# Aberdeen
# Farragut Street Pump Station Rebuild

**11-12-2020**

| PART I – Outcomes (per memo here): | |
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| 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**<br>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 will provide indirect protection to valuable structures from catastrophic riverine flooding of the main stem of the Chehalis River. The Farragut Street Pump Station discharges to the Mill Creek system which in term discharges to the Chehalis River at Cosmopolis which is subject to both coastal and riverine effects. The new pump station will better balance inlet and outlet flow rates to provide flood protection to South Aberdeen while improving hydraulic conditions in the Mill Creek system relative to existing conditions. |
| **2. HOMES & BUSINESSES PROTECTED FROM SEASONAL URBAN FLOODING**<br>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. The drainage basin for the pump station includes approximately 400 properties with constructed improvements totaling $37 million in value according to 2020 County Assessor records. These properties are located in the very low and flat floodplain located behind the existing Southside Levee. |
| **3. LOWER BASIN PROPERTIES & BUSINESSES PROTECTED FROM COASTAL STORM SURGES**<br>The Cities of Aberdeen and Hoquiam will complete:<br>• 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.<br>• 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 Farragut Street Pump Station discharges to the Mill Creek system which in term discharges to the Chehalis River at Cosmopolis which is subject to both coastal and riverine effects. The new pump station will better balance inlet and outlet flow rates to provide flood protection to South Aberdeen while improving hydraulic conditions in the Mill Creek system relative to existing conditions. |
| **4. FARMLAND AND RURAL STRUCTURES PROTECTED**<br>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. | This project is not anticipated to protect farmland or rural structures. Both the upstream and downstream areas relative to the Farragut Street Pump Station are located in developed, urban areas of Aberdeen and Cosmopolis. |

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| 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. | |
| **5. CRITICAL FACILITIES PROTECTED**<br>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. | This project will protect critical facilities. The project will reduce flooding to adjacent critical facilities including Miller Junior High School and the City of Aberdeen sanitary sewer pump station located at the intersection of W Harriman Street and S Evans Street. |
| **6. TRANSPORTATION ROUTES PROTECTED**<br>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.<br><br>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.<br><br>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. | 6.A. This project will not protect I-5 or the BNSF rail mainline.<br><br>6.B. This project will protect Major Collector roadways that provide local access to neighborhoods and also access to critical facilities such as Miller Junior High School and the City of Aberdeen sanitary sewer pump station located at the intersection of W Harriman Street and S Evans Street. The project will protect a designated tsunami evacuation route for Miller Junior High School, Stevens Elementary School, and surrounding neighborhoods.<br><br>6.C. This project will not reduce closures of Highways 6 and 12. |
| **7. ENVIRONMENTAL JUSTICE ADVANCED**<br>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. | This project will advance environmental justice. The Farragut Street Pump Station serves an economically disadvantaged area of Aberdeen. |
| **8. PREVENT NEW AT-RISK DEVELOPMENT**<br>No new structures would have been developed that are vulnerable to channel erosion or mainstem or tributary 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- | The project will prevent new at-risk development by significantly lowering flood risk to the existing developed area of South Aberdeen. The capacity and reliability of the new pump station will reduce the frequency and magnitude of flooding events. |

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| 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. | |

## 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 intensity rainfall events that may result from climate change by designing pump flow rates to handle design flows based on predicted future conditions.

