

Enhancing Environmental Benefits: Dungeness Reservoir Irrigation Conveyance Improvement Project



December 2021

Applicant: Clallam County Public Works Department

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APPENDICES

Appendices Submitted as Attachments in Workplace Portal (grants.gov)

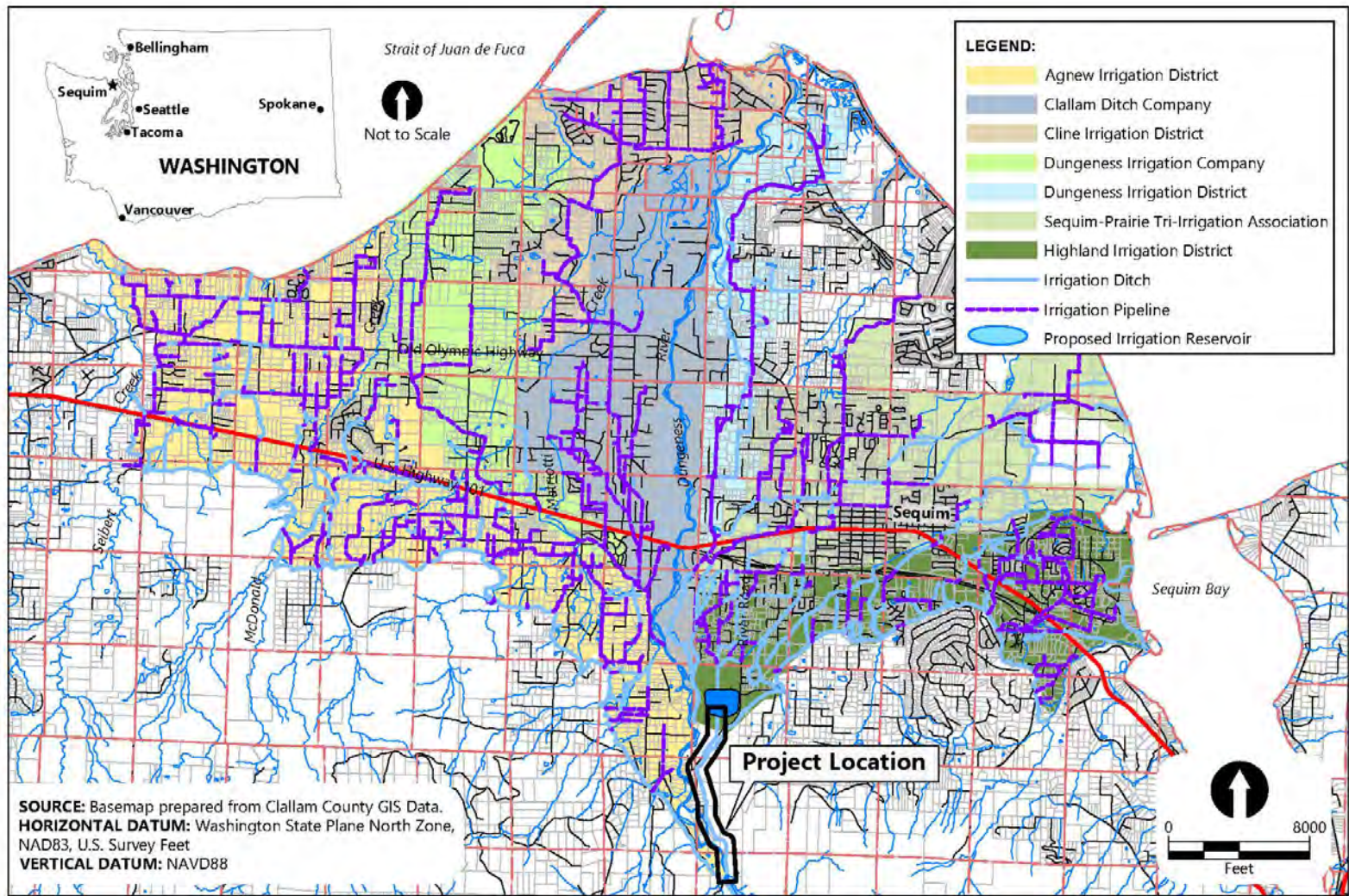
1 Technical proposal and evaluation criteria

1.1 Executive Summary

The *Enhancing Environmental Benefits: Dungeness Reservoir Irrigation Conveyance Improvement Project* is located within Clallam County, near Sequim, WA in the Dungeness Basin (WRIA 18). Clallam County, in collaboration with project partners (Clallam Conservation District, Dungeness Water Users Association, Jamestown S'Klallam Tribe, Sequim, Washington Department of Ecology, Washington Department of Fish and Wildlife, and Washington Water Trust), seeks to implement this project to improve instream flows and habitat in the Dungeness River. Clallam County is a Category A applicant. The Dungeness River supports ESA-listed Puget Sound Chinook, Puget Sound Steelhead, Hood Canal/Strait of Juan de Fuca Summer Chum, and Bull Trout; however, populations have been in decline and drought conditions in the late summer have impacted migration and spawning habitat. This project supports basin wide efforts to pipe and update irrigation systems to reduce irrigation water diversions and increase streamflow and habitat benefits. Highland Irrigation District (HID) provides irrigation water from the Dungeness River to 995 acres from mid-April to mid-September and stockwater year-round. Increasing irrigation conveyance efficiencies has immense potential to restore instream flow in the Dungeness. The project would pipe 2,900 feet of open canal resulting in an estimated savings of 300 acre-feet/year (afy). Additionally, efficiency of the irrigation system will be improved through the installation of an automated headgate at the intake and upgrading a flow control structure at an irrigation split which will allow for responsive management based on water demand. These water savings and efficiencies would benefit the lower 11 miles of the Dungeness River, starting from the HID diversion. Other project components that will contribute to enhanced environmental benefit include the replacement of the existing fish screen at the irrigation diversion, reducing fish mortality, and the construction of a settling basin which will improve irrigation water quality through the removal of suspended solids. This proposal requests funding support from the WaterSMART grant program for permitting and construction of the project. The estimated cost to permit and construct the project is \$2.418 million. Project permitting will start in 2022, with construction projected to begin in 2023 and be completed early in 2024. Furthermore, this project is an important and required component of the Dungeness River Off-channel Reservoir which will restore 20-25 cubic feet per second (cfs) of flow by serving as an alternative irrigation water source during the late summer.

1.2 Project Location

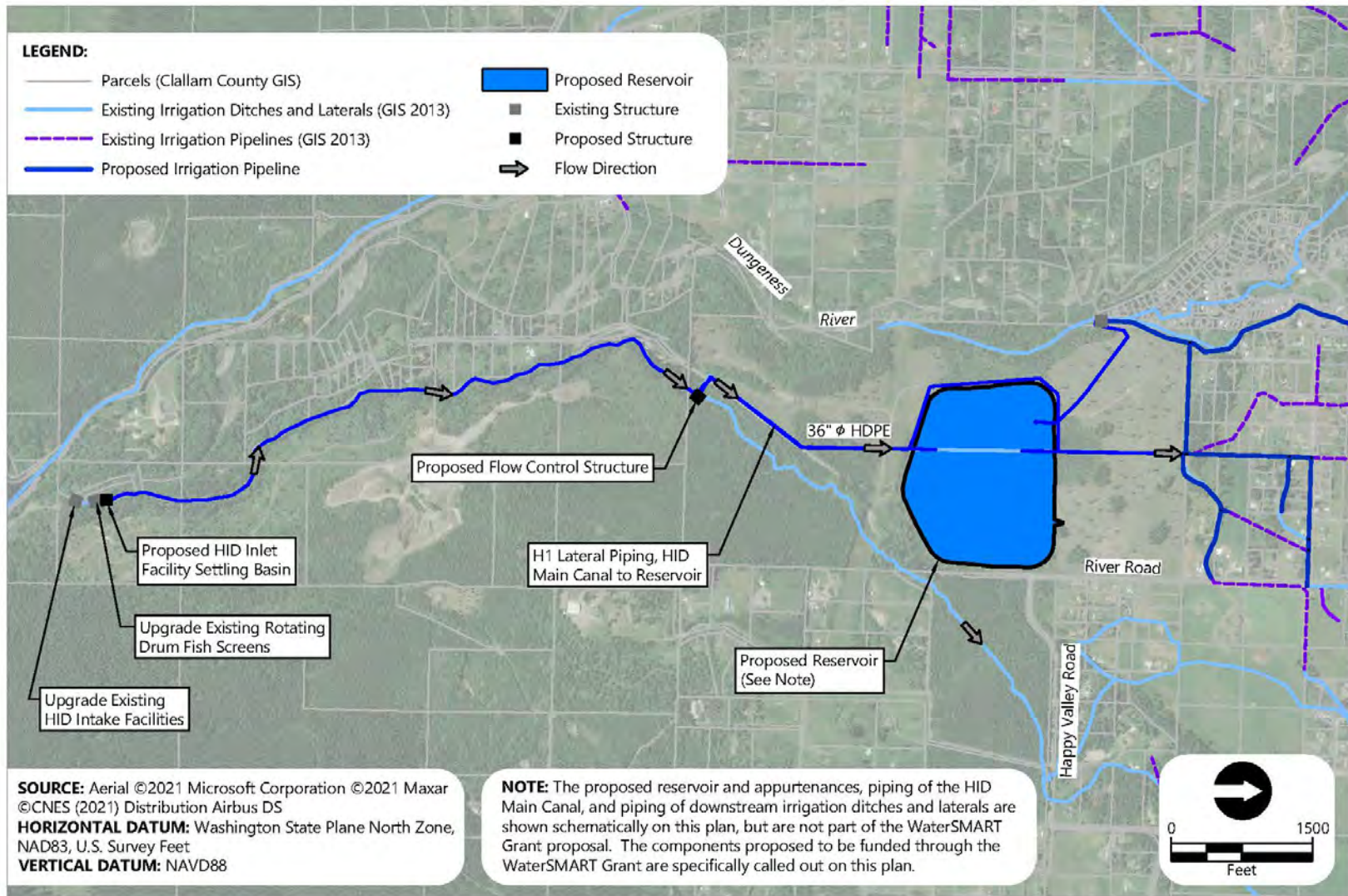
The Dungeness Reservoir Irrigation Conveyance Improvement Project is located in Washington State on the Olympic Peninsula about 3 miles southwest of Sequim, within Clallam County, as shown in Figure 1. The project includes several components in the existing HID system (see Figure 2). The intake and headgate components are located at 48° 1.546'N, 123° 8.211'W and the end of the H1 Lateral (downstream end of the project) is at 48° 3.002'N, 123° 8.419'W.



Publish Date: 2021/12/09 11:20 AM | User: tgriga
 Filepath: K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\1439-WSMART-001 (Location Map).dwg Figure 1



Figure 1
Location Map
 WaterSMART Grant Proposal
 Dungeness Reservoir Irrigation Improvement Project



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 Filepath: K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\1439-WSMART-002 (Improvement Plan).dwg Figure 2



Figure 2
Overall Improvement Plan

WaterSMART Grant Proposal
 Dungeness Reservoir Irrigation Improvement Project

1.3 Technical Project Description

There are four elements of the conveyance improvement project which are described in detail below.

H1 Lateral Piping

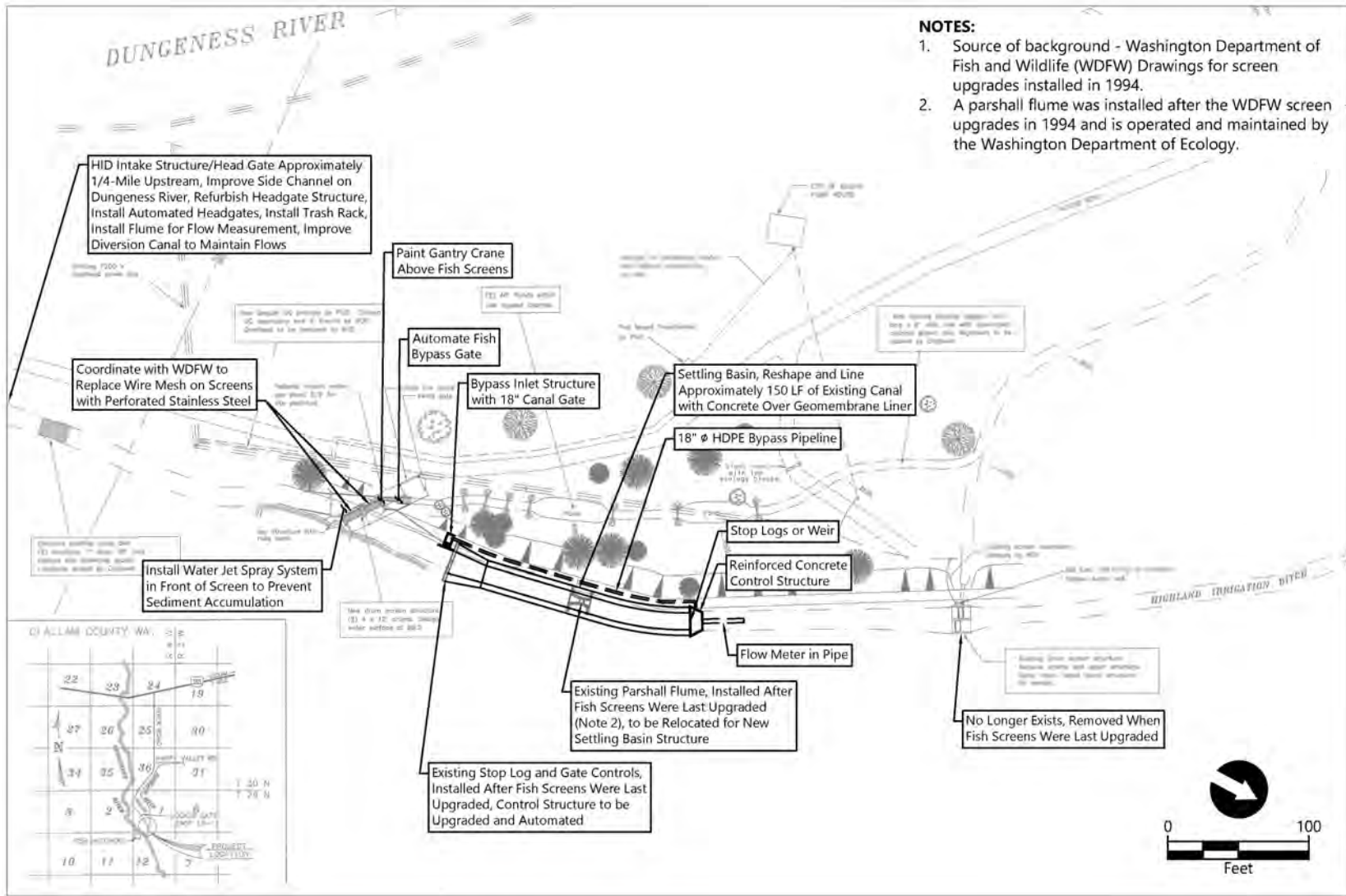
This project component would replace currently unlined ditch, referred to as the HID H1 Lateral, with a pipeline that will convey water to downstream water users and eventually connect to the Off-channel Reservoir when it is constructed. The pipeline would consist of approximately 2,900 feet of 36-inch diameter HDPE pipe buried in the current H1 Lateral alignment.

