HMGP PROJECT SUBAPPLICATION

DR-4481

CLALLAM COUNTY

[DUNGENESS RESERVOIR CONSTRUCTION: BUILDING CLIMATE RESILIENCE]

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Project Application

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Application Summary

NOTE: THIS SECTION OF THE APPLICATION REVIEWS BASIC ELIGIBILITY REQUIREMENTS. FOR MORE INFORMATION ON ELIGIBILITY PLEASE SEE HMA Unified Guidance Part III (PAGE 25).

Applicant Information

Applicant Organization/Agency: Clallam County
Type of Organization/Agency: Local Government
If Private Non-Profit, describe legal status and function: Click to enter
County: Clallam - 009
Congressional District: 6th Legislative District: 24th
Federal Tax ID#: Fed Tax ID or UBI #: 054-004559 DON'T KNOW YOUR UBI? LOOK IT UP here.
DUNS#: 07-573-9235 WHAT IS A DUNS Number?
CID #: 530021# WHAT IS A CID Number?
SWV#: SWV0000200-04 DON'T KNOW YOUR Statewide Vender Number? LOOK IT UP here.

Primary Contact for this application (The individual directly involved in overseeing the grant)
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Mitigation Plan Information

Does the jurisdiction have a current FEMA-Approved multi-hazard mitigation plan?
Yes No
Pending Approval – Please explain status: Click to enter
If yes, what is the title of the plan? Clallam County Multi-jurisdictional Hazard Mitigation Plan
FEMA Approval Date: 1/28/2020 Expiration Date: 12/31/2024

Project Funding Information

Was any version of this application previously submitted under another FEMA Program or Funding Opportunity? Yes No If yes, explain status: FEMA BRIC
Does another Federal entity have primary funding authority for this project?
No

Project Summary

Project Title: Dungeness Reservoir Construction: Building Climate Resilience
Project Cost Estimate: $ $29,986,688
Primary hazard the project will mitigate Drought with Community Lifelines of Food, Water, and Agriculture
Benefit-Cost Ratio (from FEMA's required BCA Tool): 1.91
Other Benefit Tools (optional): PCB, CRMA, Other BCA Tool, Landslide

Provide a brief description of the project in a few high-level paragraphs. This should be a short summary, not a full scope of work.

Clallam County is requesting funding to support construction of the Dungeness Off-channel Reservoir in the Dungeness basin near Sequim, WA in eastern Clallam County. The Dungeness, located in the rain shadow of the Olympic Mountains, is the driest and most climate vulnerable area in western Washington. The Dungeness River and the water supply it provides for the local community and four ESA-listed salmon, steelhead and trout species is under threat from climate change and drought. The Dungeness River relies on the snowpack that accumulates each winter in the Olympic Mountains and melts throughout the spring and summer. However, this snowpack – representing the area's primary water source – is in serious danger from climate change and drought. The Dungeness Reservoir – a standalone infrastructure project incorporating nature-based solutions – will replace snowpack storage with manmade storage to enable reliable and vital water supplies in the Dungeness basin for communities and the local food system while restoring stream flows for fish.

The Reservoir will deliver a climate-resilient solution by storing early-season high-flow Dungeness River water for use in the late summer to support the local water supply when flows are at their lowest level. To ensure a sustainable climate-resilient water supply to support the greater Dungeness community, which includes the local food production system, increase aquifer recharge to enhance groundwater supplies, and restore 15-26 cfs of streamflow to the Dungeness River to restore salmon habitat, Clallam County is seeking funding for construction of a 42-acre off-channel reservoir to store about 1,600 acre-ft. of water. The Dungeness Reservoir is the greatest and most cost-effective remaining climate-resilient water storage and stream flow restoration opportunity in the Dungeness basin. The calculated Benefit-Cost Analysis Ratio of 1.91 strongly confirms that the project benefits significantly outweigh the project costs. This project has strong support from local and statewide entities including Clallam County, City of Sequim, Clallam Conservation District, Dungeness Water Users Association, Jamestown S'Klallam Tribe, WA Dept. of Ecology, WA Dept. of Fish and Wildlife, Washington Water Trust, and WA state and federal legislators. Clallam County has recognized the Reservoir as its top water resources priority because of its benefits to the Dungeness River, community/food system development, water supply, and salmon recovery. The Dungeness River Management Team (DRMT), a partnership of 16 local, regional, state and national stakeholders have expressed formal support for the project through a resolution. In addition, the Jamestown S'Klallam Tribe, through a resolution adopted by the Tribal Council, supports the Reservoir as its highest priority to implement flow restoration, water storage, and aquifer recharge because of its scale, location, cost/benefit and feasibility.

Project Background

What problem will be mitigated and what are the current conditions and/or history of the problem?

The Dungeness Reservoir will mitigate the serious freshwater supply problems facing both people and fish due to climate change and drought in the Dungeness River basin – the driest and most climate vulnerable basin in western Washington. Washington's Olympic Mountains act as a barrier that prevents precipitation events from reaching the Dungeness watershed. While other regions of the Olympic Peninsula receive the largest amounts of rainfall in the state, the City of Sequim receives annual rainfall of about 16 in/yr – similar to Los Angeles. It is this sunny climate that led to the development of a substantial agriculture economy in the watershed, now crisscrossed by a network of more than 170 miles of water canals and pipes – an elaborate array largely unique in western Washington. During the summer, stream flows in the Dungeness River derive mainly from snowpack melt from the Olympic Mountains and the River's flow naturally declines throughout the summer. However, climate change is anticipated to move the Dungeness watershed 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). This means that the snowpack melt that feeds the Dungeness River and provides freshwater for the local food system and flows for ESA-listed salmon species can no longer be counted on.

The Dungeness watershed is increasingly susceptible to drought. Eight of the last twenty years – including four of just the past eight years – in the Dungeness have been drought or extreme dry years. The UW Climate Impact Group projects that by the 2080s the average snowpack in Washington will decline by 56 to 70%, and summer stream flows will decrease by 34 to 44% on average across the state. The Dungeness River already regularly falls below the minimum target flow of 105 cfs (including down to just 56 cfs in August 2015) as well as the regulatory instream flow recommendation of 180 cfs, insufficient to reliably support both community water needs and anadromous fish in this dry region. The 2015 flows were insufficient to support returning salmon and required physical movement of rocks and boulders to accommodate upstream migrating fish. Agriculture in the watershed depends heavily on Dungeness River water for crops. During the late summer as temperatures rise and flows decrease, agricultural producers can withdraw up to 50% of the flow. Even in non-drought years, these water withdrawals can severely decrease available habitat and increase water temperature for migrating, spawning, and rearing ESA-listed fish and can contribute to upstream fish passage challenges.

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 water demands and its impact on instream flows. Steps taken so far to improve stream flows, replenish groundwater levels, and food system water supply include the piping of a majority of the water delivery system, the implementation of a dry year leasing program to keep water instream in drought years, and the establishment of the Dungeness Water Rule in 2012 requiring new water uses to be mitigated through an aquifer recharge program. However, even with all of these efforts, the Dungeness River – home to ten species of salmonids – is still struggling greatly. Moreover, climate change and drought are increasingly threatening the river and the critical summer water supply it provides. The Dungeness Reservoir is thus the greatest and most cost-effective remaining climate-resilient water storage and stream flow restoration opportunity in the Dungeness basin. The Off-channel Reservoir would support the continued efforts that prioritize protecting and conserving river flows throughout the year to support salmonids and other wildlife, while also augmenting groundwater and strengthening the local food system so that it can continue in the face of a

changing climate. The Reservoir will deliver a climate-resilient solution by storing early-season high-flow Dungeness River water for use by farmers during the late growing season as an alternative to river diversions when flows are at their lowest level. The Reservoir will provide drought resiliency and reduce the potential for future water conflicts in the watershed by providing a sustainable climate-resilient water supply, increasing aquifer recharge to enhance groundwater supplies, and restoring 15-26 cfs of streamflow to the Dungeness River to restore ESA-listed salmon habitat.

What is the intended outcome of the proposed project and how will it reduce or eliminate the long-term risk of future damage, hardship, loss, or suffering resulting from natural hazards?

The intended outcome of this project is a complete and soundly-constructed 1,600 acre-ft off-channel Reservoir that will primarily improve the community's groundwater supplies from aquifer recharge, and will provide a drought-resilient water supply for the local food system in the Dungeness watershed, and restore stream flows and salmon habitat by changing late summer water diversions from the Dungeness River to the Reservoir. This nature-based solution – diverting high-flow water when it is most abundant and storing it for use later in the season when it is most scarce – will reduce the long-terms risks from climate change and drought as the Dungeness watershed is the driest and most climate vulnerable watershed in the Puget Sound region. These long-term risks include the diminishment of the strong local agriculture economy and the livelihoods and food it provides; the continued decrease in numbers or even extinction of local salmonid populations that provide significant cultural, spiritual, recreational and economic benefits to the local communities including local tribes such as the Jamestown S'Klallam Tribe who has depended on this resource since time immemorial; the reduction of groundwater supplies that serve as a water source for local communities and serve as an integral part of the greater local inter-connected freshwater ecosystem.

The need for climate resiliency and drought response in the Dungeness basin has been strongly emphasized and supported in local and regional climate change reports and adaptation strategies. According to the Climate Change Preparedness Plan for the North Olympic Peninsula (2015), increasing regional capacity for water storage is a Top 10 adaptation strategy for building local ecosystem resilience with a specified key action step to "create water storage and usage options at all scales (recharge, mitigation, irrigation)" (P. IV and P.50). Furthermore, a Top 10 adaptation strategy for building local water supply resilience is to "continue to study ways to enhance water storage and groundwater recharge". Other local climate change adaptation reports reinforce this including the Jamestown S'Klallam Tribe's report Climate Vulnerability Assessment and Adaptation Plan (2013). In the Tribe's report, they discuss the water and climate challenges that the Dungeness faces: "As summer flows decrease, there will be less water available for both salmon returning to spawn and agriculture uses. Warmer temperatures will increase evapotranspiration (i.e. water use of crops and vegetation), dry out soils, and increase agricultural demand for water resources. Lower flow rates will mean that the water stays in the river longer and has higher water temperatures that will add stress to salmon returning to the river" (p.32). The USDA further reinforces the future water challenges that the Dungeness will face in their report Adapting to Climate Change at Olympic National Forest and Olympic National Park (2011): "Other river systems, such as the Elwha and Dungeness Rivers, are in transient watersheds. Increasing temperatures in the 21st century will likely lead to significant increases in the winter and early spring peak streamflows and significant decreases in the summer low flows in these transient watersheds." (p.24). Furthermore, "Streamflow is projected to change the most in watersheds that are strongly influenced by both rain and snow. These "mixed-rain-and-snow" basins, currently found on the North Olympic Peninsula and at

middle elevations in the Cascades, are projected to experience large increases in winter flows and flooding, and more severe declines in summer low flows" (p.10-3).

