

# North Shore Levee

## *Cities of Aberdeen and Hoquiam*



### Funding:

- Chehalis River Basin Flood Authority

### Design Team:

- KPFF Consulting Engineers
- Watershed Science & Engineering
- GeoEngineers
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# Existing Conditions – Flood Risk

(December 10, 2015 high tide)



F Street in Aberdeen



Riverside Avenue in Hoquiam

# Existing Conditions – Flood Risk

(January 4-5, 2015 rainfall event)

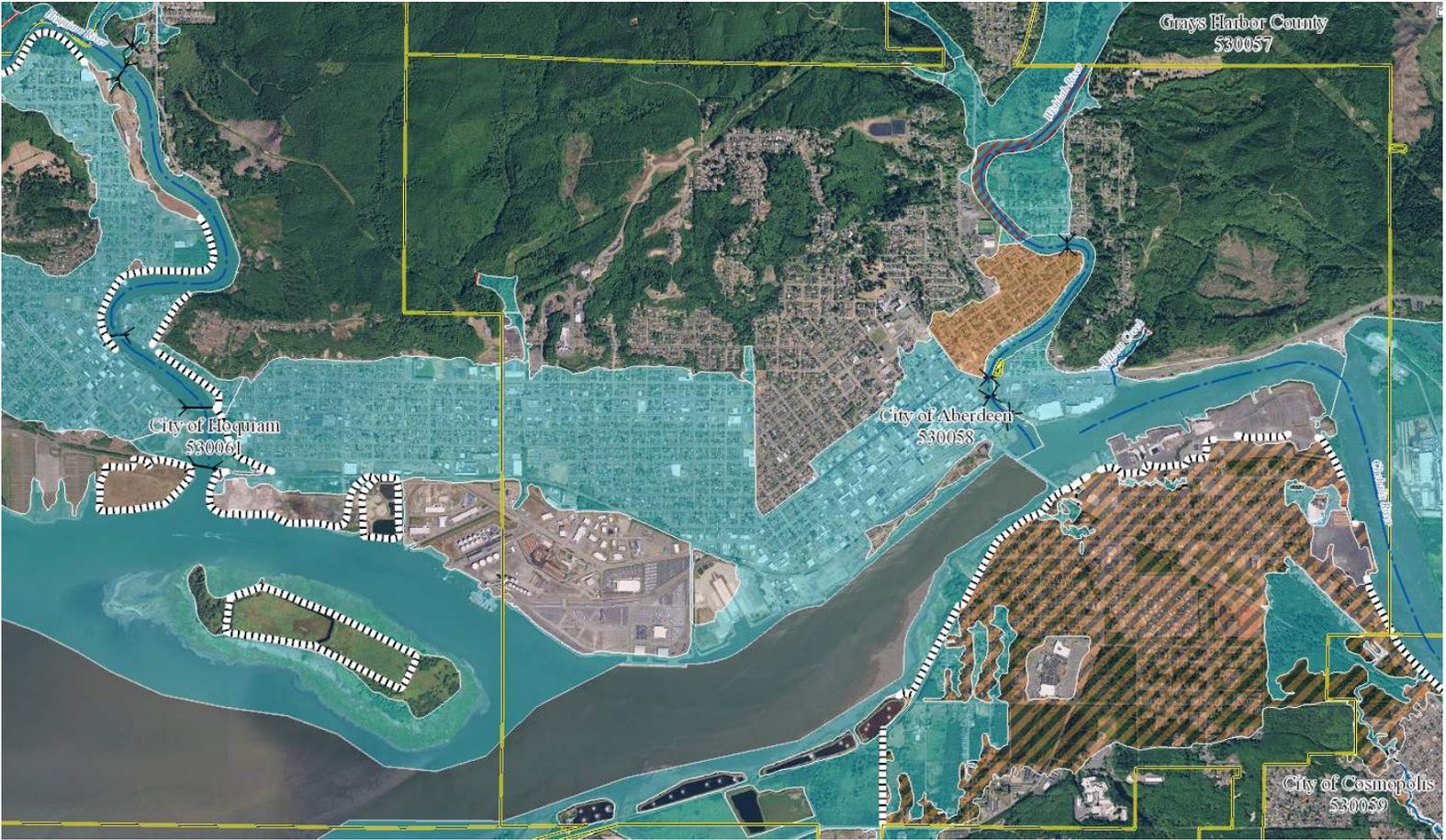


Conger Street in Aberdeen



Oak Street in Aberdeen

# Existing Conditions – FEMA Mapping



# Living in a Special Flood Hazard Area

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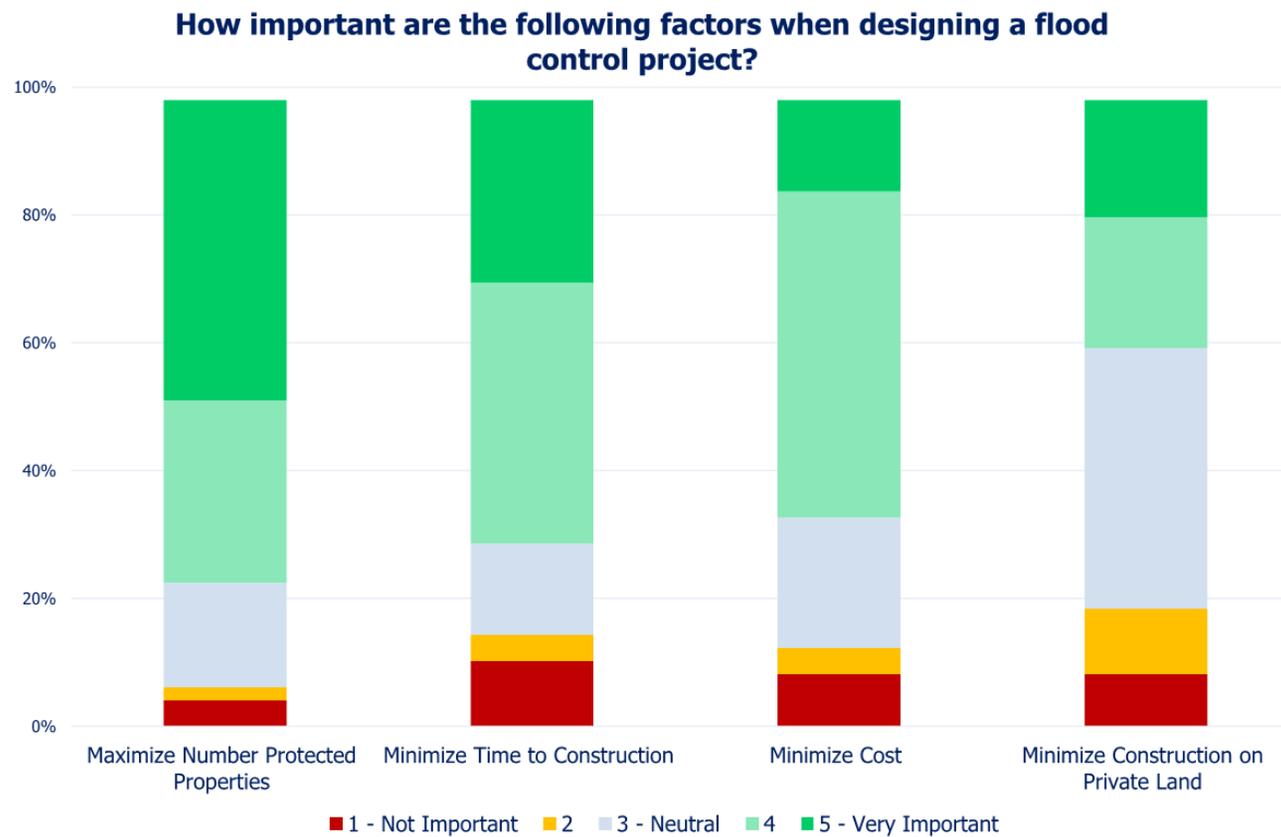
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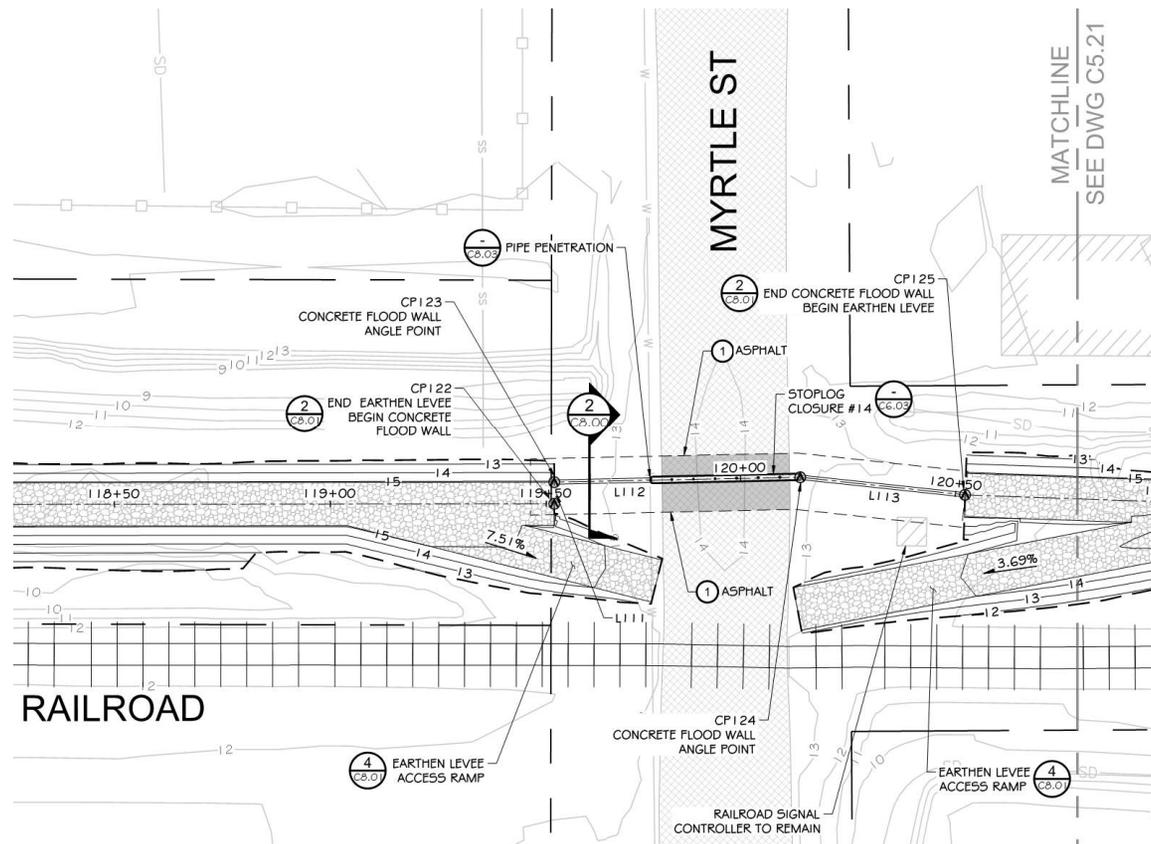
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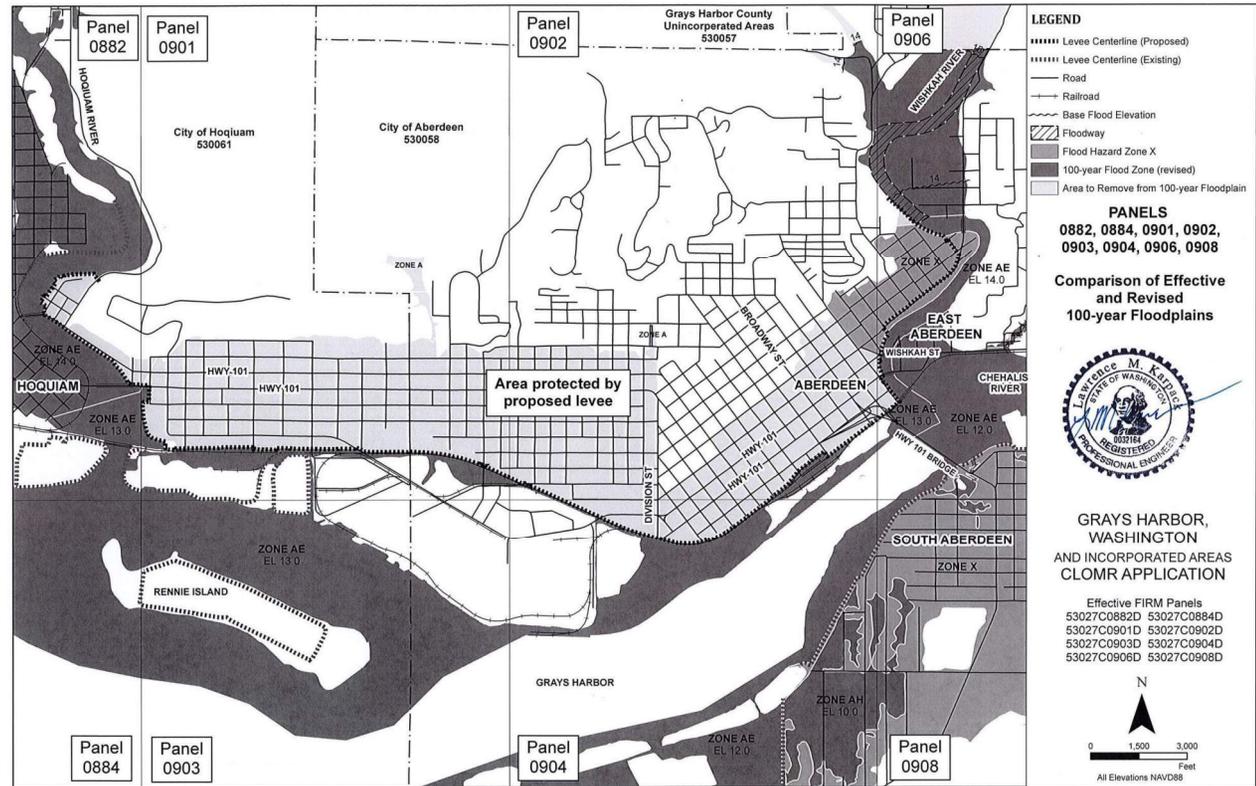
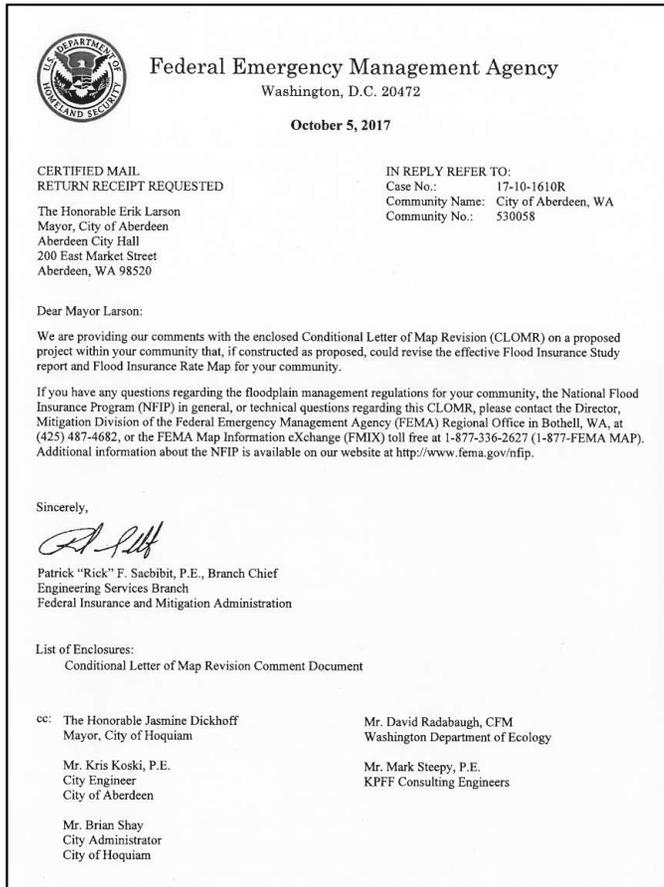