Flow Control Structure on Highland Irrigation District Canal

This project component includes construction of a flow control structure on the HID Main Canal at the upstream end of the H1 Lateral pipeline. The structure would be reinforced concrete with two control gates. One gate will control flow to the H1 Lateral pipeline and the second will control flow to the main canal. The gate controls will be motorized and automated to provide precise control of flow in the HID Main Canal (to capture flow in excess of downstream requirements, reducing tailwater) and control the flow of water to the H1 Lateral pipeline and proposed Off-channel Reservoir.

HID Intake and Fish Screen Facility Improvements

Water is diverted to the HID delivery system through a headgate structure on the right (eastern) bank of the Dungeness River. This project component entails replacement of the existing HID intake headgate with a motorized and automated slide gate that will allow more precise control of flow to the fish screen and HID main canal. An automated gate will also be installed in a second gate bay that is currently sealed off to increase the capacity of the headgate structure. For flow measurement and control, a Parshall flume will be installed downstream of the headworks that will provide flow data to the controls for the intake gates. The intake controls will include remote operating capability allowing quicker responses to changes in irrigation demand. Other work includes repairs to the existing concrete headwall and addition of a debris rack. Downstream of the intake, the existing wedge-wire fish screen material will be replaced with stainless steel perforated plate and a sediment flushing system (pump, nozzles) will be installed to prevent sediment from settling against the screens. Figure 3 shows the proposed HID intake and fish screen facility improvements.



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 Filepath: K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\1439-WSMART-003 (HID Intake).dwg Figure 3



Figure 3
Schematic Plan - HID Intake and Screening Facility Upgrades

WaterSMART Grant Proposal
 Dungeness Reservoir Irrigation Improvement Project

HID Inlet Facility Settling Basin

This project component includes construction of a settling basin to remove suspended sediment that would be diverted by the intake as it will be operating during winter and spring when medium to high flows occur that have a greater suspended sediment concentration than when it currently operates. The basin would be constructed by excavating a long and wide area (approximately 150x10 feet) within the existing canal. Velocities would be controlled by a downstream check structure which would have a gate or stoplogs. The basin will also have a sump constructed that will be about 2 feet deep to help capture sediment. A pipe bypass system will be installed to allow water to bypass the basin when the basin needs to be cleaned or maintained. Figure 3 illustrates the proposed configuration and location of the HID inlet facility settling basin relative to intake and screening facilities.

1.4 Performance Measures

The primary performance measure that will quantify the actual benefits is the flow diversion into the HID canal and its change from past year diversions. Currently HID, in cooperation with the Washington Department of Ecology, measures flow using a Parshall flume located downstream of the fish screens. Real-time flow diversions are reported on-line at <https://apps.ecology.wa.gov/continuousflowandwq/StationDetails?sta=18A050>. Measurement and reporting of flow into their canal will continue and a comparison of those flows against past year flows will be performed to estimate water savings. An additional measuring flume will be installed upstream of the fish screen at the intake, which will record flows diverted from the Dungeness River and when compared to the Parshall flume measurements provide the fish screen bypass flow. This feature is important to optimize flow and habitat conditions in the fish screen bypass channel, which returns fish back to the river.

Secondary performance measures will include periodic measurement of water quality at the inlet facility settling basin and inspection of the fish screen. Water quality measurements will consist of suspended sediment or turbidity measurements taken at the outlet of the settling basin and will be compared to measurements taken at the river intake to determine the settling efficiency of the basin. Fish screen inspections will be performed by Washington Department of Fish and Wildlife (WDFW) to ensure proper operations, including reviewing bypass flow settings, sediment accumulations and condition of the new fish screen material.

1.5 Evaluation Criteria

1.5.1 E.1.1. Evaluation Criterion A—Project Benefits (35 points)

1.5.1.1 E.1.1.1. Sub-Criterion A.1—Benefits to Ecological Values

Enhancing Environmental Benefits: The Dungeness Reservoir Irrigation Conveyance

Improvement Project will improve instream flows and habitat conditions for ESA listed Salmonids in the Dungeness River as a result of more efficient use of irrigation water. In addition, irrigation water quality for the existing HID infrastructure will improve. Water savings

and system efficiencies will be demonstrated by piping of 2,900 feet of the HID H1 lateral irrigation ditch, constructing a flow control structure where the H1 Lateral splits from HID's main canal, and installing an automated headgate at the intake point of diversion. Further ecological benefits from this project will be achieved by updating the existing fish screen to reduce fish mortality. Installation of water jets and modifications to the channel upstream and downstream of the fish screen will reduce the potential for sediment to accumulate at the screen and ensure that the screen operates efficiently to prevent fish from entering the HID Main Canal. Water quality benefits will occur by reducing fine sediment entrained in the irrigation diversions which would otherwise be pumped out by irrigators or discharged to small streams. Fine sediment accumulation in streams can affect salmonid spawning by filling spaces between gravels, reducing oxygen to redds. In addition to these ecological benefits, this improvement project is an essential component to the Dungeness River Off-channel Reservoir, a project being developed to store water diverted during the winter and early spring to supply irrigation demand during the late summer. Water supplied by the Off-channel Reservoir during the late summer will allow for a reduction of diversions that will keep 20-25 cfs of flow instream for the last month of the irrigation season. The Off-channel Reservoir will be filled by conveying water through the HID Main Canal and the H1 Lateral.

The Dungeness River provides critical habitat for four ESA-listed fish species: Puget Sound Chinook, Puget Sound Steelhead, Hood Canal/Strait of Juan de Fuca Summer Chum, Bull Trout, and numerous other aquatic and terrestrial species. Stream flows in the Dungeness River derive from precipitation and snowpack in the Olympic Mountains, which decline throughout the summer as the snowpack melts, typically reaching its lowest levels mid-August through September –the same time that human and salmon freshwater needs are at their greatest. During this annual period of low flow, local agricultural irrigators can withdraw as much as half of the river's flow, which reduces the amount of cool water and habitat available to migrating, spawning, and rearing ESA-listed fish and can contribute to fish stranding and upstream fish passage challenges as well as dangerously high water temperatures.

Aside from federally reserved water rights held by the Jamestown S'Klallam Tribe, the largest and most senior water rights in the basin belong to the Dungeness irrigators. For more than a century the Dungeness Valley has been irrigated with water directly from the Dungeness River. In the last 25 years, resource managers have worked closely with water users and other stakeholders to implement projects aimed at increasing water use efficiency during the late summer low flow period in the Dungeness to improve water resources management in the watershed. This project compliments basin wide efforts to pipe and update irrigation systems to reduce irrigation water diversions in perpetuity, thus keeping more water instream for

endangered salmonid species. An immediate benefit to fish species will also be realized by upgrading the current fish screen material from a woven wire mesh screen to a stainless steel perforated plate screen. In addition, improvements to the channel upstream and downstream of the fish screen and installation of a water jet system at the fish screen will reduce deposition of sediment at the screens and ensure that they can operate with reduced maintenance to prevent fish from entering the HID Main Canal. The upgraded fish screen facilities will be designed to meet the most current requirements from Washington Department of Fish and Wildlife.

The Dungeness River supports competing demands for water resources. Instream flows support ESA listed species, irrigation demands, recreation, and continued residential development within the Dungeness Watershed. This ecological and agricultural improvement project will have multiple water use benefits. In addition to the instream ecological benefits, this project will support agricultural water use by improving irrigation management and through the construction of a settling basin, which will improve irrigation water quality for agriculture serviced by HID. More efficient irrigation management will be achieved by automating the diversion headgate for greater reliability and safety. Upgrading the flow control structure will improve control of the distribution of water to both the H1 Lateral and the main canal.

1.5.1.2 E.1.1.2. Sub-Criterion A.2—Quantification of Specific Project Benefits by Project Type

Water savings for the project will result from piping the H1 Lateral and by improving flow management into and within the HID system. Water savings from reduced seepage was estimated using the results of water conservation studies performed on Dungeness irrigators. The “Irrigation Ditch Leakage Assessment Project” (MWG, 1993) summarized flow measurements on irrigation ditches. Although this reach of the H1 Lateral was not studied, a downstream reach of the lateral had seepage losses measured, and nearby ditches in the same geologic formation (Quaternary Older Alluvium) were also measured. The other ditches had similar physical conditions, unlined but in existence for decades, which allows for some sealing of the ditch bottom. The average seepage loss among five ditches in the same geologic formation is 10%. The H1 Lateral typically conveys 4-6 cfs during the irrigation season (Ben Smith-President of HID, pers. comm, 2021) leading to an estimated 0.5 cfs seepage loss. Over the 5-month irrigation season, the total water savings are estimated to be 150 acre-feet. HID also diverts stockwater during the off-season (mid-September to mid-April). The flow in the H1 Lateral during the off-season is between 0.5 to 1.0 cfs, based upon field observations. The water loss is estimated at 0.05 to 0.1 cfs, based upon the efficiency measurements described above. The water saved during the off-season is estimated to be at least 20 acre-feet. However,

Dungeness River flows during the off-season are not as much a concern for fish and the water savings and have not been included as a benefit in this application.

Water savings will also result from the improved ability to control flow at the intake and at the flow control structure on the HID canal. The Comprehensive Irrigation District Management Plan (HDR, 2006) provided estimates of spills from the HID canal. The average spill from the HID canal system was estimated to be 2.0 cfs. Estimating water savings from changes in water management is difficult, so a conservative estimate of water savings is being used for this application. The estimate is 0.5 cfs, or 150 acre-feet/year.

The total estimated water savings from the projects contained in this application is 1.0 cfs and 300 acre-feet/year during the irrigation season. These projects when constructed would also benefit the proposed Off-channel Reservoir, which would provide an additional 20-25 cfs water savings (1,600 acre-feet) in late summer.

The Dungeness Basin is unique among western river basins with extensive irrigated agriculture in that seepage and return flows from irrigation generally do not return to the river. Instead, seepage and return flows will feed small creeks, most of which flow directly into the saltwater body of Strait of Juan de Fuca. Flow restoration in the Dungeness River is the ecological priority for instream flows in the Basin, so emphasis is placed on improving efficiency for irrigation systems at the diversion and in conveyance to result in instream flow benefit to the Dungeness River. Seepage and return flows from the conveyance systems are not providing habitat to ESA listed fish and wildlife.

As stated above, implementation of this project will decrease the HID diversion by an estimated 1.0 cfs due to increasing system efficiencies related to piping the H1 Lateral and by inlet facility improvements and improving the flow control structure lower in the irrigation system. The water saved will remain instream in the Dungeness River and benefit from river mile 11 to the river outlet. In the late summer when instream flows in the Dungeness can reach critical lows, every cfs that remains instream can have a positive impact on improving impaired salmon habitat.

HID is a member of the Dungeness Water User's Association (DWUA), a collective of seven irrigation districts and companies that have provided irrigation water throughout the valley for more than 120 years. They have a rich history of both agriculture and conservation in this basin. For decades they have worked with Clallam Conservation District to improve their conveyance system through piping projects and continue to work collaboratively with Jamestown S'Klallam

Tribe, Washington Ecology, Clallam County, Clallam Conservation District, City of Sequim, Washington Water Trust, and Washington Fish & Wildlife to develop other sustainable water management solutions. While each of the Dungeness irrigation districts and companies have distinct priority dates associated with their water rights, they effectively manage them with a shared priority date, meaning during times of shortage each diversion is curtailed equally rather than in proportion to their priority date. The umbrella organization, the DWUA, also holds an agreement with Ecology to take no more than 50% of the flow at any given time. With these provisions in place as well as a lack of small downstream diversions, saved water can be assured to stay instream when and where it is needed most. This improvement project is in line with HID's desire to support water conservation efforts in the basin.

