



August 3, 2022

TO: Andrea McNamara Doyle, Director, Office of Chehalis Basin

FROM: Scott Boettcher, Staff

CC: Vickie Raines, Chair, Flood Authority
 Edna Fund, Vice-Chair, Flood Authority
 Ron Averill, Chair, Flood Authority Projects Committee
 Nat Kale, Office of Chehalis Basin
 Ken Ghalambor, Ross Strategic

SUBJECT: Follow-up Request for 2021-23 Reserve Funds

Following is provided for further discussion regarding requesting additional 2021-23 unobligated reserve funds. Following your review I'll be available to meet or discuss any questions you may have. Thanks, and look forward to hearing from you. My contact information is 360/480-6600 or scottb@sbgh-partners.com.

1. Chehalis Basin Board Funded Seven Local Projects with Unobligated Reserve Funds on July 7, 2022

- Chehalis Basin Board (CBB) funded seven local projects brought by the Flood Authority at their 7/07/2022 meeting totaling \$1,417,257.
 - Two "Make Whole/Pay Back" projects (\$732,257)
 - Four "Complete Existing Project Stage/Phase" projects (\$650,000)
 - One "New" project (\$35,000)
- At that meeting it was acknowledged the Flood Authority would return with another request, namely: "The Flood Authority is also in the process of prioritizing a series of funding requests for existing and new projects that they will bring to the Board for consideration at a future meeting." (CBB Memo, pg. 3)

2. \$4.1M Remains in Unobligated Reserve Funds

- A total of \$4,145,000 remains available for further consideration following 7/07/2022 CBB meeting.
- Eligible entities include: CFAR; LAND; and Flood Authority.

Project Name	Cost estimate for remainder of biennium	OCB Staff Recommended Fund Source
ASRP Projects	Up to \$8,530,000	2021-23 Aquatic Species & Habitat Reserve Funds
Experimental Skookumchuck Chinook Salmon Study	Up to \$365,000	2021-23 Aquatic Species & Habitat Reserve Funds
Proposed FRE/Airport Levee Project & Final EISs	\$1,850,000	2021-23 Flood Damage Reduction Reserve Funds
Local Flood Authority Projects (China Creek flood & fish, Mill Creek, Berwick Creek, China Creek gage)	\$778,000	2021-23 Flood Damage Reduction Reserve Funds
Port of Grays Harbor Haul Road Short-Term Erosion Management	\$400,000	2021-23 Flood Damage Reduction Reserve Funds
Other Flood Authority, LAND, or CFAR projects TBD	\$4,145,000	2021-23 Flood Damage Reduction Reserve Funds
Fry Creek Pump Station	\$2,500,000	Unobligated 2019-21 Funds
Haul Road Reach-Scale Erosion Management Design	\$150,000	Unobligated 2019-21 Funds
SR 508 Lewis County Erosion Management Project	\$150,000	Unobligated 2019-21 Funds
Chehalis Basin Stream Gage Master Plan Update	\$75,000	Unobligated 2019-21 Funds
Targeted Outreach & Participation Funding for Underserved Populations	\$50,000	Unobligated 2019-21 Funds

3. Flood Authority Request for Remaining Unobligated Reserve Funds

- At the Flood Authority's 7/21/2022 meeting, Flood Authority staff was directed to prepare a package of requests from local project sponsors to advance along to the Office of Chehalis Basin for further consideration in August.
- That package of request follows in summary here and as **Attachment A** and **Attachment B**.
- **Summary:**
 - a. Attached proposals come from local sponsors who know their communities and know how best to keep their projects moving toward being fully flood ready as soon as possible.
 - b. **Key themes**
 - Jump-starting, as we've done in the past, to keep the momentum going, not miss construction seasons, and use available funds towards tangible, on-the-ground results is again proposed here.
 - Pre-purchasing physical equipment and infrastructure with long lead times is proposed as a way to avoid later in the process delays and also future contractor cost mark-ups of 8-10%.
 - Continuing (and completing) projects already started has been a hallmark of Flood Authority funding recommendations in the past and that remains the case today.
 - Initiating new projects and opportunities known by local sponsors as necessary to address critical flood problems and presenting timely opportunities are advanced.
 - Holding emergency contingency funds to be able to respond to emergency needs quickly and cost-effectively for projects like the Lower Satsop Right Bank Conservation Project and the Cloquallam Creek Project (where projects were designed to interact with their reaches yet have not been fully tested through a full flood season).
 - c. **Total cost ranges from \$2,799,000 (68% of available reserve funds) to \$3,249,000 (78% of available reserve funds).**
 - d. Flood Authority perspective is this package of requests will continue to strategically advance flood hazard reduction forward in a timely and deliberate manner and will protect people, property, and businesses for 2022/23 flood season, 2023/24 flood season, and beyond.

Attachment A
Reserve Funding Request Amounts

Project	Stage	Option A	Option B	Request
I. LOWER BASIN PUMPS				
Pre-Purchase: Aberdeen -- Farragut Street Pump Station	Construction	\$ 404,000	\$ 654,000	Jump-start (2023 project): (A) Pumps --> (here) or (B) Pumps and Backup Generators --> (here)
Pre-Purchase: Hoquiam -- 10th Street Pump Station	Construction	\$ 200,000	\$ 300,000	Jump-start (2023 project): (A) Pumps --> (here) or (B) Pumps and Backup Generators --> (here)
Pre-Purchase: Hoquiam -- Queen Ave Pump Station	Construction	\$ 200,000	\$ 300,000	Jump-start (2023 project): (A) Pumps --> (here) or (B) Pumps and Backup Generators --> (here)
New: Aberdeen, Cosmopolis, Hoquiam -- Joint Surface Water Management Comprehensive Plan	Planning	\$ 400,000	\$ 400,000	Prepare (new): See --> (here)
New: Aberdeen -- Division Street Pump Station Design (PS&E)	Planning, Design, Permitting	\$ 500,000	\$ 500,000	Prepare (new): See --> (here)
New: Hoquiam -- K Street Pump Station Design (PS&E)	Planning, Design, Permitting	\$ 350,000	\$ 350,000	Prepare (new): See --> (here)
	<i>Sub-Total --></i>	\$2,054,000	\$2,504,000	-
II. PORT OF GRAYS HARBOR				
Continuation: PoGH -- Haul Road "Mid-Term" Protection Project	Planning, Design, Permitting	\$ 170,000	\$ 170,000	Jump-start (2023 project): See --> (here)
	<i>Sub-Total --></i>	\$ 170,000	\$ 170,000	
III. GRAYS HARBOR CONSERVATION DISTRICT				
Continuation: GHCD -- Lower Basin Projects	Construction	\$ 500,000	\$ 500,000	Contingency (emergency response): See --> (here)
Continuation: GHCD -- Lower Satsop Right Bank Conservation Project, Phase 2	Planning, Design, Permitting	\$ 75,000	\$ 75,000	Jump-start (2023 project): See --> (here)
	<i>Sub-Total --></i>	\$ 575,000	\$ 575,000	- -
	TOTAL -->	\$2,799,000	\$3,249,000	
	% of OCB Unallocated Funds (\$4,145,000) Requested -->	68%	78%	

Attachment B
Reserve Funding Request Descriptions

Following Reserve Funding Request Descriptions are attached:

1. **Pre-Purchase:** Aberdeen -- Farragut Street Pump Station.
2. **Pre-Purchase:** Hoquiam -- 10th Street Pump Station.
3. **Pre-Purchase:** Hoquiam -- Queen Ave Pump Station.
4. **New:** Aberdeen, Cosmopolis, Hoquiam -- Joint Surface Water Management Comprehensive Plan.
5. **New:** Aberdeen -- Division Street Pump Station Design (PS&E).
6. **New:** Hoquiam -- K Street Pump Station Design (PS&E).
7. **Continuation:** PoGH -- Haul Road "Mid-Term" Protection Project.
8. **Continuation:** GHCD -- Lower Basin Projects.
9. **Continuation:** GHCD -- Lower Satsop Right Bank Conservation Project, Phase 2.

CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Pre-Purchase Pumps for Lower Basin Pump Station Projects.

Organization Making Request: Flood Authority on behalf of cities of Aberdeen and Hoquiam.

Funding Request: \$804,000.

Summary of 2021-2023 Funding & Work to Date:

- The Flood Authority, Office of Chehalis Basin, and Chehalis Basin Board have previously funded re-design of new pumps stations in Aberdeen (Farragut Street) and Hoquiam (10th Street, and Queen Avenue). These pump stations have required significant upgrading and re-design due to age and anticipated future storm and water events. The re-designed pump stations will limit surface water flooding within key drainage basins in the cities of Aberdeen and Hoquiam, and will work together with the new proposed North Shore Levee and West Segment to decrease flooding impacts within each city. Previously provided funding has been via 2021-2023 CBS-Project Funds. The cities are using HDR Engineering for re-design of all three pump stations.
- Re-design funding provided to date for each pump station (PS) has been as follows:
 1. 9/2022 – Queen Avenue PS - \$300,000.
 2. 9/2022 – 10th Street PS - \$375,000.
 3. 9/2022 – Farragut Street PS - \$400,000.
- To date, HDR has:
 1. Finalized surveys.
 2. Begun permitting.
 3. Completed Geotech borings and investigations.
 4. Prepared Preliminary Engineering Reports and Engineer's Opinions of Probable Construction Cost.
- The pump station re-design projects are now at 75% for plans, specifications, and estimates (PS&E), and will be at 100% by the end of September 2022. Bid-ready documents will be available at the end of 2022.

Description of Additional Needs:

- The cities are requesting \$804,000 to pre-purchase the required duplex submersible pumps required at each facility. The pumps will be procured by the cities and utilized when the project is bid and awarded to the lowest bidding contractor.
- Funding request will cover materials procurement for each pump based on 2022 dollars. More specifically:
 1. \$404,000 – Pre-purchase two vertical turbine pumps for Farragut Street PS.
 2. \$200,000 – Pre-purchase two vertical turbine pumps for 10th Street PS.
 3. \$200,000 – Pre-purchase two vertical turbine pumps for Queen Avenue PS.

List of Key Tasks & Assumptions:

- Key tasks for immediate project are:
 1. \$804,000 – Pre-purchase vertical turbine pumps.

[NOTE: Recent experience tells us that these pumps are long lead time items (potentially as much as a year). The cities can purchase and supply the pumps to the contractor after award of the low bid. This will save 8-10% markup costs from the contractor for procurement. Getting the pumps sooner and having them on hand will ensure the cities are ready for the 2023-24 flood season with new pump stations (assuming remaining construction funding of ~\$14.5 million is provided through the normal 2023-25 budget process).]

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CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Pre-Purchase Pumps and Backup Generators for Lower Basin Pump Station Projects.

Organization Making Request: Flood Authority on behalf of cities of Aberdeen and Hoquiam.

Funding Request: \$1,254,000.

Summary of 2021-2023 Funding & Work to Date:

- The Flood Authority, Office of Chehalis Basin, and Chehalis Basin Board have previously funded re-design of new pumps stations in Aberdeen (Farragut Street) and Hoquiam (10th Street, and Queen Avenue). These pump stations have required significant upgrading and re-design due to age and anticipated future storm and water events. The re-designed pump stations will limit surface water flooding within key drainage basins in the cities of Aberdeen and Hoquiam, and will work together with the new proposed North Shore Levee and West Segment to decrease flooding impacts within each city. Previously provided funding has been via 2021-2023 CBS-Project Funds. The cities are using HDR Engineering for re-design of all three pump stations.
- Re-design funding provided to date for each pump station (PS) has been as follows:
 1. 9/2022 – Queen Avenue PS - \$300,000.
 2. 9/2022 – 10th Street PS - \$375,000.
 3. 9/2022 – Farragut Street PS - \$400,000.
- To date, HDR has:
 1. Finalized surveys.
 2. Begun permitting.
 3. Completed Geotech borings and investigations.
 4. Prepared Preliminary Engineering Reports and Engineer's Opinions of Probable Construction Cost.
- The pump station re-design projects are now at 75% for plans, specifications, and estimates (PS&E), and will be at 100% by the end of September 2022. Bid-ready documents will be available at the end of 2022.

Description of Additional Needs:

- The cities are requesting \$1,254,000 to pre-purchase the required duplex submersible pumps and backup generators required at each facility. The pumps and backup generators will be procured by the cities and utilized when the project is bid and awarded to the lowest bidding contractor.
- Funding request will cover materials procurement for each pump and backup generator based on 2022 dollars. More specifically:
 1. \$654,000 – Pre-purchase two vertical turbine pumps and backup generator (potentially mobile) for Farragut Street PS.
 2. \$300,000 – Pre-purchase two vertical turbine pumps and onsite backup generator for 10th Street PS.
 3. \$300,000 – Pre-purchase two vertical turbine pumps and backup onsite generator for Queen PS.

