

**Supplemental Information for the  
City of Aberdeen Fry Creek Restoration & Flood Reduction Phase IIIa Project**

Prepared by City Engineer Kris Koski on September 3, 2020

**a. Please clarify funding history, sources, phases (table??).**

Note: The following is provided to answer parts a, e, and f of this document as they request similar information. Project phases identified to date are listed below. For each phase, information is provided concerning project description, sequencing relative to other phases, project funding, and status.

**1. Fry Creek Corridor Analysis**

- Description: This phase modeled the creek system and identified alternatives and sequencing for capital projects to reduce flooding and improve habitat.
- Phasing: This analysis was the initial planning phase for the Fry Creek Restoration & Flood Reduction Project.
- Funding: \$500,000 through Flood Authority (shared with Phase I design described below)
- Status: This phase is complete.

**2. Fry Creek Phase I: Simpson Avenue downstream to Bay Avenue**

- Description: This phase includes restoration of the creek channel, reconstruction of a culverted street crossing, replacement of a culverted street crossing with a pedestrian bridge, and replacement of sewer lines aerially crossing the creek with bored lines under the creek bed.
- Phasing: This phase may be constructed first without negatively affecting downstream conditions and does not require the Fry Creek Pump Station to be rebuilt first.
- Funding:
  - \$500,000 through Flood Authority for design (shared with analysis phase described above)
  - \$2,230,000 through WCRI for implementation (property acquisition, construction)
  - \$200,000 of Aberdeen Sewer Utility funds to rebuild sewer crossings
- Status: Design completed through 60% level. Property acquisition and final design phases are scheduled to begin third quarter of 2020.

**3. Fry Creek Phase II: Fry Creek Pump Station**

- Description: This phase includes construction of a new Fry Creek Pump Station and removal of the existing station, as well as restoration of the creek channel. It may include replacement of culverts immediately upstream and downstream of the station if hydraulically necessary for flood control.
- Phasing: This phase must occur prior to construction of Phase III to accommodate higher flows that Phase III would allow to pass into the lower system.
- Funding:

- i. Design, permitting, and property acquisition funded through North Shore Levee project funding.
- ii. No obligated construction funding yet.
- Status: Project is in design, permitting, and property acquisition phase.

**4. Fry Creek Phase III: Simpson Avenue upstream to Sumner Avenue**

- Description: This phase includes correcting the capacity constraint of the culverted city block between the couplets of US 101. Preliminary alternatives were identified during the corridor analysis and additional analysis and planning is required to advance those alternatives and identify a preferred alternative. Phase IIIa is the designation for this first effort associated with Phase III.
- Phasing: This project must happen after Phase I and Phase II as it will release increased flows in the lower system.
- Funding: Funding for pre-design planning and an alternatives analysis for this phase is requested through the Flood Authority's 2020 call for projects.
- Status: Need and phasing of this project was identified during the Fry Creek corridor analysis. Funding to begin this work is being requested.

***b. Please clarify project benefits to be achieved as a result of:(1) the proposed project; (2) the proposed project along with the completed Timberworks Master Plan, and the proposed project along with the completed NSL. In other words, what benefits will accrue with just the proposed project? Does the project have "stand alone" benefits or are all benefits tied to completion of the Master Plan and NSL? Will benefits from the proposed work be achieved if other elements are not funded/completed?***

Note: The Timberworks Master Plan identified 30 multi-benefit projects across Aberdeen and Hoquiam, two of which were the 1) restoration of Fry Creek and 2) construction of the North Shore Levee (NSL).

The Fry Creek corridor analysis identified the existing culverts between Simpson and Sumner Avenues as the largest hydraulic constriction in the Fry Creek corridor. This work between Simpson and Sumner Avenues is identified here as Phase III. The initial planning for this phase, identified here as Phase IIIa, will identify environmental, infrastructure, and property ownership and access constraints and will select a conceptual design alternative for flood reduction within the Sumner and Simpson Avenue corridor (US Highway 101). These are necessary steps toward eventual alleviation of this hydraulic constriction.

As described in the application, the proposed project is a planning phase/stage. If the conceptual design alternative selected by the proposed project phase was moved forward through construction without the NSL and Fry Creek pump station, overall flood risk in the Fry Creek corridor would remain due to other hydraulic constrictions in the corridor. However, the full benefits of the NSL and Fry Creek Pump Station cannot be realized without elimination of the existing hydraulic bottleneck at Simpson and Sumner Avenues. The work within the Fry Creek corridor has been carefully phased to avoid moving flood risk from one area to another; the sequencing of work between Simpson and Sumner Avenues after the NSL and work at Aberdeen and Pacific Avenues is intentional.

