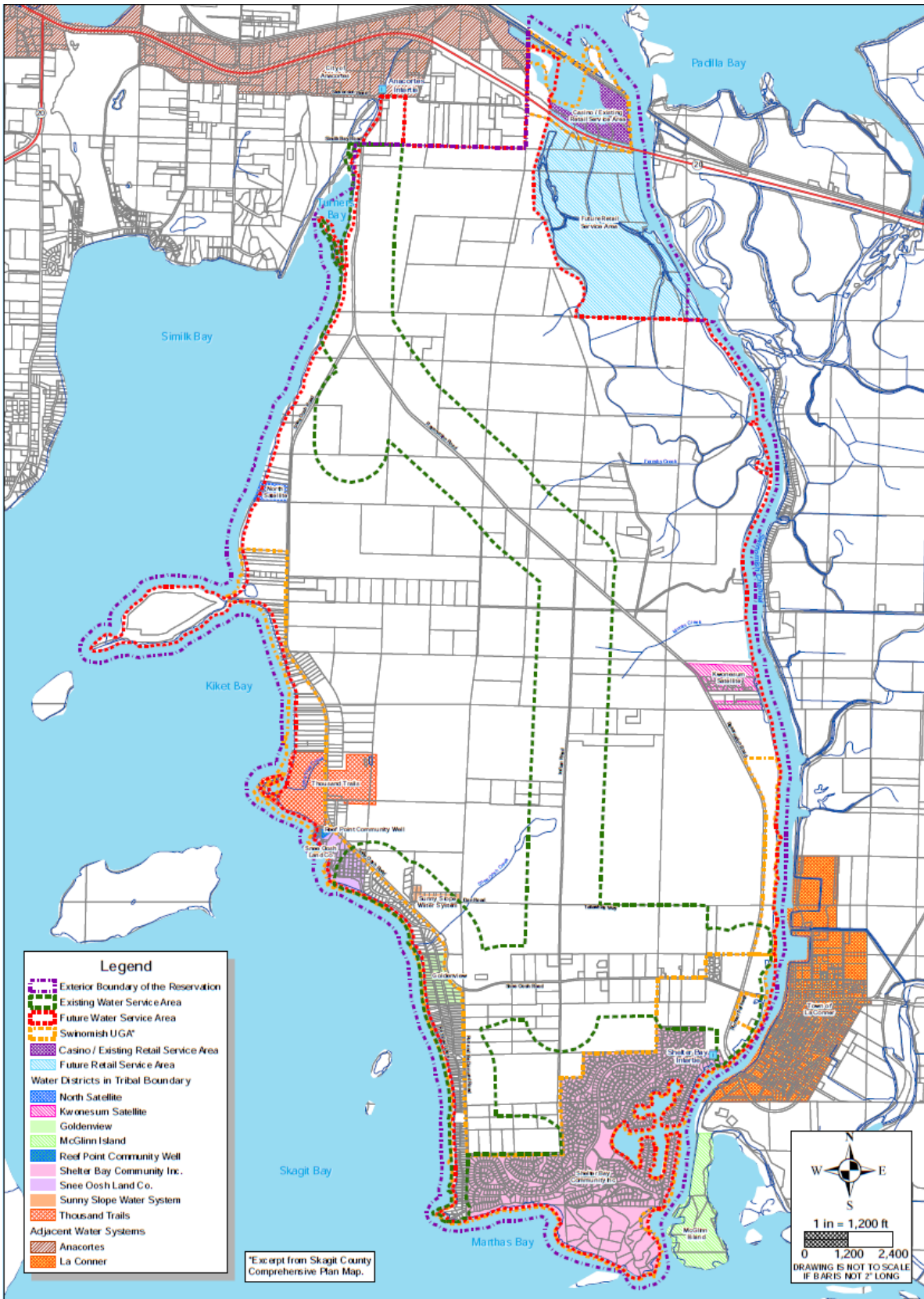
*Solid Waste Disposal System* - The Utility provides solid waste collection services to Swinomish Village residents. Garbage is collected weekly. Skagit County Waste Management also provides garbage/recycling collection in the broader area on a subscription basis.

## **D. PROJECT LOCATION**

The Swinomish Reservation is located on the southeastern peninsula of Fidalgo Island in western Skagit County across the Swinomish Channel from La Conner. It consists of 7,450 upland acres and 2,900 acres of tidelands for a total of 10,350 acres. The Tribe holds federal reserved water rights that may be exercised anywhere within the boundaries of the Reservation and state water rights that may be exercised in the Kwonesum and North Satellite water service areas. The Tribe also owns the water, wastewater, and stormwater systems on the Swinomish Reservation.

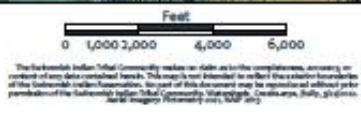
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<sup>3</sup> Service Area and Adjacent Systems Topographical Map, SITC Water System Plan, 2011 and Updated in 2023.



**SWINOMISH INDIAN TRIBAL COMMUNITY  
COMPREHENSIVE WATER SYSTEM PLAN**





**Watersheds & Creeks**



## E. PROJECT DESCRIPTION

### 1. Comprehensive Water Resources Management Plan

The Tribe and the Utility are proposing to conduct water resource planning to develop an *Integrated Water Resources Management Plan* to manage and protect water resources and to implement an integrated approach to managing those resources across tribal jurisdictions to achieve operational synergies, to meet the current and future needs of the Swinomish community, and to sustain the natural environment. More specifically, FY23-24 WaterSMART funding will enable the tribal partners to

- Conduct water planning to support management solutions for stable domestic supply, water conservation, drought resilience, ecological resilience, and community health. Important because the Tribe’s 2020 HMP and an earlier climate study performed with the assistance of UW Climate Impacts Group show the community at ‘extremely high risk’ for earthquakes, and at ‘high risk’ for high winds, severe storms, wildfires, volcanos, and tsunamis/seiches with possible impacts in the hundreds of millions of dollars.<sup>4</sup>
- Develop a *Comprehensive Water Resource Management Plan* to support the Tribe’s coordinated management of water supply, source water, wastewater, and stormwater to meet the water needs in the community while minimizing impacts on the environment.
- Update the existing Water System Plan to ensure supply stability and continued effectiveness in the utility water system and operations. The plan will be supported by supply-demand analyses, will identify system deficiencies and solutions to address deficiencies, will conduct life cycle cost analyses, will assess water efficiency solutions, and will develop a schedule of improvement projects based on urgency and priority.
  - Review the Utility’s rate structures to determine if operating revenues are sufficient to meet Utility O&M and capital improvement needs and to determine whether the community can sustain increased costs – important in a disadvantaged community; and
  - Develop an effective utility capital improvement strategy and schedule for system improvements/replacements. Currently, the Utility relies heavily on IHS/EPA funding for drinking water capital projects and must wait for projects to reach ‘emergency’ or ‘urgent’ status before they are funded.
- Develop a wastewater plan component to support Utility wastewater operations with an eye to public health and protection of groundwater and drinking water resources.
- Develop a stormwater management plan and a source water protection protect plan to protect source water (rivers, streams, lakes, reservoirs, springs, and groundwater) on the

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<sup>4</sup> Sources: *Swinomish Jurisdictional Annex to the 2020 Skagit County Natural Hazard Mitigation Plan* and *Swinomish Climate Change Initiative: Impact Assessment Technical Report*, 2009, UW Climate Impacts Group.

Swinomish Reservation. This may include a review of the Federal and Tribal regulatory structures and requirements to determine if protections are adequate.

- Implement an integrated approach to water resource management between the Tribe and the Utility by engaging those tribal entities managing and/or regulating land and water resources in a collaborative process that involves creating a management regime, prioritizing solutions, and developing financing sources.

## **F. EVALUATION CRITERIA**

### **1. Project Benefits**

Water resource planning, the development of a comprehensive water resource management plan, and an implementing an integrated approach to water resource management will benefit the Tribe, the Tribal community and BOR in a number of ways:

- *Integrated Approach to Water Resource Management:* Implementing a new coordinated approach to water resource management will have synergistic benefits making management of the resources more efficient and enhancing benefits to the community. Water management and water resource protection are more difficult when program responsibilities are divided and fragmented across different entities and divisions
- *Water Supply Reliability:* Planning and plan development will support water supply reliability to meet all the existing and future water needs of the Reservation community. The 2011 WSP identifies an inadequate amount of standby water storage and water service pressure to meeting Washington State Department of Health standards for the Swinomish CWS. In 2023, that need is still not fully met. Updating the plan and identifying possible solutions will help the Utility to ensure water supply reliability.
- *Disadvantaged Community:* The tribal community on the Swinomish Reservation will benefit from the planning/plan development project. The Swinomish community meets the definition of ‘disadvantaged community’ for the purposes of the President’s Justice 40 Initiative, because it is within the boundaries of a federally recognized Tribe.
- *Community Resiliency:* Updating the 2011 WSP to support operations in today’s economic environment and in recognition of deteriorating climate conditions will contribute to community resiliency.
- *Aging Transmission Infrastructure:* Developing a capital improvement project strategy for the Utility (part of the WSP Update), including an identification for financial resources, will ensure that aging water infrastructure is replaced in a timely manner.
- *Community Health, Sanitation, and Security:* Developing a strategy for Utility capital improvement projects will result in the systematic replacement and the consolidation of

remote households into the water system will contribute to community health, sanitation, and security.

- *Community Growth/Lifestyle Considerations:* Integrated resource planning balances demand-side and supply-side analyses with quality of life and environmental consideration, and engages the players in open and participatory decision-making process.

#### Challenges/Threats:

- *Climate Impacts:* The Tribe's 2020 HMP and an earlier climate study performed with the assistance of UW Climate Impacts Group show the community at 'extremely high risk' for earthquakes, and at 'high risk' for high winds, severe storms, wildfires, volcanos, and tsunamis/seiches with possible impacts in the hundreds of millions of dollars. We do not know if infrastructure and
- *Utility at Capacity:* The Utility is at capacity and is unable to support community growth and development.
- *Unsafe Wells:* Several AIAN households are on unsafe wells with salt-water intrusion. An analysis of potential solutions would help mitigate this problem (part of the WSP Update).
- *Watershed Health:* DEP has been monitoring watershed health since 2010 with the assistance of WWU. In the Lone Tree Creek watershed in particular there have been temperature increases after 2010 possibly from deforestation or climate stressors; there have been pH decreases after 2011, which could be informative of potential future climate stressors (ocean acidification); and salinity increases in the pocket estuaries could indicate more exchange between the creek and the bay. Developing a plan would support more comprehensive watershed management.
- *System Redundancies:* Water supply was recently interrupted for a day and a half, and Utility nearly ran out of water. The 2011 Water Plan notes an inadequate amount of standby water storage and water service pressure to meeting Washington State Department of Health standards for the Swinomish CWS. An updated water system plan will not only identify solutions for current standby water storage needs, but will also update growth projections so that there is a planned process to improvements to ensure community water needs continue to be met.

## **2. Description of Community Project Will Serve**

Data Sources: Decennial 2020 Census data, Swinomish Reservation CCD; American Community Survey 5-year Estimates for 2020, Swinomish Reservation CCD; and American Community Survey 5-year Estimates for 2021, Swinomish Reservation CCD.

### 2020 Demographic Highlights:

- The reservation population increased from 3,206 in 2010 to 3,249 in 2020.
- AIANs represent 790 or 24.32% of the total population.
- Elders (62+ years) comprise 1,450 or 44.6% of the population (up from 35% in 2010).
- Disabled individuals comprise 537 or 16.5% of the population; 88 or 13.5% are AIAN.
- Of the total 1,451 households: 69.2% have at least one 60+ elder in residence; and 16.5% have child under 18 years of age.
- The median annual income for AIAN households is \$53,750 compared to a median income of \$73,274 for other households in the area and \$75,825 for white households in the area.
- The per capita income for AIANs on the reservation is \$23,856 compared to a White per capita income of \$49,768 and a total reservation population per capita income of \$42,526.
- 40% of Native households use food stamps or SNAP (Table 11).
- 25.7% of families with AIAN head of household are below the poverty level compared to 2.3% of white families (Table 5).