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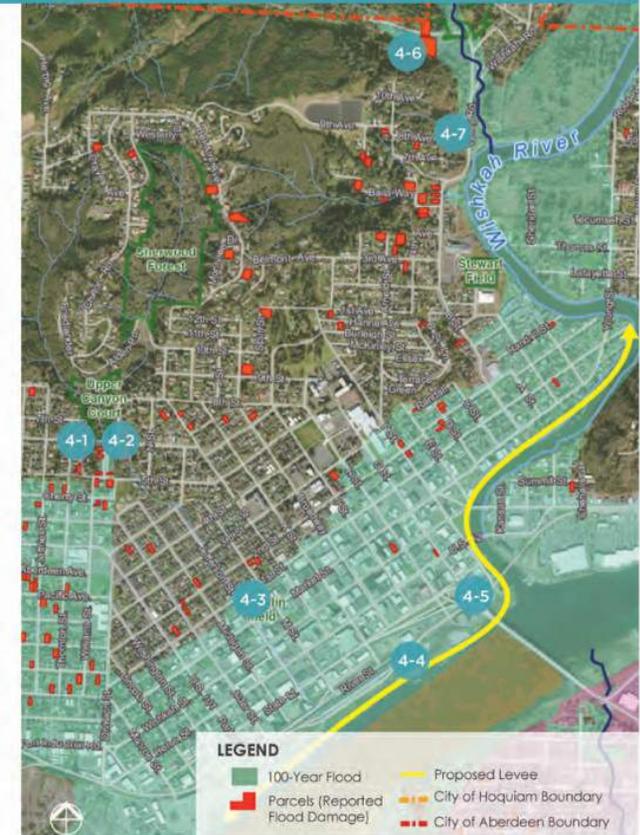
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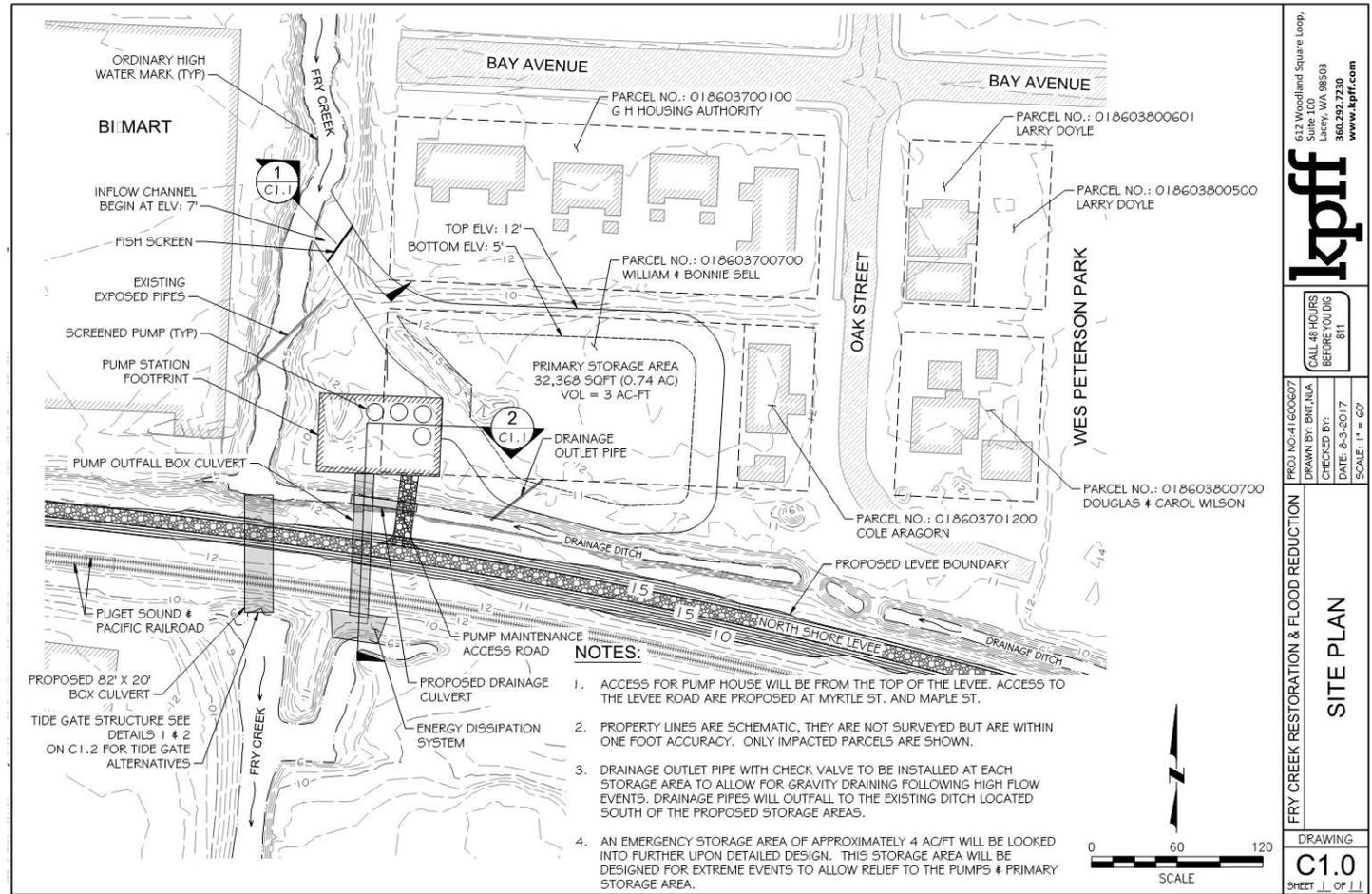
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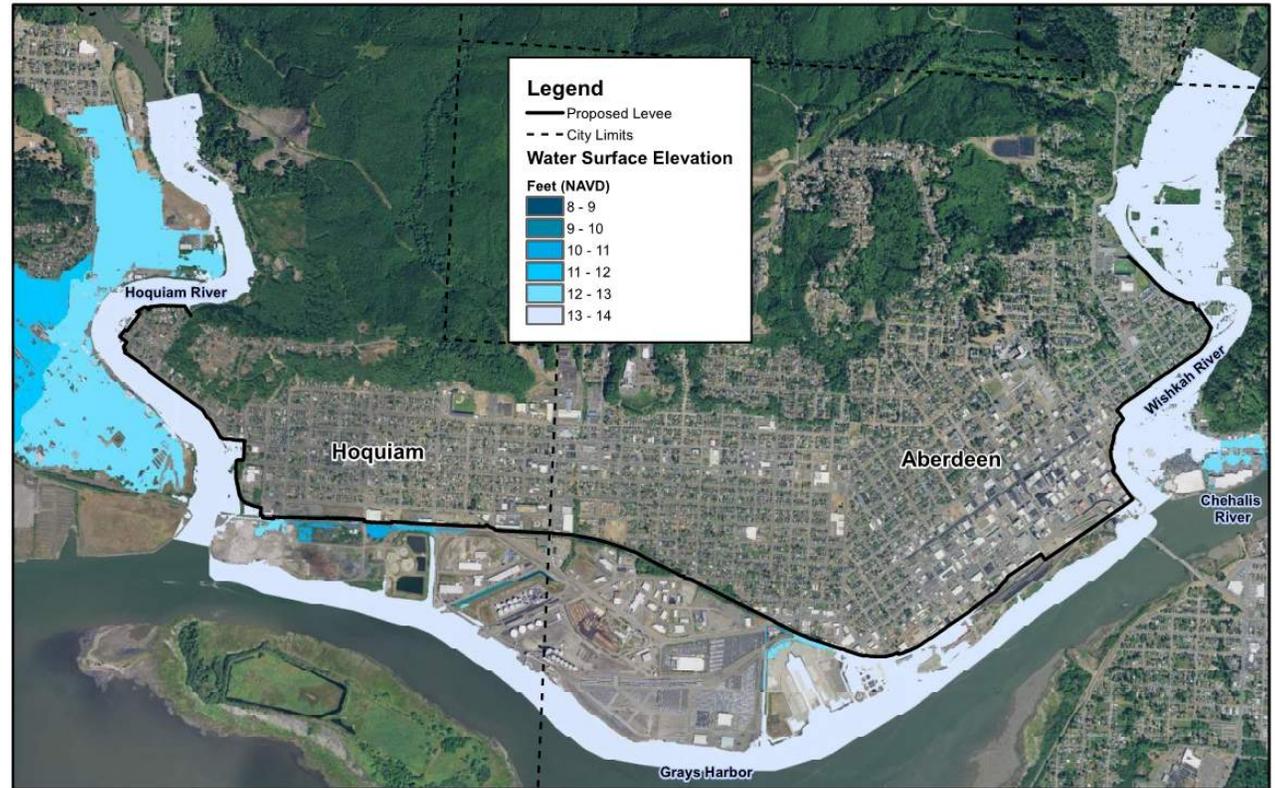


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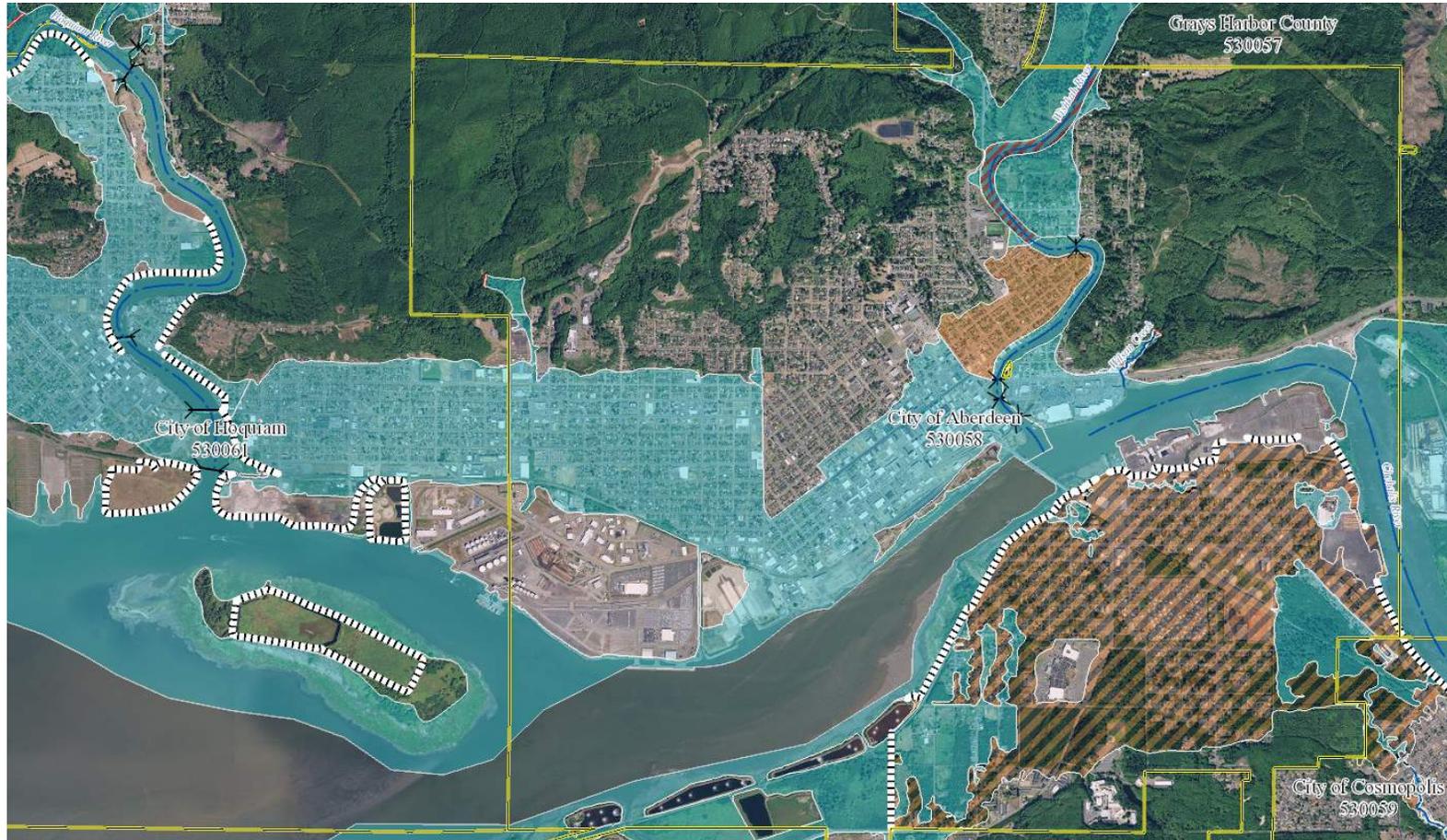


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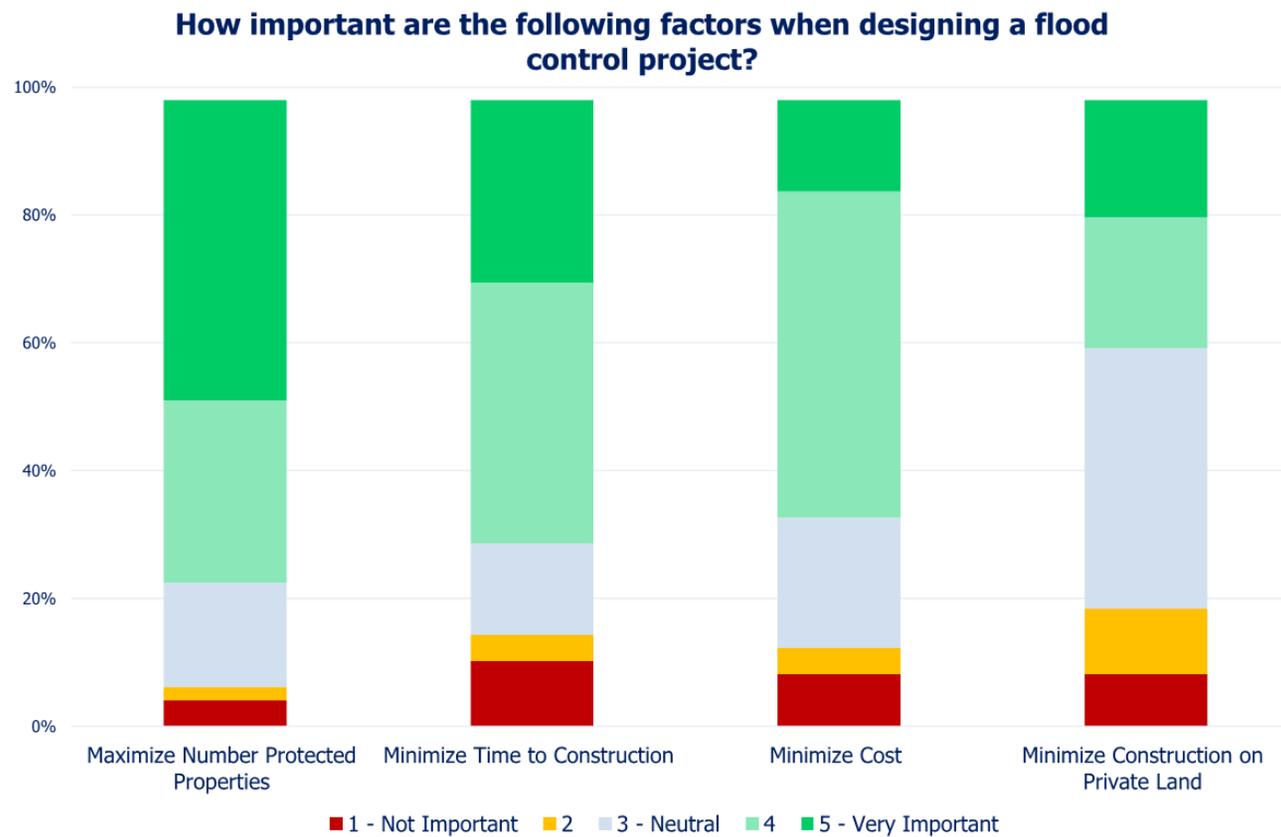
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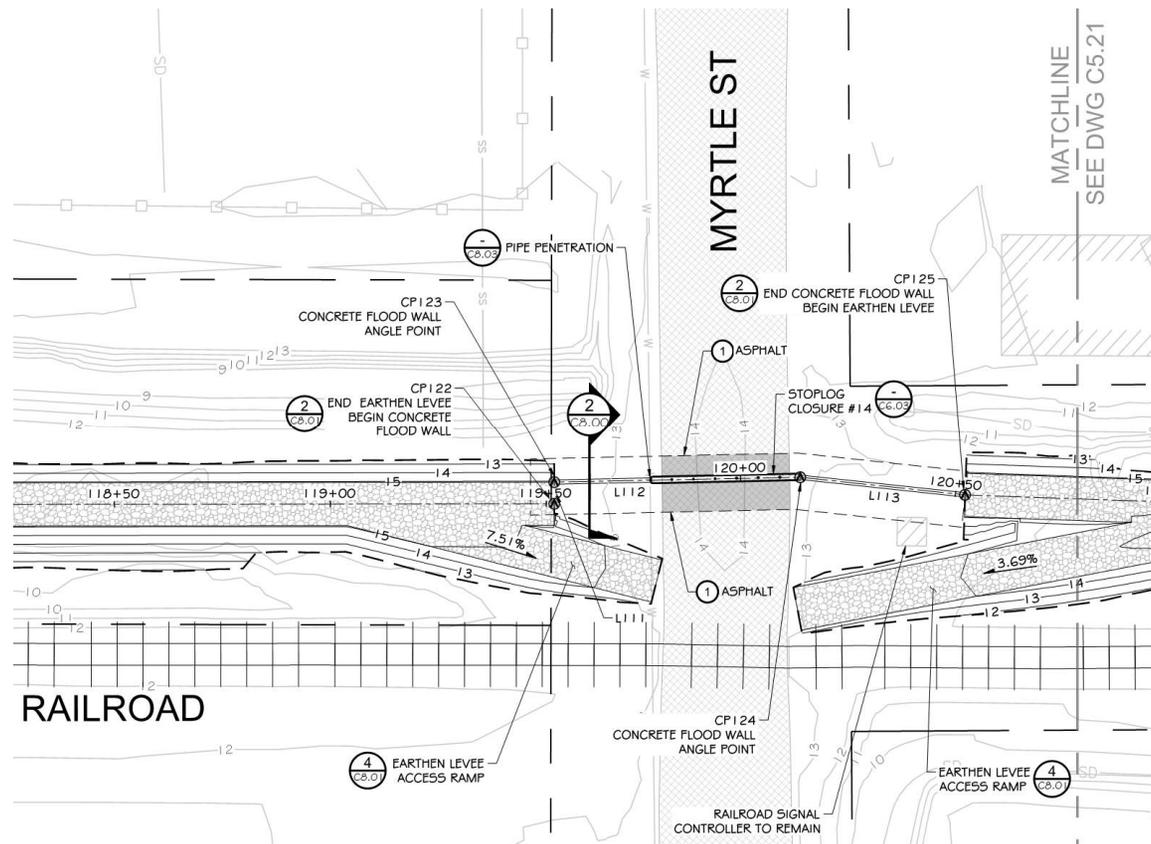
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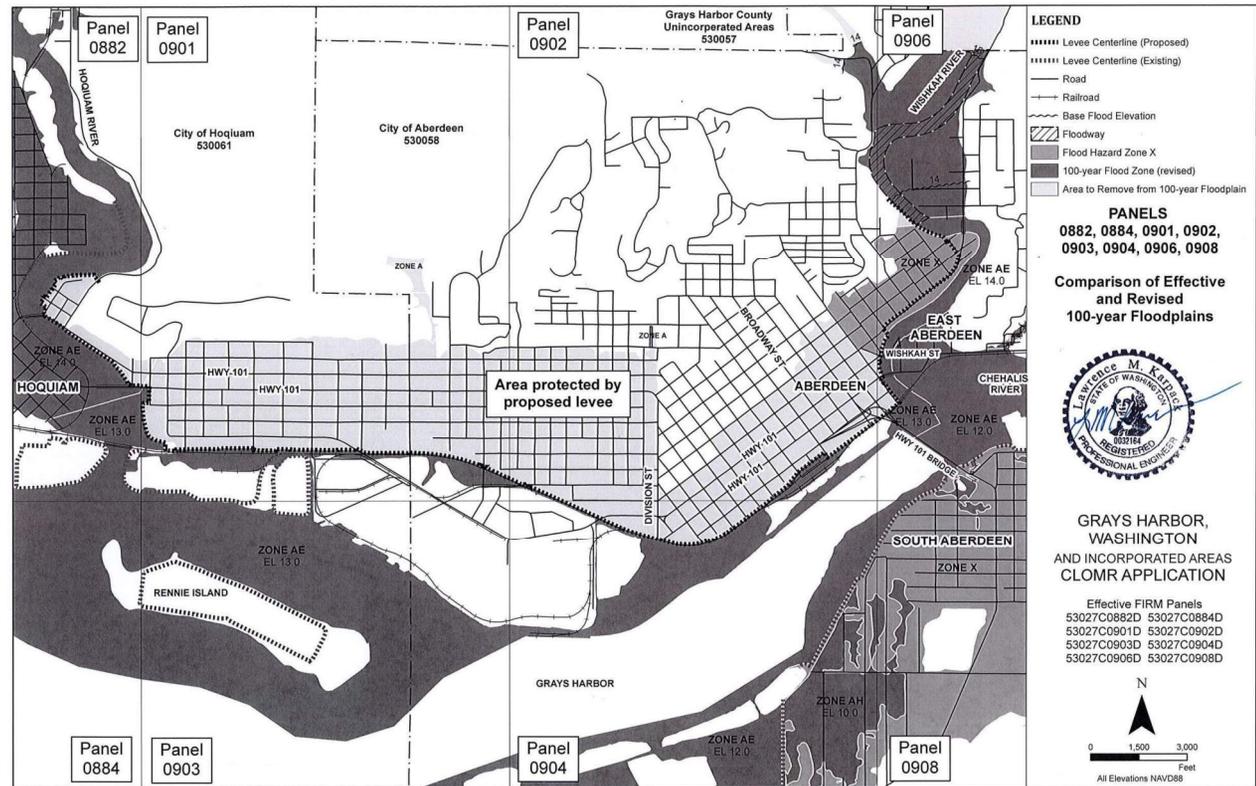
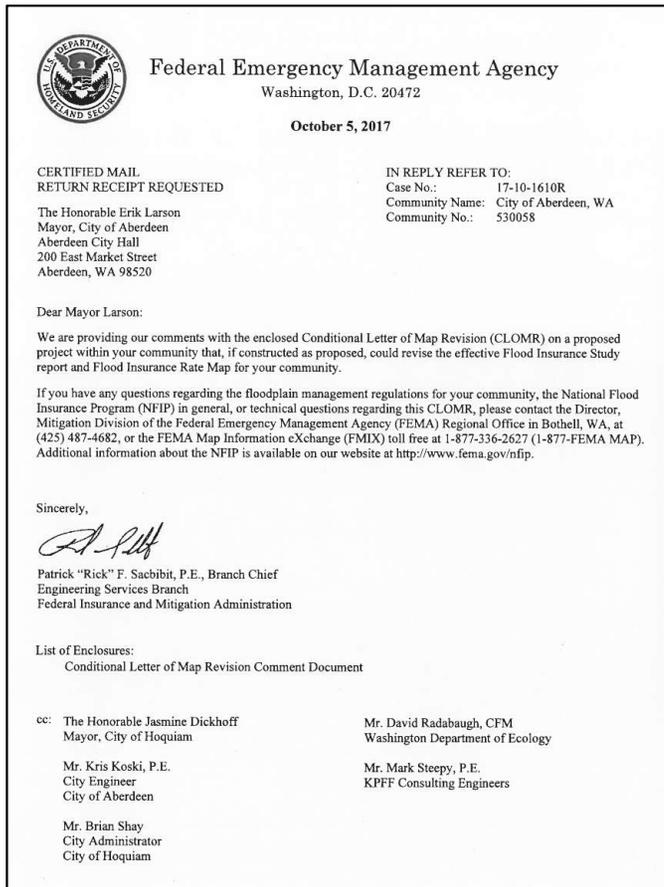


