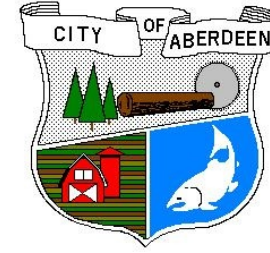


North Shore Levee Update

Cities of Aberdeen and Hoquiam



Chehalis Basin Strategy

Partners:

- Chehalis Basin Strategy
- WA Dept. of Commerce
- Grays Harbor County



Thursday, June 4, 2020

Recap: Flood Risk

(December 10, 2015 *high tide*)



F Street in Aberdeen



Riverside Avenue in Hoquiam

Recap: Flood Risk

(January 4-5, 2015 rainfall event)



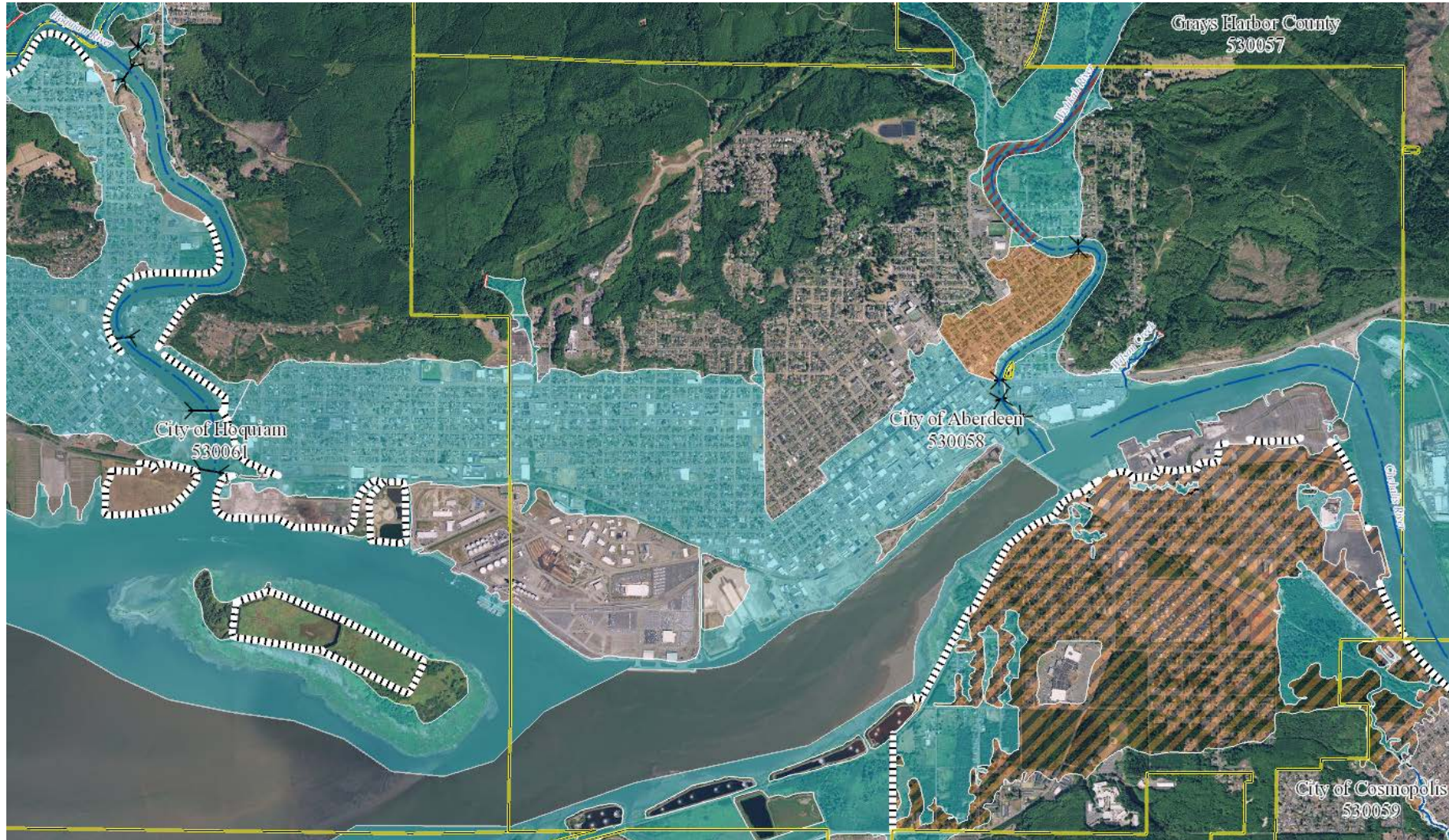
Conger Street in Aberdeen



Oak Street in Aberdeen

Recap: NFIP Regulations


(Blue = Special Flood Hazard Area)