List of Key Tasks & Assumptions:

- Key tasks for immediate project are:
 1. \$1,254,000 – Pre-purchase vertical turbine pumps and backup generators.

[NOTE: Recent experience tells us that these pumps and backup generators are long lead time items (potentially as much as a year). The cities can purchase and supply the pumps and backup generators to the contractor after award of the low bid. This will save 8-10% markup costs from the contractor for procurement. Getting the pumps and backup generators sooner and having them on hand will ensure the cities are ready for the 2023-24 flood season with new pump stations (assuming remaining construction funding of ~\$14 million is provided through the normal 2023-25 budget process).]

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CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Prepare Joint Surface Water Management Comprehensive Plan for the cities of Aberdeen, Cosmopolis, and Hoquiam.

Organization Making Request: Flood Authority on behalf of the cities of Aberdeen, Cosmopolis, and Hoquiam.

Funding Request: \$400,000.

Summary of 2021-2023 Funding & Work to Date:

- No funding or work has been performed to date for this project. This is a new project.

Description of Additional Needs:

- Aberdeen, Cosmopolis, and Hoquiam are requesting \$400,000 to prepare a joint (multi-jurisdictional) surface water management comprehensive plan. The city of Hoquiam's portion of the joint plan will update Hoquiam's previously prepared Surface Water Management Plan from July 2000. The cities of Aberdeen's and Cosmopolis' portion of the joint plan will be new as these cities currently do not have comprehensive surface water management plans.
- The joint plan will be prepared to address flooding, water quality, and storm system (and infrastructure) maintenance.
- The approach in developing the joint plan is to evaluate current stormwater infrastructure and associated drainage basins, provide an inventory of existing drainage components, and perform hydraulic modeling for each basin to identify deficiencies in the overall system.
- The joint plan will address existing pump and facility conditions, water quality improvements, and prioritize capital improvement projects. Many of the existing pump stations have reached the end of their useful life and were not designed considering global warming and sea level rise. The North Shore Levee Project and West Segment in Aberdeen and Hoquiam will protect these cities from riverine flooding; however, physical and management improvements need to be made to best address surface water flooding within the cities.

- The joint plan will prioritize capital improvement projects within each city (using updated 2022 construction dollars), as well for the overall joint planning area.
- The plan will specifically address O & M for existing, new, and future infrastructure, including:
 1. Annual maintenance (cleaning, inspection, testing).
 2. Annual funding, budgeting, and cost-sharing (for overall efficiency and redundancy).
 3. Periodic testing, drilling, and after-action analysis (for continuous readiness and improvement).
 4. CRS eligibility.

List of Key Tasks & Assumptions:

- Key tasks for immediate project are:
 1. \$400,000 – Preparation of Joint Surface Water Management Comprehensive Plan.

[NOTE: This project will assist the cities in prioritizing, managing, and maintaining lower basin pump station improvements. The joint plan will work in conjunction with the North Shore Levee Project and West Segment to protect the cities from flooding on the interior side of the levees. The joint plan will be developed with considerable stakeholder engagement and public review and vetting.]

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CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Prepare Division Street Pump Station Design (PS&E).

Organization Making Request: Flood Authority on behalf of the City of Aberdeen.

Funding Request: \$500,000.

Summary of 2021-2023 Funding & Work to Date:

- No funding or work has been performed to date for this project. This is a new project.

Description of Additional Needs:

- This project involves adding new pumps and equipment to an aged and failing surface water management pump station system.
- Division Street is the second largest pump station in the City of Aberdeen (next to Fry Creek). The pumps have reached the end of their useful life and the pumps and controls need immediate replacement.
- The drainage basin upstream of the division street pump station commonly floods during storm events. The outfall for the facility is undersized and needs replacement.
- The City would like to modify this facility to become a regional pump station facility within this drainage basin. This would include evaluating the potential for constructing conveyance piping from up to three other separate (and also aging) pump stations to make a single pump station facility. Doing so would lower operation and maintenance costs for the City (i.e., there could potentially be three fewer pump stations).