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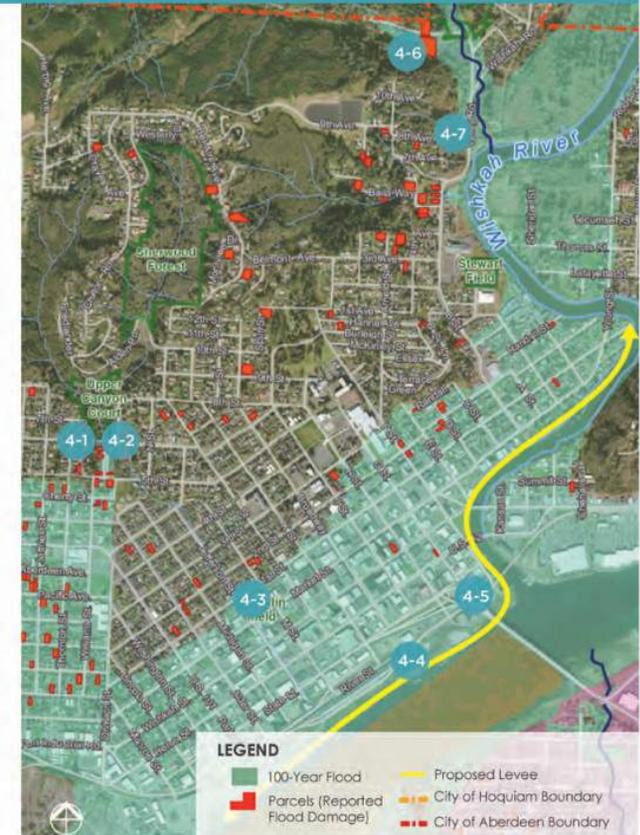
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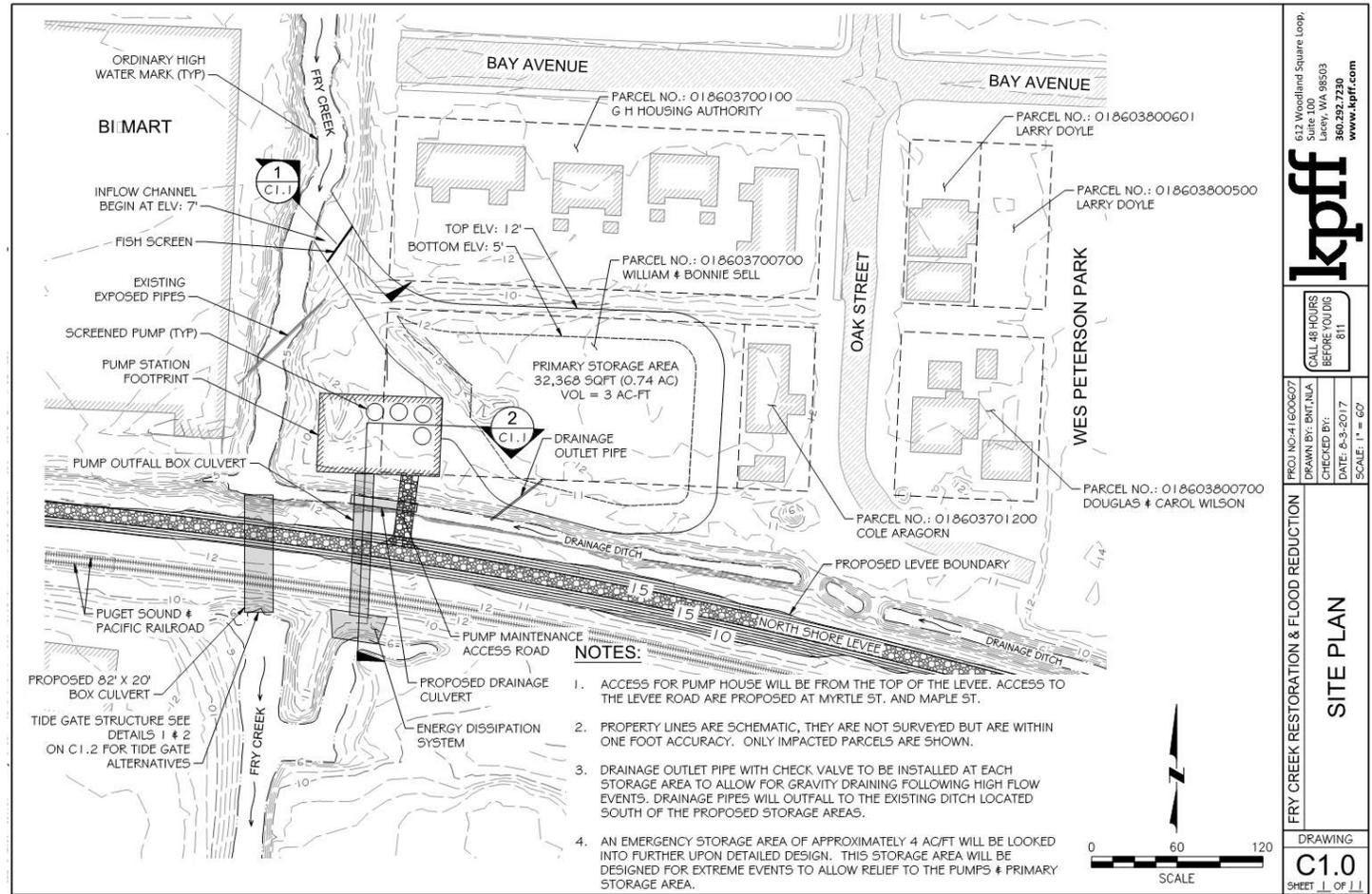
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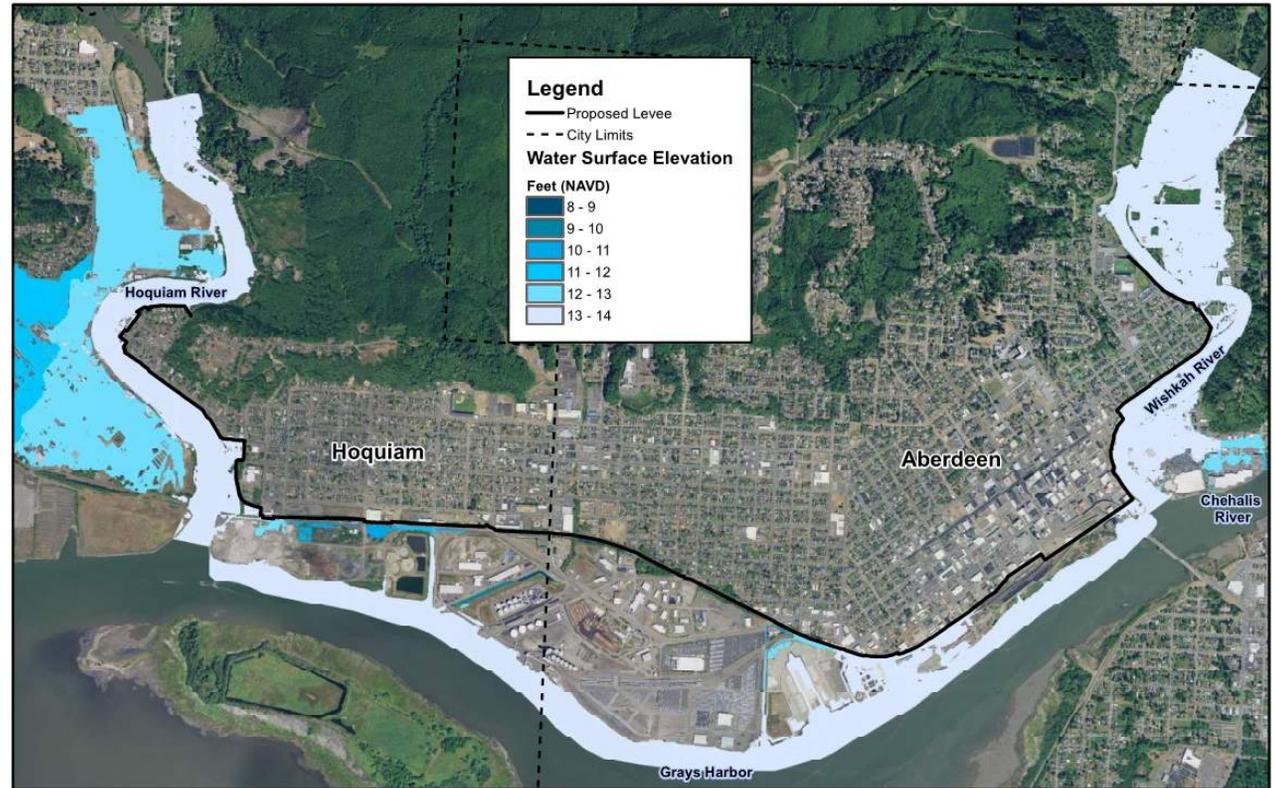


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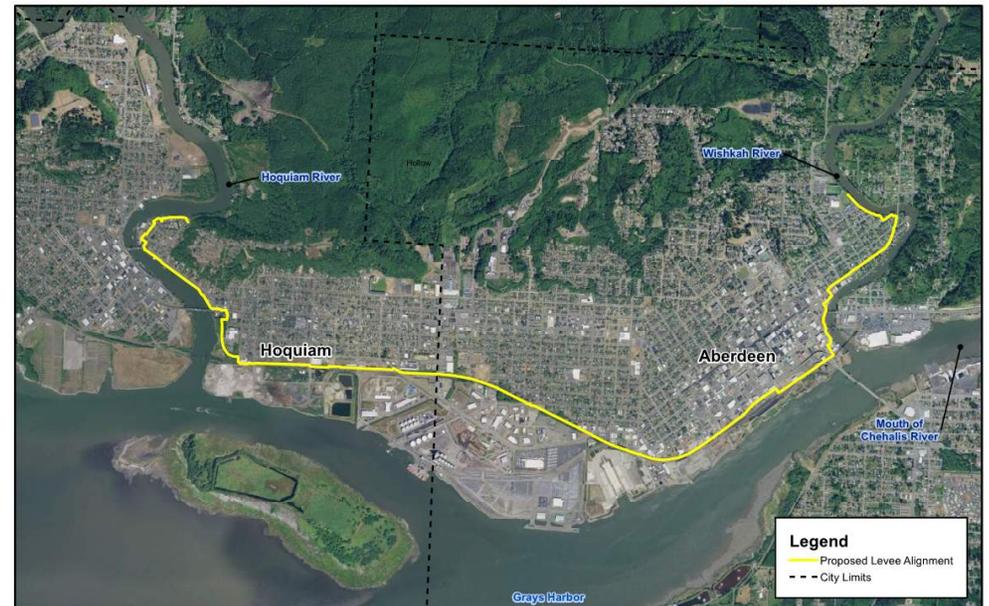


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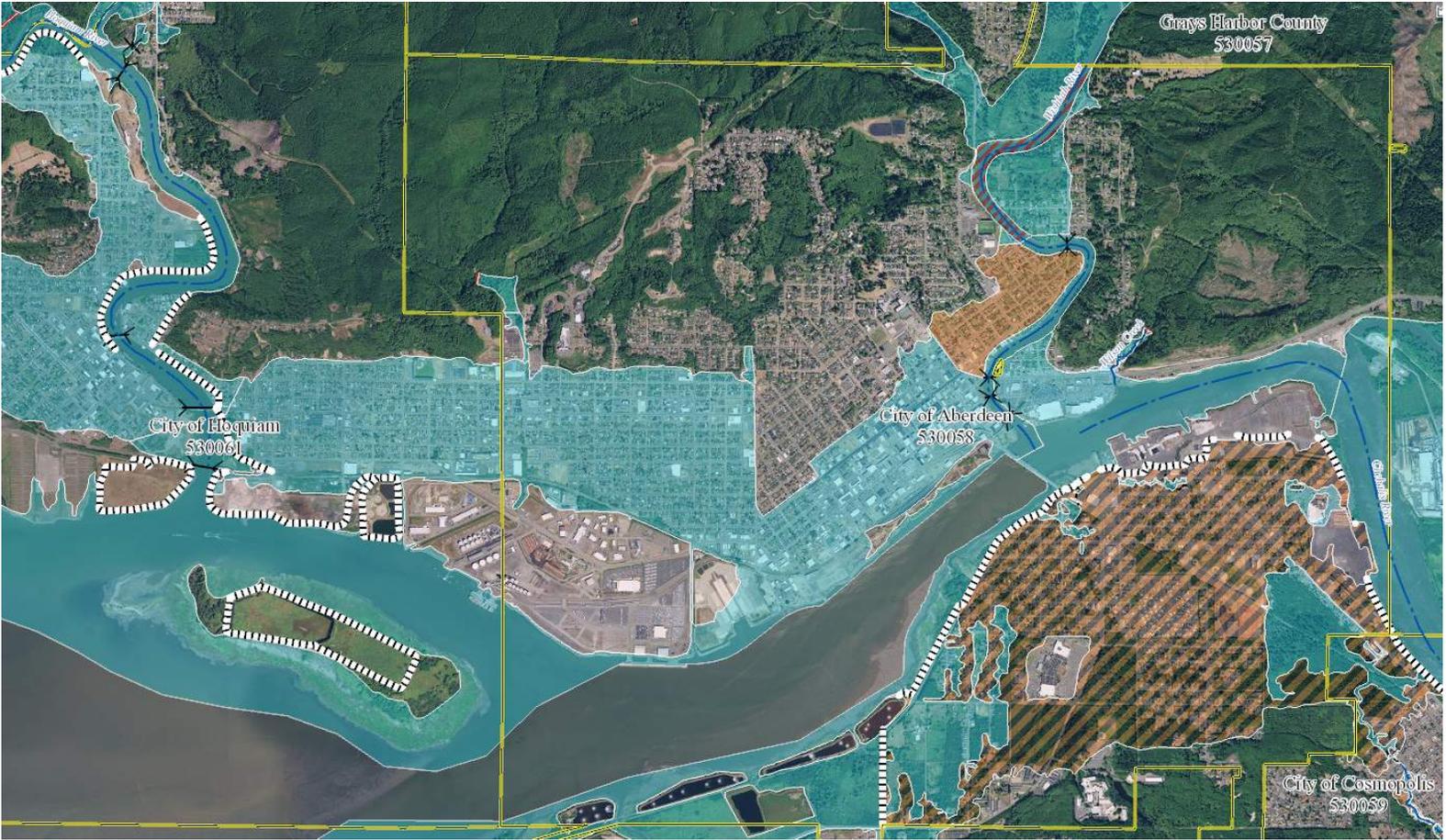