Design & Construction Process

1. Surveying, Modeling, & Analysis
 - Aerial photography and photogrammetry
 - On-ground topographic surveying
 - Bathymetric surveying
 - Hydrologic and hydraulic modeling
 - Geotechnical investigation
2. First Phase of Public Outreach, Government & Agency Coordination
3. Develop Preliminary Design & Science Package, Submit to FEMA
4. Receive Conditional Letter of Map Revision (CLOMR)
5. Second Phase of Public Outreach, Government & Agency Coordination
6. Final Design, Permitting, & ROW Acquisition
7. Construction
8. Levee Certification & Letter of Map Revision (LOMR) → Protected Areas Change from SFHA to Zone X

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- 

Plan Change – Alignment Revision

- Preferred alignment along north side of vacant railroad right-of-way
- Unsuccessful negotiation with Genesee & Wyoming Railroad due to emerging long-term plan for future rail track
- Secondary alignment option through Port of Grays Harbor



← Alignment on vacant rail right-of-way no longer feasible

Updated Alignment – Shift to South



Updated Alignment – Impacts to Project

- Relocation of proposed levee off of railroad right-of-way onto property owned by the Port of Grays Harbor and other industrial owners
- Relocation of proposed Fry Creek Pump Station approx. 700 feet downstream to coincide with new alignment
- Updated documents and revised CLOMR
- Added time to pre-construction schedule and consultant costs
- Decreased construction time and costs due to increased “high ground” alignment segments
- Net project savings of over \$5 million anticipated

Project Look Ahead – Present to 2021 Q2

1. Consultant Contracts – CLOMR update, final design, permitting, & ROW
2. Property Acquisition – Purchase easements and properties (final costs in-progress)
3. Construction Contract #1 Ad – Early work phase to bid in 2020 for 2021 construction

	North Shore Levee Projects Ready for Early Implementation		
	Project Area	Estimated Construction Costs	Permit Status
1	Riverside Ave Wall Replacement	\$6,500,000	TBD - NWP 27
2	Riverside Ave Sewer Replacement	\$2,500,000	N/A
3	19th St Pump Station	\$830,000	Outfall Maintenance Permit
4	20th St Pump Station	\$850,000	Outfall Maintenance Permit
5	West Tie-In	\$3,000,000	Shoreline Permit / SEPA - Pending ROW
6	East Tie-In	\$3,600,000	Shoreline Permit / SEPA - Pending ROW
7	15th St SD & Pump Station	\$1,750,000	Outfall Maintenance Permit
8	Arthur St Pump Station	\$975,000	Outfall Maintenance Permit
9	Zelasko Park	\$100,000	Shoreline Permit / Sepa
10	Market St Utility Relocations	\$175,000	N/A

Over \$20 million is ready or near-ready for construction immediately. Schedule is limited by funding.

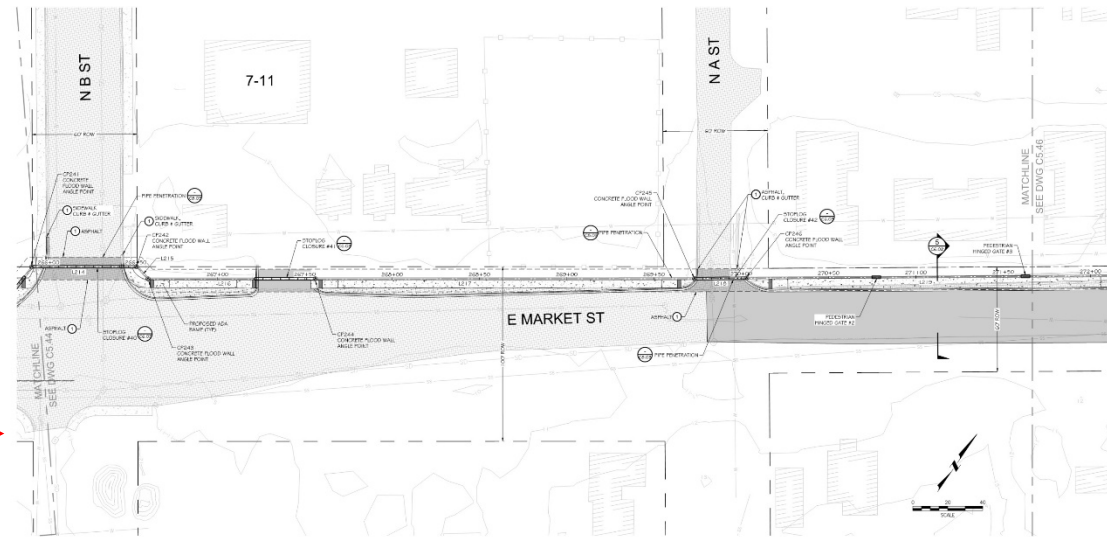


Project Look Ahead – Beyond 2021 Q2

5. Phased Construction as Funding Allows

- 2021-2023 OCB request of \$10.6-10.8 million to continue phased construction in 2022 and position project for leveraging federal request—project is ready for construction funding of \$54 million to be spent starting in 2021 if funds are available.
- Maintain scalability for phased construction contracts to fit available budgets

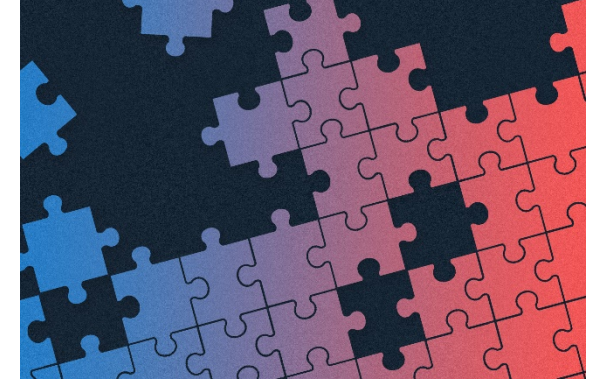
LEEVE SEGMENTS FOR PHASED CONSTRUCTION	
1	West Terminus to Riverside Bridge
2	Riverside Ave Bridge to 20th Street
3	20th Street to Ontario Street
4	Ontario Street to Myrtle Street
5	Myrtle Street to 1st Street
6	1st Street to Division Street
7	Division Street to Park Street
8	Park Street to K Street
9	K Street to F Street
10	F Street to Wishkah Street Bridge
11	Wishkah Street Bridge to Young Street Bridge
12	Young Street Bridge to East Terminus



6. Levee Certification & Letter of Map Revision (LOMR) → Protected Areas Change from SFHA to Zone X

Funding Puzzle

The project's funding strategy includes heavy blending of federal, state, county, and city sources. OCB has been the core funding to allow leveraging of other funding sources and commitments, and it is key to current effort to secure a major federal funding commitment.



RCO Agreement #18-1214	State	OCB, Flood Authority	Design, Permitting, Prop. Acquisition, Const. Contract 1	Obligated, In Use	\$ 12,013,439
Commerce Agreement	State	Dept. of Commerce	Design, Permitting	Obligated, In Use	\$ 2,450,000
GH County Agreement #1	County	.09 Distressed County Funds	Property Acquisition	Obligated, In Use	\$ 500,000
GH County Agreement #2	County	.09 Distressed County Funds	Railroad Improvements	Obligated	\$ 300,000
USDA Loan	City	Aberdeen Stormwater Utility	Stormwater Utility Pump Stations	Planned	\$ 18,500,000
USDA Loan	City	Hoquiam Stormwater Utility	Stormwater Utility Pump Stations	Planned	\$ 4,700,000
FEMA AA Grant	Federal	FEMA AA	Benefit-Cost Analysis	Application Submitted	\$ 150,000
2021-2023 State Request	State	OCB	Construction - Fry Creek Pump Station	Planned Request	\$ 10,600,000
2021-2023 State Request	State	Program TBD	Construction - Levee Structure Contract 2	Planned Request	\$ 10,800,000
2023-2025 State Request	State	OCB	Construction - Levee Structure Contract 3	Planned Request	\$ 11,000,000
Federal Request	Federal	FEMA (Program TBD)	Construction - Levee Structure Contract 4	Planned Request	\$ 21,500,000
2021-2023 WCRRI Grant	State	WCRRI	Design, Permitting, Property Acquisition (Fry Creek)	Application Submitted	\$ 600,000