List of Key Tasks & Assumptions:

- Key tasks for immediate project are:
 1. \$500,000 – Preparation of PS&E documents for new Division Street pump station.

[NOTE: This project will eliminate the potential for flooding in one of the largest drainage basins in the city, benefiting citizens, businesses, the city, and its departments.]

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CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Prepare K Street Pump Station Design (PS&E).

Organization Making Request: Flood Authority on behalf of the City of Hoquiam.

Funding Request: \$350,000.

Summary of 2021-2023 Funding & Work to Date:

- No funding or work has been performed to date for this project. This is a new project.

Description of Additional Needs:

- The project involves the design of a new surface water management pump station system at K Street in Hoquiam, WA.
- The existing pump station is aged, reaching the end of its useful life, and currently contains two submersible pumps (which pose a failure risk for the city).
- The pump station requires upgrades, similar to Ramer Street (2016 Chehalis Strategy funded project), to prevent the river from flooding back into the city. The K Street pump station will be surrounded by the North Shore Levee, West Segment. Required upgrades are necessary to prevent internal surface water flooding behind the levee.
- The site routinely floods during normal rain events.

List of Key Tasks & Assumptions:

- Key tasks for immediate project are:
 1. \$350,000 – Preparation of PS&E documents for new K Street pump station.

[NOTE: This project will eliminate the potential for flooding in one of the largest drainage basins in the city, benefiting citizens, businesses, the city, and its departments.]

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CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Jump-Start Haul Road "Mid-Term" Protection Project.

Organization Making Request: Flood Authority on behalf of the Port of Grays Harbor.

Funding Request: \$170,000.

Summary of 2021-2023 Funding & Work to Date:

- Port of Grays Harbor has brought to the CBB's attention the need for immediate action to protect key infrastructure threatened by further erosion of the Port's Haul Road from Chehalis River. See recent CBB presentations:
 1. 4/07/2022 – [Here](#).
 2. 5/05/2022 – [Here](#).
 3. 6/02/2022 – [Here](#).
 4. 7/07/2022 – [Here](#).
- Port's activities to date have centered around problem identification, solution identification, design, permitting, engineering, and regulatory coordination. Port has already received initial funding from CBB for these activities (i.e., \$125,000 on 5/05/2022) as well has contributed its own funds (in excess of \$100,000).
- CBB approved \$400,000 (7/07/2022) for an initial action this Fall (2022) using bioengineering techniques (brush mats, toe logs, timber piles) to immediately protect a critical portion of the Port's Haul Road in time for the upcoming 2022/23 flood season.

Description of Additional Needs:

- This funding request will cover pre-construction planning, design, and permitting tasks to prepare bid-ready construction documents for construction of a "Mid-Term" protection project for the Haul Road in summer/fall of 2023. This funding request will complete full funding needed for the pre-construction project. Pre-construction funding breakdown is as follows:
 1. \$150,000 -- Port funds committed to planning costs.
 2. \$50,000 -- Private funds committed to planning costs.
 3. \$30,000 -- County .09 funds committed for planning costs (pending approval).
 4. **\$170,000 – Request for 2021-23 reserve funds to complete full funding for pre-construction project**

- The Port will apply for an additional funding request through the Flood Authority's 2023-25 funding recruitment process for 2023 construction of the "Mid-Term" protection project.

[NOTE: The "Mid-Term" protection project is a continuation of the initial protection actions funded and implemented (constructed) in 2022. The 2023 project will better address underlying conditions and provide bank stability, toe protection, and the resultant time gained from doing so to design and permit reach-scale solutions for implementation (construction) in 2025 and beyond.]