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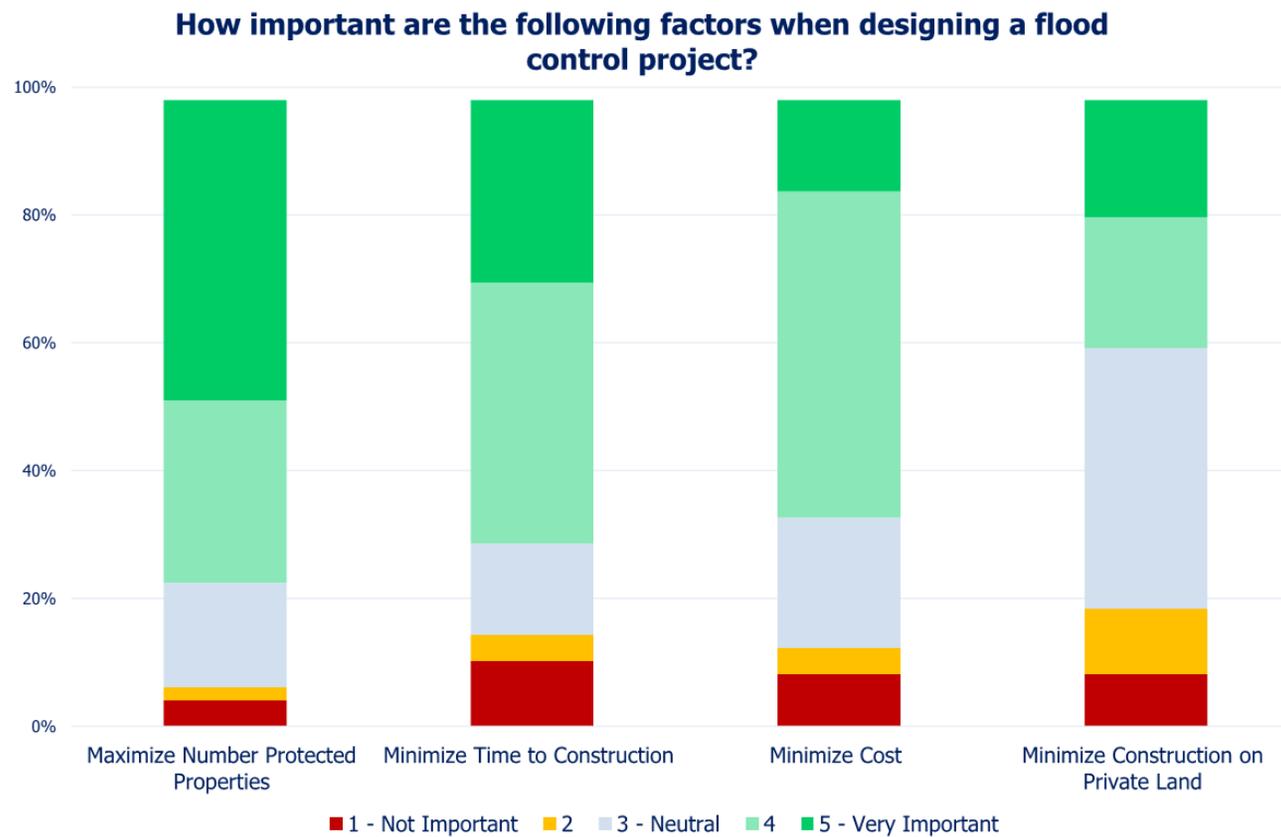
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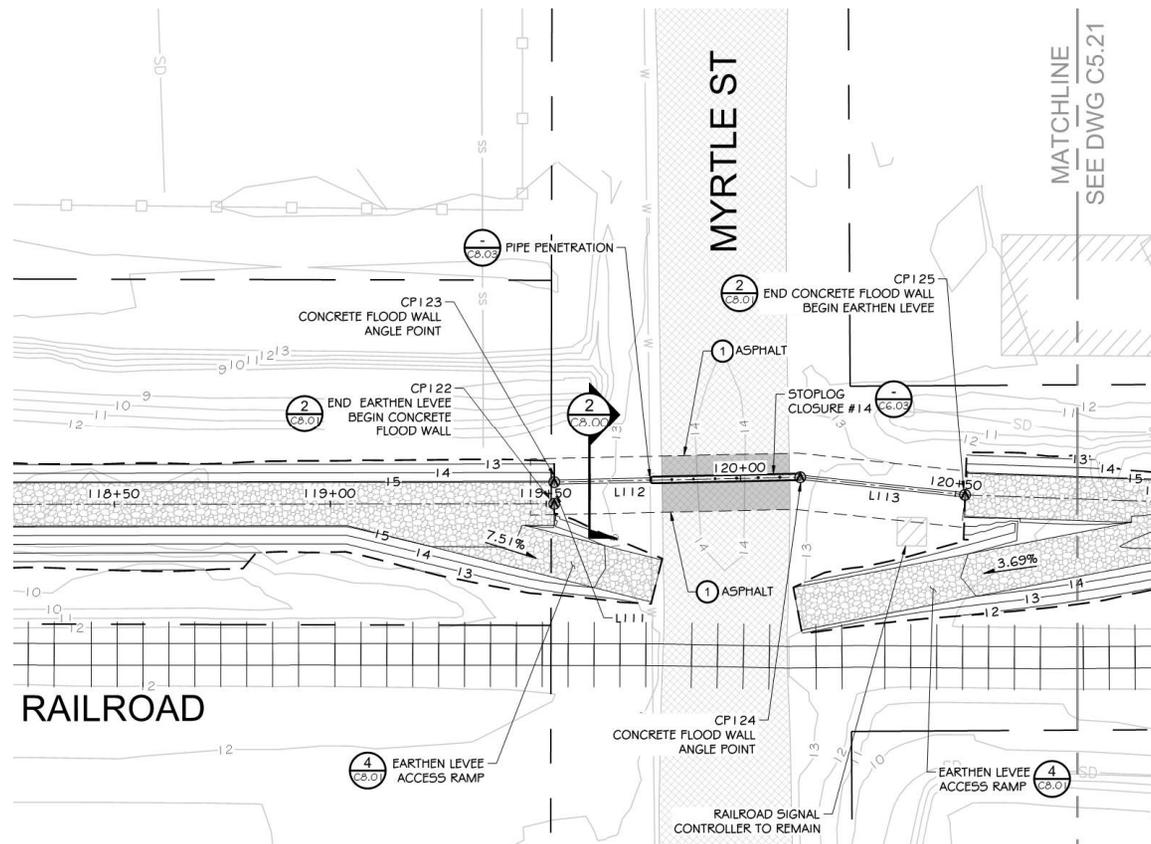
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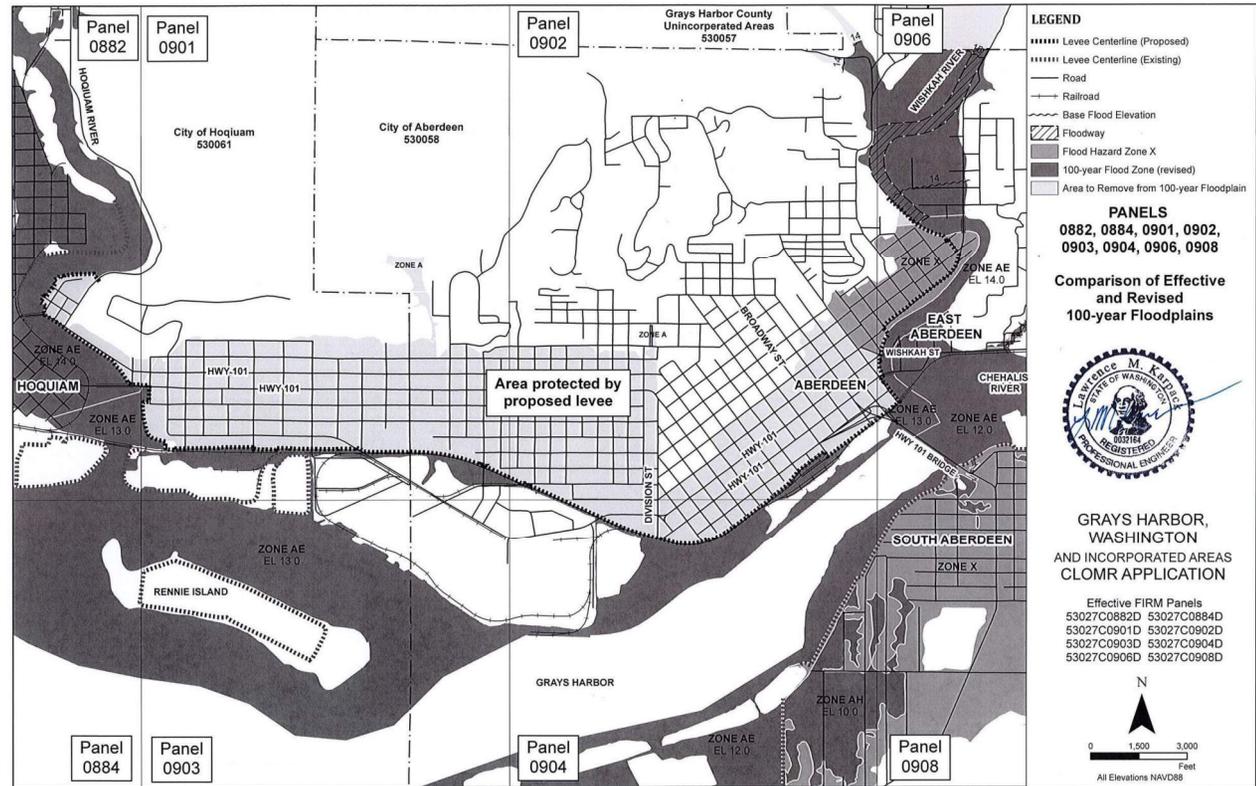
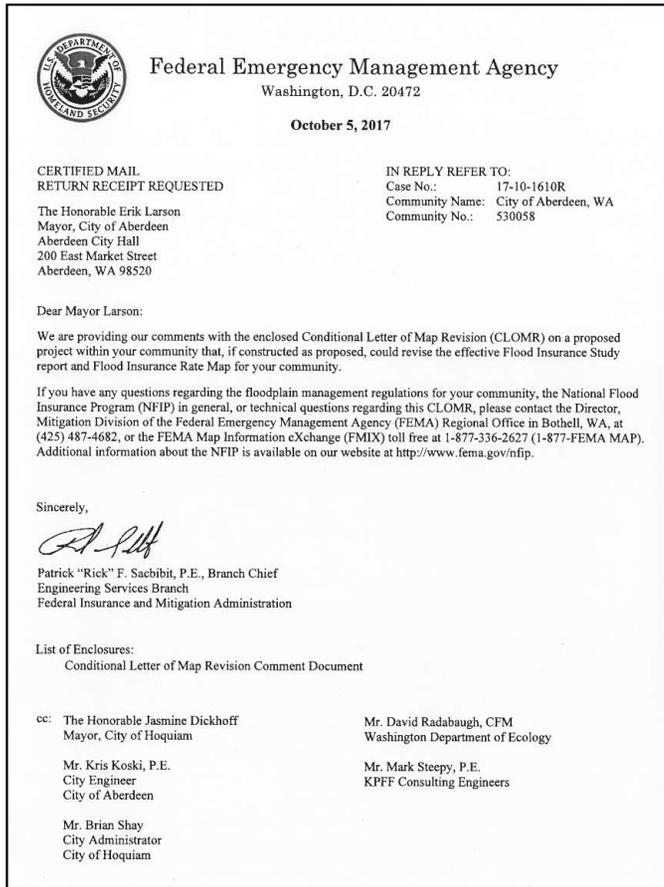


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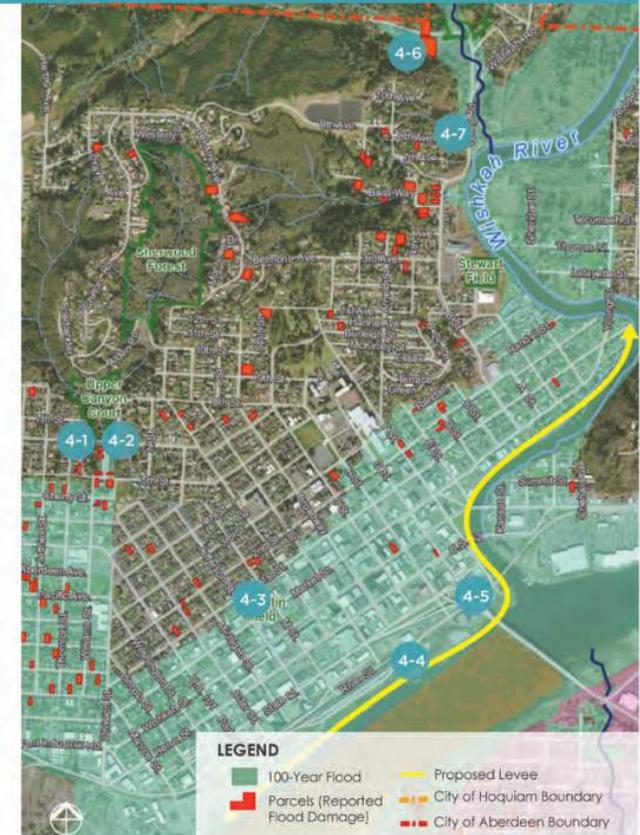
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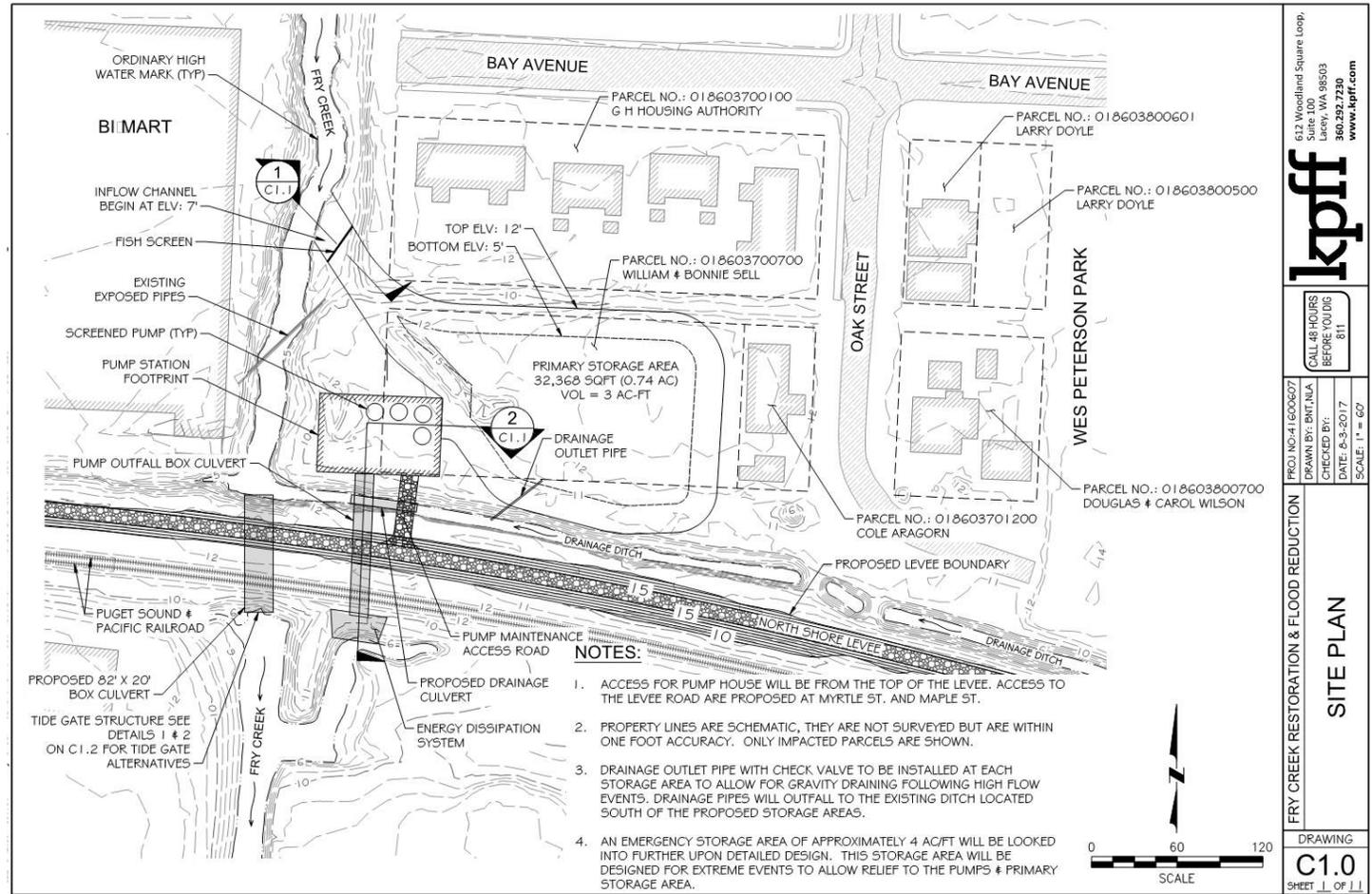
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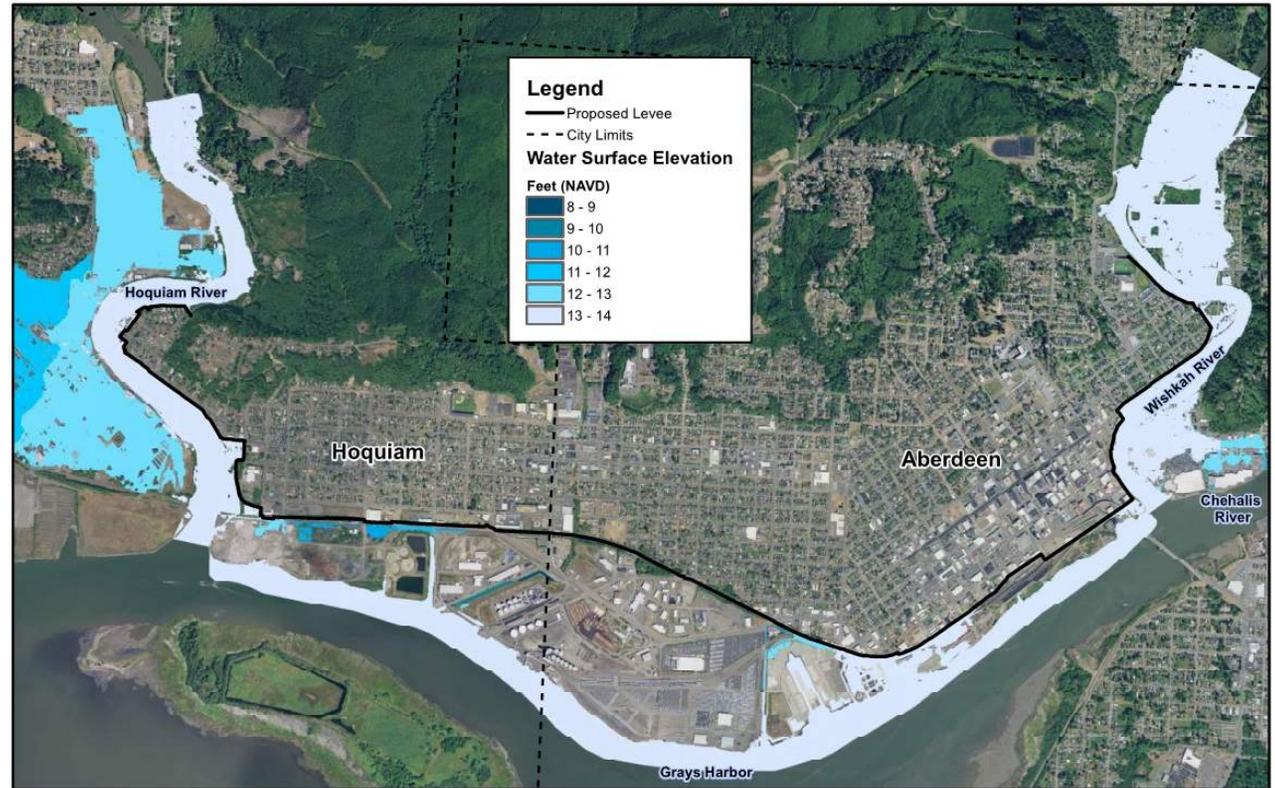


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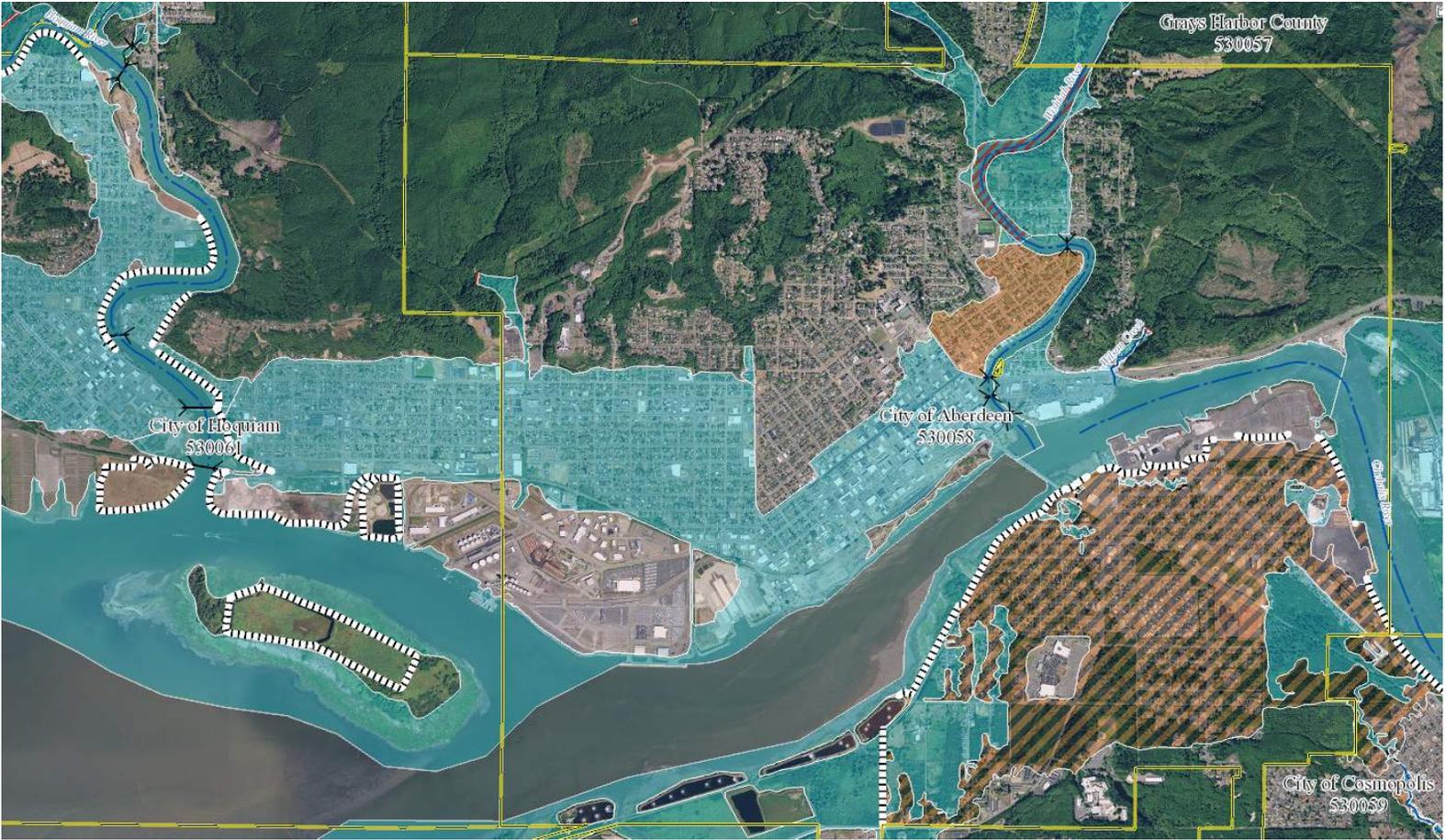