These anticipated climate change impacts point to the strong need to restore streamflows in the Dungeness River and thus the need to construct the climate-resilient Dungeness Reservoir as it is the greatest remaining opportunity to do so. In addition to providing climate-resiliency to the Dungeness Valley, the Dungeness Reservoir is a project that is climate resilient itself. According to the UW Climate Impacts Group's Puget Sound State of Knowledge Report, it is anticipated the Dungeness basin will move from a transient watershed (snow/rain mix) to a rain-dominant watershed with peak stream flows shifting to 25-40 days earlier by the 2080s compared to 1970-1999 (p.A-3). The Reservoir demonstrates climate resiliency and its ability to persist over time in that it will remain fully operational and functional – able to divert and store high flow water – despite projected shifts in type of precipitation from snow/rain mix to rain and despite shifts in the timing of precipitation and high-flows. The residual hazards after project implementation include the unknown impacts that climate change may bring to the Dungeness basin in regards to drought, storm events and other impacts. While there are projections for climate change impacts in regards to temperature, precipitation, water availability and other factors, climate change may manifest in ways not yet fully apparent. This is all the more reason to take steps in building resiliency for people and the environment in the Dungeness basin by constructing the Dungeness Reservoir.

What members of the community will benefit from the proposed project? Positive and negative effect to the community. Overall demographics. Population. Socioeconomic make up. Number of people who will benefit from the project.

All of the members of the Clallam County and greater Dungeness community – and even many people beyond – will likely be positively impacted by the Dungeness Reservoir whether it be from a more climate-resilient local ecosystem, replenished groundwater, food system and economy, a healthier Dungeness River, and/or the new county park surrounding the Reservoir. More specifically though, the members of the community that will benefit from the Dungeness Reservoir include Jamestown S'Klallam and other Tribal members, agricultural producers, and those in the population that engage with or benefit from the river and local freshwater ecosystem economically, recreationally and/or culturally.

Positive impacts that the Dungeness Reservoir will provide to the community include a more climate-resilient local ecosystem, food system and economy; a healthier and fuller local freshwater ecosystem including the Dungeness River, local streams, and aquifers; strengthened and more resilient farms and the livelihoods they support and food they provide; healthier salmonid populations that not only provide subsistence, economic, recreational and cultural benefits for Tribal and other community members, but also serve as the key prey population for the endangered and beloved Southern Resident killer whales; and, finally, improved recreation opportunities from a healthier river as well as the local park that will surround the reservoir. We do not anticipate any negative effects from this project.

The total population of Clallam County in 2020 was 77,155 and all of these people benefit from a healthy and climate resilient watershed and Dungeness River, a more sustainable groundwater supply, a more climate-resilient local agricultural economy and food system, and/or improved recreational opportunities. The number of people that live down-gradient of the Reservoir is 11,812 (15.3% of the Clallam County total population) based on 2020 Census block data and these people will likely benefit most from the project. The Dungeness Reservoir will benefit low income and minority populations. According to the US Census Bureau, the median household income of Clallam County from 2016-2020 (in 2020 dollars) was

$55,090. This income is significantly lower than the Washington state ($78,687) and US ($65,712) median income. Additionally, income data retrieved from the American Community Survey indicates that within 2 miles down gradient of the Reservoir, there are about 2,512 people with a weighted median income of $44,405.13 – significantly below even the median household income of the County as a whole.

Using 2020 Census block information, the population downgradient of the Reservoir is 14.0% non-white. Specifically, this project has significant positive benefits for the Native American population; 13.0% of the non-white population downgradient of the Reservoir is Native American. One of the most culturally important species for the local Jamestown S'Klallam Tribe is salmon. Salmon fishing was one of the primary means of sustenance for the S'Klallam people. In 1855, the Tribe entered into a Treaty with the United States specifically reserving the "right of taking fish at the usual and accustomed grounds and stations." However, over time, critical fish habitat has been reduced due to water diversions and river modifications contributing to steep declines of native salmon and steelhead numbers which are now only a fraction of what they used to be. Thus, the restoration of flows and fish habitat resulting from the construction of the Off-channel Dungeness Reservoir – as well as the climate resiliency for the freshwater and fish that the Reservoir will provide – will help to restore Dungeness River and local small stream salmon habitat, helping to increase the salmon populations that hold particular importance for Native Americans both locally and region-wide.

This project will help support the continued viability of food production in the Dungeness River Valley, particularly in the face of drought, a changing climate and resulting water availability concerns. Providing water security by utilizing stored water offers an opportunity for farms to continue to produce food and other products, contribute more than $12 million to the Clallam County economy and retain the jobs associated with those farms. Additionally, there will be construction jobs that result from the development of this project and value added jobs resulting from accommodating the needs of the construction workers.

Moreover, it is anticipated that up to 3.0 FTE new positions will be created to support Reservoir and park operations when this project is complete. More information related to local job creation will be assessed during Phase 2 of Design. The underserved community will not be adversely impacted by this project but will benefit by aforementioned local economic development associated with this project, enhanced streamflow and habitat conditions for salmonids, sustainable water supplies, availability of construction jobs, and the amenity of a new County park for recreation, health, and open space.

How is the proposed project related to or consistent with the jurisdiction's FEMA-approved Hazard Mitigation Plan?

The Dungeness Off-channel Reservoir is specifically called out in the Clallam County Multi-Jurisdictional Hazard Mitigation Plan to deal with the impacts of drought on agricultural, domestic, and municipal water supplies. Excerpts from the Clallam County Multi-Jurisdictional Hazard Mitigation Plan include:

- *4.5.12 Drought from the Clallam County Multi-Jurisdictional Hazard Mitigation Plan Vulnerability:* Problems of domestic and municipal water supplies are historically corrected by building another reservoir. Future preparedness will depend on underground or reservoir water storage. <u>The County's vulnerability to drought has increased since 2010, as the demand has grown, and historic water supply shifts due to climate change and other factors</u>.

- *Listed as CC15 and SQ04 in the plan. Agricultural:* The linkage of meteorological (or hydrological) drought to impacts on agriculture, with focus on precipitation shortages, soil water deficits, reduced groundwater or reservoir levels, differences between actual and potential evapotranspiration, and other factors.
- *Hydrological:* Associated with the effects of periods of precipitation shortfalls (including snowfall) on surface or subsurface water supply (i.e., streamflow, reservoir and lake levels, groundwater). Frequency and severity of hydrological drought may be defined on a watershed or river basin scale. While all droughts originate with a deficiency of precipitation, this definition is associated more closely with how the deficiency impacts the hydrologic system.
- Table 6-5 2019-2025 Mitigation Implementation Plan CC15 Install off-channel reservoir adjacent to Dungeness River, to store high Dungeness River flows and storm flows for release later for aquifer recharge and irrigation purposes.

What are the demographics of the population that will be served by this project?

The demographics of the population that will be served by this project are projected to be roughly similar to the demographics of Clallam County as a whole (from 2020 Census): Population: 77,155; Race: White alone, percent: 87.1%; Black or African American alone, percent: 1.2%; American Indian and Alaska Native alone, percent: 5.6%; Asian alone, percent: 1.9%; Native Hawaiian and Other Pacific Islander alone, percent: 0.2%; Two or More Races, percent: 4.1%; Hispanic or Latino, percent: 6.6%; Income: Median household income (in 2020 dollars), 2016-2020: $55,090; Per capita income in past 12 months (in 2020 dollars), 2016-2020: $31,601; Persons in poverty, percent: 13.3%. As of February 2022, the unemployment rate for Clallam County was 6.6% while the unemployment rate for Washington was 4.3% and the US was 3.8%. The area downgradient of the proposed Reservoir is too small to have an official unemployment rate but is likely similar to that of the County. More details on the demographics of this area are described in the uploaded Eastside Dungeness Community Profile file in Folder 5.

Scope of Work

What specific work activities or components are involved in the proposed project, how will each one be implemented, and who will be responsible for completing them?

Clallam County is requesting funds to mainly support construction of the Dungeness Off-Channel Reservoir. Construction can be separated into the following main components: 1) Reservoir and appurtenances, 2) Inlet Pipeline, from the HID Main Canal to the reservoir, 3) Outlet Pipeline, from the reservoir to the north parcel boundary, 4) Flow control structure on the HID Main Canal, 5) Settling basin facilities at the upstream end of the HID Main Canal, 6) HID intake screen improvements, and 7) HID headworks improvements. Each main component would include mobilization/demobilization, construction surveying, other miscellaneous site work, and final cleanup/site completion with hydroseeding. The main components would also include the following construction items:

1. Reservoir Construction: Clearing and grubbing; removal of structures and obstructions; native material excavation, hauling, and placement or stockpile; sorting and placement of stockpiled material for embankment construction; import and placement of materials for embankment construction; till material installation; inlet and outlet structure placement; bypass pipeline installation; spillway construction; and fencing.
2. Inlet Pipeline: Clearing and grubbing; removal of structures and obstructions; trenching; placement of 36-inch HDPE pipe; placement and compaction of pipe bedding; backfill with on-site materials; and roadway repair.
3. Outlet Pipeline: Clearing and grubbing; removal of structures and obstructions; trenching; placement of 36-inch HDPE pipe; placement and compaction of pipe bedding; and backfill with on-site materials.
4. Flow Control Structure: Clearing and grubbing; structure excavation; construction of the reinforced concrete structure and appurtenances; and backfill with on-site materials.
5. Settling Basin: Clearing and grubbing; excavation and reshaping of the ditch; construction of the reinforced concrete settling basin control structures and appurtenances; installation of an 18-inch bypass pipeline; and backfill with on-site materials.
6. HID Intake Screen Improvements: Removal of the existing fish screen; rehabilitation of the fish screens by WDFW; reinstallation of the rehabilitated fish screens; painting of the existing gantry structure; installation of bypass gate automation equipment, installation of a waterjet manifold and sediment mobilization equipment; and start-up and testing.
7. HID Headworks Improvements: Dewatering of the channel upstream of the headgate structure; upstream channel improvements; modifications to the reinforced concrete headworks structure; installation of a new trash rack; installation of new automated headgates; improvements to the diversion canal downstream of the headworks; and installation of flow metering equipment.

Overall, the key components of the reservoir project based on 30% preliminary design produced by consulting firm Anchor QEA will include:

- A 1,591-acre-foot storage reservoir with a maximum water surface area of approximately 42 acres

- An embankment with interior slide slopes that are no steeper than 3 horizontal to 1 vertical (3H:1V), exterior side slopes that are no steeper than 3H:1V, and a maximum height of approximately 40 feet
- Excavation of more than 1.2 million cubic yards of material
- Placement and compaction of more than 600,000 cubic yards of material, including placement of low permeability material as a liner
- A 36-inch-diameter inlet pipeline from the HID main canal to the reservoir
- A reinforced concrete structure where the inlet pipe discharges to the reservoir
- An outlet works piping manifold with multiple outlet ports, automated outlet gates, and structures to support the outlet gates
- A 36-inch-diameter outlet pipeline from the reservoir to an outlet on the HID H1 Lateral near the north parcel boundary
- A drop inlet spillway structure, spillway pipeline, and a spillway channel
- An 18-inch reservoir bypass pipeline
- A flow control structure at the upstream end of the inlet pipeline on the HID Main Canal that will control flow from the canal to the reservoir
- A settling basin at the upstream end of the HID Main Canal
- Improvements to the HID rotating drum fish screens and appurtenances
- Improvements to the HID headworks, including upgrades to the existing headgate structure

Construction will be conducted by an engineering construction company with oversight by Clallam County Public Works to ensure completion. The construction will be the deliverables as identified in above and in 30% design.