List of Key Tasks & Assumptions:

- The overall approach to address erosion at the site includes a Short-Term Strategy, a Mid-Term Strategy, and a Long-Term Strategy:
 1. Short-Term Strategy – Use permit expedient "soft approach" erosion mitigation measures at Haul Road erosion site to slow erosion, minimize further loss of bank line, and generally avert a threatening crisis. Work approach items include erosion blanket, brush mattress, toe logs, boulders, untreated timber piles, and related items. Work is mostly constructed above water, is permissible in short-order by the Corps, and is considered for all intents and purposes as "stop-gap."
 2. Mid-Term Strategy – Build on Short-Term Strategy by stabilizing toe of slope and bank line at Haul Road erosion site in 2023 through structural elements and ballasted wood structures in water and above. Gain time for broader reach-scale solutions by completing Haul Road protections with enduring solutions (as opposed to stop-gap solutions). Mid-term strategy protections will require more intensive and lengthier permitting and regulatory review. Jump starting now ensures implementation (construction) 2023 and readiness for 2023-24 flood season.
 3. Long-Term Strategy -- Longer-term actions such as reach-scale projects and protection of Haul Road and Port well field are anticipated to be constructed in 2025 and beyond.

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CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Contingency for GHCD Lower Basin Projects (emergency response).

Organization Making Request: Grays Harbor Conservation District and Flood Authority.

Funding Request: \$500,000.

Summary of 2021-2023 Funding & Work to Date:

- During the 2021-23 biennium, the Chehalis Basin Strategy has supported a number of Lower Chehalis Basin projects addressing emergency flood damage situations. These include:
 1. Cloquallum Creek Erosion Management Pilot Project (RCO # 21-1407) -- \$187,576.00; Project implemented emergency bank stabilization to save a house and septic drain field from being consumed by the migrating creek.
 2. Lower Satsop Right Bank Conservation Project (RCO # 21-1303, RCO # 21-1405) -- \$2,021,509.90; Project implemented emergency bank stabilization to reduce excessive erosion rates threatening homes and eroding substantial farmland.
- In the Lower Basin there are also a number of other potential project areas that may face imminent flood damage risk during the 2022/23 flood season. These are largely homes and septic systems at risk of falling into waters of the state (e.g., like last Fall's Cloquallam Creek project situation). GHCD is collaborating with these landowners using available resources; however, adequate funding and time is lacking to complete any meaningful flood damage reduction actions this summer (i.e., before 2022/23 flood season).

Description of Additional Needs:

- GHCD is requesting \$500,000 as an emergency contingency fund to be able to respond to and adaptively manage emergency flood damage risks during the 2022/23 flood season, especially in areas where projects were implemented last winter (e.g., Cloquallum Creek Project and Lower Satsop Right Bank Conservation Project). [NOTE: This will be the first full flood season for the Cloquallum Creek Project and Lower Satsop Right Bank Conservation Project, and as such these sites are still potentially dynamic as long-term stability of woody vegetation has likely not fully taken hold.]
- This funding may also be used on new project sites, however eligibility and techniques to be used will be closely coordinated with the Chehalis Erosion Management

Workgroup, Flood Authority, and Office of Chehalis Basin, so as to maintain consistency with the Basin's flood damage and erosion management objectives. The techniques that will be utilized will be similar to the bioengineering techniques used in the aforementioned emergency projects and will follow an analysis process similar to the one below:

1. Is the alternative permittable/implementable in the desired timeframe?
 2. Is the alternative constructible by the available contractor pool?
 3. Does the alternative use materials that can be sourced on a reasonable period?
 4. Does the alternative prioritize bioengineering?
 5. Is the alternative effective at reducing erosion at the reach scale?
 6. Is the alternative compatible with existing projects?
 7. Is the alternative agreeable for the landowners?
 8. Is the alternative consistent with the preliminary Chehalis Erosion Management Work Group guidelines?
- GHCD has been involved in the Chehalis Erosion Management Work Group and desires that the potential implementation of these funds be fully aligned with the priorities and framework coming out of that group.
 - Without this funding, there is the potential loss of existing investments in emergency projects in the Lower Basin. GHCD is pursuing follow on project work for both the Cloquallum and Lower Satsop Right Bank projects, however the funding and permitting timelines of those next phases (which includes in-water work) dictate that work will not be able to begin until the 2023-25 biennium. Thus, this funding seeks to bridge the gap so that we (1) do not potentially lose the initial investment and (2) maintain the traction for non-emergency follow-up work for these two sites.
 - This funding will only be used on an as needed basis, coordinated with Chehalis Erosion Management Workgroup, Flood Authority, and Office of Chehalis Basin, and surplus returned at the end of the flood season (~April 2023)
 - Funding request will cover materials procurement, construction, design, permitting, project management, and construction oversight.