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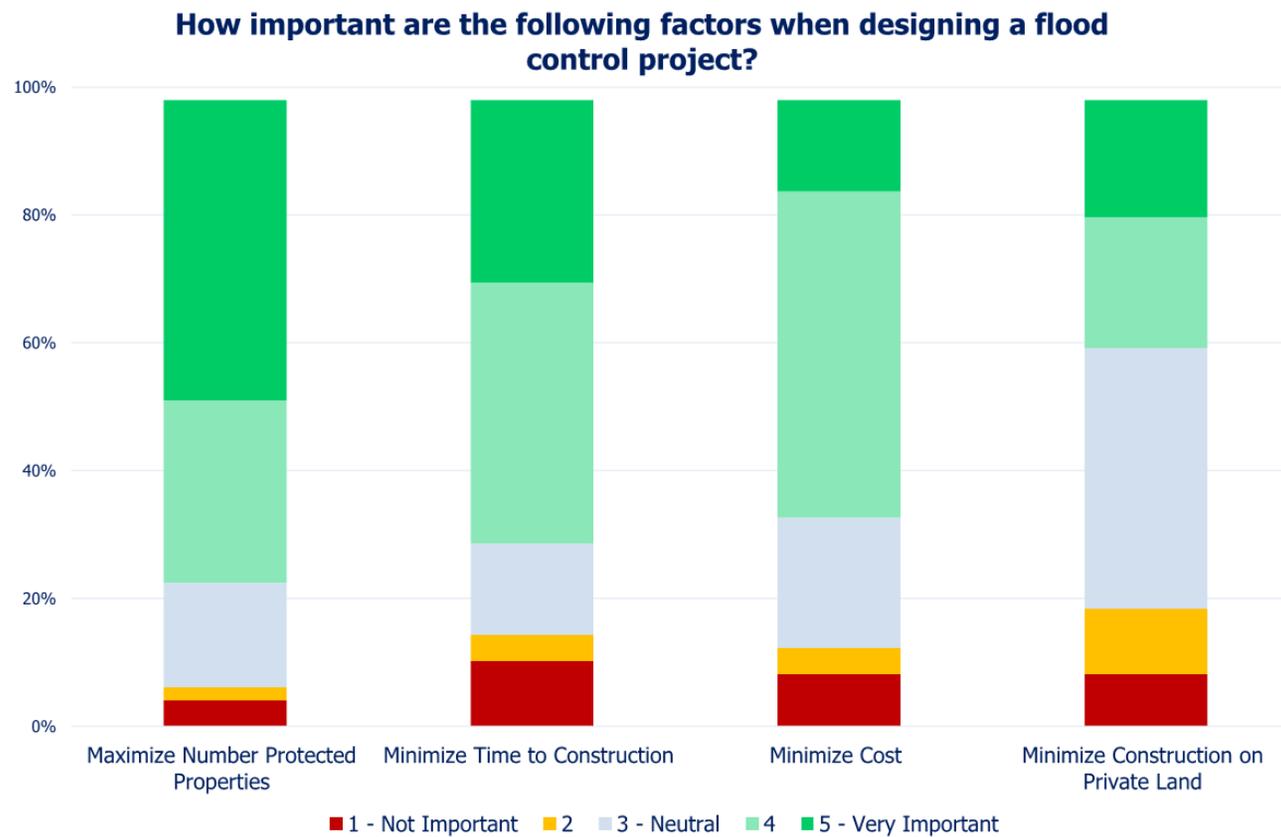
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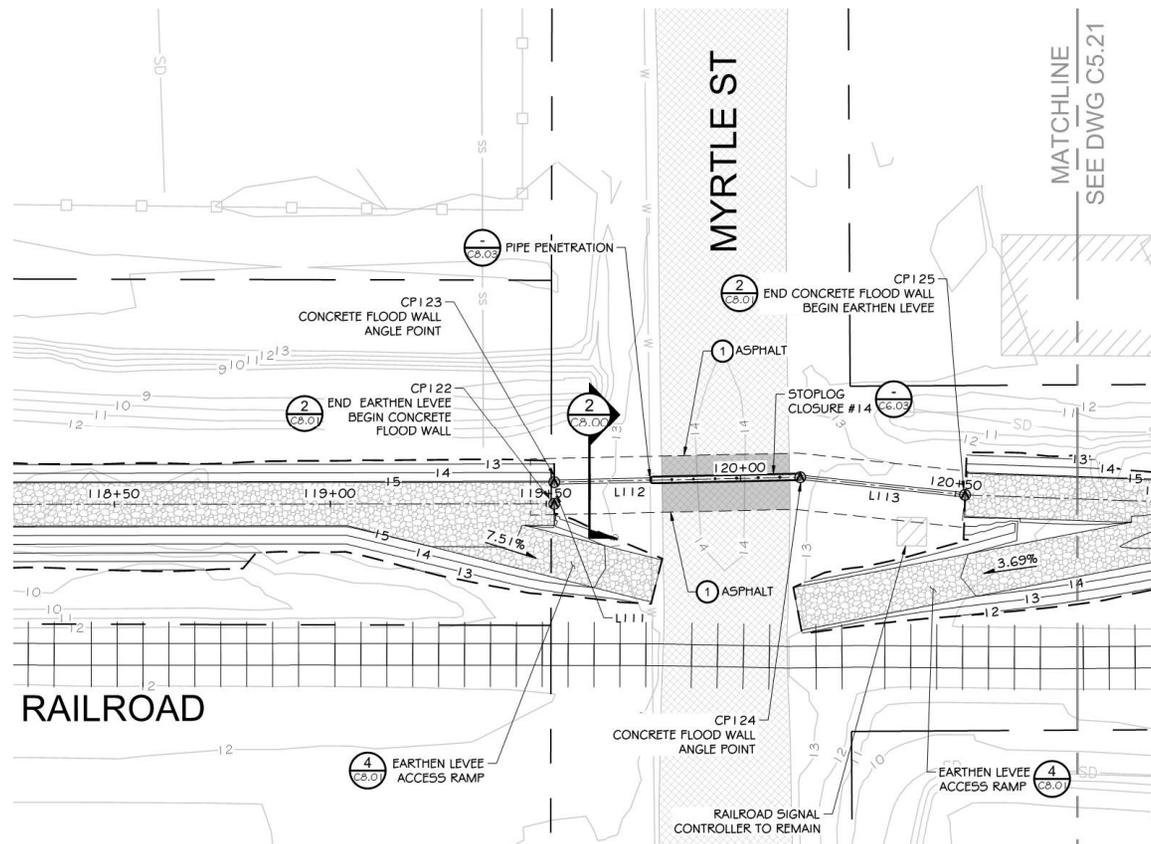
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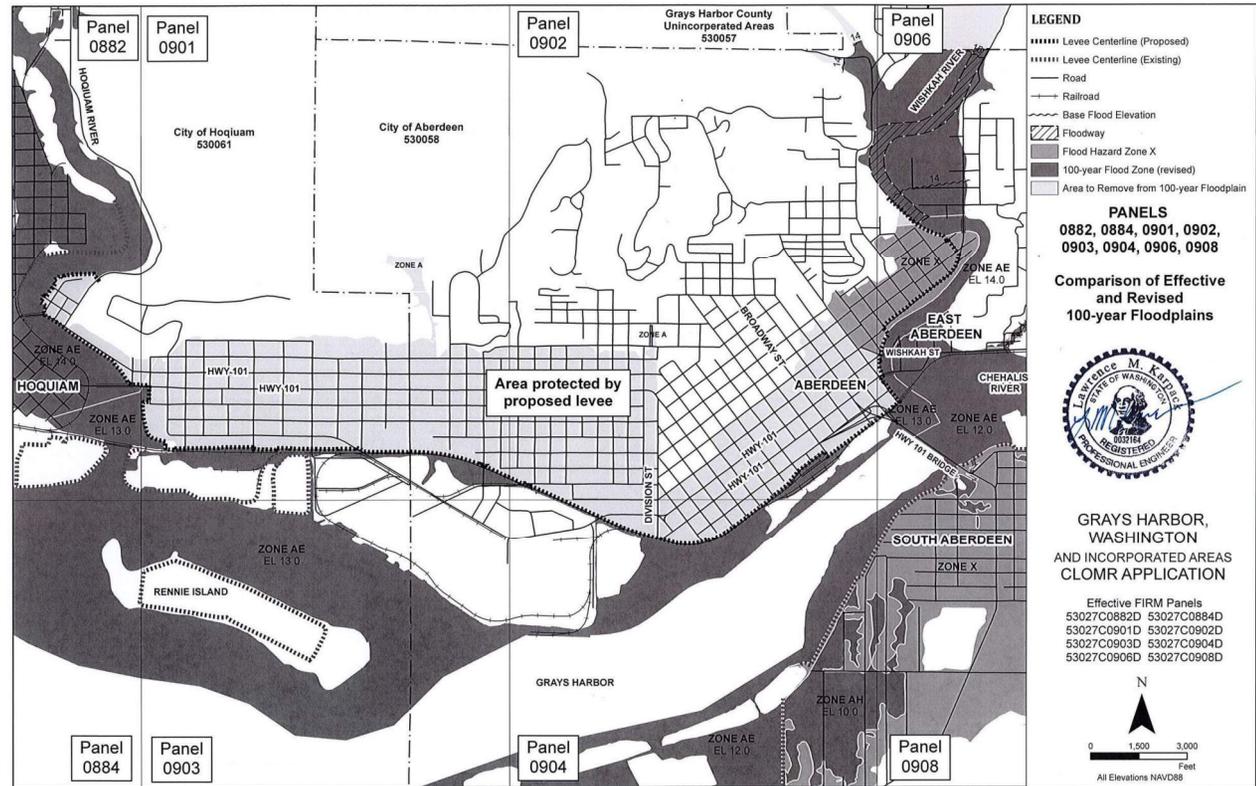
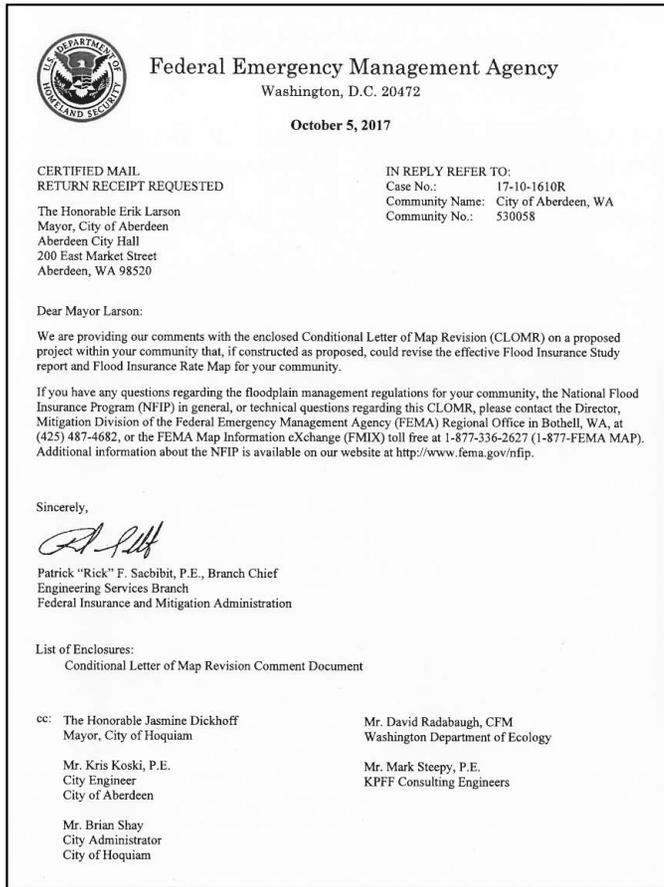


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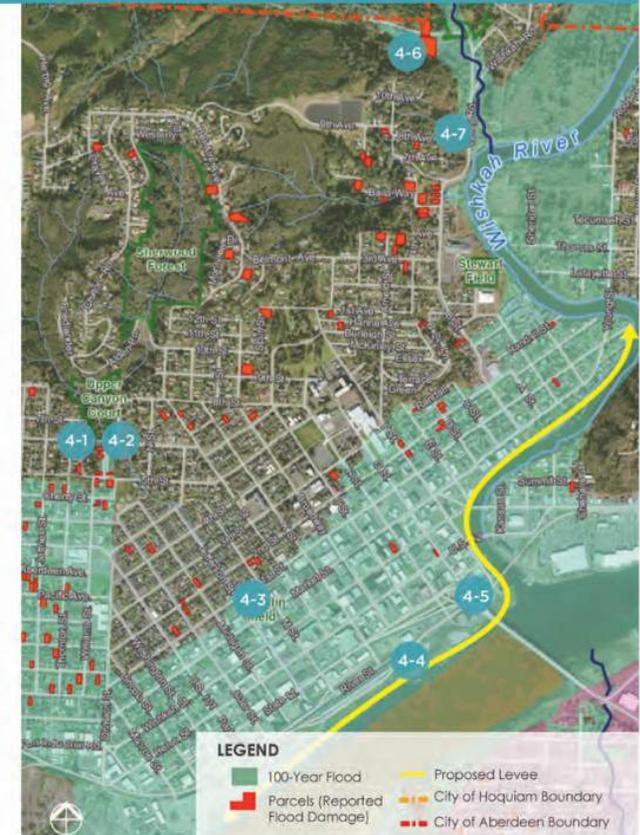
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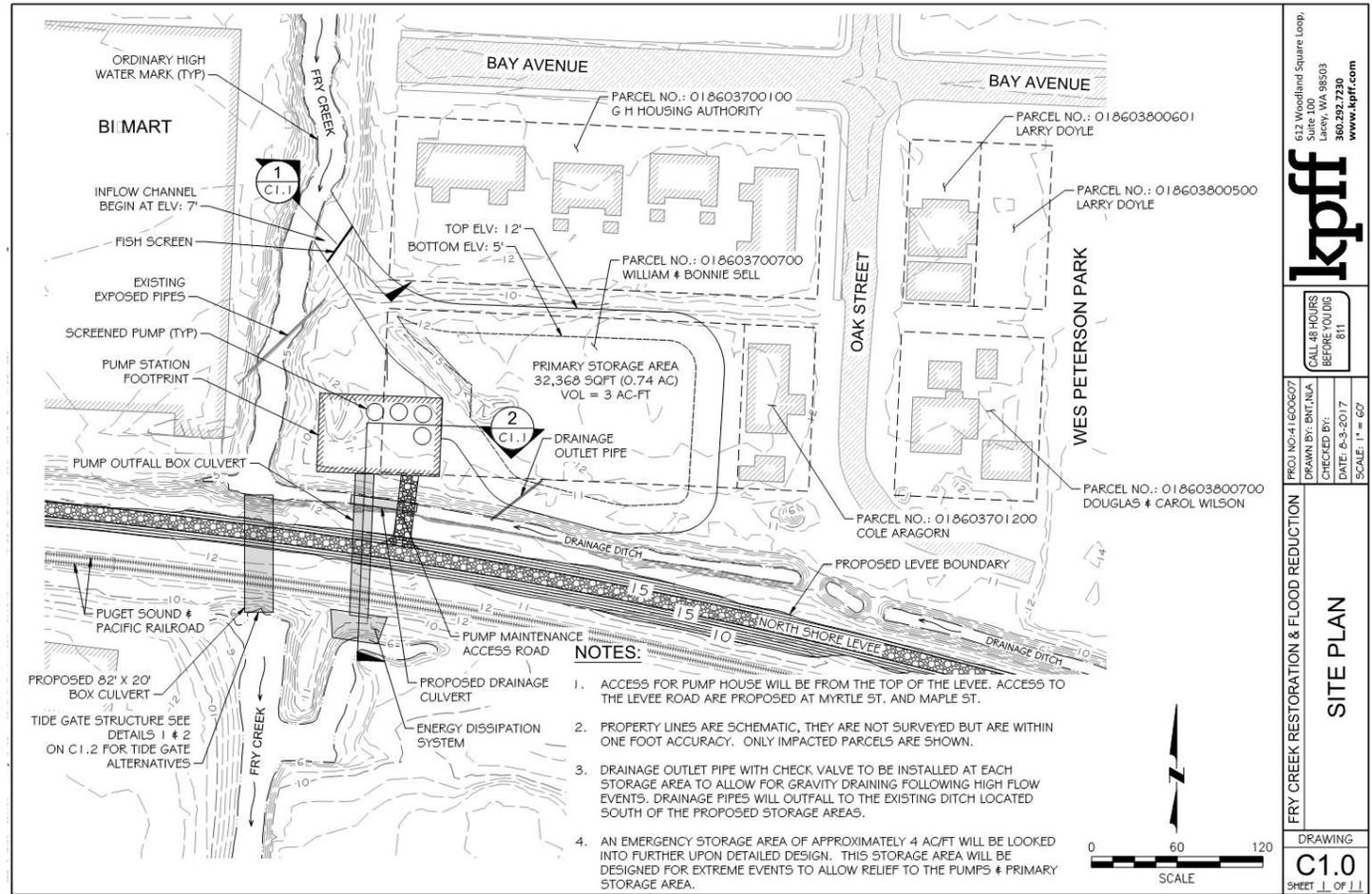
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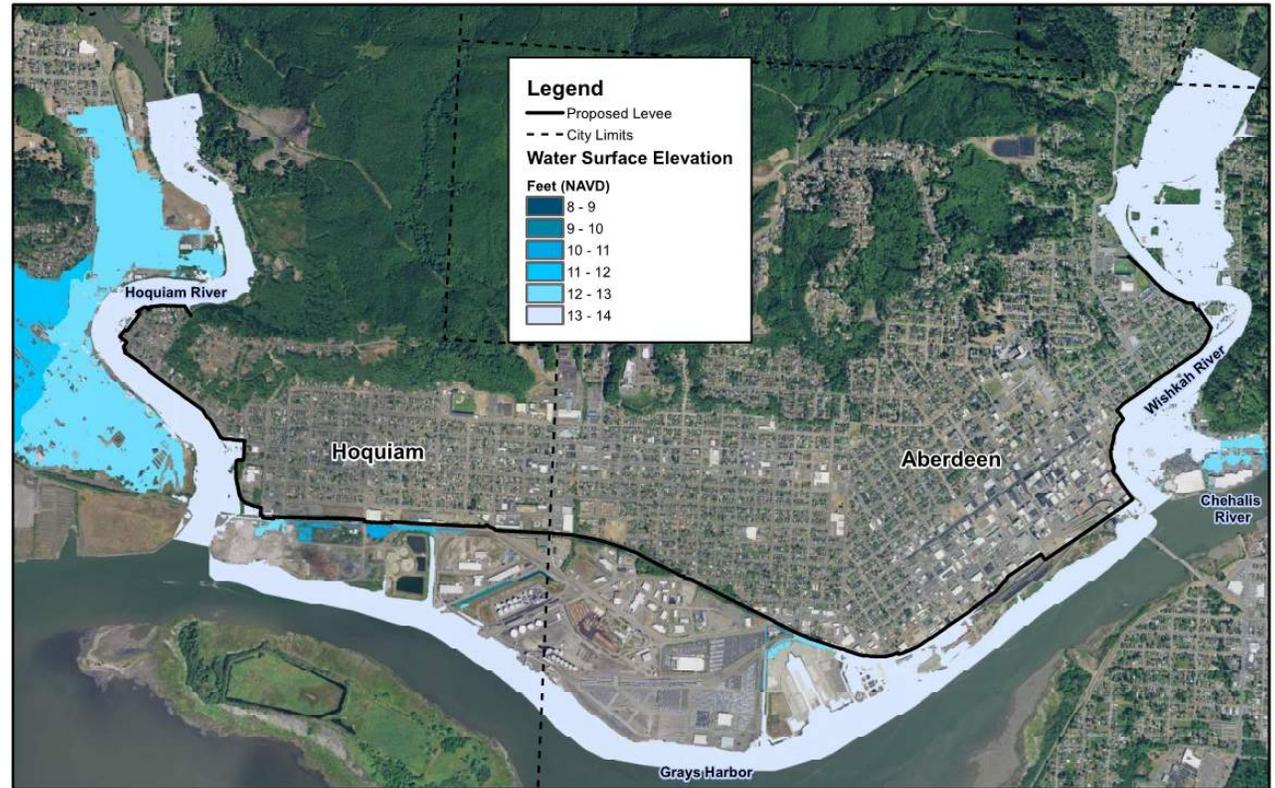