**c. Please discuss plans and budget for ensuring meaningful archaeological and cultural resource survey and documentation.**

This project phase is a planning phase/stage which will inform potential design alternatives and select a conceptual design alternative. As construction will require an Army Corps of Engineers Section 404 permit, the Corps' permitting process includes evaluation of potential project impacts on archaeological and cultural resources (compliance with Section 106 of the National Historic Preservation Act in consultation with the State of Washington Department of Archaeology and Historic Preservation and Tribes). Specific archaeological and cultural resource survey and documentation will be performed as part of the final design and permitting process (a future phase).

**d. Adding a landowner outreach and a constraint assessment as a first step for this proposal is a strong approach.**

Agreed. The implementation of this project is anticipated to have significant property impacts as the land above the culverted creek is developed and has an active commercial use. Due to this and potential environmental risks in the area, the City of Aberdeen proposes a robust pre-design planning and alternatives analysis phase to identify and begin planning for this complex project.

**e. Can you provide a table with other funding received for the Timberworks Master Plan and how it has been allocated/spent? That would help demonstrate how the current phase fits into your larger plan.**

The Timberworks Master Plan identified 30 multi-benefit projects across Aberdeen and Hoquiam, two of which were the 1) restoration of Fry Creek and 2) construction of the North Shore Levee. An outline of Fry Creek project phases is provided as a list under "part a" of this document for clarity.

**f. For Question 9 – please link funding amount/source to Phase of project.**

A list of phases and funding details is provided in "part a" of this document. We have noted that the \$2.215 million listed in Question 9 of the application should read \$2.23 million.

**g. Can you provide a more detailed budget for the current request?**

Task		Budget
1	Phase I Environmental Site Assessments (ESAs)	\$7,000
2	Complete Fieldwork for Phase II ESAs	\$20,000
3	Analytical Work and Quality Assurance	\$7,000
4	Phase II ESA Reporting	\$12,000
5	Property Owner Engagement	\$15,000
6	Conceptual Design Analysis and Hydraulic Modeling	\$61,000
7	Recommendations Report	\$13,000
Total Estimated Cost		\$135,000

***h. For Question 18, please provide more detail. Can you provide more documentation about the fish species benefiting? What is your information source? Have these species been documented using this system? Which parts of the system will benefit them as a result of the proposed project (apart from the Master Plan overall)? How will this project provide “significant benefits” if other parts of the system are degraded? What is currently the most downstream fish passage barrier and how/when will it be corrected? If an Appendix has this information, please provide reviewers with this Appendix.***

The Washington State Department of Fish and Wildlife (WDFW) SalmonScape application<sup>1</sup> documents both coho salmon and resident coastal cutthroat presence in Fry Creek. Faculty at Grays Harbor College have also independently confirmed the presence of coho salmon in Fry Creek<sup>2</sup>. WDFW has identified six culvert locations on Fry Creek that are either unknown or partial barriers to fish passage. The culverts between Sumner and Simpson Avenues are identified as “unknown” barriers. However, given that the existing culverts are each over 400-foot-long and are hydraulically-undersized, it is expected that replacement or, especially, removal of these culverts will significantly improve fish passage relative to the existing condition.

The headwaters of Fry Creek are undeveloped and forested. The SalmonScape application identifies approximately 0.75 miles of coho salmon presence and approximately 1.80 miles of resident coastal cutthroat trout presence upstream of the Sumner/Simpson culverts. There is a much shorter culvert identified as an “unknown” barrier at Cherry Street, upstream of the proposed project location.

There are four culvert locations identified downstream of the proposed project area which are all planned to be addressed by near-term projects (including NSL). The culvert at Aberdeen Avenue will be removed and the culvert at Pacific Avenue will be replaced as soon as summer 2021 as part of the already-funded Phase I of the Fry Creek Restoration and Flood Reduction Project. The furthest downstream fish passage barrier is at Port Industrial Road and is identified as a partial barrier to fish passage. This barrier is planned to be removed/improved as part of the NSL/Fry Creek pump station project (to be completed prior to construction of the design alternative to be developed by the proposed project). The Fry Creek Pump Station project (Phase II of the overall Fry Creek plan) is also part of the North Shore Levee project. Design, permitting, and property acquisition is funded for the pump station project. The Cities of Aberdeen and Hoquiam are aggressively pursuing construction funding as part of the North Shore Levee project.

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<sup>1</sup> <http://geo.wa.gov/datasets/1e56a648718543ab952e75ff9971f086?fullScreen=true>

<sup>2</sup> Gunn. 2018. Correspondence between A. Gunn, Grays Harbor College, Aberdeen, Washington, and K. Koski, City of Aberdeen, Aberdeen, Washington. May 20.