### 2021 Labor Force Highlights:

- The AIAN alone labor force population (16+ years) on the Swinomish Reservation is 465. We believe this to be undercounted.
- The AIAN labor force participation rate is 58.5% and the AIAN employment population ratio is 48.6%.
- The unemployment rate for the AIAN population is 16.9% compared to an unemployment rate of 3.7 for the White population, and an unemployment rate of 7.5% for the reservation population in general.

### Data Limitations/Constraints:

- The Census Bureau does not break all datasets down by race making it difficult to show disparate impact.
- If the AIAN community is a minority in the census tract, the resulting data is more reflective of what is happening in the non-Native community.
- When Census Bureau does break the data down by race, it looks at those individuals claiming AIAN only and does not look at individuals claiming AIAN in combination with other races. This results in an undercount of the AIAN population. This is supported by an October 03, 2023 Census Bureau [report](#), which cites that the ‘American Indian alone’ population grew 11.6% to 2,159,802, while the ‘American Indian alone or in any combination’ population nearly doubled, increasing to 6,363,796.

## **3. Inclusion of Stakeholders, Stakeholder Support**

### Swinomish Community Engagement

*Sovereign Entity and Key Provider:* The Swinomish Tribe is the governing authority and a key regulator on the Swinomish Reservation. It is also the only service provider located on and

providing services to the Reservation population. It engages the community, as citizens, in governmental initiatives and, as clients and service recipients, in program planning and service delivery through a variety of forums and media outlets.

*Tribal Citizen Involvement:* As the governing authority, the Swinomish Senate receives input from citizens during senate and senate committee sessions. In addition, Swinomish tribal members provide direction to the Tribe through semi-annual Swinomish General Council sessions, which are comprised of all adult members of the Tribe. Commission and authority meetings are also open to tribal members.

*Organizational Outreach to Community:* All tribal departments, enterprises, commissions, utilities, and other entities regularly report regularly to the Swinomish Senate and its committees at monthly meetings, which are also open to the tribal members. In addition, the Tribe sponsors monthly community zoom meetings to keep tribal members updated on tribal activities. Media outlets include:

- The Tribe's [website](#), which has a webpages for each department/division/major program;
- The [QYUUKS](#) newsletter, which is posted on the website and mailed directly to tribal members;
- Social media sites including [Facebook](#) and <https://issuu.com>;
- Community reader board situated along Pioneer Parkway as you enter the historic village area;
- Community text postings (91896); and
- 'In office' postings at 32 tribal facilities on the Reservation and in the nearby surrounding area.

*Direct Client Contacts:* The tribal organization maintains fifteen (15) separate and distinct departments/functions/major programs. Each unit maintains regular contact with tribal clients individually and/or collectively. Its services include health services (medical, dental, behavioral health), social services (family, elder, youth, domestic violence), and enforcement services (court, police department).

*Swinomish Utility Authority:* The Utility communicates directly with its user regarding utility operations, the water system and other utility plans, and consumer confidence reports. These are posted on the Tribe's website at <http://www.swinomish-nsn.gov/resources/utilities/consumer-confidence-reports.aspx>.

*Project Specific Meetings:* All plans and projects are aired to the community through these venues, as well as through other public project-specific meetings.

*Swinomish Utility Authority:* In addition to direct contact with its customers, the Utility reports regularly to the Utility Commission and the Senate and utilizes these venues to keep the community updated. The comprehensive plan project was aired at the Swinomish Utility Commission August 11, 2022 and October 2023 sessions and at the Swinomish Senate December 20, 2022 and October 17, 2023 sessions.

#### **4. Previous Planning Efforts**

*Groundwater Planning/Monitoring:* The Groundwater Program is co-managed by the Tribe's Department of Environmental Protection and the Land Management Department. These partners have been engaged in monitoring and testing the groundwater hydrology of the Reservation and the interactions between groundwater and surface water. They are developing a numerical model, a monitoring plan, and recommended protection policies and ordinances that will be helpful in this comprehensive water planning effort.

*Utility Planning/Management:* The SUA Water System Plan (WSP) plan was developed in 2011 with the assistance of RH2 Engineering. That 2011 WSP had a planning horizon that ended in 2022. With the assistance of the Washington State Drinking Water Revolving Loan Fund, the Utility developed an interim WSP Update in order to qualify for DWSRF assistance. The Tribe and the Utility need assistance to develop a new Integrated Water Resource Management Plan that evaluates management alternatives within today's environment and with consideration to climate impacts.

*Watershed Recovery Plan:* In addition to being in the larger Skagit River Watershed, the Swinomish Reservation has ten of its own watershed/sub-watersheds. The Skagit River Watershed, which remains one of the more pristine watersheds within Puget Sound, is primarily under control of the federal government. The Swinomish Reservation watersheds are under the jurisdiction of the Tribal government. Human land use over the last 150 years has resulted in the degradation of salmon habitat due to forestry and agricultural practices, which are primary land uses within the watersheds. Recovery strategies and actions are focused on habitat protection and restoration. The proposed comprehensive plan will examine successful strategies for the Tribe to use in managing its watersheds.

#### **5. Ability to Meet Water Strategy Grant Program Requirements**

##### **a. Required Component 1 – Outreach and Partnership Building**

The Swinomish Utility Authority and the Tribe's Planning and Community Development Department have been working together to push the proposed comprehensive water resources management project forward. In order for the water planning effort to be successful, all Tribal land and natural resource regulatory and management entities must work collaboratively to determine the most efficient management structure and process for managing and protecting the Tribe's water resources. The Utility Commission and the Swinomish Senate have approved this project twice in 2022 and 2023.

For this proposed strategy development project, key stakeholders, who are actually partners, include the Swinomish Utility Authority, the Swinomish Utility Commission, Planning and Community Development, the Swinomish Planning Commission, the Department of Environmental Protection, Lands Management, and Environmental Policy. These entities have been and/or will be engaged in this water resource planning process.

*Swinomish Utility Commission* was established pursuant to Title 11 Utilities of the Swinomish Tribal Code to serve as the policy and advisory board for the Swinomish Utility Authority, and has the authority to establish rules and regulations regarding the acceptance of, and subscription to, tribally provided utility services.

*Swinomish Utility Authority*, also established by Title 11 of the Tribal Code, provides utility services to all of the lands and waters within the exterior boundaries of the Reservation. The Authority has the day-to-day responsibility for operating, providing, and maintaining tribal utilities and for enforcing Title 11.

*Swinomish Planning Commission* was established pursuant to Title 20 Land Use and Zoning of the Swinomish Tribal Code to oversee the development of a comprehensive community plan, and a zoning code to be adopted by the Senate, and to make recommendations to the Senate with regard to proposed projects, programs or activities that affect the physical growth and development of the Reservation.

*Planning and Community Development* (PCD) oversees community planning (comprehensive plan, community and economic development plans), residential permitting, commercial permitting, licensing, public works (facilities, streets, and utilities), construction management, and tribal historic preservation.

*Department of Environmental Protection* enforces Title 19 Environmental Protection of the Swinomish Tribal Code, which establishes designated uses for regulated surface waters, water quality criteria to protect such designated uses, and a policy to prevent further degradation of regulated surface waters to serve the following purposes of the Tribe and the Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq. (“Clean Water Act” or “CWA”):

*Lands Management* operates Realty, Geographic Information Systems (GIS), Tribal Lands, and Groundwater programs. The Groundwater Program develops and manages groundwater-related, hydrologic, geologic, and geomorphologic programs and projects. This work is closely tied to the Environmental Protection Department.

Public input is a key element of the proposed planning/plan development process. The venues for outreach to tribal members are discussed in the ‘Inclusion of Stakeholder/Stakeholder Support’ section. The comprehensive plan project was aired at the Swinomish Utility Commission August 11, 2022 and October 2023 sessions and at the Swinomish Senate December 20, 2022 and October 17, 2023 sessions.

b. Required Component 2 – Analyses, Scoping and Planning Activities

Domestic Water Supply: The proposed planning/strategy development project will support the development and maintenance of future domestic water supply for the Swinomish tribal community by ensuring a coordinated approach to water resources management that will protect source water, maximize use of stormwater, and update the Utility’s water system and wastewater plans to responsive to challenges in today’ environment.

Problems and Needs: The question of integrated water resource management arose during discussions between the Utility and Tribe’s Department of Planning and Community Development about the update of the Utility’s Water System Plan. The Tribe has various internal and external tribal entities engaged in regulating or managing tribal water and related resources. However, funding and staff are stretched tight and, while coordination to achieve synergies is desirable, quite often there is no communication among these entities. The consequence is that management of the resources is not as effective as it could be and that there is potential duplication or crossover in activities.

Identification of Potential Opportunities: Typically, tribal set-aside funding is not enough to effect any real change in the community and other funding is highly competitive because the need is huge in Indian Country and tribal resources are limited. Case in point, Utility capital project applications sit in a joint IHS/EPA queue along with applications from all other tribes with water systems until the situation becomes urgent, then it may up in the queue. The Tribe’s needs are considered in relation to the needs of all other tribes.

In today’s environment for the first time, tribes are benefitting from federal COVID recovery and economic relief funding – only because of the federal commitment to provide 40% of the funding to disadvantaged communities. Therefore, this *FY23-24 WaterSMART Planning and Project Scoping* funding is our opportunity to bring meaningful change to the Tribe and tribal community. We believe integrated water resource planning will be easier for the Tribe to accomplish, because we are relatively small and the Tribe controls and provides direction to all players in the water regulation/management process.

Moving Forward with Project Concept: The strategy and timeline for moving forward with the project concept are contained in a work plan that identifies milestone activities, timeline, and responsible party (see subsection c below).

c. Required Component 3 – Development of Water Strategy Document

Outreach Summary: This project was envisioned in a collaborative planning effort between Tribe’s Planning and Community Development Department and the Swinomish Utility Authority that started in 2022. The comprehensive water resources planning project was aired at the Swinomish Utility Commission August 11, 2022 and October 2023 sessions and at the Swinomish Senate December 20, 2022 and October 17, 2023 sessions, where tribal members had an opportunity to provide input. There was no opposition.

The Swinomish Senate and Swinomish Utility Commission have approved this project twice in 2022 and 2023. A shortened version of the application will remain posted on the tribal website.

Statement of Problems and Needs: Different operating segments and entities of the Tribe are engaged in regulating and managing the Tribe’s water resources. However, funding and resources to do that are limited. The consequence is that the Tribe’s water resource management efforts are not as effective as they could be. This also means higher costs and inherent operational inefficiencies because of the potential crossover and duplication of effort that can occur where separate jurisdictions are managing in common or related resources.



For the Utility, the lack of an updated Water System Plan means that it does not have a current read on when infrastructure must be replaced, does not have updated demand figures to plan for supply, and is also not able to apply for funding as an updated water system plan is an eligibility requirement.

Based on these considerations, the Tribe has concluded that the Tribe needs integrated water resources management to promote the coordinated development and management of water, land and related resources to maximize economic and social welfare of the tribal community, without compromising the sustainability of vital ecosystems. For the Utility, this integrated approach would protect source water and would help the Utility to maintain water supply for tribal customers into the future.

Outside assistance is necessary for two key reasons. First, the Tribe's resources are stretched thin with revenues yet to fully rebound from the COVID pandemic. Second - Utility revenues are only enough to cover O&M costs, which makes it dependent on outside resources for system replacements or improvements.