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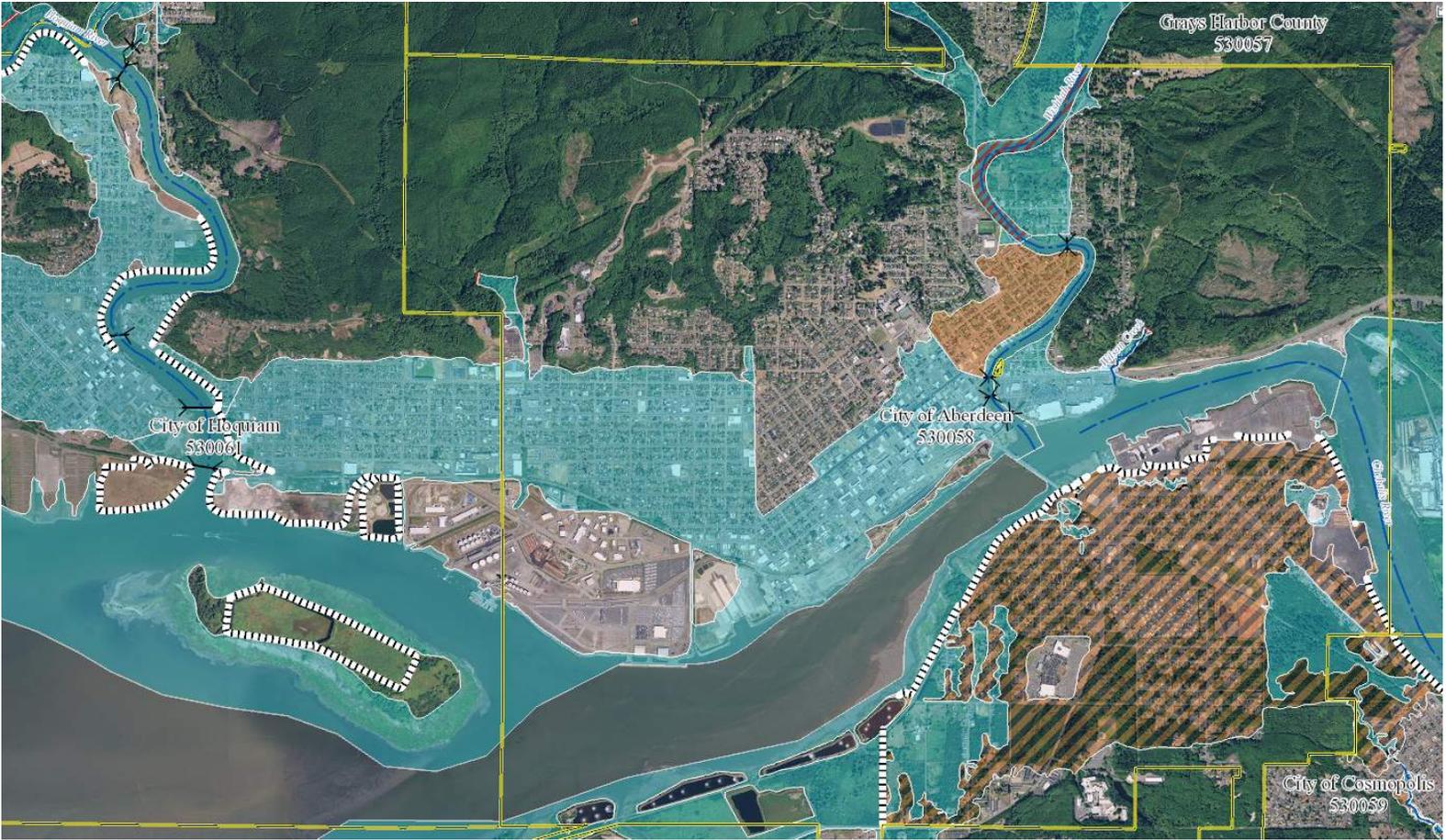


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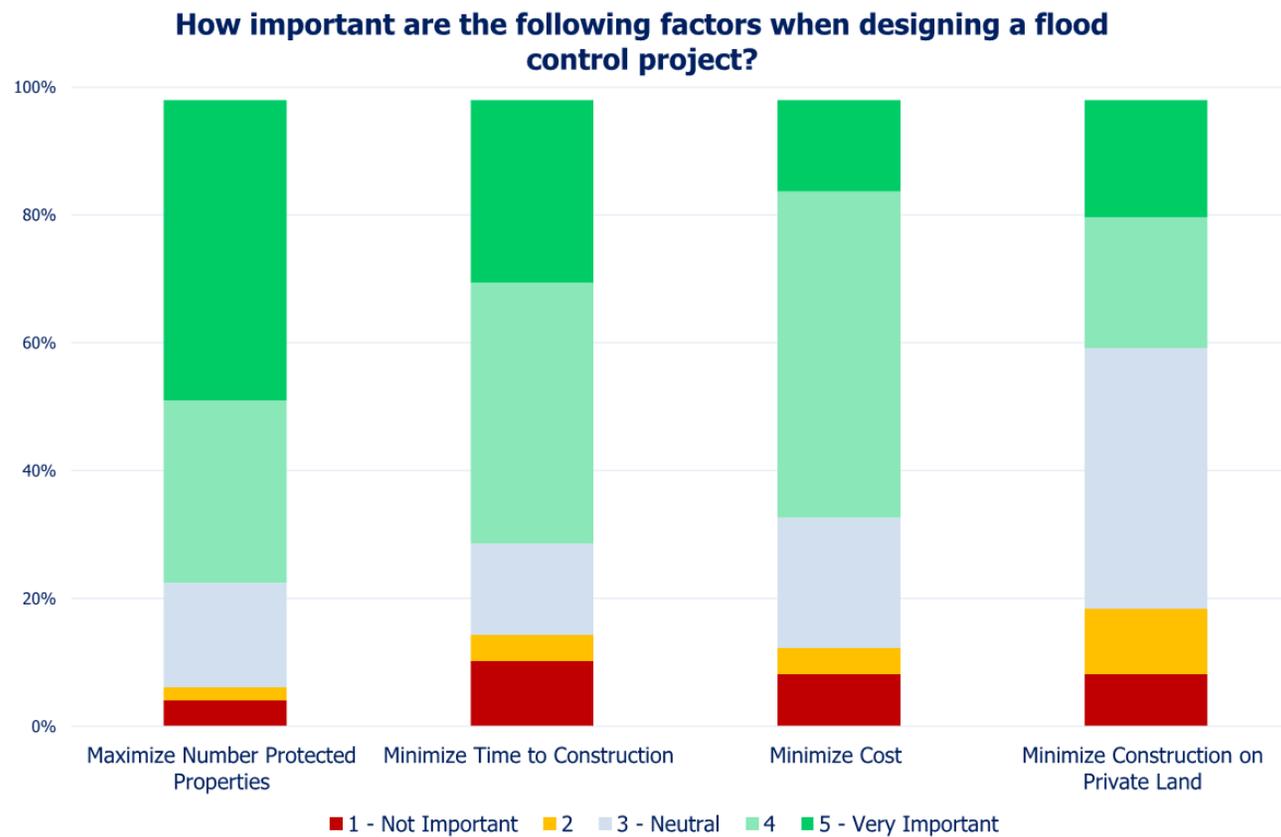
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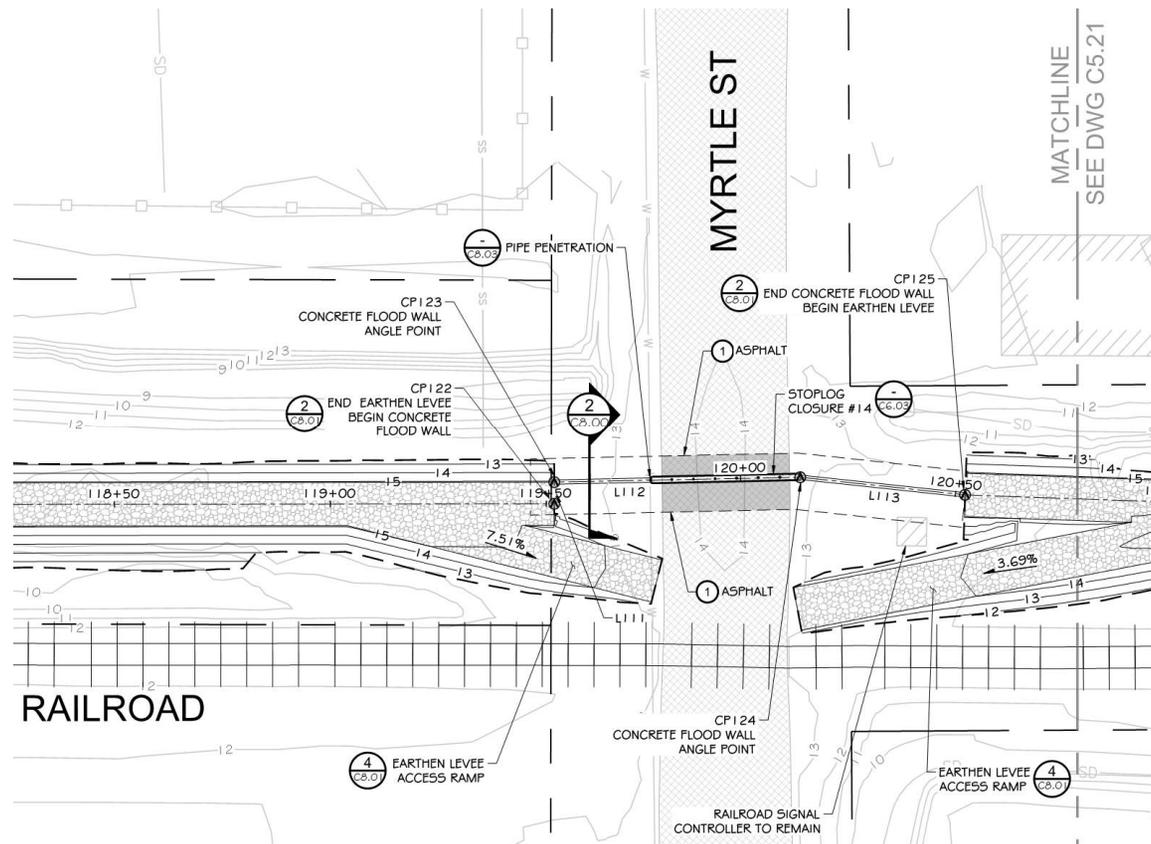
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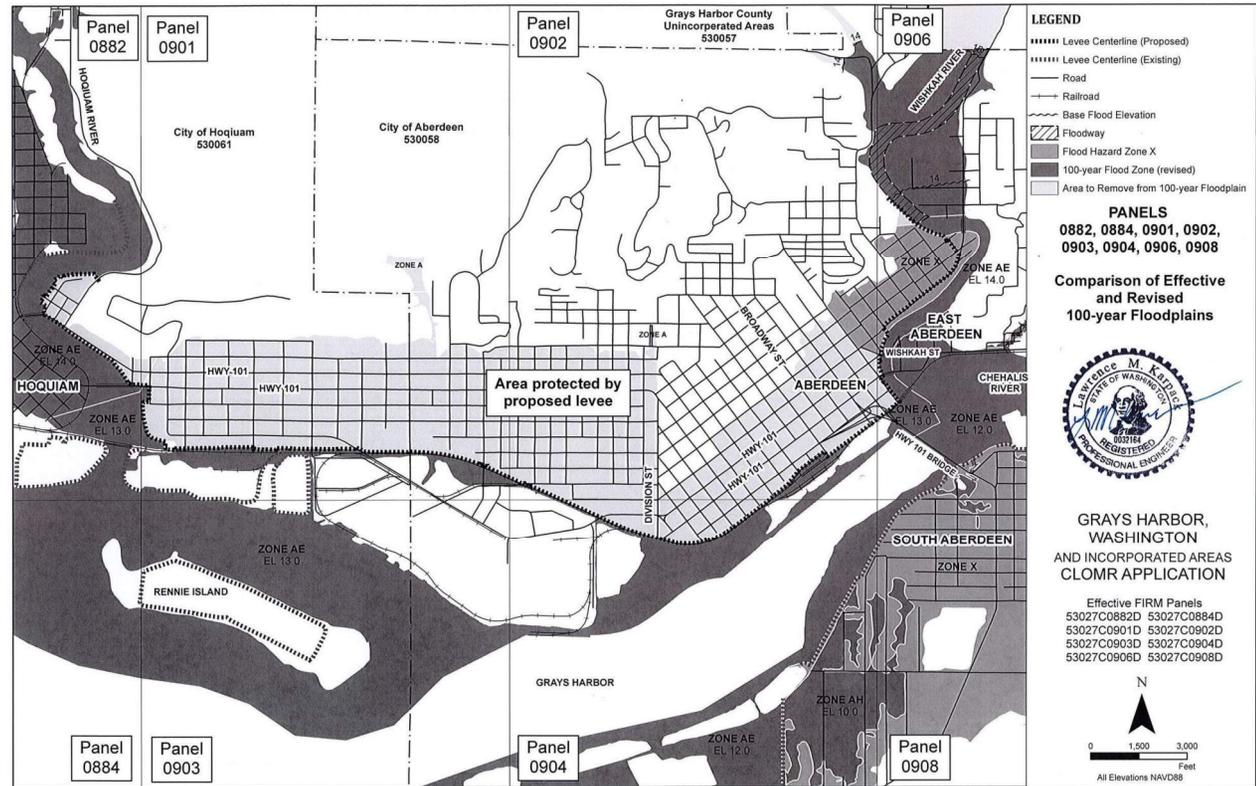
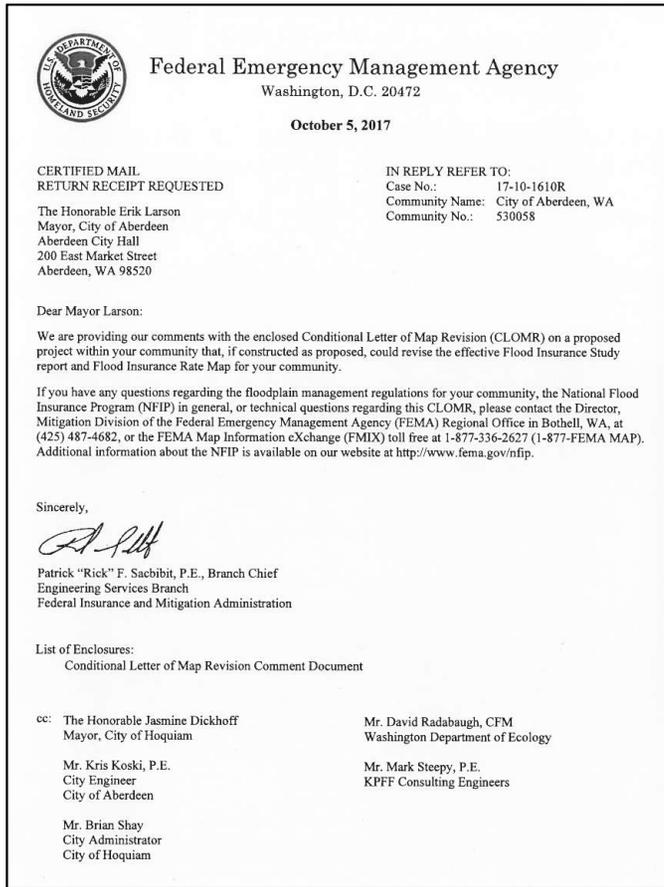


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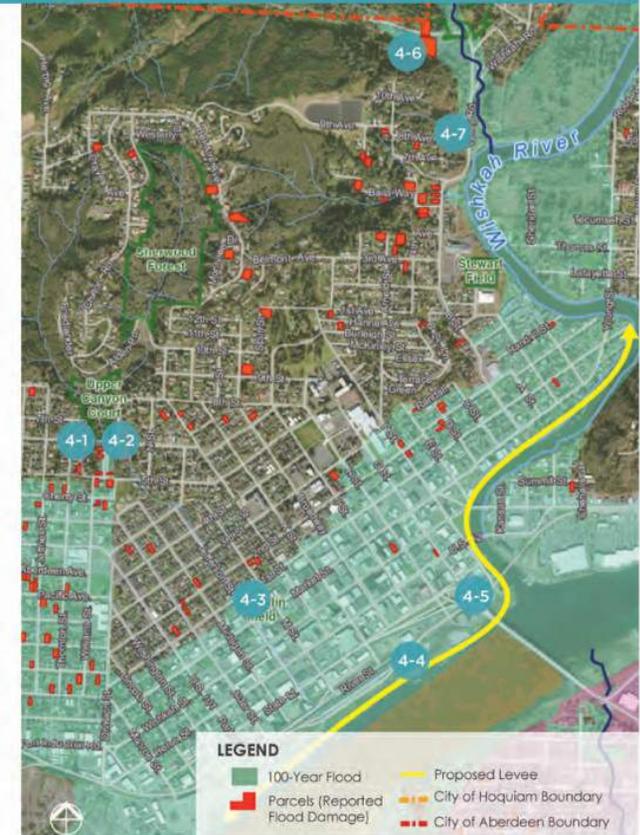
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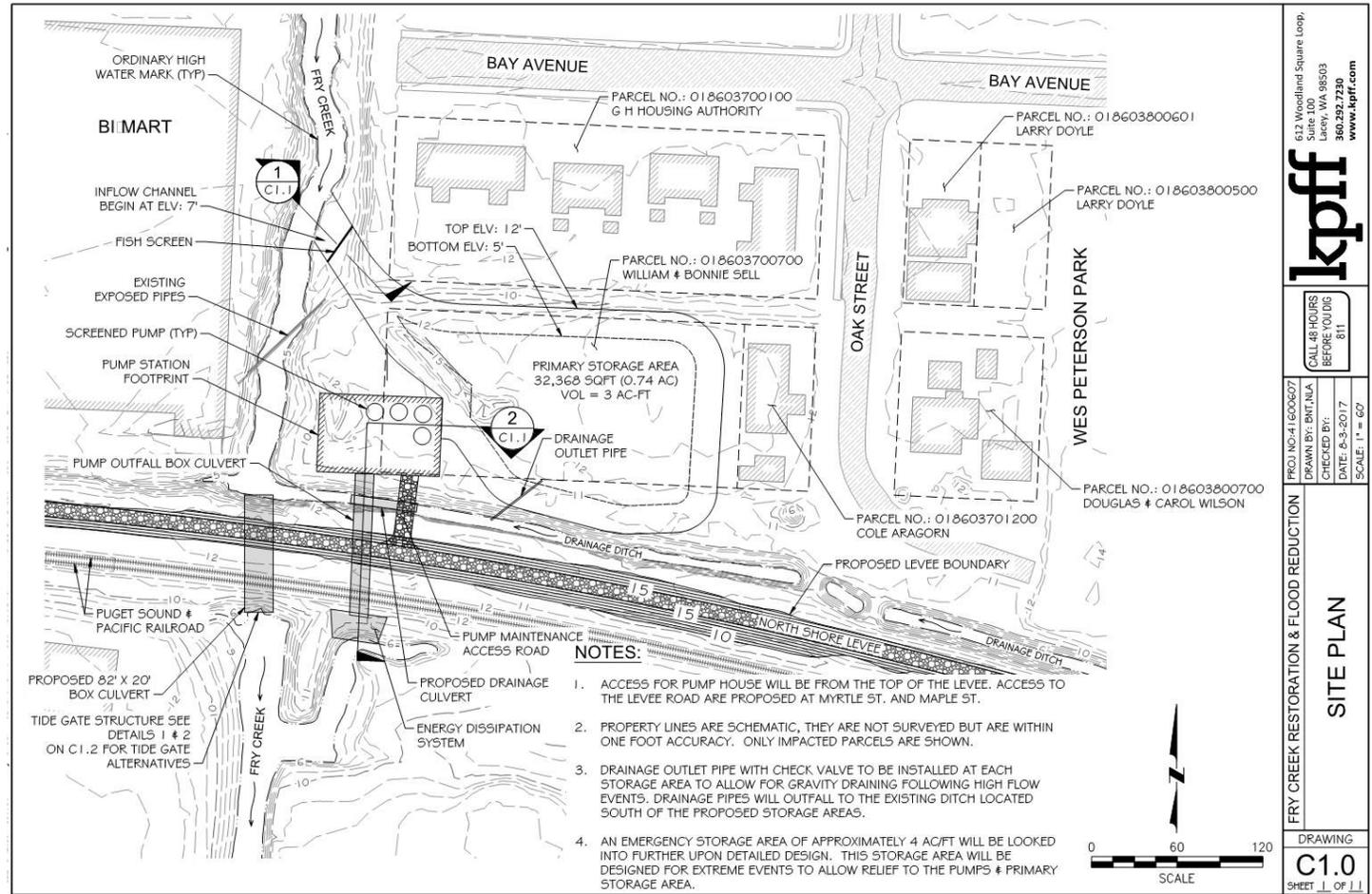
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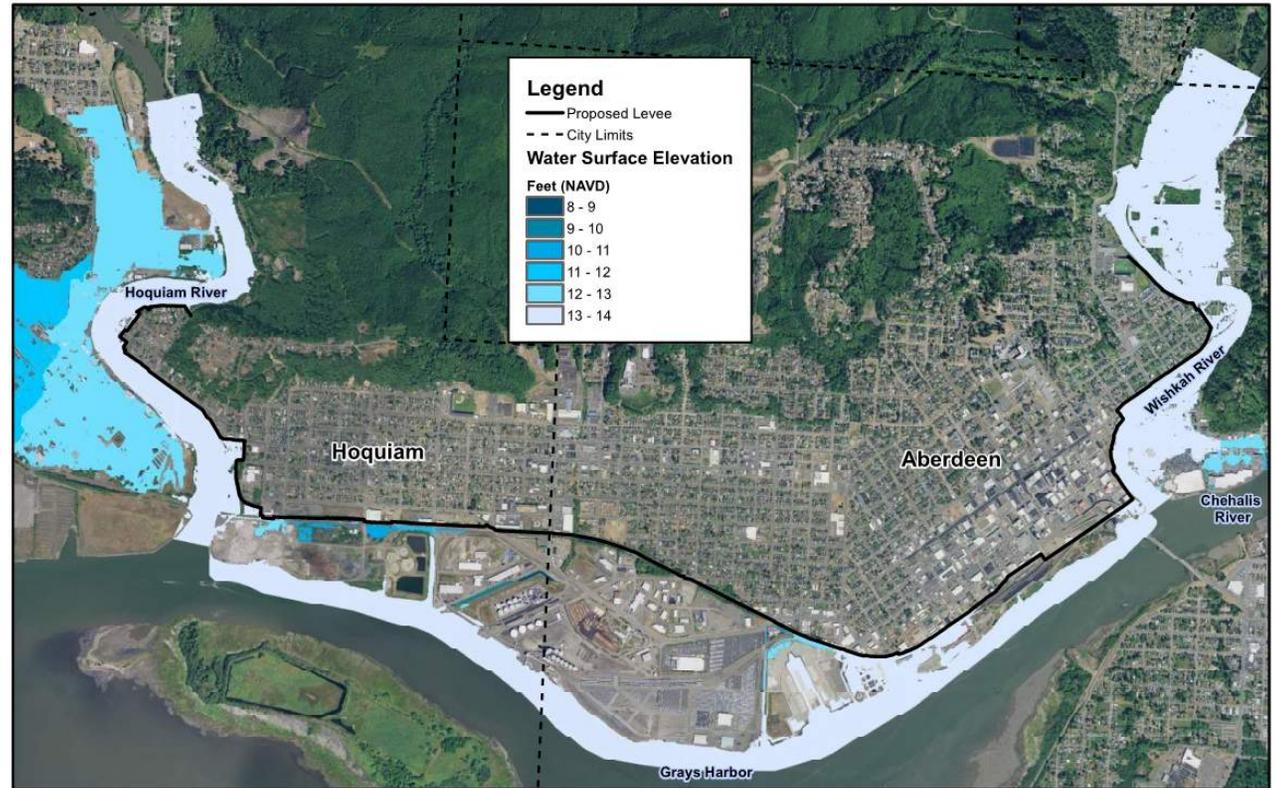


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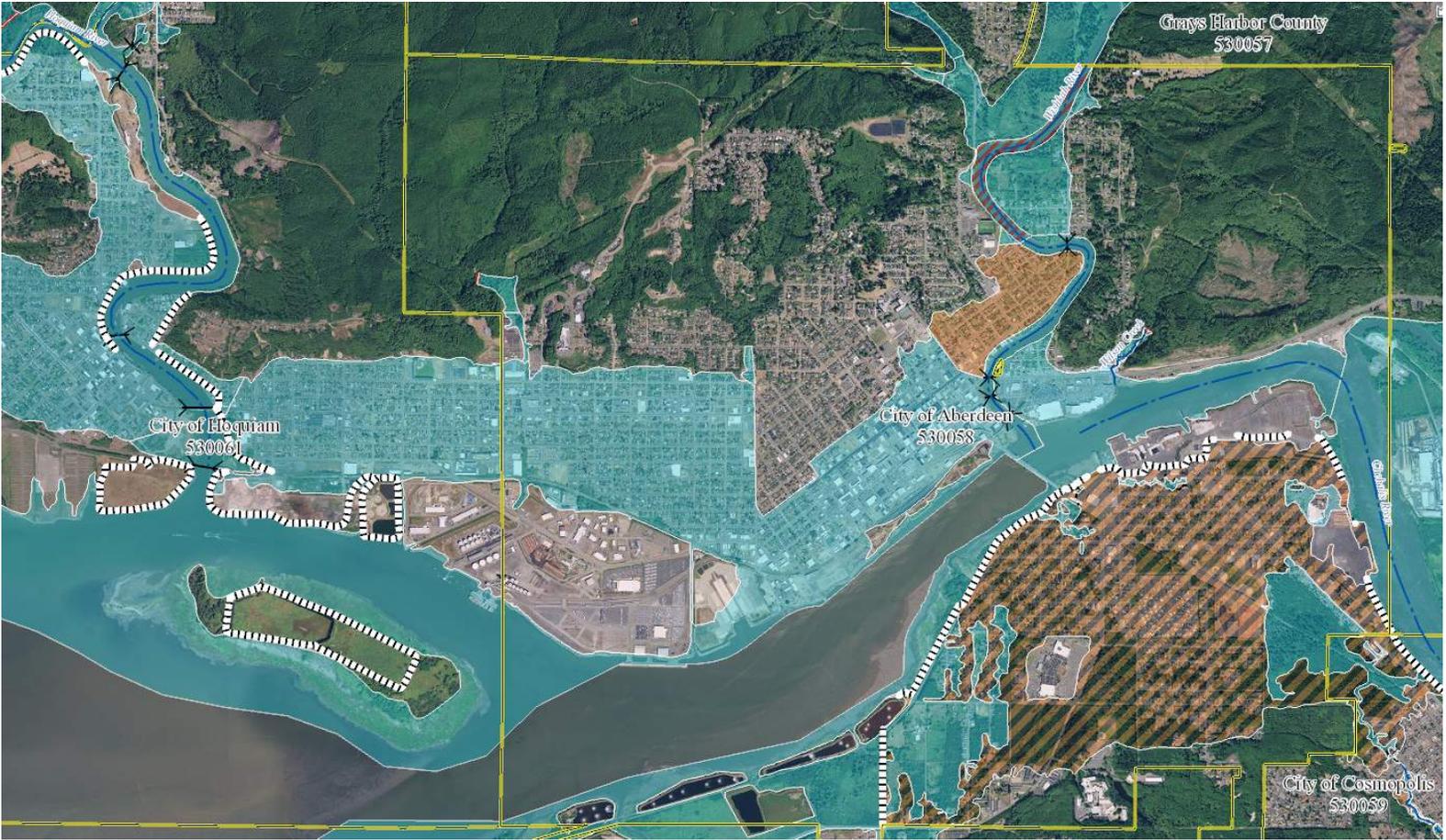


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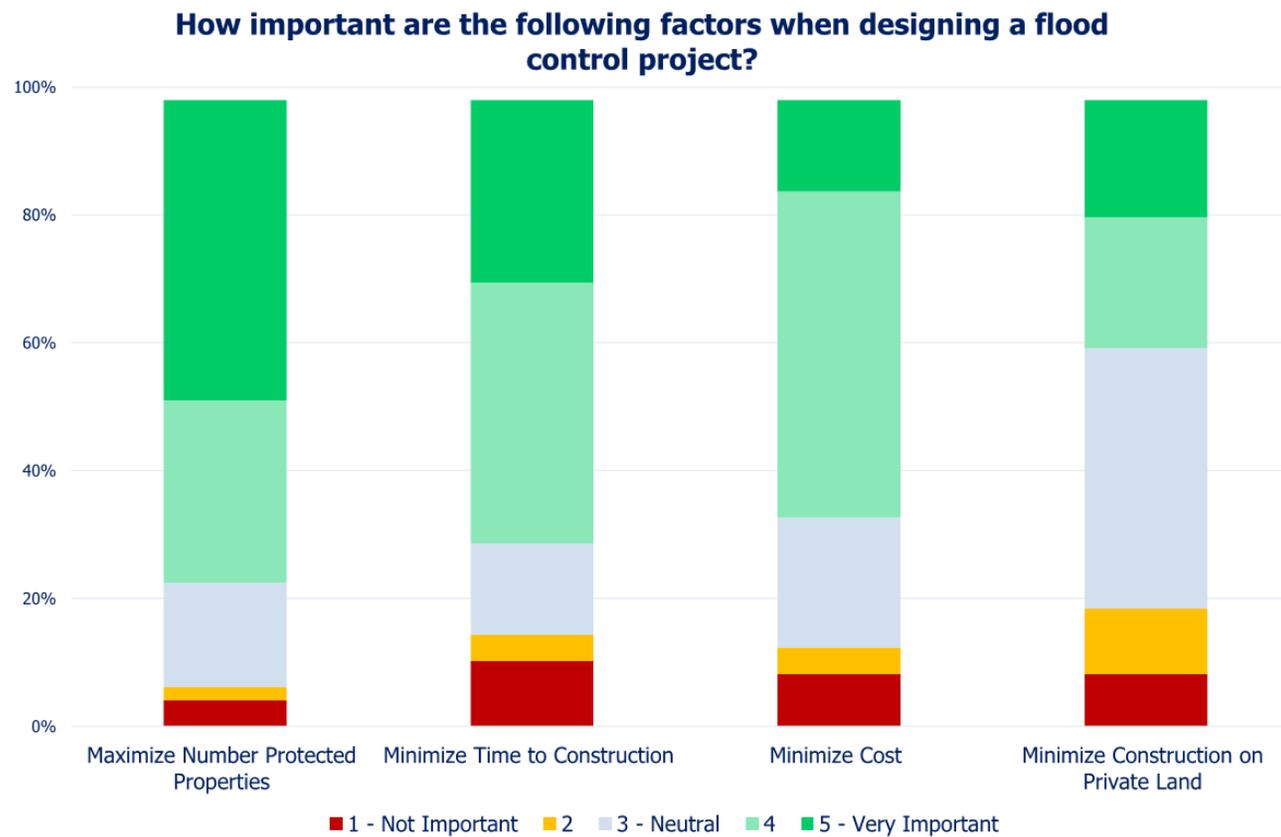
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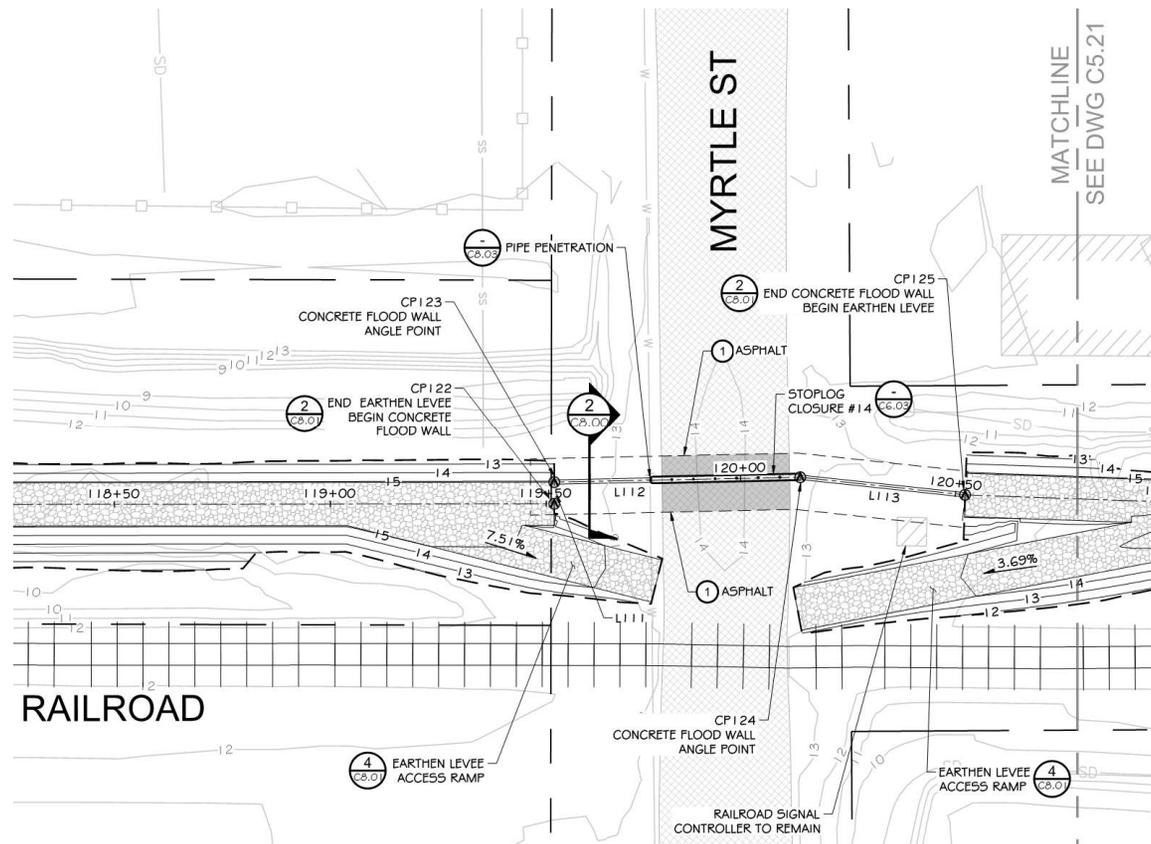
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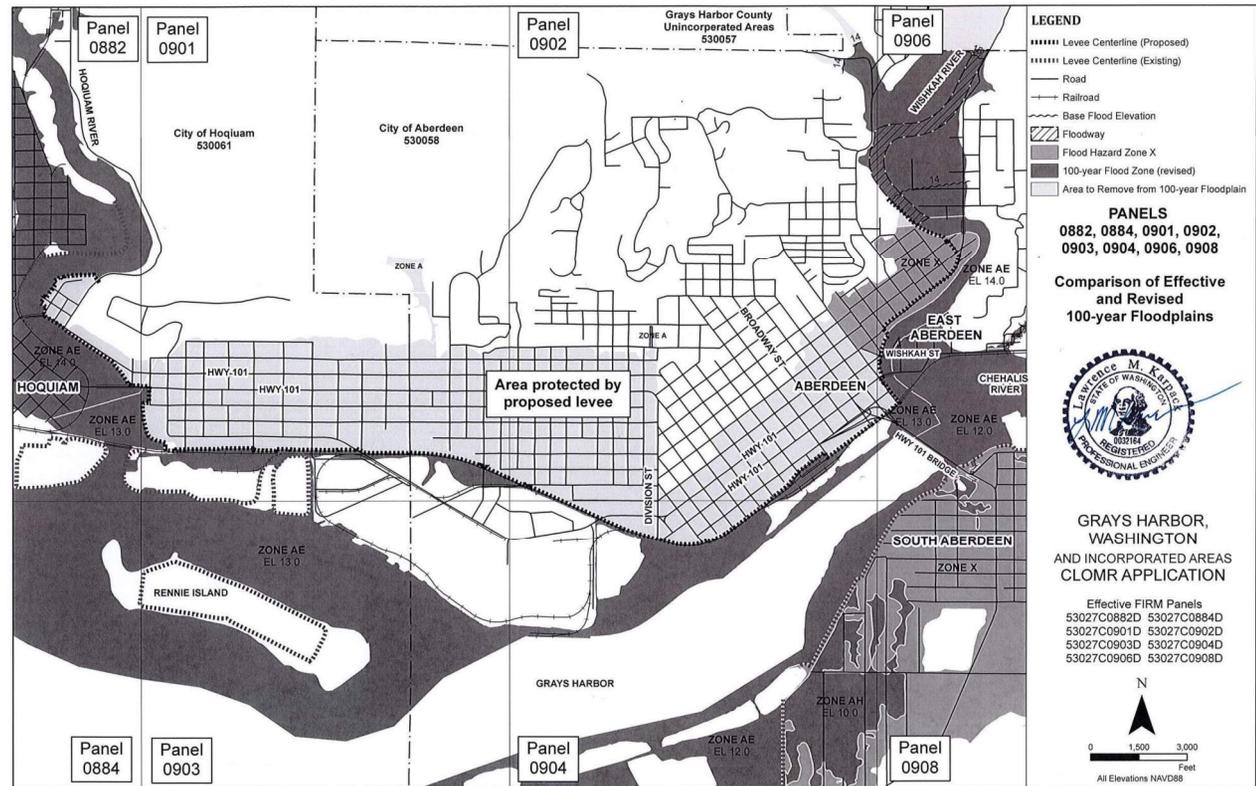
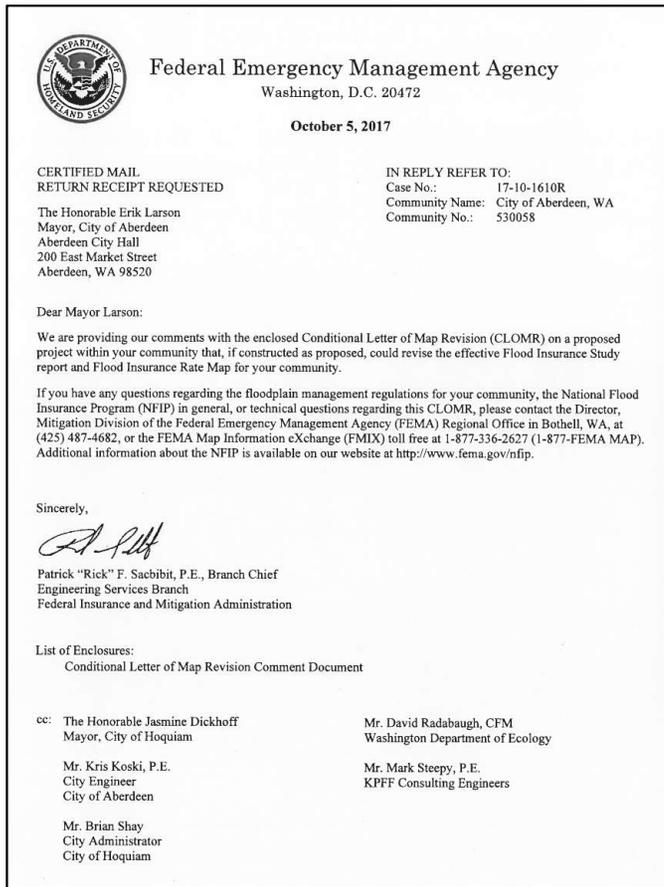