List of Key Tasks & Assumptions:

- Key tasks for the project are:
 1. Project management by GHCD to respond to situations as they arise during 2022/23 flood season.
 2. Coordination by GHCD with Flood Authority and Office of Chehalis Basin around potential emergency response actions.
 3. Services by a design/permitting consultant to assist GHCD in assessing and permitting alternative emergency response actions, as necessary.

4. Materials procurement, construction, and construction oversight for responding to vetted and approved emergency response actions.

[NOTE: \$500,000 cost-estimate is based on worst case scenario of having to react to failures at both the Cloquallum and Lower Satsop Right Bank sites.]

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CHEHALIS BASIN STRATEGY REQUEST FOR RESERVE 2021-2023 BUDGET FUNDS

8-03-2022

Brief Title of Request: Jump-Start Lower Satsop Right Bank Conservation Project, Phase 2.

Organization Making Request: Grays Harbor Conservation District and Flood Authority.

Funding Request: \$75,000.

Summary of 2021-2023 Funding & Work to Date:

- During the 2021-23 biennium, the Chehalis Basin Strategy supported the Lower Satsop Right Bank Conservation Project (RCO # 21-1303, RCO # 21-1405) with \$2,021,509.90 in funding. The project implemented emergency bank stabilization (all out of water) to reduce excessive erosion rates threatening homes and eroding substantial farmland acreage. Due to limited funding and timeline, the project was only able to accomplish about 70% of the ideal bioengineered erosion reduction project for the reach. This 70% was in effect Phase 1. The project is currently performing to reduce erosion; however stakeholders are tentative on the project's ultimate success minus completion of the remaining 30%, which would include in-water work. This additional 30% is Phase 2.
- GHCD is applying for Flood Authority funding for the 2023-25 biennium to design, permit, and construct remaining 30% so as to increase the likelihood of overall project success. However, if secured, this funding would not be available until July 1, 2023.

Description of Additional Needs:

- GHCD is requesting \$75,000 in the current biennium to initiate design and permitting for Lower Satsop Right Bank Conservation Project, Phase 2. This funding would allow GHCD to initiate work right away on design and permitting so that if/when remaining funding is made available for the 2023-25 biennium GHCD can begin implementation (construction) right away in 2023. Otherwise, the Phase 2 project will miss the 2023 construction season due to having to do design and permitting in 2023. Due to the historically dynamic nature of this reach, GHCD would like to be as proactive as possible and begin with Phase 2 design and permitting ASAP in order to construct in 2023.
- Phase 1 of the Lower Satsop Right Bank Conservation Project did the best it could with limited funding and time. Phase 2 funding will complete the project and stabilize the bank and erosion to normal rates.

- The overarching goal for this area remains consistent -- reduce erosion, and re-establish riparian vegetation, improve habitat, and reduce flood damage along this ~1800 ft. stretch of the Satsop that has seen extreme erosion rates since 2018.
- Without additional action, Phase 1 may continue to work and achieve project goals, however the uncertainty would be significantly reduced through the implementation of Phase 2.
- Our team will follow a similar alternatives analysis to Phase 1:
 1. Is the alternative permissible/implementable in the desired timeframe?
 2. Is the alternative constructible by the available contractor pool?
 3. Does the alternative use materials that can be sourced on a reasonable time frame?
 4. Does the alternative prioritize bioengineering?
 5. Is the alternative effective at reducing erosion at the reach scale?
 6. Is the alternative compatible with existing projects?
 7. Is the alternative agreeable for the landowners?
- GHCD has been involved in the Chehalis Erosion Management Work Group and desires that the potential implementation of these funds is fully aligned with the priorities and framework coming out of that group.
- If GHCD receives this \$75,000, the 2023-25 funding request through the Flood Authority will be accordingly reduced. This \$75,000 will jump start permitting and design ahead of the 2023-25 biennium, thereby assuring construction in 2023.

List of Key Tasks & Assumptions:

- Key tasks for the project are:
 1. Project management by GHCD to coordinate with stakeholders during design and permitting.
 2. Development of designs/permits/bid documents by a consultant that will be implemented if/when Phase 2 construction funding is available.
- If Phase 2 funds are not preliminarily secured through the Flood Authority process, and other Phase 2 funding options are not on the horizon, this \$75,000 will be returned.

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