Project Opportunities and Comparison of Alternatives: The decision to move ahead with water resource planning, with the development of an integrated water resource management plan, and with implementing a water resource management strategy was made by the Swinomish Senate and the Swinomish Utility Commission in 2022. The fine details of the strategy, including how each tribal department or entity will participate, will be hammered out by the partners during the planning/plan development process. The BOR FY23-24 WaterSMART Planning and Project Scoping Program is the Tribe's opportunity to be able to accomplish this.

#### Summary of the Work to Be Performed:

*Integrated Water Resource Management Plan (IWRM):* Develop an integrated water resources management plan for the Swinomish Tribe and Utility to manage and protect water resources and to implement an integrated approach to managing those resources across tribal jurisdictions to achieve operational synergies and mutual goals. A description of plan components follows:

*SUA Water System Plan Update Component:* Utility water operations are guided by a Water System Plan (WSP) developed in 2011 by RH2 Engineering. That plan includes forecasts and projections up through 2022. The plan must be updated to support operations in today's economic environment and to support community resiliency. It is also needed in order to capture outside funding for capital improvement projects. The new water system plan will be one of three components of the *Comprehensive Water Resource Management Plan*. Updating the water supply plan component will involve procuring an engineering firm

- To assess the design, operations and management of existing water systems, which will involve the camera and scoping of the mains and pipes;
- To identify substandard system components and the associated issues;

- To assess the system’s ability to respond to or withstand certain natural hazards (wildfire) or to withstand certain natural hazards (earthquake);
- To assess system capacity to support growth (utility is at maximum capacity);
- To evaluate utility management, including O&M and internal capacity;
- To forecast future water demands;
- To conduct a rate study with an eye to utility sustainability, system maintenance, and system expansion;
- To develop of a capital improvement strategy and schedule of capital projects; and
- To evaluate well systems on the reservation for possible connection to the Utility system.

*Wastewater Plan Component:* The wastewater plan will address public health concerns, protection of groundwater and drinking water resources, protection of surface waters (including nutrient loading), and support of community economic development (or limitations thereto due to lack of capacity). Undertaking wastewater planning and developing a wastewater plan component will involve procuring an engineering firm

- To evaluate wastewater management, including O&M and internal capacity including its relationship to the management of other water resources;
- To inventory SUA wastewater systems on the Swinomish Reservation;
- To assess the operational status of SUA sewage systems and infrastructure, including video inspection of the sewer lines;
- To assess the system’s ability to withstand certain natural hazards (earthquake).
- To identify issues associated with substandard systems and lack of capacity to support growth (utility is at maximum capacity), including an evaluation of separate septic systems on the reservation for possible inclusion in SUA systems;
- To develop a wastewater capital improvement strategy and a schedule of capital projects.

*Source Water Protection Plan Component:* The Tribe will use the [EPA](#) source water assessment to inform development of a source water protection plan and the implementation of measures to protect and/or enhance source water for the Reservation. The plan will identify activities or projects needed to mitigate existing and future threats to source water quality and to improve the resilience of the water supply. It will provide a roadmap for coordinating partner actions and may help leverage government and private investment. The plan will

- Characterize the source water protection area and inventory potential sources of contamination;
- Define priorities;
- Identify protection strategies and partners;
- Define implementation tasks and milestones;
- Highlight resource needs (e.g., funding, expertise, staff);
- Set a timetable for achieving the program goals, and
- Outline a process for periodically evaluating progress towards these goals.

*Stormwater Management Plan Component:* FY23-24 Water SMART Planning funds will enable the Tribe to develop a stormwater management plan to identify actions that will protect the water

quality of streams and wetlands and to assure compliance with the Clean Water Act, which expressly provides for tribes to assert Treatment as a State (TAS) for the purpose of implementing and managing certain environmental programs. As this will be the Tribe’s first stormwater plan, it will involve procuring professional services from an engineering firm

- To identify the wetland properties involved;
- To identify the waterbodies that receive stormwater discharge;
- To identify permitted properties, or those that must be permitted;
- To identify the tracking data that must be collected, and develop a plan for the collection of the required data;
- To create a map of the separate stormwater sewer systems;
- Identify any pollutants from the discharge; and
- Identify ways to address this pollutant discharge.

*Integrated Management Approach:* In order for the water planning effort to be successful, all Tribal land and natural resource regulatory and management entities must work collaboratively to determine the most efficient management structure and process for managing and protecting the Tribe’s water resources. This includes the Swinomish Utility Authority, the Swinomish Utility Commission, Planning and Community Development, the Planning Commission, the Department of Environmental Protection, Lands Management, and Environmental Policy. These entities will be engaged in this water resource planning process.

Work Plan – Milestones, Timeline, and Responsible Party: The 3-year project period will be start July 1, 2024 and end June 30, 2027. Developing a comprehensive water resources management plan and implementing an integrated water resource management process is a complex objective that requires assistance from engineering, environmental, and supply-demand experts. For this project, the Tribe will hire a project director to manage the planning process, to coordinate partner activities, to manage the contractor(s) and the negotiated deliverables, and to facilitate the development of the comprehensive water resource management plan. Professional planning, engineering, and design services will be procured in an RFP process.

<b>PROJECT WORK PLAN</b>													
Implementation Schedule - July 1, 2024 to June 30, 2027 (3 years)													
MILESTONE ACTIVITY/TASK (Y=Year, Q=Quarter, M=Month)	Resp. Party	YEAR 1				YEAR 2				YEAR 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>1. Develop a schedule of planning activities and assess the professional service needs to support planning/plan development.</b>													
1.a. Develop a schedule of activities by plan component; Y1M1	P	→											
1.b. Develop schedule of technical services that sync to the planning schedule; Y1M3	PD	→											
<b>2. Procure engineering firm to assess Utility water-wastewater systems, to update water plan, and to develop a new wastewater plan.</b>													
2.a. Issue RFP(s) w schedule of required tasks – Y1M4	PD, UD		→										
2.b. Rate engineering firm proposals; Y1M5	P		→										
2.c. Select bidder/execute contract; Y1M6	P, C		→										
<b>3. Procure engineering firm to develop stormwater and source water plan components (may be separated out).</b>													
3.a. Issue RFP; Y1M4	PD, UD		→										

3.b. Rate engineering firm proposals; Y1M5	P			→										
3.c. Select bidder/execute contract; Y1M6	P, C			→										
<b>4. Update Utility Water System Plan (WSP).</b>														
4.a. Technical assessment of Utility water system – Y1Q3 to Y2Q1	C			→	→	→								
4.b. Develop Water System Plan – Y2Q2-Y2Q4	C, UD						→	→	→					
4.c. Solicit public input.	PD									→				
<b>5. Develop the Utility’s wastewater plan component.</b>														
5.a. Technical assessment of Utility wastewater system – Y1Q3 to Y2Q1	C			→	→	→								
5.b. Develop Utility wastewater system plan component; Y2Q1-Y2Q3	C, UD						→	→	→					
5.c. Solicit public input; Y2Q4	PD									→				
<b>6. Develop the Stormwater Management and Source Water Protection plan components.</b>														
6.a. Technical assessment of stormwater management systems; YQ3-Y2Q1	C			→	→	→								
6.b. Technical assessment of source water for the Reservation; YQ3-Y2Q1	C			→	→	→								
6.c. Development of stormwater management and source water protection components; Y2Q2-Y3Q1	PD, C						→	→	→	→				
6.d. Solicit public input on both plan components; Y3Q2.	PD										→			
<b>7. Consolidate the plan components into the comprehensive plan document and present for approval.</b>														
7.a. Consolidate plan components into the comprehensive plan; Y3Q3-Y3Q4	C, PD											→	→	
7.b. Present the comprehensive plan to the Swinomish Senate for approval.Y3Q4	P												→	
<b>8. Grant and contract administration including compliance with all terms of award/contract documents, budget management, monitoring, and reporting.</b>														
8.a. Grant administration; throughout project period.	PD	→	→	→	→	→	→	→	→	→	→	→	→	→
8.b. Contract administration.	PD	→	→	→	→	→	→	→	→	→	→	→	→	→
PD = Planning Director UD = Utility Director P = Partners (Utility, Planning, DEP, Lands) C = Contractor(s)/Subcontractor(s)														

**Lessons Learned:** The planning for this project reinforced the need for internal and external communication and coordination among tribal entities and department to maximize the benefits to the tribal organization and community.

**d. Management Capacity**

*Executive Administration:* Jennifer LaPointe assumed the General Manager/Chief Operating Officer position in 2021. She is a tribal member who joined the Swinomish executive team as the Health Administrator in 2020. She brings with her more than eighteen years of management experience in the tribal arena including a dozen the top executive level. She has a BA in Psychology from Western Washington University and a MPA in Tribal Governance from Evergreen State College. She carries a number of endorsements from previous employers.

*Financial Administration:* Nicole Lewis, the Chief Financial Officer, has been with the Swinomish Tribe since July 2021. She brings with her more than 20 years of accounting experience including 8 years at the executive management level and 10 years as a tribal gaming commissioner. She has a BA in Accounting and Business Management from Western Washington University and an additional three years in the Tacoma Community College Tribal Gaming & Enterprise Management Program (LEAP). She has four auditing endorsements from previous employers.

*Grants Compliance:* Nora Pederson started as the Grants Manager for the Tribe in 2019. She has a PhD (ABD) in Anthropology from the University of Alberta, a MA in Anthropology from Western Washington University, and a MA in Religious Studies from the University of Aberdeen. Her experience base includes time as an Adjunct Professor at Western Washington University and at Western Oregon University. Nora and her compliance staff have extensive research, planning, and grants managements experience, and are familiar with funding agencies and award requirements.

*Utility Administration:* Mike Poppe has had executive level responsibility for the Swinomish Authority for 6 years as the Utility Director (UD) and Field Operations Manager. His primary responsibility is for daily operations and financial oversight. Mike has a BA in Management from Western Washington University, College of Business and Economics that is supported by more recent Process Technology credits from Bismarck State College. His experience base includes ten years in refinery operations experience and nine years of pipeline experience with a Natural Gas Distribution Company. Mike will handle subaward administration. *Utility Operations:* The Utility Director also manages field operations and supervises all administrative and maintenance staff.

*DEP Administration:* Todd Mitchell has been with the Tribe for more than 23 years – 10 years as the Environmental Director and 13 years as the Water Resources Manager. He has a MS in Geology-Geochemistry and Petrology from Washington State University and a BA in Geology/Earth Science from Dartmouth College. Mr. Mitchell's work while employed by the Tribe has been focused on the protection and enhancement of the Tribe's water resources and water-dependent natural resources. This work includes research activities in traditional ecological knowledge, tidelands, surface water, groundwater, wetlands, and salmon habitat, and development and implementation of restoration projects to advance Tribal natural resource goals. He is a member of the Swinomish Tribe.

*PCD Administration:* The Planning & Community Development Director is currently vacant. The position requires an advanced degree in Planning, Public Administration, or related field preferred and ten years of progressively responsible broad-based planning experience in local government (Tribal environment preferred), including at least five years of progressively responsible supervisory experience, including experience with functions such as land use planning, development planning, capital facilities, transportation, and regulatory administration. An equivalent combination of baccalaureate degree and fifteen years of experience in a Tribal setting may be acceptable; AICP certification is preferred.

Organizational Capacity: The tribal organization has a long and continuing history that has led to the solid administrative systems and policies that the Tribe enjoys today with more than 150 awards under management. The Finance Department uses Abila MIP Fund Accounting software and supporting policies to ensure proper and effective control over, and accountability for, all funds, property, and other assets. MIP is a fund accounting system that individually tracks and accounts for awards by: award number, awarding agency, award period, and CFDA number; authorized amounts, obligations, unobligated balances, assets, expenditures, income, and interest; and approved budget and cost categories consistent with requirements for federal awardees at 2 CFR 200. The Tribe is current with audit requirements also found at 2 CFR 200.

## **6. Presidential and Department of Interior Priorities**

This project is consistent with the Tribe's mission and Swinomish Senate priorities, the Utility's regulatory mandate, and Bureau of Reclamation goal of stretching and securing water supplies for future generations in support of the Department's priorities. Further, because the Swinomish community is a disadvantaged community and impacted by changing climate, according to the Climate and Economic Justice Screening Tool and for the purposes of the President's Justice40 Initiative, the project will enable the BOR Agency to address federal priorities relating to climate crisis and racial equity for underserved communities.

### **a. Climate Change**

Climate is a key contributor or generator of natural resource hazards in the Reservation area. In recognition of this and faced with an increasing body of evidence, the Swinomish Indian Senate issued a proclamation in 2007 directing a study of the possible effects of climate change on the Swinomish community, lands, and resources. The study was completed in 2009 in partnership with the University of Washington Climate Impacts Group (CIG) and Skagit River System Cooperative (SRSC).

The climate study identified the principal areas and resources within the Swinomish Reservation vulnerable to climate change impacts as shorelines, beaches, low-lying terrain, and forests, along with the assets within those areas. Impacts to some of these vulnerable areas are potentially high within 20-50 years, increasing through the end of the century and beyond. Other areas and resources may have moderate impacts during this timeframe. Significant among these potential impacts:

- Over 1,100 acres of Swinomish Reservation lands, or approximately 15% of Reservation uplands, are potentially at risk of inundation from increasing sea level rise, including the only agricultural lands within the Reservation, the Tribe's primary economic development lands, and sensitive shoreline areas.
- Approximately 160 residential structures are potentially at risk of inundation from sea level rise and/or tidal surge, with a total estimated value of over \$83 million.
- Approximately 18 non-residential or commercial structures are potentially at risk of inundation from sea level rise and/or tidal surge, with a total estimated value of almost \$19 million.

- Approximately 2,218 acres of uplands and over 1,500 properties are in a high risk zone for potential wildfire based on projected increase in temperatures; total value of structures and properties within this zone is estimated to be more than \$518 million. Most other areas within the Reservation are at least at moderate risk of wildfire.
- Vital transportation links and access routes to the Reservation are at risk of inundation, with the potential to isolate the Reservation from the mainland during increasingly high tidal events.
- Beach seining sites and shellfish beds along the west shore of the Reservation, areas of traditional tribal harvest, are at significant risk of permanent inundation and potential loss. Important “keystone” species such as shellfish and salmon are at risk of higher levels of contamination from algal blooms and other diseases that may be exacerbated by increased temperature and other changes.
- The Reservation population as a whole, particularly those who are ill or elderly, are potentially at risk of a variety of heat-related illnesses during isolated or extended high heat episodes as average temperatures increase, and tribal members in particular may be at risk of increased incidence of respiratory ailments such as asthma from potential increase in synergistic impacts of pollutants.
- Sensitive cultural sites within low-lying areas may face permanent inundation, and traditional native species may be lost as they are forced to migrate or adapt to hotter, drier climatic conditions.

The risk of inundation of shorelines and low-lying areas is expected to increase over the long term with gradual sea level rise and projections of more frequent and intense storm/tidal surges. Global projections of sea level rise indicate a range from lower estimates of 18-59 cm (~1-1/2 to 2 feet) by the end of the century to higher estimates of up to 55-125 cm (~2 to 4+ feet) within the same timeframe. Regional estimates of sea level rise depend on the local effects of wind patterns, atmospheric pressure, and vertical land movement caused by tectonic activity. Considering these local conditions, Mote et al. (2008) estimates regional sea level rise for the Puget Sound to span from very low estimates of 16 cm (6”) to very high estimates of 128 cm (50”) by the end of the 21st century.

Structures, roads, utilities, and other assets within nearshore or low-lying areas will be increasingly impacted by sea level rise and tidal surge events to the extent that adaptation measures will not be available or able to forestall, protect against, or prevent such impacts.

Based on projections of potential sea level rise and tidal surge, risk zones were mapped for the Reservation, and an inventory of properties and improvements within these risk zones identified almost 200 properties potentially at risk, including residential structures and non-residential facilities. Any revenues generated from leasing or other commercial activity on these properties would also be at risk of loss. Low-lying agricultural and shellfish areas could ultimately be lost entirely, and primary economic development land could be significantly impacted.

Certain impacts also carry potentially significant secondary consequences as well, such as inundated access routes causing isolation of the Reservation from the mainland, or inundation of low-lying development zones affecting or preventing implementation of critical economic development projects. Such secondary consequences have the potential to extend impacts to the

entire Reservation population and stress the ability of Tribal and other governmental entities to respond.

Forested areas and resources are projected to experience different but equally significant impacts. Annual mean temperature is projected to increase in the northwest by up to 3-4°F by 2040 and perhaps as much as 7-8°F by the end of the century (DOE, 2006; CIG, 2009). Gradually increasing average and summer temperatures will decrease moisture content in soils and vegetation and increase the potential for devastating wildfire throughout forested areas of the Reservation, but with potentially greatest impact in the urban/forest interface.

Other impacts on forest resources include increasing drought stress with rising temperatures, and an associated proliferation of drought-tolerant species such as fir and decline in drought-susceptible species such as western red cedar. Changes in the species composition of large trees could also be accompanied by a shift in understory species and ground vegetation, potentially resulting in the loss or migration of certain native plants. Additionally, higher temperatures are projected to create a more suitable environment for the spread of forest pests and diseases, such as bark beetles and various fungi that would previously have been suppressed by colder winters.