Additionally there are three other components besides Construction: 1) Project Management, 2) Pre-construction, and 3) Post-construction. Project Management by Clallam County will occur throughout the entire project until all project components are completed successfully. Pre-construction components include land acquisition by Clallam County of 396 acres of WA DNR property by River Road in the Sequim area, engineering to final design by Anchor QEA, permitting activities with the required regulatory agencies implemented by Anchor QEA and Clallam County, outreach by Clallam County and Washington Water Trust, and water right analysis, water right amendments, and developing a MOA between Reservoir partners on roles and responsibilities by Washington Water Trust and Clallam County. Post-construction components will include holding public workshops by Clallam County and Washington Water Trust, an Operation & Maintenance manual with training developed by Anchor QEA and the construction company, establishment by Clallam County and Washington Water Trust and Reservoir Partners of a Flow Committee to guide diverting flows for the Reservoir and releasing water from the Reservoir, and closeout activities to be finalized by Clallam County.

Which tasks will contractors be responsible for, if any? Please explain their expected products and/or deliverables.

Contractors will be responsible for the following tasks:

- Reservoir Design & Engineering (Anchor QEA) – deliverables – 30% (complete), 60%, 90% & final design.
- Bid documents (Anchor QEA) – deliverables – detailed bid documents to help solicit construction contractor bids.

- Permitting & Compliance (Anchor QEA) – deliverables – successfully assist with obtaining the following permits: Section 401, Section 404, or NWP; ESA Section 7; Section 106 – historic & cultural; SEPA; Hydraulic Project Approval; Shoreline Substantial Development and/or Conditional Use; building/grading permit.
- Ecology Dam Safety Office (Anchor QEA) – deliverables – have already initiated consultation with Ecology DSO through a virtual meeting during preliminary design. Other coordination meeting will be scheduled to review the preliminary design drawings with DSO and obtain initial feedback. Consultation will continue through detailed design to ensure that the design is developed to meet DSO guidelines and requirements.

Ultimately, a Dam Construction Permit application will be completed and submitted with the supporting design documentation to secure a Dam Construction Permit; -Presentations and outreach to project partners and public assistance (Washington Water Trust) – deliverables – meetings, presentations and outreach to project partners and the public during planning and construction; -Water rights (Washington Water Trust) – deliverables – water rights analysis and changes/adjustments; -O&M plans (Anchor QEA & construction contractor TBD) – deliverables – O&M plan & manuals that will outline requirements for annual inspections that are to be performed by the owner. This will include a detailed inspection and maintenance of all key components of the reservoir and hydraulic controls that manage flows to and from the Reservoir; -Development of Flow Committee guidance document (TBD) – deliverables – annual plan to guide diversion of flows for Reservoir fill and release of Reservoir water for irrigation and aquifer recharge. In addition, contractors will be responsible for all of the construction tasks detailed in this application. The overall expected product is a successfully and soundly constructed off-channel reservoir.

Specific construction deliverables include:

- A 1,591-acre-foot storage reservoir with a maximum water surface area of approximately 42 acres;
- An embankment with interior slide slopes that are no steeper than 3 horizontal to 1 vertical (3H:1V), exterior side slopes that are no steeper than 3H:1V, and a maximum height of approximately 40 feet;
- Excavation of more than 1.2 million cubic yards of material;
- Placement and compaction of more than 600,000 cubic yards of material, including placement of low permeability material as a liner;
- A 36-inch-diameter inlet pipeline from the HID main canal to the Reservoir;
- A reinforced concrete structure where the inlet pipe discharges to the Reservoir;
- An outlet works piping manifold with multiple outlet ports, automated outlet gates, and structures to support the outlet gates;
- A 36-inch-diameter outlet pipeline from the Reservoir to an outlet on the HID H1 Lateral near the north parcel boundary;
- A drop inlet spillway structure, spillway pipeline, and a spillway channel;
- An 18-inch Reservoir bypass pipeline; -A flow control structure at the upstream end of the inlet pipeline on the HID Main Canal that will control flow from the canal to the Reservoir;
- A settling basin at the upstream end of the HID Main Canal Improvements to the HID rotating drum fish screens and appurtenances Improvements to the HID headworks, including upgrades to the existing headgate structure

Which tasks will the jurisdiction be responsible? Who will manage the project?

Grant management and construction will be thoroughly overseen by Clallam County. Clallam County has for decades successfully managed design, restoration, and award-winning construction projects, and participated successfully in multi-million dollar, multi-stakeholder, large-scale restoration projects in the Dungeness area. Clallam County Public Works has experience with large project oversight such as the following:

- Dungeness Floodplain/Levee Setback ($24 million)- land acquisition, construction inspection and construction administration
- Elwha River Bridge ($20 million)—construction inspection and construction administration
- Deer Park Underpass ($8 million)-- construction inspection and construction administration
- Carlsborg Sewer ($10 million)-- construction inspection and construction administration
- Eastern Port Angeles Urban Growth Area Sewer ($6 million) --construction inspection and construction administration.

Furthermore, the County and partners have successful experience with other complex water projects such as aquifer recharge and water conveyance piping. Clallam County and project partners have the capacity to complete and ensure the success of this important project. Clallam County has recognized the Dungeness Reservoir as its top water resources priority because of benefits to community development, water resources, and salmon recovery and has committed to complete monitoring and ongoing management of the project. The Clallam County Commissioners have identified the Dungeness Reservoir as one of their top 10 goals for the County. Additionally in 2018, the Commissioners signed Resolution 92 identifying the Reservoir as the "highest priority to implement flow restoration, water storage and aquifer recharge because of its scale, location, cost/benefit, and feasibility". A collaborative team, the Dungeness Reservoir Work Group, has convened about the Dungeness Reservoir project since 2014, and includes important members engaged in water management, habitat and species recovery, and regularly meets in-person and by teleconference. Members include: City of Sequim, Clallam Conservation District, Clallam County, Dungeness Water Users Association, Jamestown S'Klallam Tribe, Ecology, WDFW, and Washington Water Trust. The Dungeness River Management Team (DRMT), a partnership of 16 local, regional, state and national stakeholders that meets monthly to develop and implement solutions to Dungeness Watershed management issues, has expressed formal support for the project through a resolution.

Further, the Dungeness Reservoir aligns with community needs and local watershed planning processes as water storage and aquifer recharge have been included as recommendations in a number of local plans including:

- Elwha Dungeness Watershed Plan (2005)
- Comprehensive Irrigation District Management Plan (2006)
- Clallam County Comprehensive Flood Hazard Management Plan (2009)
- North Olympic Peninsula Lead Entity Salmon Recovery Strategy (2011)
- Dungeness Water Management Rule and Dungeness Water Exchange Mitigation Plan (2012)
- Climate Change Preparedness Plan for the North Olympic Peninsula (2015)
- Clallam County Multi-Jurisdictional Hazard Mitigation Plan (2020).

Clallam County Public Works with Water Resources Program Manager Carol Creasey is uniquely positioned to manage the project and assist with land use permits and outreach. Carol has worked at Clallam County for 17+ years: 0.5 years as Salmon Recovery Coordinator, 8 years as Sr. Planner, and 9 years as County Hydrogeologist and Water Resources Program Manager. Her focus has been on planning,

permitting, development, ground and surface water quantity and water quality, water rights, water mitigation, groundwater database creation, stormwater, salmon restoration, and project management. Carol has applied for, secured and administered state and federal grants ranging from $35k to $8.0 million. Prior work experience includes working at the US Geological Survey on landslide and water resource projects, project hydrogeologist at consulting firms, Director of the Integrated Studies Department at California State Monterey Bay, and college professor teaching water resources. Clallam County Public Works with its County Engineer Joseph Donisi is qualified and eager to perform design review and provide oversight of the construction engineers/contractors. Joe has extensive experience on the design, construction and maintenance of roads and bridges and has managed many Engineering Consultants. Leading a Construction Management, Quality Control and Inspection team has also been a focus in his career. He has worked for 23 years for Clallam County as a Design Engineer, Construction Engineer, Engineering Manager, Asst. County Engineer, and County Engineer and 12 years previously for civil and structural engineering firms. Joe is responsible for a staff of 16 and for the delivery of Capital projects that average $5 Million to $7 Million annually. Some larger projects include all phases of the $24 million Dungeness Floodplain/Levee Setback, $20 Million Elwha Bridge project, the Construction phase of the $10 Million Carlsborg Sewer, the Construction phase of the $6 Million Port Angeles Eastern Urban Growth Sewer and all phases of the $8 Million dollar U.S. 101/Deer Park underpass project. Clallam County Parks, Fairs, & Facilities is capable and willing to manage the new County Park and has declared their support saying, "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."

Washington Water Trust and its Program Director Jason Hatch is committed to assisting with water right change applications, storage permit requests, outreach and other items that fall within their expertise. Jason began working for WWT in 2013, previously working for Trout Unlimited-Washington Water Project, California League of Conservation Voters and Friends of the River. Jason has overseen a fish passage study on Icicle Creek (Wenatchee Sub-basin), built a project to move an irrigation company off a critical steelhead tributary in the Entiat sub-basin, and directed water rights reviews to identify flow restoration opportunities. He manages the Western Washington WWT program to restore flow and develop sustainable water management strategies in basins including the Dungeness, Nooksack, Chehalis, Sammamish and others. In the Dungeness, Jason oversees the operations of the Dungeness Water Exchange mitigation bank, source switch operations, water rights review and applications, dry year leasing programs and helps coordinates the Dungeness Reservoir Working Group. Beyond this core project management team, a team of collaborative partners, the Dungeness Reservoir Work Group, has convened to participate in extensive planning and feasibility of this project since 2014. The capacity for outreach and fund development has been amply met in this dedicated group, as members continuously explore models for local cost-share as well as private and federal funding opportunities. This dedicated group holds a wide array of skills, expertise, resources, and capacity to complete this project.

What design specification will this project be built to?