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

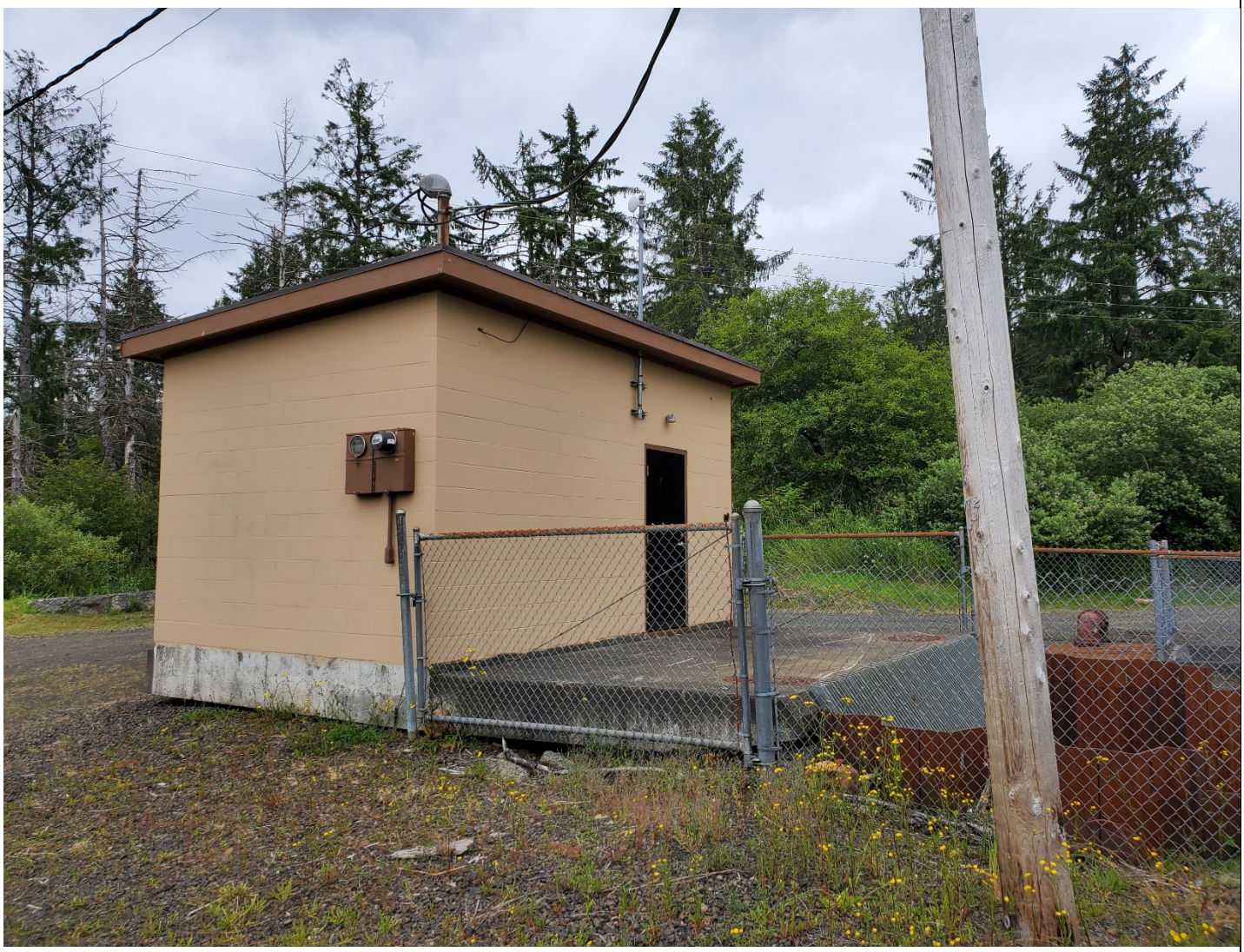
This project appears to be located near the boundary of a "Near-Term Priority Area" as mapped on current OCB documents. This project is primarily a flood reduction project achieved by stormwater pumping of existing manmade ditch and pipe networks. There will be minor habitat improvements within the one- to ten-year horizon consistent with the Near-Term Priorities associated with the new pump station's variable frequency drives mitigating the effects of sudden and significant changes in flow in the upstream conveyance system and in the downstream creek system associated with the on/off nature of the existing pump station. The new pump station will also have improved trash

racks for removing trash and plastics from the flow prior to entering the pumps and being chopped into fine pieces and discharged in the downstream system.

## 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 option without captions:



Photos option with captions: