

Aberdeen
Fry Creek Restoration & Flood Reduction Phase IIIa: Sumner and Simpson
Avenues Pre- Design Planning & Alternatives Analysis

11-12-2020

PART I – Outcomes (per memo [here](#)):

In the space provided please comment on how your project contributes to or advances each of the eight (8) outcomes presented below. Note: The Chehalis Basin Board has not yet set specific numeric target for each of these outcomes.

1. VALUABLE STRUCTURES PROTECTED FROM MAINSTEM, CATASTROPHIC FLOODING

X percent of all structures in each county that could be flooded by the 2080 predicted 100-year flood levels in the basin would no longer be vulnerable to flood damage, because they are protected by localized infrastructure, flood-proofed/elevated, or the structure has been removed.

This project is not anticipated to protect valuable structures from catastrophic riverine flooding of the main stem of the Chehalis River. The project is on Fry Creek which discharges to the Grays Harbor Estuary downstream from significant riverine effects.

2. HOMES & BUSINESSES PROTECTED FROM SEASONAL URBAN FLOODING

Municipal stormwater systems in all basin cities and towns would be capable of adequately accommodating stormwater runoff levels and protecting homes and businesses from seasonal flood damage.

This project will protect homes and businesses from seasonal urban flooding. Detailed hydraulic modeling performed on Fry Creek (funded by the Flood Authority) identified constrictions along the creek and the sequencing of improvements to reduce flooding without causing negative downstream impacts. With Phase I implementation underway (Simpson Ave downstream to Bay Ave) and Phase II implementation (Fry Creek Pump Station) in final design, the flow capacity of the lower creek system is being increased to allow for the removal of the culverted block of creek between Simpson Ave and Sumner Ave: Phase III of the Fry Creek Restoration & Flood Reduction Project.

3. LOWER BASIN PROPERTIES & BUSINESSES PROTECTED FROM COASTAL STORM SURGES

The Cities of Aberdeen and Hoquiam will complete:

- Construction and certification of the North Shore Levee and obtain a letter of map revision removing at least 3,100 properties and 990 businesses from the FEMA Special Flood Hazard Area designation.
- Construction and certification of the North Shore Levee West Segment and obtain a letter of map revision removing at least 2,000 properties and 360 businesses from the FEMA Special Flood Hazard Area designation.

This project will provide indirect protection to lower basin properties and businesses from coastal storm surges. The project will lower the hydraulic grade line of Fry Creek which in turn will lower hydraulic grade lines of adjacent storm drainage systems that are hydraulically connected and have outfalls affected by coastal storm surges.

4. FARMLAND AND RURAL STRUCTURES PROTECTED

This project is not anticipated to protect farmland or rural structures. The portion of Fry Creek requiring restoration

<p>4.A. The number of locations where migrating river channels and bank erosion pose a high risk of near-term damage to valuable structures or loss of economically productive land uses would be reduced by an average of X per year over up to 30 years, while protecting ecological processes.</p> <p>4.B. Protective measures prevent flood damage from increasing above the damage to commercial agricultural operations that occurred in the 1990 flood, while protecting ecological processes.</p>	<p>and flood reduction is exclusively located within the urban portion of Aberdeen.</p>
<p>5. CRITICAL FACILITIES PROTECTED X percent of all critical facilities that could be flooded by 2080 predicted 100-year flood levels would no longer be vulnerable to flood damage, because they are protected by localized infrastructure, elevated/flood-proofed, or relocated.</p>	<p>This project will protect critical facilities. The project will reduce flooding to adjacent critical facilities including the Grays Harbor PUD’s headquarters facility and Pacific Care Center.</p>
<p>6. TRANSPORTATION ROUTES PROTECTED 6.A. A substantial reduction in the overtopping and closure of I-5 and the BNSF rail mainline would be achieved for 2080 predicted 100-year flood levels, and alternative routes would be available to minimize negative effects of closures on freight mobility and commerce.</p> <p>6.B. Key county and city intersections and interchanges would not be closed due to flooding, and for flood events that result in short-term closures, alternative routes would be available to ensure emergency services are not interrupted.</p> <p>6.C. A substantial reduction in the closures of State Highways 6 and 12 due to flooding would be achieved, and alternative routes would be available to ensure emergency services are not interrupted and to minimize negative effects of closures on freight mobility and commerce.</p>	<p>6.A. This project will not protect I-5 or the BNSF rail mainline.</p> <p>6.B. This project will protect the main access road to Grays Harbor Community Hospital (Oak Street) and the US 101 couplets of Sumner Ave and Simpson Ave which are emergency routes of local and regional importance. Currently Fry Creek overtopping its banks upstream of the Phase III project area causes flooding of Oak Street and the highway couplets. The Phase III work will significantly reduce the probability of flooding to these roadways. The project will protect a designated tsunami evacuation route.</p> <p>6.C. This project will not reduce closures of Highways 6 and 12.</p>
<p>7. ENVIRONMENTAL JUSTICE ADVANCED Communities with environmental justice concerns would suffer less hardship and damage from flooding, would not be economically disadvantaged by displacement or otherwise disproportionately adversely affected by actions to reduce flood damage, and would be improved by flood solutions.</p>	<p>This project will advance environmental justice. Flooding from Fry Creek disproportionately impacts economically disadvantaged areas of Aberdeen and Hoquiam that are already impacted by being located in the Special Flood Hazard Area Zone AE on the community’s coastal floodplain.</p>
<p>8. PREVENT NEW AT-RISK DEVELOPMENT No new structures would have been developed that are vulnerable to channel erosion or mainstem or tributary</p>	<p>This project will prevent new at-risk development by significantly lowering flood risk to the existing developed urban areas of Aberdeen and Hoquiam. The flow capacity</p>

flooding from 2080 predicted 100-year flood levels, because all basin local governments have adopted model floodplain management ordinances that exceed the State and National Flood Insurance Programs' minimum requirements; all local government construction and building code standards support flood damage risk reduction through measures such as subdivision set-asides, filling restrictions, freeboard height of new buildings, critical facility placement and protection, and non-conversion agreements; and incentives direct future development out of harm's way.

and habitat of the creek will be increased and expanded upon to provide a clearer delineation between creek system and developed portions of the City.

**PART II – Erosion Areas of Concern
(per presentation, pg. 6 [here](#)):**

In the space provided please comment on whether or not your project is in one of the erosion areas of concern and if so how your project works to lessen erosion hazard risk (to people, structures and livelihoods).

This project is not located in or near to the noted erosion areas of concern.

**PART III – Climate Change
(per presentation, pg. 16 [here](#)):**

In the space provided please comment on whether or not your project factors in or can rise to climate change projections, in this case 26% increase in precipitation (or 50%).

This project factors in potential future higher creek flows that may result from climate change by designing the improved creek system to handle design flows based on predicted future conditions.

**PART IV – ASRP (Near-Term Priority Areas)
(per pg. 7 [here](#))**

This project appears to be located just downstream of “Near-Term Priority Areas” as mapped on current OCB documents. However, this project will offer creek restoration and habitat improvements within the one- to ten-year horizon consistent with the Near-Term Priorities.

PART V – Picture

Below is a picture I have and am using to identify your project. Please provide me a different picture if you wish (and think if you think it better depicts your project).



Photo 1: Fry Creek with Simpson Avenue to the north