The Reservoir project will be designed to meet local Clallam County building codes and Washington Dam Safety Office requirements. In Washington, reservoirs and impoundments that exceed 10 acre-feet in water storage capacity are regulated by the Washington Department of Ecology Dam Safety Office. The Dam Safety Office has guidelines for design and construction of reservoirs and impoundments outlined in a series of guidance manuals. Reservoir facilities will be designed to meet the Dam Safety Office's

manuals. The design will be reviewed and approved by engineers from Ecology's Dam Safety Office prior to issuing a Dam Construction Permit. Technical specifications will be prepared for the project that will outline specific requirements for project materials and work that will reference applicable standards and will reflect the guidance provided by Ecology's Dam Safety Office. Technical specifications for materials and implementation of the Reservoir work will meet the requirements of applicable standards from the Dam Safety Office. Additionally, the Washington Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction will be used in design and construction, where appropriate.

Will the proposed project use unproven technology? Yes No If yes, please explain:

We do not anticipate using unproven technology for the project.

Project Timing and Coordination

How will the proposed project be coordinated with neighboring entities (including counties, cities, states, tribal nations, fire, police, public works, utilities, etc.)?

Within the Dungeness watershed, entities that manage water resources have been involved in all stages of project development for the Off-channel Reservoir project since it was first proposed. The Off-channel Reservoir project is led by Clallam County who works closely with neighboring entities: City of Sequim, Jamestown S'Klallam Tribe, Clallam Conservation District, Dungeness Water Users Association, WA Dep't. of Fish and Wildlife, WA Dep't. of Ecology, and Washington Water Trust. The aforementioned entities are members of the Dungeness Off-Channel Reservoir Work Group, which serves as an advisory council and allows different stakeholders to provide feedback on project elements. Having this partnership group in place allows for regular coordination and feedback on the project.

Will this project need to be phased? How much design and engineering has been completed? Have any studies been completed or will need to be completed in the future? Are there any challenges that may delay the project (homeowner buy-in, public concerns?)

This project will not need to be phased if the necessary funding is awarded. 30% engineering design has been completed and 60% design has started with final design anticipated by Q3 2023. We have completed a geologic hazard study, cultural resource study, a Phase 1 and Phase 2 Environmental Site Assessment (ESA), and wetlands and Ordinary High Water Mark assessment. We are scheduled to conduct more cultural resources monitoring before additional field work is accomplished this fall. At this point the project may be delayed from 1) full funding not yet having been achieved, 2) supply chain issues related to the materials needed to construct the Reservoir, 3) permitting review processes, and 4) cultural resource approval due to lack of staff capacity at our funder, WA Ecology, to approve our proposed additional cultural resources work.

What might be potential roadblocks or challenges for this project?

The Dungeness Off-channel Reservoir has been proposed as a solution to low river flow conditions and impending climate change impacts in the Dungeness Watershed since 2014. It has broad local support as a multi benefit project that will benefit salmon, water supplies, food supply, and the community. However, acquiring funding to support the construction of the Off-channel Reservoir is the roadblock that persists. Thus far, the project has been awarded just over $8 million through the Washington Dept. Of Ecology Streamflow Competitive Grants and WA State Conservation Commission funding. In order to start construction, more funding will need to be secured. Furthermore, a significant challenge related to funding of the project is inflation that is driving up costs and supply chain issues related to construction materials needed to execute this Off-channel Reservoir.

Has the proposed project's construction or implementation phase already started?

Project construction is expected to take place six months after we receive a signed FEMA award after which the Reservoir will be operational within thirty-six months of receiving funding. The Dungeness River

will ideally experience streamflow restoration benefits of up to 25 cfs in its first possible full fish season after construction completion. The pre-construction phase of the project is well underway including: - The letter of Intent for land purchase of the 396 acres of DNR lands off River Road has been signed by both Clallam County and DNR. Land appraisals are being evaluated for purchase price negotiations but the land is not yet purchased. -Project management including generating and signing an MOA with WWT to assist with project management; legal negotiations; RFP generation; hiring geotechnical firm, cultural resource firm, environmental assessment firm, and engineering design firm; outreach including presentations and Dungeness Reservoir Partner meetings; generating an MOA with partners on roles and responsibilities; review of design phases; and water right negotiations with Ecology and the agriculture water purveyors. -Design: 30% design is complete. 60%, 90%, and final design is anticipated to be completed by Q3 2023 - Permitting is underway with the majority of permits to be obtained by Q3 2023. -Bid documents and construction anticipated to begin in Q4 of 2023 if all permits have been approved. -Project administration included contracting with Ecology, developing a final budget, and generating invoices and project reports. -Pursuit of construction funding from FEMA, US Bureau of Reclamation, WA Conservation Commission, WA Dept. of Ecology, USDA-NRCS, NOAA, and others underway.

Budget and Funding Sources

Estimated Total Costs

Total Project Costs	$ Estimate
Pre-Award Costs (Disaster declaration date through grant award date)	$32,000.00
Project Management Costs, Legal Expenses, etc.	$710,309.00
Land, Structures, Rights-of-way, appraisals, etc.	$2,520,000.00
Relocation Expenses and Payments	$0.00
Architectural, Engineering, Geotechnical, etc.	$2,698,770.00
Project Inspection Fees (Construction Management)	$1,774,615.00
Site Work	$2,327,949.00
Demolition and Removal	$8,138.00
Construction	$19,846,607.00
Equipment *(trackable assets costing $5,000 or more)*	$0.00
Miscellaneous *(Taxes, Travel, Supplies, etc.)*	$68,300.00
Total Project Costs	$29,986,688.00 *

*To update total of all categories, right click the cell above and select Update Field

Attach backup documentation to explain how the cost estimates were determined (spreadsheets, vendor quotes, engineer/design estimates, in-house worksheets, correspondence, etc.)

Insert a by property table for acquisition, elevation, or multi-site mitigation.
Not applicable

Describe the expenses included in each of the above budget categories:

This document will explain and clarify the items included under Total Project Costs.

1) Pre-Award Costs include work performed by a BCA consultant to conduct the BCA analysis, County staff time, and design consultant and Washington Water Trust (WWT) staff time to assist with answering the subapplication questions.

2) Project Management Costs include staff time and WWT staff time to help administer the project. WWT also provides expertise on water rights and maximum allocation water. It also includes legal advice from WWT's lawyer to assist on legal matters regarding the project.

3) Land, structures, rights-of-way, appraisals include the cost of the acquisition of two parcels of land (396) acres from DNR, DNR's appraisal, County's appraisal, title report, and any real estate taxes and fees.

4) Relocation Expenses and Payments—there should be none since there are no residences on the property.

5) Architectural, Engineering, Geotechnical includes engineering design, geotechnical work, cultural resources, environmental assessment, surveying, permitting, and permit fees.

6) Project Inspection fees include construction management and inspection. Construction management was estimated at 8%

7) Site work includes clearing and grubbing, hydroseeding, construction surveying, utility locate, stripping and hauling and stockpiling of subsurface materials, erosion control, cleanup, taxes, etc. Clallam_FEMA HMGP Cost Estimate.xlsm in folder 2 provides a detailed breakdown from Anchor QEA of the site work.

8) Demolition and Removal is the removal of structures and obstructions and taxes. See Clallam_FEMA HMGP Cost Estimate.xlsm in folder 2 for specifics.

9) Construction expenses cover mobilization/demobilization; pipelines; inlet structures, outlet structures, screening and placement of till, crushed rock, and topsoil; settling basin, headgate improvements, fish screen improvements, geotextile, spillway, taxes, etc. The specific breakdown on construction is shown in Clallam_FEMA HMGP Cost Estimate.xlsm in folder 2.

10) Equipment—there should be no equipment purchased.

11) Miscellaneous includes public outreach ($57,000), supplies ($7,100), and travel ($4,200).

Total Project Cost is $29,986,688

Describe any consultations with any relevant agencies such as USACE, DFW, SHPO, WSDOT, etc.

We have had informal consultation with Ecology's Dam Safety Office, US Army Corps of Engineers, WA F&W, WA Ecology, and Clallam County's Building and Community Development departments.

Funding Source – Non-Federal Match

The Hazard Mitigation Grant Program offers cost-share grants payable on a reimbursement basis. Jurisdictions must have sufficient resources to provide the required non-federal match and cover any cost overruns related to completing the proposed Scope of Work.

The maximum federal share is 90% of the total, eligible costs. The minimum non-federal cost share is 10%. In some instances, the state will split the non-federal share between the state (5%) and the applicant (5%). If this state match is available, applicants will be notified during the Pre-Application step of the HMGP round.

Source of Funds	Estimates
Federal 90%	$ 26,988,019.20
State 5%	$ 1,499,334.40
Local 5%	$ 1,499.334.40
Total:	$29,986,688.00

*To update the total, right-click the cell above and select Update Field. Please type "0" in the boxes that do not have match, or the total will not properly calculate.

Other Eligible Local (applicant) Non-Cash Match Sources:	
Local (applicant) Staff Time	$ 0

Local (applicant) Materials and/or Supplies	$ 0
Local (applicant) Equipment Use	$ 0
Third Party In-Kind Donations*	$ 0
Other Eligible non-federal match sources (Local)	$ 1,499,334.40
Local (applicant) Cash Match	$ 0
Total applicant Cost Share (at least 12.5% of project budget):	**$1,499,334.40

**To update the total, right-click the cell above and select Update Field. Please type "0" in the boxes that do not have match, or the total will not properly calculate.

*Third Party In-Kind Contributions: The applicant's required cost share can include another entity's donations of staff time and/or volunteers, equipment use, materials, etc. These *Third Party In-Kind Contributions* must be identified in this table to be eligible for consideration as a cost-share match source.

Schedule of Work

List the major milestones in the proposed project and provide an estimated timeline for each activity. Projects must be completed within the established period of performance.

MILESTONE Description of Activity/Task	# of Months to Complete
Click to enter milestone	Enter #
Additional Cultural Resources Surveys	2 months
Additional Geotechnical Investigations	3 months
Additional Topographic Surveys	3 months
Agency Coordination – Permitting & Approvals	11 months
SEPA	3 months
Dam Safety Consultation, Dam Construction Permit	11 months
60% Design	5 months
90% Design	3 months
Final Design	3 months
O&M Planning	3 months
Construction Bidding	2 months
Construction Contracting	1 month
Construction	24 months
Total Months Required to Complete This Project: No more than 36 months	36 months

Project Alternatives

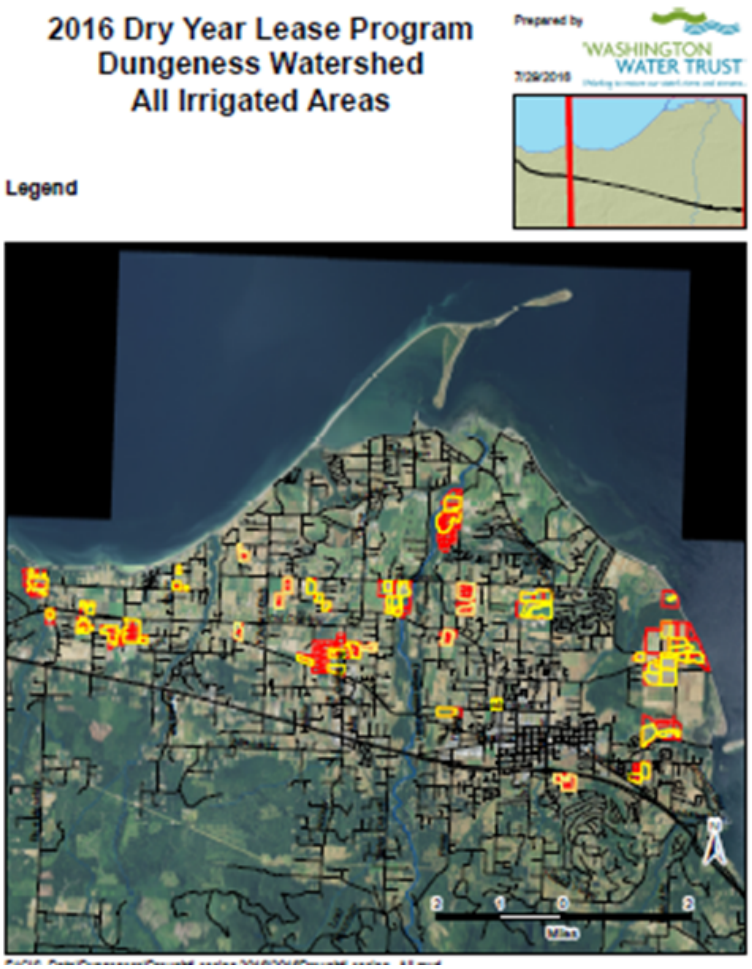
Alternative Project

This section is intended to demonstrate that project alternatives were seriously considered and that the proposed project is the most beneficial, cost-effective mitigation activity reasonably available to the applicant. The questions below ask for information regarding the next best mitigation action that was considered during the process of developing the proposed mitigation activity.

Scope of Work – Summarize an alternative course of action considered by your organization that would mitigate the same hazard. Include any appropriate diagrams, sketch maps, materials and equipment quantities, scale of the project, amount of time required to complete, etc.

A primary non-structural alternative to the proposed project is a land fallowing program, reducing river diversions, to achieve the 25 cfs flow restoration target during the critical late season period. Such a program requires sufficient acres to fallow and reliable funding to support this activity. Fortunately, such a program has been tested and implemented in the Dungeness basin since 2001 during dry and state declared drought years. Project partners, the Dungeness Water Users Association, the Washington Water Trust (WWT) and the Washington Department of Ecology (DOE) have engaged in a dry year leasing program which pays farmers to fallow acres for the last 30-45 days of the watering season, reducing river diversions and leaving water instream. The Dungeness Dry Year Leasing Program (DYL) has relied on funding disbursements from the Washington Department of Ecology as well as the voluntary participation of farmers. A DYL is a potential alternative project and if successful, could potentially secure 25 cfs of averted river diversions with sufficient reliable funding and willingness of farmers.

DOE managed a program from 2001-2005, that reduced river water diversions by 10-14 cfs. In 2015, 2016, and 2019, 5.60, 7.85, and 8.85 cfs, respectively, were obtained through eligible and willing lease participants. The greatest amount (8.85 cfs) represented 1,348 acres of land fallowed during the last month of the watering season or 152.31 acres per cfs. In order to achieve 25 cfs it would require as much as 3,808 acres of fallowed ground. It is estimated that there is as much as 7,000 acres served by DWUA. A program would require fallowing as much as 54% of total production acres. Through successive years and familiarity with the program, WWT and DWUA have been able to activate this program within 3 months of the fallowing period. WWT engages all agriculture water purveyors; jointly mails DYL enrollment materials to eligible (at least 5 acres of consistently watered ground) farmers; receives, reviews, approves beneficially used acres; develops and executes forbearance agreements with payment on a per acre basis; monitors that the acres are not being watered during the forbearance period; and provides end of season payment for participation in the DYL. In 2016, 1074 acres were fallowed from August 15-September 15 (see map for distribution of acres in watershed). In 2019, the DYL was able to enroll 1348 acres, paid $165/acres for a total water cost of $222,477.00 with an additional approximate 10% cost for administering the program, or $20,000. Based on the 2019 DYL figures and considering running the DYL Program for 50 years with 2% cost increase each year, a DYL would cost $65,579,000 for the time period. Additional factors might drive this overall cost up, including the number of transactions (or parcel owners) needed, the price per acre for farmers to participate as well as the year-to-year cost increases.



Among the challenges of this alternative are:

1) Most of the large landholding farmers, have participated in enrolling a portion of their acres in the DYL. To achieve the 25 cfs target, may require higher transactions/administrative costs with smaller acreage owners.
2) This alternative would require the majority of agricultural acres in the County to stop watering for 30-45 days every year. This approach would result in lost food production, revenue (equipment repair, farming supplies, fuel, available feed for livestock, and reduced labor) to the surrounding community by allowing these acres to go fallow.
3) This alternative requires stable funding. In July of 2021, the state of Washington declared a drought, which was the latest declaration in 20 years and it arrived without any funding to support activities to protect flows. The year-to-year uncertainty of state funding to support a DYL provides real challenge to this funding source and this alternative.

Hazard Mitigation – How would the alternate project reduce or eliminate the hazard's effects and risks, and the need for future state or federal disaster assistance?

Among the key hazards this project seeks to address are drought and the impacts of climate change on water availability. This alternative would respond to climate change impact on the water year, as the Dungeness Basin is expected to experience more precipitation as rainfall and warmer spring temperatures, which will deplete spring snow pack earlier resulting in higher spring flows and less

instream in the 30-45 day critical period in late summer. DYL would lessen the impact of climate change, by reducing river withdrawals during that late summer period when flow is critical to salmon, bringing acres out of agricultural production. This alternative would require drought/dry year funding, typically provided by the Washington State Department of Ecology. However, in 2021 the state declared a drought in July and there was no corresponding funding to intervene to protect flow. Future low water years may rely on the willingness of state legislature budget writers to provide drought funding, which reduces the certainty of activating the DYL in a meaningful way. This alternative would likely have variable participation and likely insufficient acreage to reach the 25 cfs target, but might reach the 10 cfs level of previous years.

Environmental Considerations – How would the alternate project positively and/or negatively affect the surrounding environment? Include information regarding both natural (fish, wildlife, streams, soils, plant life) and social (public services, utilities, land/shoreline use, population density) environments.

This alternative would, with funding and willing landowners, reduce the impact of late season river diversions on instream flow and temperature, improving habitat for salmon. This increased flow during the critical period, would engage more floodplain, and provide more accessible habitat for salmon. The primary proposal has estimated that 25 cfs could increase the weighted usable area (wua) by more than 35%, a metric which demonstrates the increased available habitat for resting and spawning. In 2015, flows dropped to as low as 56 cfs, half of the biological target flow determined by watershed biologists and less than 1/3 of the legal instream flow protection levels of 180 CFS during the critical period. During water short years, reducing river diversions are a critical strategy to achieve flow restoration. The primary environmental negative of this alternative is whether securing the necessary acres to achieve 25 cfs is feasible with voluntary agreement, particularly as agricultural operations farm plans include production during that last month. The social implications intersect with this feasibility question, since it would require fallowing a majority of watered farm acres within the watershed and resulting in impacts to those families, their employees and the businesses which rely on servicing agricultural operations…there are downstream socio-economic impacts in this community.

Total Estimated Cost for Alternate Project: $ $65,579,000.

Additional Comments: Additional factors that might drive this overall cost up include the number of transactions needed to achieve the target acres, the price per acre for farmers to participate may need to increase to incentivize more enrolled acres, as well as the year-to-year cost increases of paying for and administering the program are considered at a 2% year to year, which with current inflation is likely too conservative.

No Action Alternative

What are the potential impacts if no action is taken?

Climate change forecasting models, only suggest changing conditions will exacerbate water availability and consequently increase the frequency of drought years particularly during the critical late season period (August-September). The snowpack, which has been relied upon for late season water supply for both instream and out of stream needs, will melt much sooner and drive low flows even lower. In the 2015 drought year, where the Dungeness River hit the lowest flows on record, Jamestown S'Klallam Natural Resource staff were in the river moving boulders in order to facilitate passage of a historic pink salmon run. This was a necessary action to take in this extreme circumstance. Climate change conditions have been previewed in the Dungeness Basin with drought/dry years in 2009, 2013, 2015, 2016, 2019,

2021, six of the last 12 years, no action means a staggering setback to restore flow and habitat for salmon, provide prey for endangered orcas and honor tribal treaty obligations. Further, no action means that the center of the Dungeness watershed economy, agriculture, will be further constrained by a lack of available water. This reduced water availability may accelerate the conversion of agricultural lands to rural development, having cascading impacts on the people and businesses that rely on local agriculture.

Is there a potential for degradation of already poor environmental conditions? Yes No
If Yes, please describe:

No action will maintain degraded instream habitat conditions and limit the success of other salmon habitat restoration projects. If there is insufficient flow during the critical period, the opportunity to engage restored riparian habitat, recover salmon and consequently orca, the legacy of anthropogenic degradation will be further entrenched.

Additional Comments: Click to enter

Environmental Data

Is there potential to violate any federal, state, local, or tribal law or code to protect the environment?

Yes No If yes, please explain:

Click to enter

We plan to follow all local, state, and federal requirements for design and construction of the project.

State Q&A

Growth Management Act Compliance – WA Dept. of Commerce and WA Dept. of Ecology

1. Is the jurisdiction in compliance with state Growth Management Act Requirements?
    a. Yes No Not Applicable (Tribes, Non-Profits)
    b. If yes, provide the date the jurisdiction's Comprehensive Land Use Plan (if required) and the Critical Areas Ordinances (CAOs) were approved and adopted.
        i. Land Use 6/27/1995 CAOs 6/16/1992

        There have been updates to both the Comprehensive Plan and Critical Areas Ordinance over the years since initial adoption.

    c. If no, explain the identified non-compliance issues and how the jurisdiction is resolving them. Click to enter
2. Is the proposed project in any Critical Area classifications identified in Washington State's Growth Management Act? *These areas include but are not limited to: Wetlands, Aquifer Recharge Areas, Frequently Flooded Areas, Geologically Hazardous Areas, and Fish and Wildlife Habitat Areas.*

    Yes No

    a. If yes, please identify the Critical Area categories:

        There are two parcels. The larger 319 acre parcel has Critical Areas: Critical Aquifer Recharge Areas; frequently flooded areas (FEMA 100 yr floodplain), channel meander hazard, Type 1 stream (aka Shoreline of Statewide Significance subject to Shoreline Master Planning regulations), ESA listed salmon and steelhead in stream, and fish and wildlife habitat areas (Dungeness River corridor). The smaller 77acre parcel contains all the critical areas of the 319 acre parcel and wetlands.

    b. If yes, how will this project comply with protection requirements of these areas?

        The project will comply with protection requirements by following the regulations and remediation prescribed by the regulating agencies such as Clallam County Dep't. of Community Development, US Army Corps of Engineers, Ecology Dam Safety Office, WA Fish & Wildlife, WA Ecology, NMFS, USFWS, and any other permitting agencies.

National Flood Insurance Program (NFIP) Compliance – WA Dept. of Ecology

1. Is the project located in a Special Flood Hazard Area (SFHA) as defined by the NFIP? Yes No
2. The date of your most recent NFIP Community Assistance Visit (CAV) 7/30/2012

3. Did your community have any CAV/NFIP issues or violations from this visit? Yes No
    a. If yes, please explain: Click to enter

Federal Q&A

National Historic Preservation Act

Historic Buildings and Structures

Does your project affect or is it near any buildings or structures 45 years or more in age? Allowing for application review time

Yes No Unknown

If yes, explain how the project design will minimize adverse effects on known or potential historic buildings or structures. Please address and note associated costs in your project budget.

Cultural resources investigations (Windler et al., 2021) have been completed for a significant portion of the site with the remaining area of the site for construction to be completed in Fall 2022. Based on the completed investigations, no cultural resources have been found and nothing has been recommended for listing as a historical place of significance by the WA Department of Archaeology and Historic Preservation (DAHP) or the local tribes. No buildings or structures that are 45 years or more in age have been identified that will be impacted by the project. The Fall 2022 cultural resources investigation will evaluate whether there will be any impacts.

Archeological Resources

Does your project involve disturbance of ground? Yes No Unknown

If yes, describe the ground disturbance by giving the dimensions (area, volume, depth, etc.) and location.

This project will require ground disturbance to construct the 1,600-acre-foot reservoir. The area disturbed will total 108 acres and will be, on average, 1,400 feet wide (east to west) by 3,100 feet long (north to south) for the reservoir facility and appurtenances. That area will include the reservoir and approximately 40 acres for staging, stockpiles, and processing of on-site materials for reservoir construction. It will also include access routes, inlet and outlet pipeline routes, and connections to the site from River Road. Reservoir construction will require stripping and excavation of approximately 1.5 million cubic yards of material. On-site materials will be stockpiled for reuse in constructing the embankment. Excess materials will be hauled off-site for processing or reuse elsewhere. Approximately 189,000 CY of material will be placed, including approximately 42,000 CY of imported sand material, to construct the reservoir. The average reservoir depth will be approximately 32 feet. The excavation required will extend, on average, approximately 20 feet below the existing ground surface with a maximum depth of 50 ft. See the Preliminary Plan and Longitudinal and Transverse Cross Sections in folder 7 for more detail.

Describe the past use of the area to be disturbed, noting the extent of previously disturbed ground.

The past use of the property was timber land. The property has been owned by the WA Department of Natural Resources for timber management. The site of the proposed reservoir was logged in 2015. The vegetation in the area of the proposed reservoir and complementary infrastructure contains scrub, tree stumps, grasses, and relatively young trees since the area was last logged in 2015.

Additional Information:

Clallam County hired Dudek, a cultural resources firm, to conduct an archaeological survey across 319 acres of the project site in 2020 and 2021 (Windler et al. 2021). This survey included pedestrian transects (a combination of 20-meter intervals and meandering) and excavation of 81 shovel probes in the area of the proposed Reservoir (Windler et al. 2021). Based on the results of the survey, WA Ecology prepared a Preliminary Determination of low risk to cultural resources. Clallam County submitted the report to Ecology and Ecology shared the report and Preliminary Determination with the WA Department of Archaeology and Historic Preservation (DAHP) and Native American Tribes in February 2021. Based on responses received from DAHP and Tribes, Ecology made a Final Determination of low risk to cultural resources in March 2021. As engineering design continues, more geotechnical field exploration and other land disturbing work will be conducted in Fall 2022, requiring additional cultural resource monitoring in the areas not previously evaluated for cultural resources. A proposed cultural resources monitoring plan for this additional field work has been evaluated and approved by Ecology.

Endangered Species Act and Fish and Wildlife Coordination Act

Are federally listed threatened or endangered species or their critical habitat present in the area affected by the project? Yes No Unknown

Does your project remove or affect vegetation? Yes No Unknown

If yes, describe the amount (area and type of vegetation to be removed or affected

The area disturbed will total 108 acres and will be, on average, 1,400 feet wide (east to west) by 3,100 feet long (north to south) for the reservoir facility and appurtenances. That area will include the reservoir and approximately 40 acres for staging, stockpiles, and processing of on-site materials for reservoir construction. It will also include access routes, inlet and outlet pipeline routes, and connections to the site from River Road. Reservoir construction will require stripping and excavation of approximately 1.5 million cubic yards of material. See Preliminary Plan and Longitudinal and Transverse Cross Sections for more detail. The type of vegetation to be removed is scrub, grasses, tree stumps, and relatively young trees since the area was logged in 2015.

Is your project in, near (within 200 feet), or likely to affect any type of waterway or body of water?

Yes No Unknown

Two improvements related to the project will extend to within 200 feet of the ordinary high-water mark (OHWM) on the Dungeness River, including the following:

- Upgrades to HID intake and screening facilities. These upgrades are needed so that the intake and screening facilities have capacity to convey up to 25 cfs from the Dungeness River to the proposed reservoir during the late fall, winter, spring, and early summer. These facilities are

located on the right bank of the Dungeness River at approximately 1-1/2 miles south of the proposed reservoir.

- Outfall of the proposed Reservoir emergency spillway facility to a side channel of the Dungeness River just east of the proposed Reservoir site. The spillway will discharge through a series of pipelines and open channel. The spillway pipeline at the downstream end of that system will discharge to a side channel of the Dungeness River near the existing Independent Canal head gate.

All other improvements, including the Reservoir and all other appurtenances, will be constructed more than 200 feet from the OHWM on the Dungeness River. The only other waterway or body of water that will be within 200 feet of the proposed project will include a small wetland identified as part of a wetland survey and delineation completed in October of 2021. The wetland is in what appears to be an old manmade borrow pit for gravel that was dug when roads were constructed to log the site. The bottom of the wetland fills with water during the wet season.

Clean Water Act, Rivers and Harbors Act, and Executive Order 11990 (Protection of Wetlands)

1. Will the project involve dredging or disposal of dredged material, excavation, adding fill material, or result in any modification to water bodies or wetlands designated as "waters of the U.S." as identified by the US Army Corps of Engineers or on the National Wetland Inventory? Yes No Unknown

If yes, include USACE correspondence in Environmental Review Attachments.

The project will involve very limited work within "Waters of the U.S." that include improvements to the HID intake infrastructure and construction of an emergency spillway facilities on the right bank of the Dungeness River. The work will also include improvements to the HID Main Canal and H1 Lateral, which conveys water from the Dungeness River. We have contacted the U.S. Army Corps of Engineers and they are aware of the project and will determine which activities impact "Waters of the U.S.". Compliance with the Clean Water Act and related regulations has been anticipated as part of the permitting strategy and recommendations for the project

Executive Order 11988 (Floodplain Management)

1. Does a Flood Insurance Rate Map (FIRM), Flood Hazard Boundary Map (FHBM), hydrologic study or some other source indicate that the project is located in or will affect a 100-year floodplain, a 500 year floodplain is a critical facility, an identified regulatory floodway, or an area prone to flooding? Yes No Unknown

   The project area is covered by FEMA Flood Insurance Rate Map (FIRM) Panel 530021 0540D (Clallam County, Washington). The proposed project, with the exception of the intake and the discharge location for the emergency spillway facilities, is located well above the Dungeness River's 100-year and 500-year floodplain.

If yes, complete the 8 Step Process

Does the project alter a watercourse, water flow patterns, or a drainage way, regardless of its floodplain designation? Yes No Unknown

The project will change the pattern and timing of diversions from the Dungeness River. Water will be diverted when it is available during the high flow storms and stored in the Reservoir for release to downstream canals and pipelines for during the low flow, dry times.

Coastal Zone Management Act

1. Is the project located in the State's designated Coastal Zone? Note: the Coastal Zone includes projects located anywhere within a county that has a shoreline, regardless of whether or not the project itself is located on that shoreline. Yes No Unknown

Farmland Protection Policy Act

1. Will the project convert more than 5 acres of "prime or unique" farmland outside city limits to a non-agricultural use? Yes No Unknown
2. Additional Information: Click to enter

RCRA and CERCLA (Hazardous and Toxic Materials)

1. Is there a reason to suspect there are contaminants from a current or past use on the property associated with the proposed project? Yes No Unknown
2. Are there any studies, investigations, or enforcement actions related to the property associated with the proposed project? Yes No Unknown
3. Does any project construction or operation activities involve the use of hazardous or toxic materials? Yes No Unknown
4. Do you know if any of the current or past land uses of the property affected by the proposed project or of the adjacent properties are associated with hazardous or toxic materials? Yes No Unknown
5. Additional Information:

During Phase I and II Environmental Site Assessments (ESA), it was discovered that there was some contamination resulting from unauthorized dumping in an area identified as the "Old Sequim Dump" (Anchor 2021; Anchor 2022). This is unlikely to impact the Reservoir project since it is much further south and west of the proposed Reservoir footprint, but it is located within property areas planned for recreational and open space uses under the project. As described in the Phase 1 ESA, the Dump Site includes cars and household wastes and debris disposed of primarily between the 1930s and the 1950s and covers an irregularly shaped area of about one acre in size. The extent of existing soil contamination appears to be limited at this time, with exceedances of MTCA soil cleanup levels detected only for cadmium and lead, both of which are common in older paint formulations. Groundwater testing included analysis for a wide range of parameters. No impacts to groundwater were present for heavy metals, PAH compounds, VOC compounds, gasoline or diesel hydrocarbons. However, low levels of oil-range hydrocarbons were identified in one of three groundwater testing locations collected adjacent to the Dump. The concentrations exceeded the cleanup levels by 20 percent. Required cleanup work includes household waste and contaminated soil removal, testing of soils to confirm that no contaminated soil remains, and installation of two additional wells for groundwater testing to verify that no

additional actions (beyond waste and contaminated soil removal) are required to resolve groundwater quality. The Phase I and II ESAs have been uploaded to folder 6-Environmental.

Executive Order 12898, Environmental Justice for Low Income and Minority Populations Are there low income or minority populations in the project's area of effect or adjacent to the project area?

Yes No Unknown

If yes, describe any disproportionate or adverse effects to these populations.