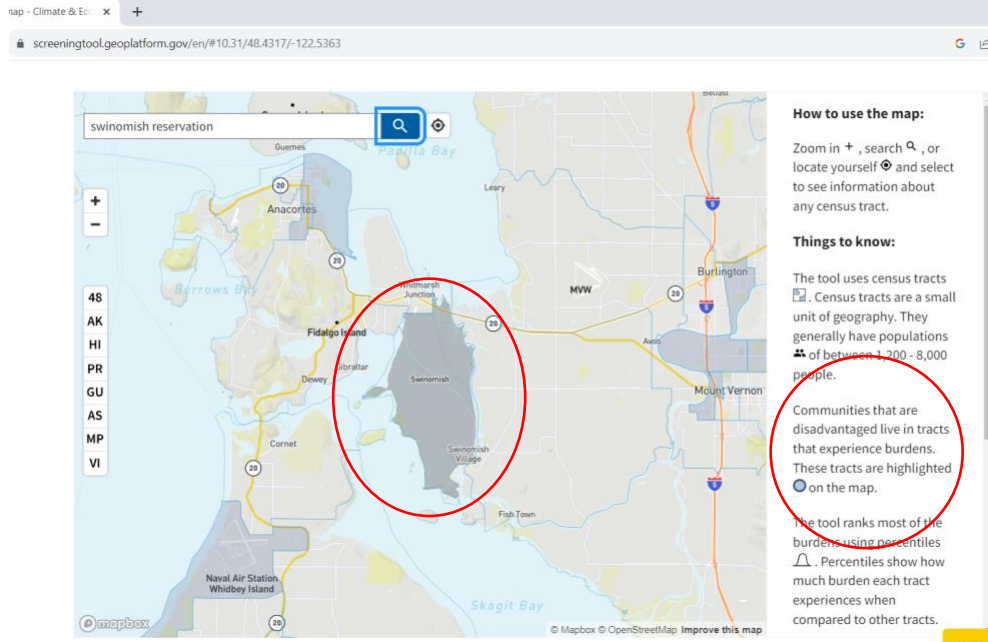
Other significant or notable impacts include effects on public health, marine resources, and cultural resources. Increasing temperatures are projected to impact human health in numerous ways; heat stress will have a variety of impacts on the general population, as already seen in some parts of the globe, and rising temperatures will create a more suitable environment for pathogens and their vectors that is not normally prevalent in a colder regime.

Likewise, rising ocean acidity and shifts in tidal zones will put additional stress on near-shore marine resources such as shellfish and viable habitats. Cultural resources may be impacted both positively and negatively by tidal inundation. Gradual sea level rise will increasingly submerge nearshore or low-lying buried artifacts and sites, both protecting them and making investigation more difficult, while strong storm surges may uncover some sites or artifacts, rendering them vulnerable to weathering and tampering. Cultural use areas may be impacted by either inundation in near-shore or low-lying areas or by wildfire in forested areas, rendering them unusable in either case for some extended period of time.

b. Disadvantaged or Underserved Communities

The Swinomish Reservation is identified as disadvantaged on the Federal Government's Climate and Economic Justice Screening tool. The website make the following "Note on Tribal Nations: To respect Tribal sovereignty and self-government and to fulfill Federal trust and treaty responsibilities to Tribal Nations, land within the boundaries of Federally Recognized Tribes are designated as disadvantaged on the map. Alaska Native Villages are included as point locations that are smaller than a census tract. The boundaries of census tracts and the lands of Federally Recognized Tribes are different. This decision was made after meaningful and robust consultation with Tribal Nations. This is consistent with CEQ's Action Plan for Consultation and Coordination with Tribal Nations, President Biden's Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Consultation, and Executive Order 13175 on Consultation and Coordination with Indian Tribal Governments."





## 7. Request for Waiver of Cost Share – Disadvantaged Community

With this application, the Swinomish Tribe and Tribal Utility are requesting a cost share waiver. The Swinomish Community is a disadvantaged community and without a waiver, the Tribe and the Utility will not be able to proceed with this project.

## 8. Nexus to Reclamation

The proposed planning project is not in proximity to any Reclamation project.

## G. BUDGET NARRATIVE

Planning Application for \$400,000 to develop an Integrated Water Resource Management Plan. The planning project will require extensive engineering and other professional service support. We believe that the plan will have to be completed in phases dependent on the Tribes ability to capture external funding. Again, a reminder that the Tribe will be requesting a cost share waiver.

**Table 1. —Summary of Non-Federal and Federal Funding Sources**

<b>FUNDING SOURCES</b>	<b>AMOUNT</b>
<b>Non-Federal Entities</b>	
1. Cost Share Waiver Requested	\$0
2.	\$
3.	\$
<b>Non-Federal Subtotal</b>	\$0
<b>REQUESTED RECLAMATION FUNDING</b>	\$400,000

The following table details the line item costs.

<b>Table 2 - WaterSMART Planning/Strategy Development Budget &amp; Cost Descriptions</b> <b>Budget Period: July 1, 2024 and end June 30, 2027</b>					
<b>Cost Category</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total Project</b>	<b>Cost Description/Calculation</b>
Personnel					
Project Director	\$25,500	\$25,500	\$25,500	\$76,500	0.3 FTE at \$85,000/yr - mid-range for PDs in the Construction Div.
PD Fringe	\$5,100	\$5,100	\$5,100	\$15,300	20% covers retirement, life insurance, ST and LT disability, accrued sick/annual leave, workers comp, SUTA/payroll, and EAP benefits; varies based on selected coverages;<30 hrs/wk not eligible for health insurance
Total Personnel	\$30,600	\$30,600	\$30,600	\$91,800	Personnel Cost Base for Indirect Rate
Indirect	\$9,036	\$9,036	\$9,036	\$27,108	29.53% applied against Personnel Cost Base of \$91,800
Contract	\$281,092				Professional services to support development of the integrated water resources management plan and its subcomponents - Phase 1 WSP update
Federal Request	\$320,728	\$39,636	\$39,636	\$400,000	Total Budget Phase 1