Project Benefits for Drought Resiliency Projects Related to Fish and Wildlife

This improvement project has the potential to make up to 300 afy available in the lower 11 miles of the Dungeness River throughout the irrigation season from April 15 – September 15 in perpetuity due to the project components detailed above. The conveyance improvements from this project are a critical Dungeness River Off-channel Reservoir project, which is being developed in tandem with the improvement project in this funding request. Although this improvement project will have standalone water savings, the Off-channel Reservoir is expected to significantly improve instream flows during the last month of irrigation season by eliminating the need to divert 40-50 acre-feet per day from the river. This savings represents restoration of 20-25 cfs of stream flows (up to approx. 50% of low flows which dropped to 56 cfs in 2015) and will result in weighted usable habitat area increases of 10% to 35% for juvenile bull trout, juvenile steelhead, juvenile Chinook, adult Chinook, spawning Chinook and spawning pink salmon (Dungeness IFIM, 1991). In addition to the habitat area improvements, increased flows will benefit in the form of cooler water, improved water quality, and reduced threat of impassable barriers. The restoration benefits will be realized most significantly in late summer (Aug-Sept) when flows are at their lowest, and both fish and human water needs are at their highest.

The Dungeness River, which this project is designed to benefit, provides habitat for four ESA-listed fish species: Puget Sound Chinook, Puget Sound Steelhead, Hood Canal Summer Chum, and Bull Trout as well as NMFS Species of Concern Puget Sound Coho. Dungeness River stocks of Chinook salmon and steelhead numbers have decreased significantly over the past 150 years from 8,000 fish annually in the 1850s (Puget Sound Salmon Recovery Plan, 2006) to less than 1,000 fish annually (Jamestown S'Klallam Tribe data, 2020) and 5,900 fish annually to approximately 600 fish annually (ESA Recovery Plan for Puget Sound Steelhead, 2019)

respectively. Because stream flows in the Dungeness River derive from precipitation and the snowpack in the Olympic Mountains, the river flow naturally declines throughout the summer as snowpack melts. However, drought conditions are becoming more common and have occurred in four out of the last seven years. Irrigation withdrawals exacerbate low flows during these climate events and severely decrease available habitat and increase water temperature for migrating, spawning, and rearing ESA-listed fish and can contribute to upstream fish passage challenges.

Late summer low flows are a primary limiting factor to habitat in the Dungeness River Flows fueled by snowmelt decline over the summer often reaching critically low levels in late summer. Exacerbating these conditions are the impacts of climate change in the basin, where it is anticipated the Dungeness will move from snow/rain mixed precipitation to rain dominant with the peak flow shifting from late May to late January by the 2050s (Mauger et al., 2015). The impact of extreme future conditions was previewed in 2015, when the Dungeness River flow plummeted to a record low 56 cfs in August, far below minimum target flow (105 cfs). The 2015 flows were insufficient to support returning salmon and required physical movement of rocks and boulders to accommodate upstream migrating fish.

Project Benefits for Watershed Management Projects

This project will have both instream and agricultural water quality benefits. Increasing instream flows by 300 acre-feet will help contribute to decreasing water temperatures that stress salmonids during migration. Irrigation water quality will also be improved by constructing a settling basin that will remove suspended sediment that would be diverted by the intake and by piping 2,900 ft of open ditch irrigation canal, this will eliminate runoff from entering that part of the system.

One of the primary causes of Dungeness salmon and steelhead decline is habitat loss; more specifically, the loss of streamflow, floodplains, and natural river function. Low river flows in the late summer contribute to floodplain disconnection, high water temperatures, and fish migration blockages. With frequency of drought conditions predicted to increase, projects that leave more water instream during the late summer are critical for ESA listed salmon species and are increasingly important. As a standalone project, the addition of 300 acre-feet from this improvement project will contribute to sustained Dungeness River flows from April 15 – September 15.

This project is a critical piece for the Dungeness Off-channel Reservoir project, which has the potential to restore significant river flows in the Dungeness during the late summer, fish critical period. The 20-25 cfs of increased flow will result in weighted usable habitat area increases of 10% to 35% for salmonids, and aid in the recovery of ESA-listed fish. The Off-channel Reservoir will benefit floodplain restoration projects along the lower reach of the Dungeness by increasing surface water-side channel connection and groundwater connectivity via surface water-groundwater exchange. Additional project benefits include climate-resilient water security for local agriculture, flood hazard reduction, aquifer recharge, and a new county park.

Project benefits for multi-benefits projects

This project will be a win-win for many water focused organizations within the Basin committed to sustainably managing water resources and improving Dungeness River conditions. The improvements to the HID irrigation system will result in 300 AFY remaining instream, benefitting fish and wildlife, while also contributing to improved safety of operations at the diversion.

Currently, HID must manually adjust the headgate to manage withdrawals based on water demands resulting in 3-4 site visits weekly. Automation of the headgate will eliminate the need for this visit frequency and updates will improve overall safety of operations. The piping of the H1 Lateral will increase safety for community members who recreate in the area where the lateral is located to take advantage of biking and walking trails. The site of the proposed Off-channel Reservoir is already used for recreation; however, the completion of the Off-channel Reservoir site plan will result in a new County Park, which will make this outdoor area more accessible for all community members to enjoy.

The Dungeness River basin is located in the Olympic Rain Shadow where the mountains act as a barrier that trap precipitation events from reaching the Sequim area. While other regions of the Olympic Peninsula receive the largest amounts of rainfall in the state, Sequim receives an annual rainfall of about 16 inches/year. Less annual rainfall means that agriculture in the area depends heavily on Dungeness River withdrawals for crop irrigation, especially during the late summer as temperatures rise. This unique environment can create potential for water conflict, and groups in the area have been working towards balanced solutions for decades to reduce conflict surrounding agricultural and domestic water demands and its impact on instream flows. This project would support those continued efforts that prioritize protecting and conserving river flows throughout the year to support salmonids and other wildlife, while also

ensuring irrigation use continues. Projects such as this will reduce the potential for future water conflicts in the watershed.

1.5.2 E.1.2. Evaluation Criterion B—Collaborative Project Planning (25 points)

Irrigation improvement projects have broad local support in Clallam County and underpin local/regional recovery objectives. This project aligns with strategies outlined in the Elwha Dungeness Watershed Plan (2005) and Comprehensive Irrigation District Management Plan (2006).

Elwha Dungeness Watershed Plan (2005)

Plan Link: <http://www.clallam.net/environment/elwhadungenesswria.html>

Relevant Section(s): 3.1.8 Irrigation Water Management, 3.13 Dungeness River and Tributaries Recommendations

Developed in 2005, the Elwha Dungeness Watershed plan provides comprehensive assessment and recommendations for local watershed planning and resource management concerning water quantity. As stated in the plan, assessment involved is “closely tied to planning for other water and watershed resources, including salmon recovery, local land use planning, water system planning, stormwater management, and a host of other federal, state, regional, and local laws, regulations, and planning initiatives.” Issues addressed in the plan include water quantity, water quality, habitat, instream flows, stormwater, land use and management, education and outreach, and watershed management. The recommendations and strategies of the watershed plan are extensive, relevant strategies include protecting instream flows and continuing irrigation water management.

The Elwha Dungeness Watershed plan was prepared collaboratively under the direction of the Clallam County (lead agency), City of Port Angeles, Jamestown S’Klallam Tribe, Lower Elwha Klallam Tribe, and the Agnew Irrigation District. For the east side of WRIA 18, where this project will be located, the Dungeness River Management Team (DRMT) was designated by the above initiating governments to execute watershed planning efforts. The DRMT is described as “a partnership of individuals and stakeholders who are working together to develop and pursue implementation of locally based, long-term solutions to Dungeness Watershed management issues.” At the time voting members with diverse interests included representatives of Clallam County, Jamestown S’Klallam Tribe, Sequim-Dungeness Valley Agricultural Water Users Association including the HID, Clallam Conservation District (advisory), Washington Department

of Fish and Wildlife, Puget Sound Action Team, City of Sequim, Washington Department of Ecology, Riverside property owners, Protect the Peninsula's Future, North Olympic Land Trust DQ planning process, Sports fishers, and United States Forest Service (advisory). The final plan was the results of collaborative and consensus-based decision making with input from all stakeholders, an approach that was developed through extensive planning in open public meetings, outreach, and engagement from the identified entities.

The watershed plan section *3.1.8.D Irrigation Water Management* states that the management of water withdrawals should be reduced to improve water quantity in the Dungeness: "Identify and implement measures for reduction and management of water withdrawals between August 15 and October 15." The need for the irrigation withdrawal reductions in the Dungeness is stressed in section *3.13 Dungeness River and Tributaries Recommendations* which states that "The Limiting Factors Analysis..., found that the primary fish access concern in the mainstem Dungeness River is that low stream flows during late summer/early fall impede adult salmon migration and decrease usable juvenile habitat in more than 9 miles of river (PSCRBT 1991, Lichatowich 1990, Orsborn and Ralph 1992). As the rate of flow is artificially lowered in August and September, the potential for development of barriers to upstream passage caused by shallow riffles is increased, preventing adult pink and chinook from reaching preferred spawning grounds (Wampler and Hiss 1991)." This project will follow the Watershed Plan's water quantity recommendation by reducing the HID diversion by 1.0 cfs through irrigation system upgrades.

Comprehensive Irrigation District Management Plan (2006)

Plan Link: <https://app.box.com/s/7lvfzqbjire3h59qglgvip23qourr9h6>

Relevant Section(s): Section 6 Habitat Conservation Measures and Water Quality Actions

The Comprehensive Irrigation District Management Plan (CIDMP) was prepared in 2006. The CIDMP provides an in-depth review of irrigation facilities, detailing their operations and needs and assesses their impact on fish habitat and water quality. This plan provides recommendations that will lead to higher instream flows during the irrigation season, while still focusing on sustaining water supply to meet irrigation needs.

CIDMP development was led by the Dungeness Water User's Association (DWUA), a group formed to coordinate water conservation and water resource management associated with irrigation in the Dungeness Valley. The DWUA, which represents the seven irrigation districts and companies that divert primarily from the Dungeness River, worked closely with a technical advisory team formed at the onset of the planning process to guide and provide input to the

final plan. The technical advisory team was comprised of local and state water management and regulatory entities including Jamestown S’Klallam Tribe, Clallam County Natural Resources Division, Clallam Conservation District, Washington State Dept. of Fish and Wildlife, Washington State Dept. of Ecology, Washington State Water Resources Association, National Oceanic and Atmospheric Administration – Fisheries, Graysmarsh, Washington State Dept. of Agriculture, and U.S. Fish and Wildlife Service. This plan was developed by the DWUA but is applicable for the County’s application as it is an irrigation efficiencies and improvement project.

The CIDMP strategy to improve instream flow and habitats through irrigation efficiency and management projects directly supports what this project aims to achieve. In the plan, Habitat Conservation Measure (HCM) 1 states that reducing diversions from the Dungeness River through pipelining and other actions is a priority, and HCM 4 notes the need to “Modify headgate on Highland District’s diversion facilities on the Dungeness River.” This project will contribute to HCM 1 and satisfy HCM 4.

1.5.3 E.1.3. Evaluation Criterion C—Stakeholder Support (15 points)

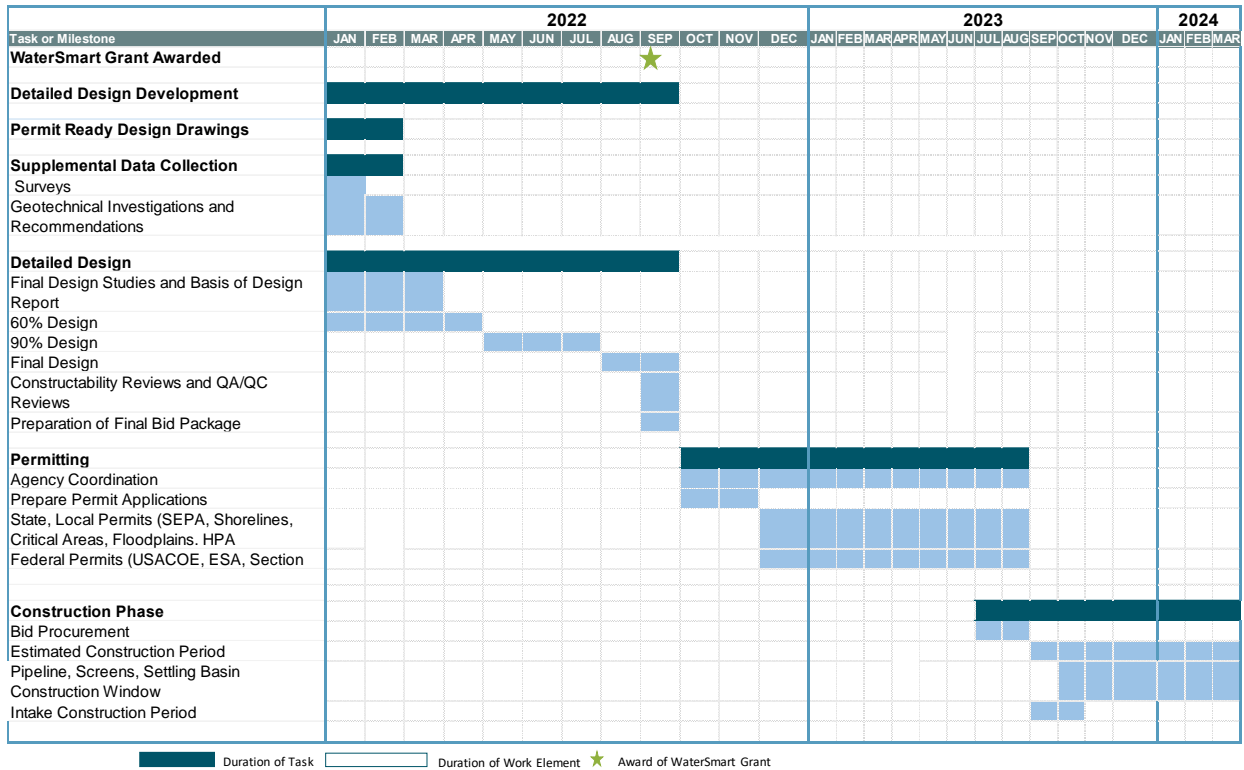
This project has broad support in Clallam County and aligns with local and regional recovery objectives. A collaborative team, the Dungeness Off-channel Reservoir Working Group (DRWG), has convened since 2014 to discuss components of this project and the larger Off-channel Reservoir project. Group members are engaged in water management, habitat and species recovery, and regularly meet in-person and virtually. Members include: Clallam County, Clallam Conservation District, Dungeness Water Users Association (including HID), Jamestown S’Klallam Tribe, Sequim, Washington Department of Ecology, Washington Department of Fish and Wildlife, and Washington Water Trust. Clallam County serves as the Off-channel Reservoir project lead and members are involved in each step of the decision-making process and provide guidance and recommendations on related projects. Letters of support have been provided by members of the DRWG for the larger Off-channel Reservoir project, and Clallam Conservation District, Highland Irrigation District, Jamestown S’Klallam Tribe, Washington Fish and Wildlife, and Washington Water Trust have provided specific letters of support for this improvement project. Another local stakeholder that supports project efforts is the Dungeness River Management Team (DRMT), a partnership of stakeholders that meets monthly to develop and implement solutions to Dungeness Watershed management issues. Improvements to the conveyance infrastructure for this project will make the irrigation system more fish friendly and result in a more efficient system that diverts less water to serve irrigation needs for the entire irrigation season. This conveyance improvement project will deliver multiple benefits and be a key piece of a visionary approach to long term climate resiliency once the Dungeness Off-

channel Reservoir is completed. The Reservoir project stands out due to the near universal support from the agricultural, environmental, tribal, recreational, and broader community.

Implementation of the Off-channel Reservoir will include the creation of a new nearly 400-acre park surrounding the Reservoir with trails for hiking, birdwatching and recreation. These additional benefits from the Off-channel Reservoir project have resulted in support from recreation and conservation groups such as the Olympic Peninsula Biking Association and Audobon Society. Outreach within the community will continue as the project proceeds to the construction phase. The components addressed in this improvement project will involve work to reduce fish mortality, increase system efficiencies, and increase water savings for the existing irrigation infrastructure. There will be minimal impact on the community involving the construction of these project components.

1.5.4 E.1.4. Evaluation Criterion D—Readiness to Proceed (10 Points)

Clallam County is capable of proceeding with the project upon entering a financial assistance agreement. Clallam County has already started the process of designing the project components (30% design obtained) and will continue to complete design while this grant application is being considered. Clallam County has also obtained a grant from Washington State to provide the match for this grant. A detailed budget provided in Section 2 – Project Budget, and a project schedule is provided below with the duration of major tasks. Currently, the project elements have preliminary designs prepared. Final design will start in January 2022 as it is being funded under the state grant. Permit applications will be prepared following grant acceptance and submitted within 2 months. It is anticipated the state, local and federal permitting process will require 6-9 months. The permitting tasks can be completed by September 2023 with construction starting after final permits are obtained. Because the irrigation season starts April 15, the H1 Lateral, pipeline inlet structure, settling basin and fish screen need to be constructed prior to April 15 or after September 15. Any work within the Dungeness River will likely need to be completed in September 2023 because of work windows to avoid major fish spawning times. The intake improvements would be completed during that time. The overall completion date is estimated to be March 2024.



Schedule

- Design Development Phase is January 2022 to September 2023 (independent and prior to WaterSmart grant)
- Permitting Phase is October 2022 to August 2023
- Construction Phase is September 2023 to March 2024
 - Intake construction will be September-October 2023 to conform to permitting window for instream work
 - H1 Lateral pipeline, fish screen, settling basin and inlet structure construction will be October 2023 to March 2024 (outside of irrigation season)

Federal Permits and Approvals

The following federal permits and approvals are anticipated:

1. Clean Water Action Section 404 Permit from the U.S. Army Corps of Engineers (Corps) – Approval by the U.S. Army Corps of Engineers will be required if any work is within Waters of the U.S., including the Dungeness River, likely jurisdictional irrigation ditches, or wetlands. To issue a Section 404 permit, other federal approvals must be complete including:
 - a. Endangered Species Act Section 7 compliance – concurrence from the National Marine Fisheries Service and U.S. Fish and Wildlife Service (known as “the Services”)

- b. National Historic Preservation Act Section 106 compliance – concurrence from the Washington Department of Archaeology and Historic Preservation and relevant Native American Tribes
2. Clean Water Act Section 401 water quality certification from the Washington Department of Ecology

Modifications to the irrigation headgate structure in the river could likely qualify for a Nationwide Permit 3 (Maintenance) or 40 (Agricultural Activities). However, conversion of the potentially jurisdictional open irrigation ditch to a piped system or construction of an overflow spillway or outfall to the river may not qualify for a Nationwide Permit. At this time, it is presumed that an individual Section 404 permit may be required, which would have a timeline of approximately 12 months to receive a permit from the time when the Corps determines the application is complete and requires a public notice. Determination of whether the Section 401 permit can be pre-approved (for some Nationwide Permits) or if an individual Section 401 permit is required is determined in consultation with Ecology during the permit review process. If all aspects of the project qualified for a Nationwide Permit, the timeframe to receive a permit is reduced, and is generally 4 to 6 months from complete application determination. These timeframes are contingent on the consultation process with other agencies and Tribes.

ESA-listed aquatic species are present in the Dungeness River. To demonstrate ESA Section 7 compliance, a Biological Assessment is typically prepared for projects that affect listed species. For repair and maintenance projects or a project with limited potential effects, a short-form Biological Evaluation may be applicable to initiate informal consultation with the Services. The timeframe for ESA review is incorporated within the Corps permit timeframe, as Corps permits are not issued until consultation is complete.

The Corps (or if applicable, other federal funding agency) will review the project under Section 106, which requires federal agencies to evaluate the effects of their undertakings on historic properties in consultation with the State Historic Preservation Officer (SHPO) and Native American Tribes. This process will use supporting documentation developed by the project, including the cultural resources survey already completed (Dudek, 2021), and additional documentation for project areas not yet surveyed. The Corps will make determinations of NRHP-eligibility for any potential historic properties, and a determination of project effects. SHPO and Tribes have the opportunity to comment on determinations. If adverse effects to historic properties are identified, the Corps will consult to avoid, minimize, and mitigate the effects. Cultural resources consultation has already been initiated to support design-related work, including geotechnical explorations. The project team has been working closely with

SHPO, the Native American Tribes, and the state agencies funding the design work to comply with cultural resources regulations.

State Permits and Approvals

The Washington Department of Fish and Wildlife (WDFW) regulates work that uses, diverts, obstructs, or changes the natural flow or bed of any of the salt or fresh waters of the state, including projects landward of the OHWM (e.g., activities outside the OHWM that will directly impact fish life and habitat). Because project activities include work in and adjacent to waters of the state, a WDFW Hydraulic Project Approval (HPA) would be required. HPA review begins once a State Environmental Policy Act (SEPA) determination is issued and takes up to 45 days. No public notice is required.

It does not appear that DNR owns the aquatic bed of the Dungeness River, so it is unlikely that approval from DNR would be required.

Local Permits and Approvals

Clallam County Dept. of Community Development is the lead agency for SEPA compliance and could issue a Determination of Non-Significance (DNS) or Mitigated Determination of Non-Significance for the Project (MDNS). The SEPA review will require a minimum 14-day public notice period and a DNS or MDNS typically can be issued within a 2-to 3-month timeframe. If a threshold determination is made that the Project would have significant impacts that cannot be avoided or mitigated to non-significance than a SEPA EIS would be required and compensatory mitigation for significant impacts may be required. The timeline for an EIS could take 6 to 12 months.

The proposed reservoir site is currently zoned as Commercial Forestry, so a zoning change may be required.

Clallam County is also the lead agency for other local permits and approvals, providing review for Shoreline Management Act consistency, critical areas regulations compliance, floodplain permit consistency, and building code compliance.

The Project includes work within the 200-foot shoreline environment of the Dungeness River, which defines the jurisdiction of the Clallam County SMP, which was adopted in 2021. The shoreline designation for the Dungeness River is Shoreline Residential Conservancy. The Project does not specifically fit into the categories of activities described in the SMP but various elements may be considered as an irrigation structure, flood-control facility, utility, water

supply, and recreational development. The irrigation structure and any potential overflow/outfall structure would require a Conditional Use Permit. Other elements of the overall project occurring within the Shoreline Zone would require a Shoreline Substantial Development Permit. The proposed reservoir will generally not affect more than small portions of the shoreline buffer, but mitigation would be required for removal of vegetation and grading within the buffer.

Project elements would occur within Clallam County designated critical areas, including fish and wildlife habitat conservation areas, channel migration hazard area, erosion hazard area and frequently flooded areas (floodplain); therefore, the Project must comply with critical areas regulations per CCC 27.12, Critical Areas. Expanded or new project elements within designated critical areas would be subject to review and compliance. New structures within the channel migration zone and floodplain would need to demonstrate they are designed to avoid and minimize any effects on natural processes and flood water surface elevations. It is expected that critical areas regulations consistency would be reviewed as part of the shoreline permit package. Shoreline and critical areas review is anticipated to take approximately 6 months.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, some Project elements at the river would occur within a Zone A floodplain where base flood elevations have not been determined (FEMA 1989). Due to its location within a floodplain, the Project must comply with Clallam County floodplain requirements. This will include complying with the FEMA development regulations. County floodplain review is anticipated to take approximately 2 months.

A detailed schedule that demonstrates readiness to proceed with the irrigation improvement project was provided earlier in this section. Clallam County retained an engineering consultant in June 2021 to prepare designs of the project components described in this application. Preliminary designs (30% level) and/or detailed cost estimates for these components have been delivered to Clallam County. Clallam County is planning to authorize development of final designs in January 2022. The final design stage will take an estimated 9 months to complete. Project permitting will be performed after the grant award and completed in September 2023. Construction will immediately follow and be completed in March 2024.

The work will be performed on land owned or controlled by HID (HID Main Canal and H1 Lateral easements). No further easements or land acquisition is required.

Clallam County contacted Reclamation (Elizabeth Heether) to discuss potential environmental and cultural resource compliance requirements. Line-item costs for Reclamation's support of environmental permitting and cultural resource compliance are provided in the cost estimate. Heether's e-mail is attached in Appendix A.

1.5.5 E.1.5. Evaluation Criterion E—Performance Measures (5 points)

The primary performance measure that will quantify the actual benefits is the flow diversion into the HID canal and its change from past year diversions. Currently HID, in cooperation with the Washington Department of Ecology, measures flow using a Parshall flume located downstream of the fish screens. Real-time flow diversions are reported online at <https://apps.ecology.wa.gov/continuousflowandwq/StationDetails?sta=18J250>. Measurement and reporting of flow into their canal will continue and a comparison of those flows against past year flows will be performed to estimate water savings. An annual monitoring report will be prepared by HID and distributed to the DRMT. The measurement of flow diversions into the HID canal and reporting on the Department of Ecology website started in 2000, so a long history of diversions is available for comparison. The only additional step proposed is to prepare the annual monitoring report. The annual monitoring report will provide graphs comparing current year diversions to high, average and low diversions for the duration of the irrigation season for 5 years prior to completion of the projects. A discussion and comparison of the data will be provided by HID and the DRMT will review the report and provide feedback on HID's performance in reducing diversions.

An additional measuring flume will be installed upstream of the fish screen at the intake, which will record flows diverted from the Dungeness River and when compared to flow diversions into the HID canal will provide the fish screen bypass flow. This will be important to optimize flow and habitat conditions in the fish screen bypass channel, which returns fish back to the river.

Secondary performance measures will be periodic measurement of water quality at the inlet facility settling basin and inspection of the fish screen. The water quality measurements will consist of suspended sediment or turbidity measurements taken at the outlet of the settling basin and will be compared to measurements taken at the river intake to determine the settling efficiency of the basin. Fish screen inspections will be performed by Washington Department of Fish and Wildlife (WDFW) to ensure proper operations, including reviewing bypass flow settings, sediment accumulations and condition of the new fish screen material. It is not anticipated that reporting of the water quality data will be performed as it will be used mostly for O&M purposes to ensure the settling basin is operating well. WDFW reports on fish screen investigations are public records and are distributed by WDFW to the irrigation district.

1.5.6 E.1.6. Evaluation Criterion F—Presidential and Department of the Interior Priorities (10 points)

Climate Change: E.O. 14008

Beyond the drought and climate resiliency that will be achieved by this improvement project stated above, the Off-channel Reservoir Project made possible by this improvement project will provide a climate resilient water supply for irrigators in the Dungeness Valley and crucial late season flows to support ESA listed salmon. Approximately 5,800 acres of land are currently served by the seven irrigation districts. By implementing the Off-channel Reservoir, nearly half of the acreage served would have access to this climate resilient water source for the last month of the irrigation season during the fish critical period. By irrigating with stored water in the late summer, the irrigators will leave a corresponding quantity of streamflow in the Dungeness to be protected for fish and wildlife.

The Dungeness Off-channel Reservoir project will provide flood mitigation to the City of Sequim and surrounding rural communities by capturing stormwater before it moves down gradient to a concentration of impervious surfaces. The Off-channel Reservoir site was selected for its ability to provide gravity fed irrigation supplies to irrigators on the entire East side of the Dungeness Valley, reducing the current energy needs to convey irrigation water.

Solar panels are being considered to power the new automated headgate proposed in this project. Another renewable energy source being considered in design is micro-hydropower that will be harnessed in piping leading into the Off-channel Reservoir to support related energy costs. Currently, the headgate for the HID diversion is manually operated and HID managers drive to the site for continued operations and maintenance. The implementation of an automated headgate will eliminate the need for site visits which occur 3-4 times a week, reducing travel and labor time while also allowing for easy management of diversion withdrawal to meet water demands. This project will dramatically increase the efficiency and reliability of irrigation water supply for the local agriculture community.

Disadvantaged or Underserved Communities

Benefits from this project and the Off-channel Reservoir would serve local communities with an annual household median income of \$56,422 (Office of Financial Management, 2020), significantly lower than the annual median income for Washington state (\$81, 668). For this community, economic benefits resulting from this project and the Off-channel Reservoir include: 1) the creation of jobs to construct the infrastructure; 2) a climate-resilient water supply that will enable the continuation of local agriculture and the livelihoods that it supports

that would otherwise be in danger due to climate change's threat to secure a late-summer freshwater supply; 3) a more efficient irrigation system which also supports sustainable agriculture in the area by decreasing the amount of water needed to irrigate; and 4) the reduction of storm event flood damage to local infrastructure which has a substantial economic cost to the city, county, and residents.

The Off-channel Reservoir will reside on a 400-acre parcel which will be developed as a Clallam County Park. The creation of this park will increase opportunities for community members to recreate in the area, which is already used daily for its volunteer-made biking and walking trails. However, the completion of the Off-channel Reservoir will increase accessibility for equitable utilization of these resources.

Tribal Benefits

The Dungeness River and watershed is part of Jamestown S’Klallam Tribe’s traditional homelands. Since time in memorial, Jamestown S’Klallam Tribe has relied upon fishing opportunities provided by the Dungeness River’s salmonid populations, which are also of cultural significance to the Tribe. They are dedicated to the conservation and restoration of Dungeness resources – to restore and maintain river flows to allow aquatic species to live and thrive. This project is supported by Jamestown S’Klallam Tribe because it is an essential piece of the larger puzzle of actions necessary in the watershed to reduce surface water diversions from the Dungeness to increase sustainable flow to support and restore salmonid species while keeping agricultural lands productive. In 1855, Jamestown Tribe entered a Treaty with the United States specifically reserving the “right of taking fish at the usual and accustomed grounds and stations”. To guarantee that water levels in the Dungeness River will support salmonid species, in the face of climate change and population growth, the construction of the Dungeness Off-channel Reservoir will ensure sufficient streamflows for critical species over the long-term. The freshwater inputs of the Dungeness River also sustain a productive estuary at the mouth of the Dungeness River which is essential to maintaining productive populations of shellfish including clams, geoduck, oysters and Dungeness crab. The Jamestown S’Klallam Tribe relies on the health of the Dungeness estuary to sustain cultural and commercial harvest of these and other shellfish species.

The Jamestown S’Klallam Tribe is actively working to monitor, protect, and restore the Dungeness River and estuary. Ongoing projects, such as floodplain restoration via levee setback, will be supported by increased streamflow in the Dungeness River.

2 Project Budget

This section summarizes the proposed budget for the project that would be funded by the WaterSMART grant and includes the following:

- (1) Funding plan and letters of commitment
- (2) Budget proposal
- (3) Budget narrative

2.1 Funding Plan and Letters of Commitment

The non-federal share of project costs has been secured from the Washington Department of Ecology Streamflow Restoration Competitive Grant Funding Program. The Streamflow Restoration funds are available now to be used as the 25% match of approximately \$604,425. Letters of commitment from WA Dept. Of Ecology and the Board of Clallam County Commissioners can be found in Appendix B.

2.2 Budget Proposal

Table 1 summarizes the proposed project cost and indicates which costs would be funded through the requested WaterSMART grant and which costs would be funded through a match with funds secured for the project from the Washington Department of Ecology Streamflow Restoration Competitive Grant Funding Program. The funding source for the match is also listed in Table 2, which summarizes the sources of non-federal and federal funding.

Table 1 Total Project Cost Table

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	\$ 1,813,275.14
Costs to be paid by the applicant	\$ 0
Value of third-party contributions	\$ c
TOTAL PROJECT COST	\$ 2,417,700.19

Table 2 Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
1. Washington Department of Ecology Streamflow Restoration Grant Program	\$ 604,425.05
2.	
Non-Federal Subtotal	\$ 604,425.05
REQUESTED RECLAMATION FUNDING	\$ 1,813,275.14

Table 3 provides a budget proposal in the format requested for the WaterSMART grant. The table summarizes the budget allocated to salaries and wages, fringe benefits, travel, equipment, supplies and materials, construction, and other. The requested funds will primarily fund construction of the proposed improvements. Funds are also requested to support construction management and permitting work, which will be contracted with a private consultant. The costs also include support for environmental permitting and compliance by Reclamation and the cost to administer the grant by the applicant, Clallam County.

Table 3 Budget Proposal

BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity Type	TOTAL COST
	\$/Unit	Quantity		
Salaries and Wages				
Project Administrator	\$44.675	HR	1,170	\$52,269.75
Fringe Benefits				
Full-Time Employees	\$20.736	HR	1,170	\$24,260.69
Travel				
Mileage (Trips to Site)	\$0.56	648	Miles	\$362.88
Equipment				
N/A				
Supplies and Materials				
N/A				
Contractual/Construction				
Construction Contract	\$1,983,000.00	1	Lump Sum	\$1,983,000.00
Consultant Construction Management	\$146,240.00	1	Lump Sum	\$146,240.00
Consultant Permitting Support	\$109,680.00	1	Lump Sum	\$109,680.00
Consultant Cultural Resources Support	\$36,560.00	1	Lump Sum	\$36,560.00
Other				
Reclamation Permitting Support	\$50,200.00	1	Lump Sum	\$50,200.00
TOTAL DIRECT COSTS				\$2,402,573.32
Indirect Costs				
On salaries and wages	\$12.929	HR	1,170	\$15,126.87
TOTAL ESTIMATED PROJECT COSTS				\$2,417,700.19

2.3 Budget Narrative

The following summarizes the components of the project budget:

2.3.1 Salaries and Wages

Salaries and wages were estimated by the applicant based on hours required by the project administrator to administer the grant and coordinate implementation of the project. The

estimated time required to complete this work by the project administrator was estimated at 15 hours a week for 18 months (78 total weeks) for a total of 1,170 hours.

2.3.2 Fringe Benefits

Fringe benefits were estimated by the applicant based on hours required by the project and the Clallam County Public Works' rate for benefits, which is 46.4144% of direct salary.

2.3.3 Travel

Travel costs were estimated for the applicant's travel to the project site based on an estimated 1.5 trips per month for 18 months at the standard federal mileage rate of \$0.56 per mile. The site is a 24-mile round trip from the applicant's office.

2.3.4 Equipment

No equipment costs were included in the budget.

2.3.5 Materials and Supplies

No materials and supplies costs were included in the budget.

2.3.6 Contractual

Costs were included for contracted consultant services that include the following:

- **Consultant Construction Management** – Consultant construction management services were estimated as 8% of the estimated construction cost. These costs assume that the applicant would contract with a private consulting firm to provide construction management services during construction of the project, including bidding assistance, contracting assistance, daily construction management, submittal reviews, response to contractor questions, review and processing of pay estimates, review and processing of change order requests, oversight of testing and quality assurance compliance, and oversight of construction closeout activities.
- **Consultant Permitting Support** – Consultant permitting support services were estimated as 6% of the estimated construction cost. These costs assume that the applicant would contract with a private consulting firm to provide permitting support and assist the applicant in securing environmental and construction permits for the project. The cost is also intended to include the cost of fees associated with securing these permits.
- **Consultant Cultural Resources Related Support** – Consultant cultural resources related services were estimated as 2% of the estimated construction cost. These costs assume that the applicant would contract with a private consulting firm to provide cultural

resources support for the project, including preparation of forms and reports needed to comply with Section 106 and SHPO requirements, observation of earth disturbing activities required by cultural resources compliance documents, and cultural resources surveys needed to support project implementation.

2.3.7 Construction

The largest cost included in the proposed budget is the estimated cost of constructing the project. The construction cost was estimated by the applicant's design engineer based on quantities of materials and unit costs for the labor, materials, and equipment needed to accomplish the work. The construction costs include a 15% construction contingency to account for items that are not yet known or well understood. In addition, a sales tax of 8.5% was included. The construction total includes the estimated construction cost for all project components requested to be funded by this WaterSMART grant.

2.3.8 Third-Party In-kind Contributions

No third-party, in-kind contributions were included in the proposed budget.

2.3.9 Environmental and Regulatory Compliance Costs

The applicant contacted Reclamation (Elizabeth Heether) to discuss environmental and regulatory compliance for the proposed project. Heether provided guidance on likely environmental permitting and regulatory compliance requirements and provided a conservative estimated cost to advise the applicant and their consultant on cultural resources/Section 106 compliance, Endangered Species Act/Section 7 compliance, and National Environmental Policy Act (NEPA) compliance, including assistance in preparing an Environmental Assessment (EA) for the project, if one is needed. These costs are listed under "Other" as "Reclamation Permitting Support" in Table 3. Heether's e-mail is attached in Appendix A.

2.3.10 Other Expenses

No other expenses were identified for inclusion in the proposed budget.

2.3.11 Indirect Costs

The proposed budget includes indirect costs of \$15,126.87, estimated at the applicant's negotiated federal rate of 28.94% of direct salaries.

3 Environmental and Cultural Resources Compliance

An overview of environmental and cultural resources compliance requirements for the project was provided under Section 1.5, Subsection E.1.4. Evaluation Criterion D—Readiness to Proceed. The following provides specific answers to questions about environmental and cultural resources compliance, as requested in the WaterSMART Grant guidance document:

- **Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)?** *Construction of the project will require temporary diversion of flows in the Dungeness River at the intake structure. The project will also require clearing, ground disturbance, use of mechanized equipment, and work in and near surface waters for some project elements. Best management practices will be used to avoid and minimize the potential for elevated dust, turbidity, or any accidental discharge of pollutants and all permit requirements will be complied with.*
- **Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?** *Four ESA-listed salmonid species are present in the Dungeness River. The project is being proposed to benefit those species. At this time, no effects are anticipated to any ESA-listed terrestrial species, but this will be further identified through the permitting process. There may be temporary impacts to listed salmonids and terrestrial species during construction, including the potential for noise, diversion of flows at the right bank of the Dungeness River, and potential elevated turbidity. Temporary environmental controls will be implemented, as required by local, state, and federal regulations to address these impacts. Consultation with the National Marine Fisheries Services and U.S. Fish and Wildlife Service will also be completed for compliance with the Endangered Species Act.*
- **Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have.** *A wetland survey was completed for the proposed reservoir site. One small wetland was identified near where the H1 Lateral pipeline will connect to the proposed reservoir. However, the project will be designed to avoid impacts to the wetland. The HID Main Line and H1 canal may be considered jurisdictional by the U.S. Army Corps of Engineers and conversion of the ditch to a piped system could require a Section 404 permit. A Preliminary Jurisdictional Determination will be requested. The Dungeness River is considered jurisdictional as a Water of the United States. Impacts to jurisdictional waterbodies and wetlands will be avoided and minimized to the maximum extent practicable. It will be determined during the permitting process if any mitigation is required.*
- **When was the water delivery system constructed?** *The water delivery system was originally constructed in the 1920s.*

- **Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)?** *The project will modify the existing HID intake facilities. The headgate structure will be refurbished, a debris rack will be added, and new automated headgates will be installed. Modifications will also be made to the existing diversion canal, existing fish screens will be upgraded, and a settling basin will be installed at the upstream end of the HID Main Canal. The project will also replace the H1 Lateral from the HID Main Canal to the proposed Off-channel Reservoir with a pipeline. A flow control structure will be installed in the HID Main Canal at the pipe inlet.*
- **Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?** *We are not aware of any buildings, structures, or features in the irrigation delivery system that will be impacted that are listed or eligible for listing on the National Register of Historic Places.*
- **Are there any known archeological sites in the proposed project area?** *No known archeological sites have been identified within the proposed project area. A cultural resources survey identified two areas where dumping occurred in the early 20th century near the project site but concluded that the material was not historically significant. Further investigation and consultation with the SHPO and tribes will occur during the permitting process.*
- **Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?** *No, the project will not have a disproportionately high and adverse effect on low income or minority populations.*
- **Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?** *No, the project will not limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands.*
- **Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?** *No, the proposed project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area.*

4 Required Permits or Approvals

A summary of required permits or approvals was provided for the project under Section 1.5, Subsection E.1.4. Evaluation Criterion D—Readiness to Proceed. These include:

- Federal Permits and Approvals
 - Clean Water Action Section 404 Permit
 - Endangered Species Act Section 7 compliance
 - National Historic Preservation Act Section 106 compliance
 - Clean Water Act Section 401 water quality certification
- State Permits and Approvals
 - Hydraulic Project Approval
 - SEPA compliance
- Local Permits and Approvals
 - Clallam County Shoreline Conditional Use Permit/Substantial Development Permit
 - Clallam County Zoning Conditional Use Permit (Potentially, will need to confirm)
 - Clallam County Critical Areas Review
 - Clallam County Floodplain Review

5 Letters of Support and Letters of Partnership

Letters of support attached in Appendix C. The letters of support are from our collaborative Dungeness Reservoir Working Group partners supportive of the Irrigation Improvement Conveyance project and a diverse group of community members that are supportive of the Off-channel Reservoir: Clallam County, Clallam Conservation District, Jamestown S’Klallam Tribe, Highland Irrigation District, Washington Water Trust, Dungeness River Management Team, Washington Dept. of Fish & Wildlife, Clallam County Parks, Clallam County Economic Development Council, Department of Natural Resources, League of Women Voters, North Olympic Peninsula Lead Entity for Salmon, and Strait Ecosystem Recovery Network.

6 Official Resolution

A draft of Clallam County's Official Resolution is attached in Appendix D. Due to the Clallam County process and the holiday season, the Board of Clallam County Commissioners' Resolution will not be signed until early January 2022 when it will be e-mailed to bor-sha-fafoa@usbr.gov. We have also included a letter of support from the Chair of the Board of Clallam County Commissioners, Mark Ozias, that states the County's commitment to the project and the financial and legal obligations associated if funded by the WaterSMART program.

7 Citations

Dudek, 2021. Cultural Resources Inventory For the Dungeness Streamflow Restoration Off-Channel Reservoir Project, Clallam County, Washington. Prepared for Clallam County Public Works. February 11, 2021.

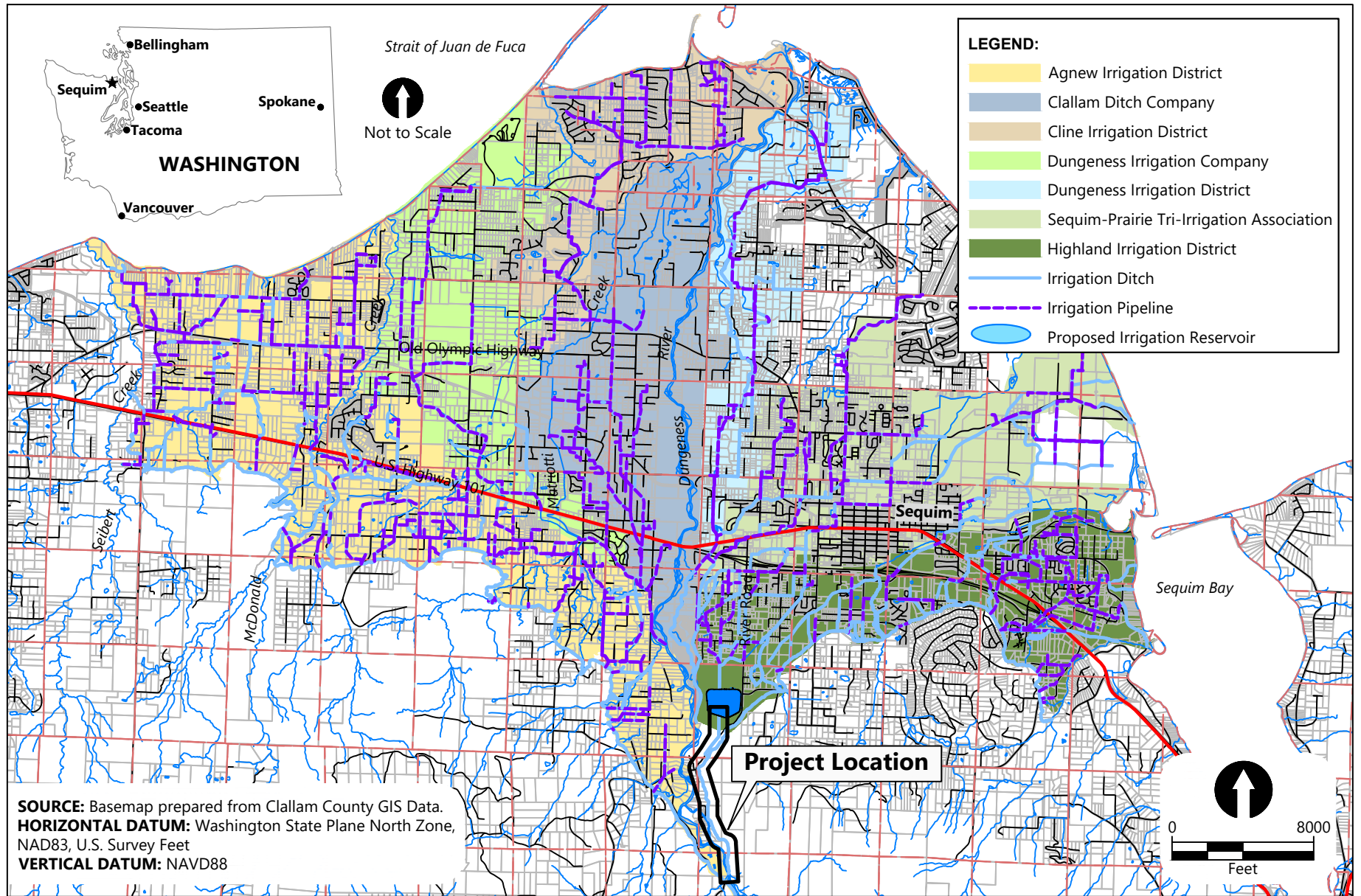
Mauger, G.S., J.H. Casola, H.A. Morgan, R.L. Strauch, B. Jones, B. Curry, T.M. Busch Isaksen, L. Whitely Binder, M.B. Krosby, and A.K. Snover, 2015. State of Knowledge: Climate Change in Puget Sound. Report prepared for the Puget Sound Partnership and the National Oceanic and Atmospheric Administration. Climate Impacts Group, University of Washington, Seattle.

Montgomery Water Group, 1993. Dungeness-Quilcene Water Resources Planning Pilot Project Irrigation Ditch Leakage Assessment Project. Completed for Jamestown S’Klallam Tribe. July 15, 1993.

National Marine Fisheries Service. 2006. Recovery Plan for the Puget Sound Chinook Salmon (*Oncorhynchus tshawytscha*). National Marine Fisheries Service, Northwest Region. Seattle, WA

National Marine Fisheries Service. 2019. ESA Recovery Plan for the Puget Sound Steelhead Distinct Population Segment (*Oncorhynchus mykiss*). National Marine Fisheries Service. Seattle, WA

Wampler, Phillip L., and Hiss, Joseph M. 1991. Fish Habitat Analysis for the Dungeness River Using the Instream Flow Incremental Methodology. Western Washington Fishery Resource Office, US Fish and Wildlife Service.



Publish Date: 2021/12/09 11:20 AM | User: tgriga
 Filepath: K:\Projects\1439-Clallam County\Dungeness Off-Channel Reservoir\1439-WSMART-001 (Location Map).dwg Figure 1



**Figure 1
 Location Map**

WaterSMART Grant Proposal
 Dungeness Reservoir Irrigation Improvement Project



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000

711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

January 24, 2019

Mark Ozias, Commissioner
Clallam County Community Development
223 E 4th St
Port Angeles, WA 98362

Re: *Dungeness Flow Restoration and Aquifer Recharge Off-Channel Reservoir, WRSRP-2019-CICoCD-00083*
2019 Streamflow Restoration and Enhancement Funding Offer

Thank you for your time and effort applying to the Washington State Department of Ecology (Ecology) to fund your streamflow restoration and enhancement project in the 2019 pilot round of streamflow grants.

Ecology published interim funding guidelines for streamflow restoration grants in June of 2018. Our initial solicitation for proposals opened October 1 and closed October 31, 2018. We received 46 applications seeking more than \$76 million in grant funding. To ensure that funds are directed to the highest priority projects, Ecology and the Department of Fish and Wildlife evaluated all eligible project proposals to determine their priority under the Streamflow Restoration law (Chapter 90.94 RCW) and Ecology's interim funding guidelines.

After evaluating all eligible proposed projects, Ecology is offering funding for 15 projects totaling \$20 million in requests. I am pleased to inform you that your project is being offered funding of up to \$4,092,854 .

The final funding amount awarded for your project will be based on negotiations between you and Ecology regarding the project scope of work, budget, technical considerations, reasonableness of cost, and eligibility determinations. Ecology is committed to negotiating and signing a funding agreement in a timely fashion and your Ecology Project Manager will contact you soon.

Ecology has assigned the following Project Manager for your project:

Angela Johnson Southwest Region Project Manager (360) 407-6668

Please keep in mind that this offer letter is not be construed as an agreement or binding on any party in any way. Prior to execution of the funding agreement, any work you choose to undertake will not be considered reimbursable. Therefore, any such work is undertaken at your sole risk and discretion and Ecology is under no obligation to reimburse any of your expenses unless they are incorporated in the terms of an executed grant agreement.



Ecology appreciates your commitment to streamflow restoration and enhancement. We look forward to working with you to complete this high priority project.

Sincerely,



Mary Verner
Water Resources Program Manager

cc: Carol Creasey, Hydrogeologist, Clallam County Community Development
Angela Johnson, Ecology
Al Josephy, Ecology



Board of Clallam County Commissioners

223 East 4th Street, Suite 4
Port Angeles, WA 98362-3015
360.417.2233 Fax: 360.417.2493
Email mozias@co.clallam.wa.us

From the Desk of
COMMISSIONER MARK OZIAS, Chair

December 9, 2021

Josh German and/or Robin Graber
Program Coordinator
Bureau of Reclamation
P.O. Box 25007, MS 86-69200
Denver, CO 80225

Dear Mr. German and Ms. Graber:

The purpose of this letter is to document the availability of local funds and Clallam County commitment in support of the County's WaterSMART application entitled *Enhancing Environmental Benefits: Dungeness Reservoir Irrigation Conveyance Improvements Project*. The Clallam County Board of Commissioners strongly and fully supports this project. Climate change projections for the Dungeness watershed indicate decreased snowpack with increased rain events and flooding. It is also projected that total spring and summer season streamflow in the Puget Sound region in WA will decrease by 24–31% on average by the end of the century and drought in the Dungeness has already made its impact felt in 4 of the past 7 years.

Every cubic foot of water that is kept instream during the late summer will have a positive impact for ESA-listed Chinook salmon and steelhead present in the Dungeness River. This project would pipe 2,900 feet of open canal resulting in an estimated savings of 300 acre-feet/year (afy). System efficiencies will also be achieved by the installation of an automated headgate at the intake and upgrading a flow control structure at an irrigation split, allowing for responsive management based on water demand. Immediate benefits by upgrading the fish screen will reduce fish mortality and the construction of a settling basin will improve irrigation water quality. These project components would demonstrate water savings, increase system efficiencies, reduce fish mortality, and is a critical component of the larger Dungeness Off-Channel Reservoir Project.

The Dungeness Off-Channel Reservoir is a project that will deliver a climate change resilient solution by storing early season, high flow Dungeness River water for use by irrigators during the late irrigation season as an alternative to river diversions when flows are critically low. This source switch will improve flows from August to September when irrigation demand is highest and ESA-listed Chinook salmon and steelhead are returning to spawn in the Dungeness River.

Clallam County has recognized the Reservoir and the projects that support it as its top water resources priority because of its benefits to the Dungeness River, community/agriculture water supply and development, and salmon recovery. The Reservoir is the greatest and most cost effective remaining water storage and flow restoration opportunity in the Dungeness basin to enable reliable and vital water supplies in the Dungeness basin for farms, people, and fish. This funding request for the aforementioned project components will support the Reservoir project while also demonstrating water and salmon savings separately. Attached is a Resolution passed by the Board of County Commissioners in 2021 that underscores our commitment.

The total estimated cost for this project is \$2,417,700 with a proposed local share of \$604,425. The County has secured grant funding from the WA Department of Ecology's Streamflow Restoration Competitive Grant program, which will be used as match to cover our local share.

Thank you for considering our WaterSMART application.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Ozias", is written over a horizontal line.

Mark Ozias, Chair
Board of Clallam County Commissioners

December 1, 2021

Josh German and/or Robin Graber
Bureau of Reclamation
P.O. Box 25007, MS 86-69200
Denver, CO 80225

Mr. German and/or Ms. Graber,

Highland Irrigation District (HID) supports Clallam County's WaterSMART application for irrigation conveyance improvements which will enhance environmental benefits and support the implementation of the Dungeness Off-channel Reservoir.

HID is a member of the Dungeness Water User's Association, a collective of seven irrigation districts and companies that have provided irrigation water throughout the valley for more than 120 years. We have a rich history of both agriculture and conservation in this basin. For over two decades we have worked with Clallam Conservation District to improve our conveyance system through piping projects. We sold a portion of our senior water rights to seed the Dungeness Water Exchange mitigation program, and have participated in the dry year leasing program, managed aquifer recharge sites, worked collaboratively with Jamestown S'Klallam Tribe, Ecology, Clallam County, Clallam Conservation District, City of Sequim and Washington Water Trust to develop other sustainable water management solutions.

Project components would be located throughout the existing HID irrigation system and support basin wide efforts to pipe and update irrigation systems in order to reduce irrigation water diversions and enhance environmental benefits. System efficiencies and water savings would be demonstrated by this project through piping of an existing irrigation canal, installing an automated headgate at the point of diversion, and constructing a flow control structure where the canal splits. Further environmental benefits from this project would be achieved by the construction of a settling basin, which would improve irrigation water quality, and by updating the existing fish screen with more fish friendly materials.

In addition to these benefits, the improvement project will also contribute to the Dungeness River Off-channel Reservoir project. We support the Reservoir project as a balanced solution, which stores high flow waters, reducing flood impacts on city of Sequim and allowing irrigators to reduce diversions from the river (drawing upon the reservoir) during the low flow fish critical period in August and September.

The irrigation conveyance improvements proposed for this WaterSMART grant have significant environmental benefits as a standalone project by enhancing conveyance efficiency and water savings, augmenting the fish-friendliness of the system, increasing operator safety at the headgate and canal split, and improving irrigation water quality. These benefits will also contribute to the Reservoir's ability to safely and reliably divert Dungeness River water during times of high flow once the Reservoir is completed.

We would appreciate your support for this important project for our Highland irrigation District system and the Dungeness area community.