The percentage of population affected beneficially is based on the populations from Census blocks downgradient of the proposed Reservoir using 2020 Census block data (11,812) and then dividing this by the current 2020 population for Clallam County (77,155), which is 15.3% of the County's population. This is likely a conservative value considering the positive impacts to the Dungeness River, farms, and the recharge to the aquifers. From a Social Justice perspective, this project has many advantages, especially for the low income and minority population. Using 2020 Census block information, it was determined that the populations downgradient of the Reservoir was 14.0% non-white. Income data retrieved from the American Community Survey indicates that within 2 miles down gradient of the Reservoir, there are about 2,512 people with a weighted median income of $44,405.13. This income is significantly lower than Washington state ($78,687) and US ($65,712) median income. Moreover, this project has significant positive benefits in particular to the Native American population; 13% of the non-white population downgradient of the Reservoir is Native American. The Native American population is dedicated to the conservation and restoration of Dungeness River resources – to restore and maintain river flows to allow aquatic species to live and thrive. In 1855, the Tribe entered into 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. Enhancing stream habitat directly correlates to increased fish yields on the Dungeness River and smaller streams.

If yes, describe the affected population and the portion of the population that would be disproportionately and adversely affected. Please include specific efforts to address the adverse impacts.

This project will help support the continued viability of agriculture in the Dungeness River Valley, particularly in the face of changing climate/drought and resulting water availability concerns. Providing water security by utilizing stored waters offers an opportunity for those farms to continue to contribute more than $12 million to the Clallam County economy and retain the jobs associated with those farms. Additionally, there will be construction jobs that result from the development of this project and value added jobs resulting from accommodating the needs of the construction workers. Moreover, it is anticipated that up to 3.0 FTE new positions will be created to support Reservoir and park operations when this project is complete. More information related to local job creation will be assessed during Phase 2 of Design. The underserved community will not be adversely impacted by this project, but will benefit by aforementioned local economic development associated with this project, enhanced streamflow and habitat conditions for

salmonids, sustainable potable and agriculture water supplies, availability of construction jobs, and the amenity of a new County park for recreation, health and open space.

Other Environmental/Historic Preservation Laws or Issues

1. Are there other environmental/historic preservation requirements that are associated with this project that you are aware of? Yes No Unknown

   The project will comply with all other federal, state, and local permit requirements.

   a. If yes, please explain: Click to enter
2. Are there controversial issues associated with this project? Yes No Unknown
   a. If yes, please explain:

      In the past, the housing complex, Dungeness Meadows, that lives downgradient of the proposed Reservoir has expressed concern that if there were a Reservoir failure, then their housing development might be inundated by water. County staff has met with the Dungeness Meadows Homeowner's Association to discuss the Reservoir and updates them on a regular basis about the project. The residents are now aware of all the permits and agency reviews that are required to ensure the safety of the Reservoir. More outreach is planned for the next phases of the project to address any of the residents' lingering concerns. The majority of the residents are supportive of the project because it will benefit the local food supply and enhance stream and groundwater levels. Overall, the general public consensus is that the Dungeness Reservoir is an extremely worthwhile project and needs to be constructed sooner than later. Over the years there have been quarterly to biannual public meetings of the Dungeness Reservoir Work Group. Additionally, County staff and other Reservoir Partners have presented to various public groups and governmental entities on the project. The intent is to have more public outreach and to receive public comment and input during the final design and during the park outreach process.

3. Have you conducted any public meeting or solicited public input or comments on your specific proposed mitigation project? Yes No Unknown
   a. If yes, please explain: We have solicited input on the project from the Dungeness Reservoir Work Group and its individual members, the Clallam County Board of County Commissioners and the public (See Clallam_PublicMeetings.pdf in the Supplemental Documents folder for a full list of meetings that have been held thus far). A public meeting is planned for Fall 2022 to present 30% Design results. Since 2017 there have been many public meetings before the Clallam County Board of County Commissioners concerning the Dungeness Off-channel Reservoir including updates on progress, funding applications, contracts with subcontractors, and letters of support. The local newspapers, the Peninsula Daily New and Sequim Gazette, have contributed pieces about the Reservoir. The public is also interested in this project and over the years there have been presentations about it before the League of Women Voters, the Dungeness River Management Team, Jamestown S'Klallam Tribe, Soroptimist, Sunrise Realtors, and the

local radio station to name a few. Occasionally we have sent out press releases concerning the project. By this fall we will have a website that will allow the public to provide comment.

If you answered yes to any of the above questions in the Environmental Review, additional documentation will be required as listed in Environmental Review Attachments.

Summary and Cost of Potential Impacts

Having answered the above questions, have you identified any aspects of your proposed project that have the potential to impact environmental or historic properties? Yes No

If yes, confirm that you have completed the following:

Evaluated these potential effects and provided the required materials in attachments that identify the nature and extent of potential impacts to environmental resources and/or historic properties.

Consulted with appropriate parties to identify any measures needed to avoid or minimize these impacts.

Considered alternatives that could minimize both the impacts and the cost of the project.

Made certain that the costs of any measures to treat adverse effects are realistically reflected in the project budget estimate.

Additional information:

An initial review of potential environmental impacts and likely permitting requirements has been completed, as outlined in the Preliminary Basis of Design Report for the project. A wetland delineation and identification of the ordinary high-water mark (OHWM) adjacent to the site were completed as part of this work. A more detailed review of potential environmental impacts will be completed as part of the permitting process. Consultation with some of the key regulatory agencies (U.S. Army Corps of Engineers, Washington Department of Fish and Wildlife, Washington Department of Ecology, Clallam County Dep't. of Community Development and Building) has been initiated, but the permit application and review process is not yet underway.

End of Main Application-See Attachments and Supplemental Sections Below

Environmental Review Attachments

State Environmental Review	
	SEPA Compliance Checklist *Not completed yet. Will be completed when permitting is initiated in Q2 and Q3 2022*.
NFIP	
	Documentation from Washington State Department of Ecology NFIP State Coordinator that you are currently in compliance. *Document uploaded to folder 6.*
National Historic Preservation Act	
	State historic preservation Officer (SHPO) concurrence letter *Provided the cultural resources correspondence and Inadvertent Discovery Plan from Ecology and DAHP in folder 6. More cultural resources work to occur with the additional field work planned.*
	Correspondence from State or Tribal Historic Preservation Officer regarding any structures or buildings that are eligible for listing on the National Register of Historic Places or within or near a National Historic Register listed or eligible historic district *Does not apply, no structures or buildings have been identified for listing as historical places.*
	Explanation of how project design will minimize adverse effects on known or potential historic buildings or structures, and any alternatives considered or implemented to avoid or minimize effects on historic buildings or structures *Does not apply, no structures or buildings have been identified for listing as historical places.*
	For acquisition/demolition projects affecting historic buildings or structures, any data regarding the consideration and feasibility of elevation, relocation, or flood proofing as alternatives to demolition *Does not apply, no structures or buildings have been identified for listing as historical places*
Archeological Resources	
	Dept. of Archeological and Historic Preservation (DAHP) concurrence letter. *Provided the cultural resources correspondence and Inadvertent Discovery Plan from Ecology and DAHP in folder 6. More cultural resources work to occur with the additional field work planned.*
	A description of the ground disturbance by giving the dimensions (area, volume, depth, etc.) and location *As described in the subapplication the area disturbed will total 108 acres and will be, on average, 1,400 feet wide (east to west) by 3,100 feet long (north to south) for the reservoir facility and appurtenances. That area will include the reservoir and approximately 40 acres for staging, stockpiles, and processing of on-site materials for reservoir construction. It will also include access routes, inlet and outlet pipeline routes, and connections to the site from River Road. Reservoir construction will require stripping and excavation of approximately 1.5 million cubic yards of material. See Preliminary Plan and Longitudinal and Transverse Cross Sections for more detail. The type of vegetation to be removed is scrub, grasses, tree stumps, and relatively young trees since the area was logged in 2015.*
	The past use of the area to be disturbed, noting the extent of ground disturbance. *The area was used for logging timber in the past. The majority of the proposed Reservoir will be situated where logging occurred in 2015. The extent of ground disturbance is described in the preceding question.*

	A USGS 1:24,000 scale sale or other site map showing the location and extent of ground disturbance *Map uploaded to the Environmental and Maps & Images folders.*
	Any information about potential historic properties, including archeological sites in the project area *Does not apply.*
Endangered Species Act and Fish and Wildlife Coordination Act	
	Q1. Any information obtained to identify species in or near the project area. Provide the source and date of the information cited. *There are 9 species of salmonids of which 4 are ESA-listed (chinook, chum, steelhead, and Bull trout).* • *NOPLE Stock Status & Trends NOPLE* o *NOPLE Stock Status & Trends 10-4-2017*: https://restoringolympicpeninsulasalmon.org/about/technical-documents/ o *Attached is an excel file with the fish species and their population trends, and also a word doc that lists their data sources* • *WDFW* o *Email from 4-6-2022 from Kathryn Sutton WDFW area fish biologist in the Strait of Juan de Fuca region* o *The email is attached* • *WDFW Salmonscape fish distribution map - 4-12-2022* o https://apps.wdfw.wa.gov/salmonscape/map.html *More information has been uploaded to folder 6-Environmental, Data.*
	Q1. Any request for information and associated response from the USFWS, the National Marine Fisheries Services (NMFS) (for affected ocean-going fish), or State Wildlife Agencies, regarding potential listed species present and potential of the project to impact those species *We have met with staff of WA Fish & Wildlife to discuss the project and obtain their advice on the fish screens and fish bypass. Our subconsultant HDR also met with Fish & Wildlife. HDR's report is in an Appendix of Anchor QEA Preliminary Design report. We also have a staff person from WA Fish & Wildlife on the Dungeness Reservoir Work Group. We have not received any requests for information at this time.*
	Q2. A description of the amount (area) and type of vegetation to be removed or affected. *The area disturbed will total 108 acres. Much of the area is managed for timber harvest by the current landowner, the Washington Department of natural Resources, and was harvested within the last 15 years. Remaining vegetation includes some evergreen forest (predominantly Douglas fir with some western red cedar) and some deciduous trees (big-leaf maple, black cottonwood, and red alder), with native shrubs (Oregon grape, snowberry, beaked hazelnut, salal, rhododendron, oceanspray, Nootka rose, trailing blackberry, and willows) and native grasses*
	Q2. A site map showing the project area and the extent of vegetation affected *A site map is provided showing the area of construction and vegetation likely to be affected in folders 3 and 6.*
	Q2. Photographs or digital images that show both the vegetation affected and the vegetation in context of its surroundings *See photographs in folder 3-Maps & Images.*