North Shore Levee West Segment



Thank You / Questions

Kris Koski, PE

City Engineer

City of Aberdeen

(360) 537-3218

cityengineer@aberdeenwa.gov

Chehalis Basin Strategy



~Cities of Aberdeen and Hoquiam~ North Shore Levee



PROJECT DESCRIPTION

The Cities of Aberdeen and Hoquiam experience regular flooding due to winter storms and coastal storm surges. Residents and businesses are burdened with expensive flood insurance and building code restrictions required by FEMA and the National Flood Insurance Program. The North Shore Levee project (construction \$78M), will add 6.2 miles of accredited levee across the two cities, providing critical coastal flood protection and removing over 3,100 properties from FEMA's mapped Special Flood Hazard Area. The project will build resiliency in the face of future flood events and climate change, retaining existing businesses, jobs, and residents which have been on the decline in the community.



1927



2015

This project will:

- ⇒ **Protect 3,100 properties**
- ⇒ **Protect 994 businesses**
- ⇒ **Maintain 842 jobs**
- ⇒ **Create 100-400 new jobs**

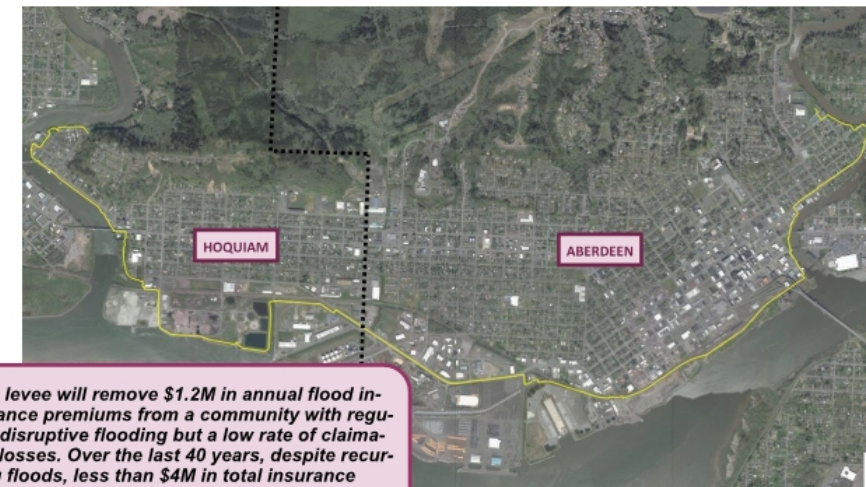
EMPLOYMENT IMPACTS

Grays Harbor County (pop. 75,061) is one of the most economically disadvantaged communities in Washington State. Aberdeen and Hoquiam (total pop. 25,411) are the economic and employment center of the County with:

- ◆ Current employment: **13,660**
- ◆ Current businesses: **994**

In the last four years, Aberdeen and Hoquiam have **lost 842 jobs**. Flooding, high flood insurance rates, and flood-plain building code restrictions add risk and costs to living and working in the community. The project will eliminate these barriers by removing over 3,100 properties from FEMA's mapped Special Flood Hazard Area. The project is estimated to **create or maintain 1,000 jobs** through direct construction and the removal of investment hurdles, significantly bolstering the economy of Grays Harbor County and Washington's Central Coast.

**Job creation numbers are based on data from prior Federal infrastructure stimulus data provided by the President's Council of Economic Adviser.*



The levee will remove \$1.2M in annual flood insurance premiums from a community with regular, disruptive flooding but a low rate of claimable losses. Over the last 40 years, despite recurring floods, less than \$4M in total insurance claims have been paid out to the community.