Sincerely,



Hal Costello, President
Highland Irrigation District



Clallam Conservation District

228 W. First Street, Suite H Port Angeles, WA 98362 www.clallamcd.org 360-775-3747 Fax: 360-775-3749

Josh German and /or Robin Graber
Bureau of Reclamation
P.o. Box 25007, MS 86 -69200
Denver, CO 80225

December 6, 2021

Re: Support for Dungeness Off-Channel Reservoir, Highland Irrigation system improvements and upgrades.

Dear Mr. German and/or Robin Graber,

Clallam Conservation District strongly supports the waterSMART proposal for upgrades to the Highland Irrigation System. These upgrades are essential steps for the success of the Dungeness Off-Channel Reservoir project. These upgrades also benefit the existing Highland irrigation system to run more efficiently improve water quality and protect the ESA listed fish.

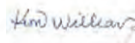
Over the past two decades, we have contributed considerable financial and technical assistance to the Dungeness Water Users Association (DWUA) to implement many water conservation projects. These projects have enabled irrigators to reduce water diversions from the Dungeness River by nearly half, while maintaining a viable agricultural economy. We have also partnered with the Washington Water Trust to implement shallow aquifer recharge projects in the basin. These water conservation projects are not enough to offset the increasing water shortage issues that the Dungeness valley is facing. More help is needed to address the annual low flow conditions in the Dungeness River.

Over the past few years, we have partnered with the Jamestown S'Klallam Tribe and numerous other organizations to develop plans for the Reservoir. We are fully invested in seeing this project to completion. The Dungeness Off-Channel Reservoir will provide solutions to several critical environmental issues.

- It ensures sustainable agricultural land use as it will provide irrigators with water during late season low flow months without drawing on the Dungeness River. Late summer river diversions will be significantly reduced.
- It will improve instream flow habitat for salmon. With irrigators using less water from the Dungeness River it will help the recovery of ESA listed species such as Chinook, Summer Chum and Bulltrout.
- It helps to mitigate climate impacts by providing water storage. Currently, the only form of storage is snowpack, which is becoming increasingly less reliable due to climate change pressure. Stream flow restoration in the Dungeness River can most efficiently be made through off channel water storage.
- In addition, the nearly 400-acre reservoir property, which is currently under Department of Natural Resources management, will be developed into a county park creating a valuable recreation area and enjoyment for the community.

This reservoir project is a highly collaborative effort. Dungeness watershed agencies and organizations have a long history of successful collaboration to address water management issues. As water resources become critical, The Dungeness Streamflow Restoration Off-Channel Reservoir is an important step to mitigate future water shortage issues. We ask for your support for this project.

Respectfully,


Digitally signed by Kim Williams
DN: cn=Kim Williams, o=CCD,
email=Kim.Williams@clallamcd.org,
c=US
Date: 2021.12.06 08:21:49 -0800

Kim Williams
Clallam Conservation District,
District Manager



State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Coastal Region • Region 6 • 48 Devonshire Road, Montesano, WA 98563-9618
Telephone: (360) 249-4628 • Fax: (360) 249-1229

December 8, 2021

Josh German and/or Robin Graber
Bureau of Reclamation
P.O. Box 25007, MS 86-69200
Denver, CO 80225

Dear Mr. German and/or Ms. Graber,

I am writing in support Clallam County's WaterSMART application for irrigation conveyance improvements that support the implementation of the Dungeness Off-Channel Reservoir. The mission of Fish and Wildlife is "To preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities," and is crucial in the Dungeness watershed. The watershed is habitat to 4 of 5 Pacific salmon, including ESA listed Chinook, Steelhead and Bull Trout. Every cubic foot of water saved by irrigation efficiency projects provides ESA listed species such as Chinook and Steelhead, and many other salmonids, much-needed additional habitat.

This project would support basin-wide efforts to pipe and modernize irrigation systems, as well as supporting the future success of the Dungeness Off-Channel Reservoir. These improvements will reduce diverted water while enhancing environmental benefits. Water savings and system efficiencies would be demonstrated by this project through piping of an existing irrigation ditch, constructing a flow control structure where the canal splits, and installing an automated headgate at the point of diversion. Further environmental benefits from this project would be established by updating the existing fish screen to be more fish-friendly.

In addition to these benefits, the improvement project will contribute to the Dungeness River Off-channel Reservoir's ability to reliably divert Dungeness River water during times of high flow once the Reservoir is constructed. As you know, the cooperative management approach in the Sequim-Dungeness Valley has been pivotal in achieving ecosystem successes. Over the years, many efforts in the Dungeness River have been directed at conserving water during late summer low flows and producing effective mechanisms for sustainable development. The Dungeness Flow Restoration and Aquifer Recharge Off-Channel Reservoir Project offers a solution that would restore roughly 50% of river flows in drought years, and support aquifer recharge for exempt well mitigation. Ensuring that fish and wildlife habitat is not only resilient to human impacts, but available as recreational and valued resources as well, is a vital byproduct of this project.

We appreciate being part of the collaborative efforts to improve instream flows in the Dungeness River and support this proposal. This project is consistent with the goals of our state agency.

Sincerely,

A handwritten signature in cursive script, appearing to read "Danielle Zitomer". The signature is written in black ink and is positioned above the typed name.

Danielle Zitomer,
Area Habitat Biologist
Washington Department of Fish and Wildlife



1500 Westlake Ave N, Suite 202 103 East 4th Avenue, Suite 203
Seattle, Washington 98109 Ellensburg, Washington 98926
washingtonwatertrust.org
V 206.675.1585 V 509-925-5600
F 206.749.9274 F 509-925-5603

December 08, 2021

Josh German and/or Robin Graber
Bureau of Reclamation
P.O. Box 25007, MS 86-69200
Denver, CO 80225

Dear Mr. German and/or Ms. Graber,

We write to share our strong support for Clallam County's WaterSMART application for irrigation conveyance improvements which will enhance environmental benefits and support the implementation of the Dungeness Off-channel Reservoir.

Washington Water Trust (WWT) is a conservation group dedicated to restoring stream flows for salmon and steelhead across the state. Our collaboration in the Dungeness with Clallam County and many other partners, has resulted in the successful implementation of the Dungeness Water Exchange water mitigation program, aquifer recharge, dry-year leasing programs with the Dungeness Water Users Association (DWUA), strategic source switch projects as well as the combined efforts of irrigators and the conservation district to improve the irrigation water use efficiency.

This project will support basin wide efforts to pipe and update irrigation systems to reduce irrigation water diversions and enhance environmental benefits. The piping of 2,900 feet of open canal will result in an estimated savings of 300 acre-feet/year (afy) in the Dungeness River. System efficiencies will also be achieved by the installation of an automated headgate at the intake and upgrading a flow control structure at an irrigation split, allowing for responsive management based on water demand. Immediate benefits by upgrading the fish screen will reduce fish mortality and the construction of a settling basin will improve irrigation water quality. These project components will demonstrate water savings, increase system efficiencies, reduce fish mortality, and is a critical component of the larger Dungeness Off-Channel Reservoir Project.

Climate change projections for the Dungeness watershed indicate decreased snowpack with increased rain events and flooding. The Off-Channel Reservoir will deliver a climate change resilient solution by storing early-season, high-flow water for use by irrigators during the late season as an alternative to river diversions when flows are already low. This source switch will improve flows up to 50 percent in drought years from August to September when irrigation demand is highest and ESA-listed Chinook and steelhead are returning to spawn in the Dungeness River.

WWT has pursued collaborative water management solutions throughout the state for 20 years to further stream flow restoration. Our collaboration in the Dungeness basin to develop and implement local sustainable management solutions demonstrates the value of this cooperative approach.

We appreciate your support for this important project.

Sincerely,

James Kraft, Executive Director
Washington Water Trust



Dungeness River Management Team

Cooperative Management of Our Watershed's Resources

Coordinated by Jamestown S'Klallam Tribe and Clallam County

1033 Old Blyn Highway ☐ Sequim, WA 98382 ☐ (360) 683-1109

October 29, 2021

RE: Support for Dungeness Streamflow Restoration Off-Channel Reservoir Project

To Whom It May Concern:

The Dungeness River Management Team (DRMT) expresses its continued strong support for the Dungeness Off-Channel Reservoir Project, as detailed in the attached *Resolution in Support of the Dungeness Flow Restoration and Aquifer Recharge Off-Channel Reservoir*. Supporting this multi-benefit project reflects our ongoing commitment to better water resource management for all.

The DRMT has supported and helped to facilitate water conservation partnerships within this watershed for over three decades, as documented in the attached *History of DRMT support of streamflow enhancement, storage, and aquifer recharge*. Planning for healthy water supplies and instream habitat has been an important focus of collaboration from the DRMT's beginning. However, meeting our watershed's current and future water needs continues to be a challenge, and more so now as the environmental impacts of climate change become increasingly apparent. We are eager to see this long-envisioned project come to fruition, and are hopeful about the contributions it will make to our area's climate change resiliency.

We appreciate your serious consideration in providing funding assistance to this important project.

Sincerely,

Hansi Hals, Chair, DRMT
On behalf of the DRMT

2021 DRMT Membership

<i>City of Sequim</i>	<i>Olympic Peninsula Audubon Society</i>
<i>Clallam County</i>	<i>Protect the Peninsula's Future</i>
<i>Clallam Conservation District</i>	<i>Riverside Property Owners</i>
<i>Clallam PUD #1</i>	<i>Sports Fisheries</i>
<i>Dungeness National Wildlife Refuge</i>	<i>US Forest Service</i>
<i>Dungeness River Audubon Center</i>	<i>WA Department of Ecology</i>
<i>Jamestown S'Klallam Tribe</i>	<i>Water Users Association</i>
<i>North Olympic Land Trust</i>	

Attachments:

- (1) *Resolution in Support of the Dungeness Flow Restoration and Aquifer Recharge Off-Channel Reservoir (with updated 2021 DRMT membership)*
- (2) *History of DRMT support of streamflow enhancement, storage, and aquifer recharge (updated 2021)*



**DUNGENESS RIVER MANAGEMENT TEAM
RESOLUTION
IN SUPPORT OF THE DUNGENESS FLOW RESTORATION AND
AQUIFER RECHARGE OFF-CHANNEL RESERVOIR**

WHEREAS, the Dungeness River watershed is water-short most years during the critical period in late summer when both agricultural irrigators and ESA-listed salmonids rely on adequate streamflow; and

WHEREAS, reservoirs of water held in annual snowpack and ancient glaciers are decreasing over time, and extreme low-flow conditions on the River are becoming more frequent and exacerbated during drought years; and

WHEREAS, the Dungeness River Management Team (DRMT) is a partnership of individuals and stakeholders working together to develop and pursue implementation of locally based, long-term solutions to Dungeness Watershed management issues for 30 years; and

WHEREAS, the DRMT has vetted the reservoir project proposal and prioritized it over other flow restoration proposals because:

- The project addresses all DRMT’s key River Restoration recommendations: flow restoration, aquifer recharge, and habitat and floodplain restoration.
- The DRMT recognizes that “low hanging fruit” is gone and remaining projects are complex and expensive but still necessary.
- An 88-acre, 1500 acre-feet off-channel reservoir is expensive no matter when or where it’s built, but the Dungeness proposal saves potential cost because:
 - The parcel is timber land not zoned for development
 - Conveyance infrastructure and easements are already in place via the irrigation network
 - No pumping is required since location allows flow by gravity
 - The site is appropriate for and acceptable to the County for recreation as a County Park
- The reservoir planning team continues to identify ways to cut costs, fund future construction, find models for local cost-share for future operations, and facilitate aquifer recharge, and it works closely with the Dungeness Water Exchange with a dual mission of mitigation and restoration as administered by Washington Water Trust.

WHEREAS, the DRMT has discussed and supported proposals for water storage via reservoirs and aquifer recharge for well over a decade, including as a key recommendation in multiple plans, policies and studies, such as:

- Climate Change Preparedness Plan for the North Olympic Peninsula (2015)

- East WRIA 18 Instream Flow & Water Management Rule and the Dungeness Water Exchange Mitigation Plan (2012)
- Clallam County Comprehensive Flood Hazard Management Plan (2009)
- Puget Sound Chinook ESU Recovery Plan (2007)
- Elwha-Dungeness (WRIA 18) Watershed Plan (2005)

WHEREAS, finding funding to implement the Flow Restoration and Aquifer Recharge Off-Channel Reservoir is DRMT's highest priority because the project addresses all top recommendations for River Restoration:

- Streamflow restoration: The reservoir provides significant flow benefits during the River's critical period for migrating salmonids. Avoidance of 30-50% of late summer irrigation diversions will retain up to 25 cfs of existing streamflow.
- Aquifer recharge: Stored winter-time high flows can be used for aquifer recharge in non-drought years when it doesn't need to be saved for late summer irrigation. Recharging the shallow aquifer has streamflow benefits and will offset impacts of consumptive groundwater withdrawals.
- Habitat and floodplain restoration: Up to 25 cfs of flow retention especially improves side-channel habitat important for certain species in certain life stages.
- Multiple other benefits include:
 - Long-term agricultural viability: Stored water provides reliable late-season irrigation supply for the agricultural industry over the long term. Without stored water, irrigation supplies are dependent on snowmelt sources, which are rapidly declining.
 - Climate resiliency: Decreasing water supplies is the biggest climate change concern for the region, and this project provides options for socioeconomic as well as environmental problems.
 - Stormwater pollution prevention: Capturing runoff will lessen stormwater volumes now entering urban areas where copper and rubber contamination can be lethal to fish, especially Coho.
 - Recreation, wildlife habitat, and other benefits
- Clallam County agrees to own the reservoir property and that the reservoir is its top water resources funding priority.
- Local stakeholders are mobilized and the reservoir planning group has great deal of popular support in the community and among agencies, including fish and wildlife interests. The planning group is actively identifying reservoir construction cost-cutting measures and local cost-share models for funding future operations.

WHEREAS, state funding for streamflow restoration projects will be made available to certain basins in Washington state including the Dungeness as allowed in ESSB 6091 (January 2018) and documentation of support from stakeholders and initiating governments is requested.

NOW, THEREFORE, IT IS HEREBY RESOLVED that the Dungeness River Management Team (membership listed below) supports the Dungeness Off-Channel Reservoir as its highest priority to implement flow



Clallam County Parks, Fair & Facilities Department

223 E. Fourth St., Suite 7
Port Angeles, WA 98362-3015
Joel G. Winborn, Director

May 13, 2021

Re: Dungeness Streamflow Restoration Off-Channel Reservoir

To Whom It May Concern:

The Clallam County Parks, Fair & Facilities Department supports the efforts to acquire property along the Dungeness River and eventually construct an Off-Channel Reservoir and park facilities.

Clallam County's Comprehensive Plan encourages the development of parks, and, "encourages the retention of open space and development of recreational opportunities, increase access to natural resource lands, and develop parks." It also states that, "Clallam County should acquire, develop and maintain park facilities and programs that will serve needs of communities larger than local neighborhood or urban area, but less than multi-county, state or nationwide in scope."

Additionally, our Comprehensive Park and Recreation Master Plan addresses the need for water access sites, both freshwater and saltwater, as a top priority. Inland parks adjacent to rivers and lakes hold numerous opportunities for various forms of recreational pursuits. This particular property fulfills not only the recreational water adjacency component, but also provides acreage for a host of inland opportunities like trails (bikes and pedestrian), wildlife viewing, scenic overlooks, etc.

One of the most significant components of this acquisition is obviously the reservoir. In recent years, the Dungeness River has experienced lower than normal river flow during the summer months. This project would address the needs of the surrounding farming community during this low flow period by providing a water source for crops and livestock during the very driest time of the year... a win for everyone.

This proposal seeks to add a new recreational facility and address the very real issue of lower river water flow which impacts both fish and farmers. Many local agencies and tribes support this acquisition and understand its benefits. The County Parks Department also supports this project and has the capacity within the department to manage this site. The County Parks Department looks forward to adding this property to our amazing county parks system.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joel G. Winborn". The signature is stylized and includes a long horizontal flourish extending to the right.

Joel G. Winborn, Director
Parks, Fair & Facilities Department

Parks, Fair & Facilities Department
Phone: 360-417-2429
Fax: 360-417-2395
jwinborn@co.clallam.wa.us



CLALLAM COUNTY ECONOMIC DEVELOPMENT COUNCIL

November 3, 2021

Re: Support for the Dungeness Streamflow Restoration Off-Channel Reservoir

To Whom It May Concern,

We write to share our strong support of the Dungeness Streamflow Restoration Off-Channel Reservoir funding application. The Clallam County Economic Development Council's goal is to make Clallam County a great place for businesses to thrive and people to live. We believe the Off- Channel Reservoir project is a significant leap forward towards developing a sustainable watershed and community while restoring instream flows.

Climate change projections for the Dungeness watershed indicate decreased snowpack with increased rain events and flooding. The Off-Channel Reservoir will deliver a climate change resilient solution by storing early-season, high- flow water for use by irrigators during the late season as an alternative to river diversions when flows are already low. This source switch will improve flows up to 50 percent in drought years from August to September when irrigation demand is highest and ESA-listed Chinook and steelhead are returning to spawn in the Dungeness River. Additionally, the Off-Channel Reservoir will expand capacity for the existing aquifer recharge mitigation and restoration programs to offset permit exempt well impacts and restore independent streams.

Please accept this letter indicating Clallam County Economic Development Council's strong support of the Off-Channel Reservoir Project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Colleen McAleer", is written over a faint, light blue circular watermark or seal.

Colleen McAleer
Executive Director
Clallam County Economic Development Council



DEPARTMENT OF
NATURAL RESOURCES

Conservation, Recreation and
Transactions Division
1111 Washington Street SE
Olympia, WA 98504-7014

360-902-1600
AMPO@ION.R.WA.GOV
WWW.DNR.WA.GOV

November 1, 2021

Subject: Support for the Dungeness Streamflow Restoration
Off-Channel Reservoir

To Whom It May Concern:

I am writing to express the Washington Department of Natural Resources (**DNR**) full support for the proposed Dungeness River Water Project involving approximately 400 acres of Common School Trust land located adjacent to the Dungeness River and just south of the city of Sequim, Washington.

The concept from the project proponent Clallam County is to store water from the Dungeness River when it is abundant in the winter into a reservoir to be constructed on what is currently DNR managed trust land. The stored water will provide a source substitution for irrigators who typically withdraw from the river in late season during low flow and would now be diverting water during the high flow and keeping the water instream during low-flow periods which benefits migrating salmon. In addition, the project will store water for aquifer recharge, as well as capture storm water and prevent downstream flooding in the City of Sequim. This project is supported by a variety of stakeholders, including **DNR**, so that fish, farms and people can continue to have the water they need to thrive in the Dungeness Watershed for generations.

Critical to the success of this project will be finding a way to compensate the Common School trust beneficiaries for the value of the land where the proposed reservoir is planned.

Sincerely,

Bob Winslow

Bob Winslow, Transaction Project Manager for River Road Project
Conservation, Recreation and Transactions Division
Washington State Department of Natural Resources



League of Women Voters[®]
of Clallam County

April 22, 2021

Re: Support for Dungeness Streamflow Restoration Off-Channel Reservoir

To Whom It May Concern:

The League of Women Voters of Clallam County have been involved in a study and educational outreach over the last 4 years. Our goals were to create an educational outreach program that informed the public of the future and issues of fresh water in our county. A second goal was to determine what policies/actions the League could support to ensure the continued availability of fresh water to shareholders and all citizens.

Among the many issues encountered and data collected we determined that the proposal of an Off- Channel Reservoir in the Dungeness Watershed was the most viable plan offered to maintain the sustainability of this critical resource. This proposal addressed many challenging issues including streamflow restoration and irrigation reliability. The land identified is a prime location for such an endeavor and is available.

Among the other factors that threaten our access to fresh water is the reality of climate change and its effects on one of the main sources of our water that originates in the snow packs and glaciers of the Olympic Mountains. We must be able to store excess water during the wet seasons without resorting to dams that have contributed to the degradation of rivers and the fisheries we depend upon.

The League has strong national and state positions on natural resources. Supporting the health, sustainability and infrastructure of water to our communities is paramount to both local, state and federal government. We ask that you support this grant for beginning implementation of this vital project.

Sincerely,

Rebekah Miller, President
League of Women Voters of Clallam County

Sincerely,

Carrol Hull, Chair of Water Study Group
League of Women Voters of Clallam County



November 3, 2021

To Whom It May Concern,

North Olympic Peninsula Lead Entity for Salmon

Clallam County Courthouse
223 E. Fourth Street, # 5
Port Angeles, WA 98362
360/417-2326

We are a watershed consortium working to advance salmon restoration and protection actions on the North Olympic Peninsula. Our consortium includes members from the Jamestown S’Klallam, Elwha Klallam, and Makah Tribes, Clallam County, the cities of Port Angeles and Sequim, area citizens and environmental organizations.

Per the Dungeness Chapter of the Puget Sound Chinook Recovery Plan, resolving issues related to instream flow is identified as a major goal to tackle to help improve conditions and recover Dungeness Chinook. Instream flow issues are huge in the Dungeness due to the fact that the area is in a rain shadow which receives the least amount of rain in western Washington. Climate change -related drought conditions has exacerbated matters. With increasing temperatures , we can no longer rely on healthy snow pack as a way to get through the low flow conditions in late summer and early fall.

The situation is further compounded by the over appropriation of the limited water resources available. Simply put, if everyone with rights to Dungeness River water used it, there would be no water left in the river.

The proposed reservoir attempts to help solve this issue by storing water during high flows which can be used during low flows in late summer and early fall to supplement water needs benefitting both people and fish. Actions to deal with instream flow issues, aquifer recharge and water storage issues are identified within our prioritized workplan.

This is why I am writing this letter of support for federal FEMA Bric funding to support efforts to advance the Dungeness Reservoir project in Clallam County. Many partners and entities are working collaboratively to help make this happen. But it is an extremely large undertaking and funding support is very much needed.

Sincerely,

Cheryl Baumann

Cheryl Baumann, Coordinator
Cell: 360-912-4152



Strait Ecosystem Recovery Network
Local Integrating Organization, Strait Action Area
P.O. Box 3622
Sequim, Washington 98382

Date: May 17, 2021

Subject: Dungeness Streamflow Restoration Off-Channel Reservoir

To Whom It May Concern:

On behalf of the Strait Ecosystem Recovery Network (Strait ERN), the Local Integrating Organization (LIO) for the Strait Action Area, we would like to express our support for the *Dungeness Streamflow Restoration Off-Channel Reservoir*. When fully constructed, the Off-Channel Reservoir would a.) Capture spring high flows in storage for mainstem flow restoration; b.) Recharge the aquifer to mitigate permit exempt wells and restore streams and; c.) Develop climate change resilient water storage for this high priority watershed. We understand that funding is being sought that will contribute to the construction of the Off-Channel Reservoir, so that it can move forward and improve instream habitat for listed and protected species.

The Strait ERN LIO is composed of senior technical and policy professionals, representing over 30 governments and organizations, working collaboratively to achieve a healthy and resilient ecosystem that sustains all life and human wellbeing on the North Olympic Peninsula and Strait of Juan de Fuca. Our mission is to improve and sustain our shared ecosystem and to protect and recover its community, cultural, economic, and natural resources.

As one of the recognized LIOs by the Puget Sound Partnership's Leadership Council, we support this project, as it will help accomplish one of our local Near Term Actions (NTA) cited within the "2018-2022 Puget Sound Action Agenda" (2018-2022 Action Agenda) and our "Strait Ecosystem Protection and Recovery Plan" (Strait Plan), namely the "Dungeness Off-Channel Reservoir Construction" (NTA ID# 2018-0169). As the next step in this overall effort, construction of the Off-Channel Reservoir will be preceded by the "Dungeness Off-Channel Reservoir Land Acquisition" (NTA ID# 2018-0981) and "Dungeness Off-Channel Reservoir Design and Permitting" (NTA ID# 2018-0982) NTAs that were recently funded through the *Streamflow Restoration Act* managed by the Washington State Department of Ecology. All three of these NTAs align with the Puget Sound Partnership's Regional Priority Approaches CHIN7.1, "Protect and/or Restore Critical Habitat for Salmon Populations", as well as CHIN2.1 ("...restore instream flows to levels necessary for salmon recovery") and CHIN2.3 ("Plan for future needs and changing climate and ecosystem conditions...") for the 2018- 2022 Action Agenda. They also target two of our seven priority Vital Signs within our Strait Plan, including Chinook and Summer Stream Flows. Vital Signs are "Areas of Focus" for Puget Sound recovery over the next four years.

We look forward to securing the funding necessary for this and our other local NTAs to help implement our Strait Plan and the 2018-2022 Action Agenda.

Thank you for the opportunity to express support for this project. If you should have any questions, please contact our Strait ERN LIO Coordinator, John Cambalik, either by phone (360-797-3161) or email (coordinator@straiternlio.org).

Sincerely,

WA State Representative Steve Tharinger, 24th District
Strait ERN LIO Co-Chair

Commissioner Heidi Eisenhour, Jefferson County
Strait ERN LIO Co-Chair

Cc: Strait ERN LIO Steering Group



RESOLUTION _____, 2021

IN SUPPORT OF THE DUNGENESS RESERVOIR
IRRIGATION CONVEYANCE IMPROVEMENT PROJECT

THE BOARD OF CLALLAM COUNTY COMMISSIONERS finds as follows:

1. The Dungeness River watershed is water-short most years during the critical period in late summer when both agricultural irrigators and ESA-listed salmonids rely on adequate streamflow.
2. Reservoirs of water held in annual snowpack and ancient glaciers are decreasing over time, and extreme low-flow conditions on the River are becoming more frequent and exacerbated during drought years.
3. Clallam County is highly supportive of the reservoir and related project proposals and has prioritized them over all other flow restoration proposals as providing substantial and significant flow benefit.
4. Clallam County has been a party to discussions and has supported proposals for water storage via reservoirs and aquifer recharge for well over a decade.
5. Finding funding to implement the Dungeness Flow Restoration and Aquifer Recharge Off-Channel Reservoir Is Clallam County's highest flow restoration priority because the project addresses all top recommendations for River Restoration and has multiple additional benefits.
6. Clallam County is a willing landowner, local stakeholders are mobilized, the reservoir has a great deal of popular support in the community, and the planning group is actively identifying models for local cost-share for the reservoir and future operations.
7. State funding secured from WA Ecology's Streamflow Restoration Competitive Grant program and any future funding secured for the Dungeness Off-Channel Reservoir project components will be used as match for construction of the Dungeness Reservoir Irrigation Conveyance Improvement Project and other aspects of the Dungeness Reservoir project.

NOW, THEREFORE, BE IT RESOLVED by the Board of Clallam County Commissioners in consideration of the above findings of fact:

1. Supports the Dungeness Reservoir Irrigation Conveyance Improvement project as it will provide water and fish saving benefits as an individual standalone project while also supporting the Dungeness Off-Channel Reservoir project which is the highest priority to implement flow restoration, water storage, and aquifer recharge because of its scale, location, cost/benefit and feasibility.

PASSED AND ADOPTED this twenty-first day of December, 2021.

BOARD OF CLALLAM COUNTY COMMISSIONERS

Mark Ozias, Chair

Randy Johnson

ATTEST:

Loni Gores, Clear of the Board

Bill Peach