	Q3. Evidence of any discussions with the USFWS, and/or State Wildlife Agencies concerning any potential impacts if there is the potential for the project to affect any water body. *We haven't had discussions with USFWS but have had some discussions with WA Fish & Wildlife. We have met with staff of WA Fish & Wildlife to discuss the project and obtain their advice on the fish screens and fish bypass. Our subconsultant HDR also met with Fish & Wildlife. HDR's report is in an Appendix of Anchor QEA Preliminary Design report. We also have a staff person from WA Fish & Wildlife on the Dungeness Reservoir Work Group.*
	Q3. A photograph or digital image of the site showing both the body of water and the project area. *See photographs in folder 3-Maps & Images.*
	Q3. Any information about the type of water body nearby including: its dimensions, the proximity of the project activity to the water body, and the expected and possible changes to the water body, if any. Identify all water bodies regardless whether you think there may be an effect/ *The project will be constructed adjacent to the Dungeness River. The Dungeness River is a nearly 32-mile long river that drains a 270-square mile watershed on the north side of the Olympic Peninsula in Washington State. The river flows north from the Olympic Mountains to the Strait of Juan de Fuca. The river supports wilderness and protected areas in Olympic National Park, working forests, a variety of fish and wildlife species, a productive agricultural area on the Dungeness Peninsula, and a growing human population. Flows in the Dungeness River are driven by rains in the Olympic Mountains and spring snowmelt. Flows vary from more than 600 cfs, on average, during the late spring, to less than 150 cfs, in the late summer.*
	Q3. A 1:24,000 scale quadrangle map showing the project activities in relation to all nearby water bodies (within 200 feet). *Map is uploaded to folder 3-Maps & Images as well as in folder 6-Environmental.*
Clean Water Act, Rivers and Harbors Act, Executive Order 11990	
	Documentation of the project location on a USGS 1:24,000 scale topographic map or image and a copy of the National Wetlands Inventory map or other available wetlands mapping information *We have uploaded a map in folder 3 and folder 6 that shows the small manmade wetland on the property that is south of the proposed Reservoir. It is also discussed in the 30% Design report in folder 7- Supplemental Documents.*
	Request for information and response letter from the USACE and/or State resource agencies regarding the potential for wetlands, and applicability of permitting requirements *We will be meeting with USACE and State resource agencies in Q3 and Q4 of 2022 to discuss the project and permitting.*
	Evidence of alternatives considered to eliminate or minimize impacts to wetlands In *Section 2.4.5 of the Anchor QEA's Preliminary Design Report discusses the wetland.*
Executive Order 11988 (Floodplain Management)	
	Q1. 8 Step Process for Floodplains & Wetlands *Executive Order 11988 requires that projects go through an eight-step process to evaluate impacts to floodplains and wetlands, as follows:* *1. Determine if a proposed action is in the base floodplain.* *2. Provide for public review.* *3. Identify and evaluate practicable alternatives to locating in the base floodplain.* *4. Identify the impacts of the proposed action.*

	5. *Minimize threats to life and property and to natural and beneficial floodplain values. Restore and preserve natural and beneficial floodplain values.* 6. *Re-evaluate alternatives.* 7. *Issue findings and a public explanation; and* 8. *Implement the action.* *Only a small portion of the proposed project, including upgrades to intake facilities and construction of an outfall for the reservoir spillway, will be constructed within the 100-year floodplain. These improvements are not anticipated to impact base flood elevations or floodplain values. The project proposes to implement the steps outlined above by complying with all of the requirements needed to secure a Shoreline Substantial Development Permit from Clallam County. The project will comply with all permit requirements.*
	Q2. Hydrologic/hydraulic information from a qualified engineer to demonstrate how drainage and flood flow patterns will be changed and to identify down and upstream effects *The Preliminary Design report by Anchor QEA shows what we plan to do in the floodways and what has been done to evaluate flows. It has been uploaded to folder 7-Engineering & Design. More work on flow to be done in 60%, 90%, and Final Design steps.*
	Evidence of any consultation with the USACE if not already included elsewhere. *We have contacted Pam Sanguinetti of USACE to discuss the* project. More conversations are planned with USACE.
	Request for information and response letter from the State water resource agency, if applicable, with jurisdiction over modification of waterways. *We will be looking into this in Q3 and Q4 of 2022 but do not have a response letter currently.*
Coastal Zone Management Act	
	Information resulting from contact with the appropriate State agency that implements the coastal zone management program regarding the likelihood of the project's consistency with the State's coastal zone plan and any potential requirements affecting the cost or design of the proposed activity *We have not yet contacted the agency that implements coastal zone management program.*
	Coastal Zone Management Form *Included under folder 4-Signed Documents.*
RCRA and CERCLA (Hazardous and Toxic Materials)	
	Results of any consultations with State or local agencies to obtain permit with requirements for handling, disposing of or addressing the effects of hazardous or toxic materials related to project implementation. *Do not have at this time.*
	Any studies, investigations, or enforcement actions related to the properties associated with the project *No enforcement actions indicated at this time. Phase 1 and Phase 2 Environmental Assessments have been uploaded to folder 6, Environmental.*
Other	
	Documentation of Public Notices and/or public meetings related to the proposed project. *We have had multiple public meetings. See the answer to Question 3 under the Other Environmental/Historic Preservation Laws or Issues section. We have uploaded a list of meetings to folder 5-Supplemental Documents.*

	Any available Agency consultations and correspondence not previously included. *We do not have since we are not at that part of the process.*
	Any available Environmental Assessments or Biological Opinions related to the project. *We have attached Phase 1 and 2 Environmental Assessments reports under folder 6, Environmental.*

Required Attachments

General	
X	Signed Certificate of Assurances –please print and sign
X	Resolution Designating Applicant Agent -please print and sign
X	Cost Estimate Summary Spreadsheet
X	Map of area with project site limits clearly identified
X	FIRM and/or FIRMETTE of Project Site(s)
X	Pictures of existing conditions at Project site(s)- at least 3 different sides or angles
X	Copy of FEMA Approval Letter for the reference Hazard Mitigation Plan
X	BCA Report (exported PDF from FEMA-Approved BCA software)
X	Local Funds Commitment Letter
X	BCA .zip file-includes full access to the project's BCA inputs and assumptions
Acquisition (Not Applicable)	
	List of Properties and their addresses (include Lat & Long and total square footage)
	Documentation of the Valuation Estimate of the Property
	Signed assurances that the subapplicant will implement the project grant award in compliance 44 CFR Part 80 Property Acquisition and Relocation for Open Space
	If applicable: Documentation that verifies that Structure Relocation Costs Identify the Value of the Land to be Acquired in Addition to other Eligible Costs
	Signed Voluntary Interest form from all Property Owners
Elevation (Not applicable)	
	List of Properties and their addresses (include Lat & Long, structure type, foundation type, original date of construction, elevation of lowest finished floor and total square footage)
	List of first floor elevation of the proposed elevation, proposed foundation type, proposed elevation methodology and standard, and Base Flood Elevation (BFE) or Advisory BFE (ABFE).
	Signed statement from the Appropriate Local Official or qualified professional that the Structure Appears to be Capable of Elevation and a Model Acknowledgement of Conditions for Mitigation of Property in a Special Flood Hazard Area
Equipment Purchases (Not Applicable)	
	Vendor Quotes
	Manufacturer's Product Data
Wildfire Mitigation (Not Applicable)	

	Defensible Space: Maps clearly showing targeted properties (include square footage) and an approximation of the total vegetation to be removed
	Map clearly showing that the wildfire project activity will fall within a Wildland Urban Interface Area
	Building Replacement Value (BRV) and Project Useful Life/Projected Lifespan for structures to be protected
	A draft operations and maintenance plan
	Signed agreement from the property owner to maintain the defensible space for a structural protection project
Seismic Retrofits (Not Applicable)	
	Seismic studies and/or reports establishing existing conditions, needed retrofits, and post-mitigation seismic performance goal (target seismic code level)
	List of Properties and their addresses (include Lat & Long, soil type, construction type, original date of construction, building type, number of stories, use, occupancy, and total square footage)
	Assessment of the vulnerabilities (seismic) of the existing building conditions
	A Model Acknowledgement of Conditions for Mitigation of Property in a Special Flood Hazard Area
	Proposed Structural Retrofit Methodology and Applicable Engineering Standard
	Building replacement value (BRV) ($/square foot) and supporting documentation
Flood Control (Not Applicable)	
	Excerpts of flood studies and hydrology reports
Optional, but encouraged	
X	Recent aerial image of the project site via Google, MapQuest, ArcGIS or similar
X	NFIP-CAV Letter confirming community is in good standing per CRS
X	Project relevant excerpts from the Local Hazard Mitigation Plan

Open Space Acquisition Project Supplemental (Not Applicable)

1. Will the intended use of the property comply with 44 CFR Part 80, FEMA Property Acquisition and Relocation for Open Space and the current Hazard Mitigation Assistance Unified Guidance, February 27, 2015. Yes No
2. Upon consultation with the US Army Corps of Engineers (USACE), are any of the proposed properties under consideration for the use of the construction of a levee system (including berms, floodwalls, and dikes)? Yes No
3. Upon consultation with the Washington State Department of Transportation (WSDOT), are any of the proposed properties under consideration for use for future, planned improvements or enhancements to the Federal Aid Systems, or other State transportation projects? Yes No *If yes, the affected property will not be eligible for this grant
4. Is the pre-event market value being used in the proposed property valuations? Yes No

Additional Acquisition Attachments (Not Applicable)

Copies of any relevant letters/emails concerning consultation with USACE regarding consideration of levee systems, berms floodwalls, and dikes

Copies of any relevant letters/emails concerning consultation with WSDOT regarding planned improvements of federal aid systems or state transportation projects.

A completed Property Site Inventory. Template provided by WA EMD.

For each property to be acquired include the following:

Signed copy of the Statement of Assurances

Copy of the sample deed restriction that will be recorded at closing. The sample must be consistent with FEMA's model.

Documentation of voluntary interest signed by each homeowner using individual signed statements.

Certification on FEMA Form 009-0-3 (formerly 90-69B) that the property owners are Nationals of the United States or qualified aliens.

For each property that has been substantially damaged also include documentation provided to the property owner from the appropriate local official

Property owner's NFIP Policy Documentation

Elevation Project Supplemental (Not Applicable)

For each structure to be elevated include the following:

Documentation of voluntary interest signed by each homeowner using individual signed statements.

Elevation certificate (FEMA Form 81-31) or equivalent information/data used to determine the first floor elevation

A completed Property Site Inventory. Template provided by WA EMD.

Property owner's NFIP Policy Documentation

Resolution Designating Applicant Agent

Subapplicants must provide a completed copy of the Resolution Designating Applicant Agent form found on the HMA grants website https://mil.wa.gov/hazard-mitigation-grants.

Redaction Date: 4/21/2023 1:37:25 PM

Redaction Log

Total Number of Redactions in Document: 1

Redaction Reasons by Page

Page	Reason	Description	Occurrences
4	Fed Tax ID or SSN	RCW 42.56.230(4); 42 U.S.C. § 405(c)(2)(C)(viii)(I); RCW 42.56.070(1): Information required of any taxpayer in connection with the assessment or collection of any tax (Social Security Number).	1

Redaction Log

Redaction Reasons by Exemption

Reason	Description	Pages (Count)
Fed Tax ID or SSN	RCW 42.56.230(4); 42 U.S.C. § 405(c)(2)(C)(viii)(I); RCW 42.56.070(1): Information required of any taxpayer in connection with the assessment or collection of any tax (Social Security Number).	4(1)