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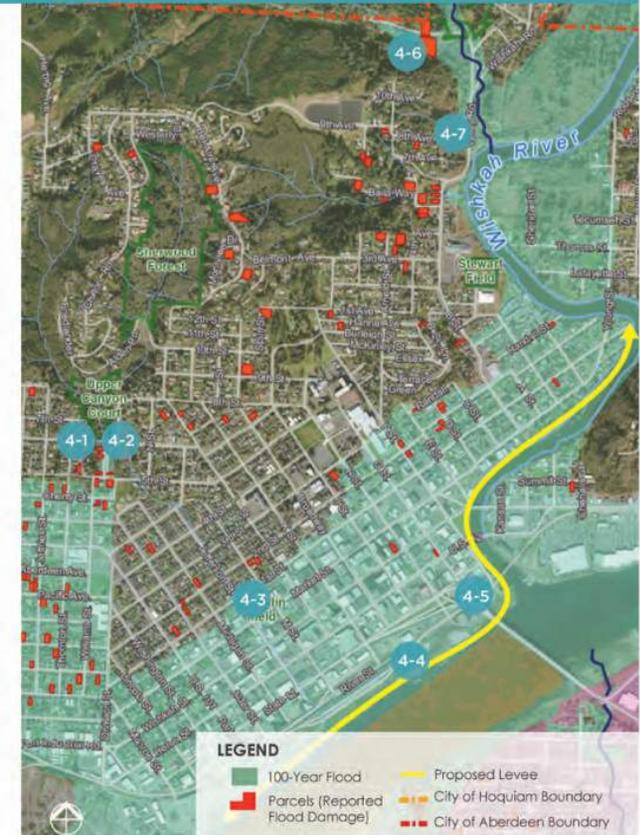
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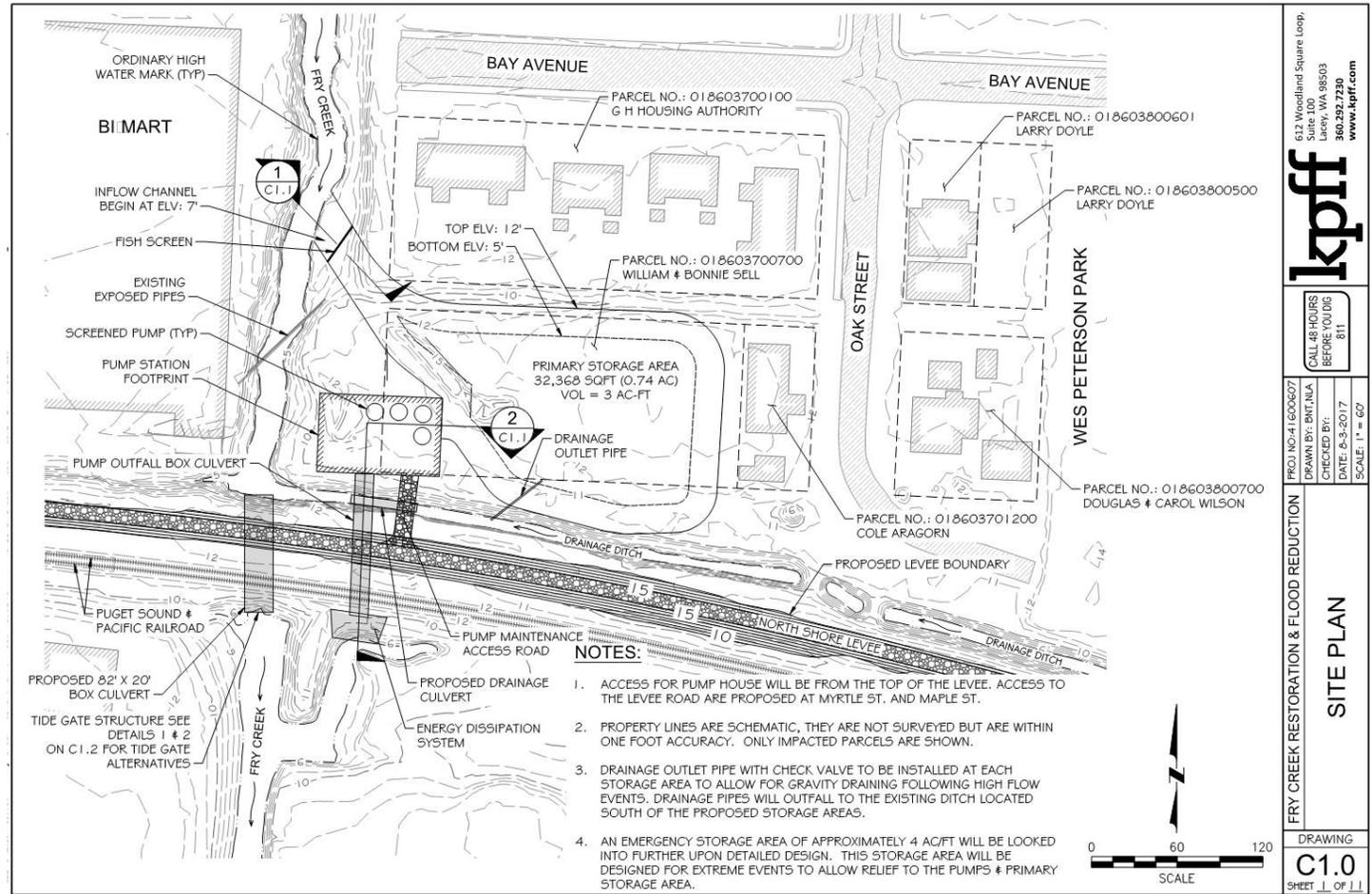
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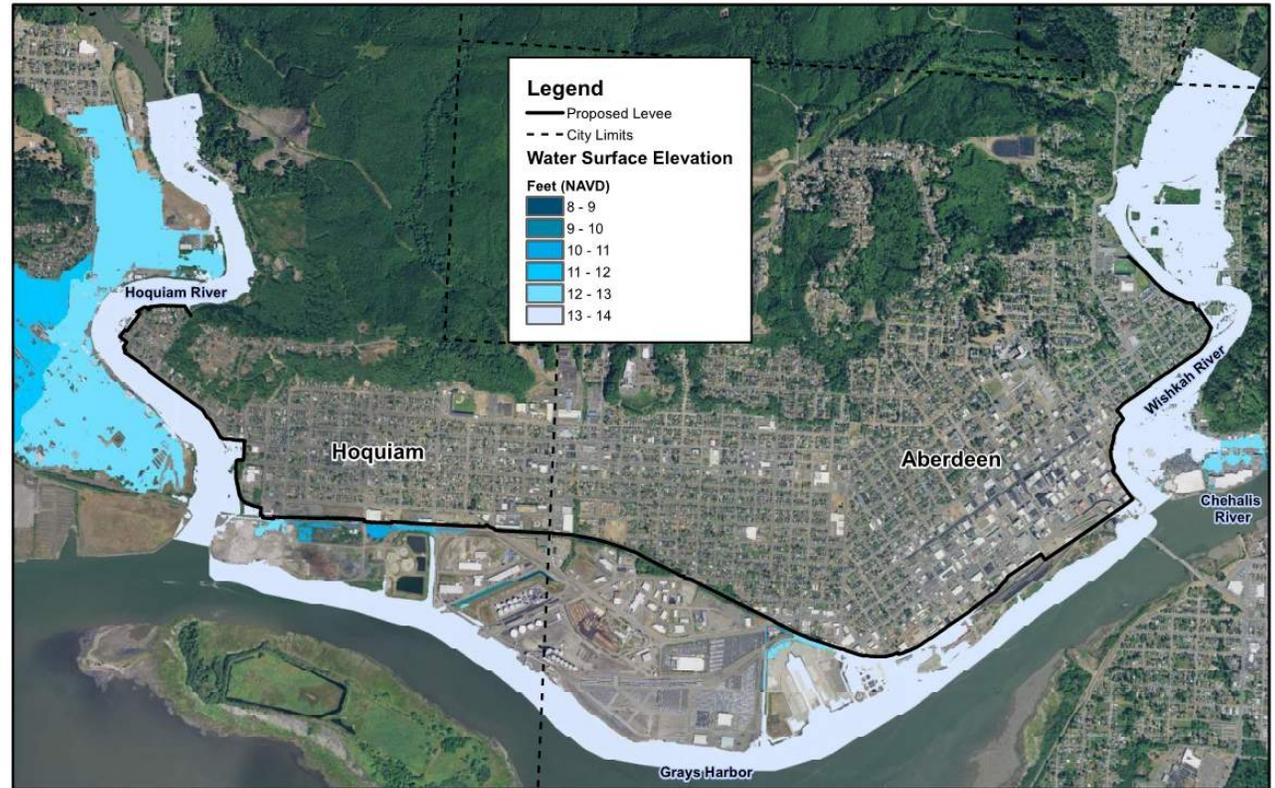


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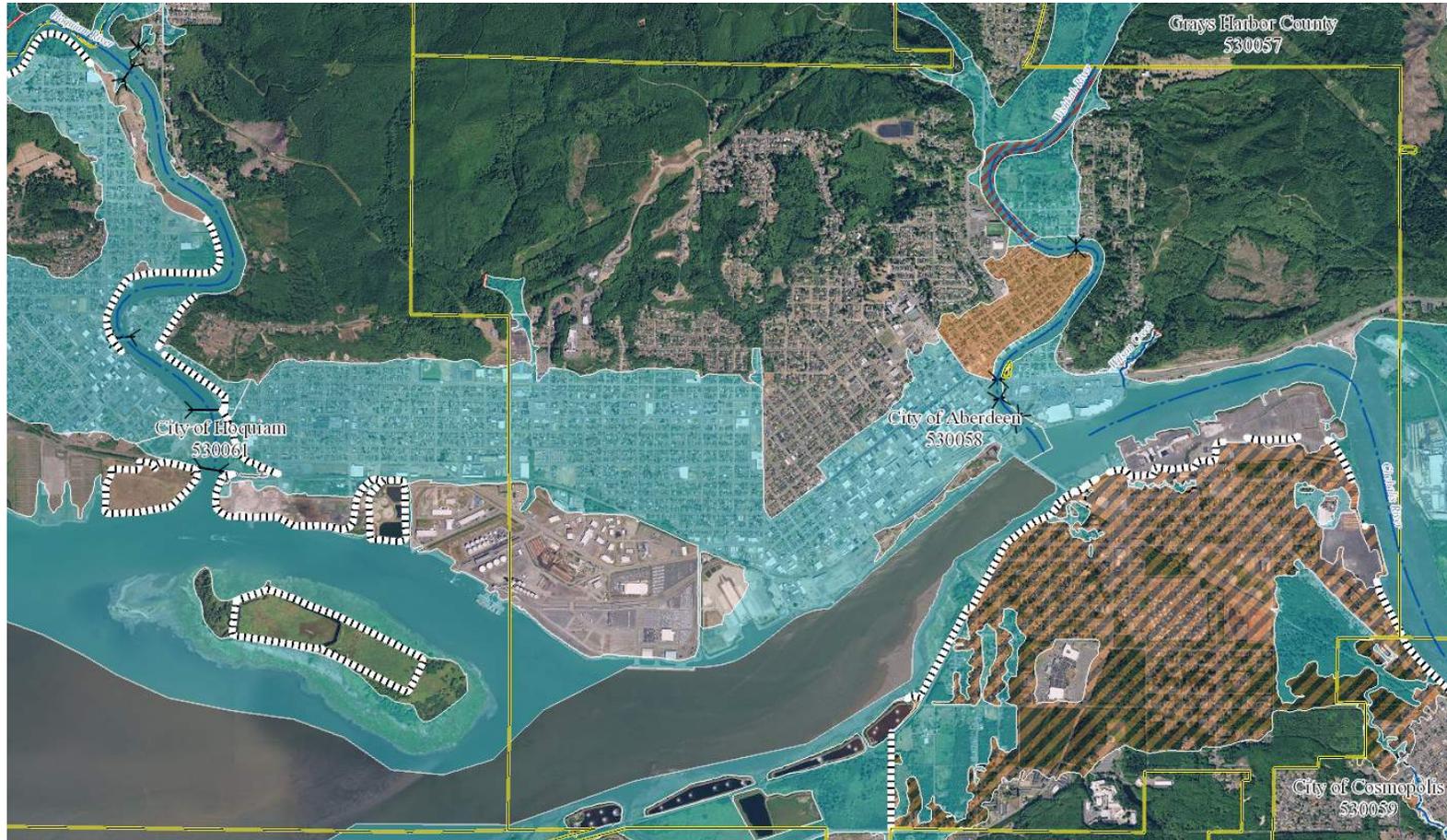


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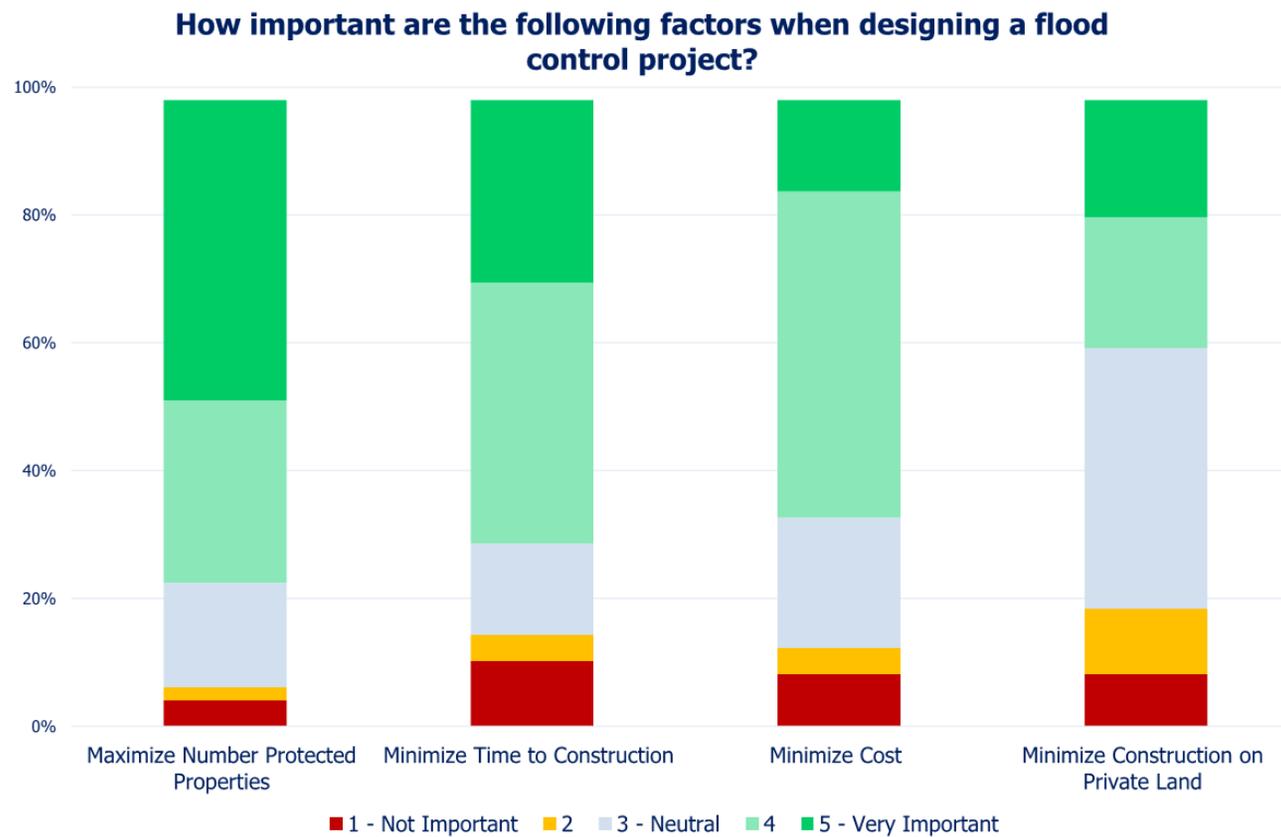
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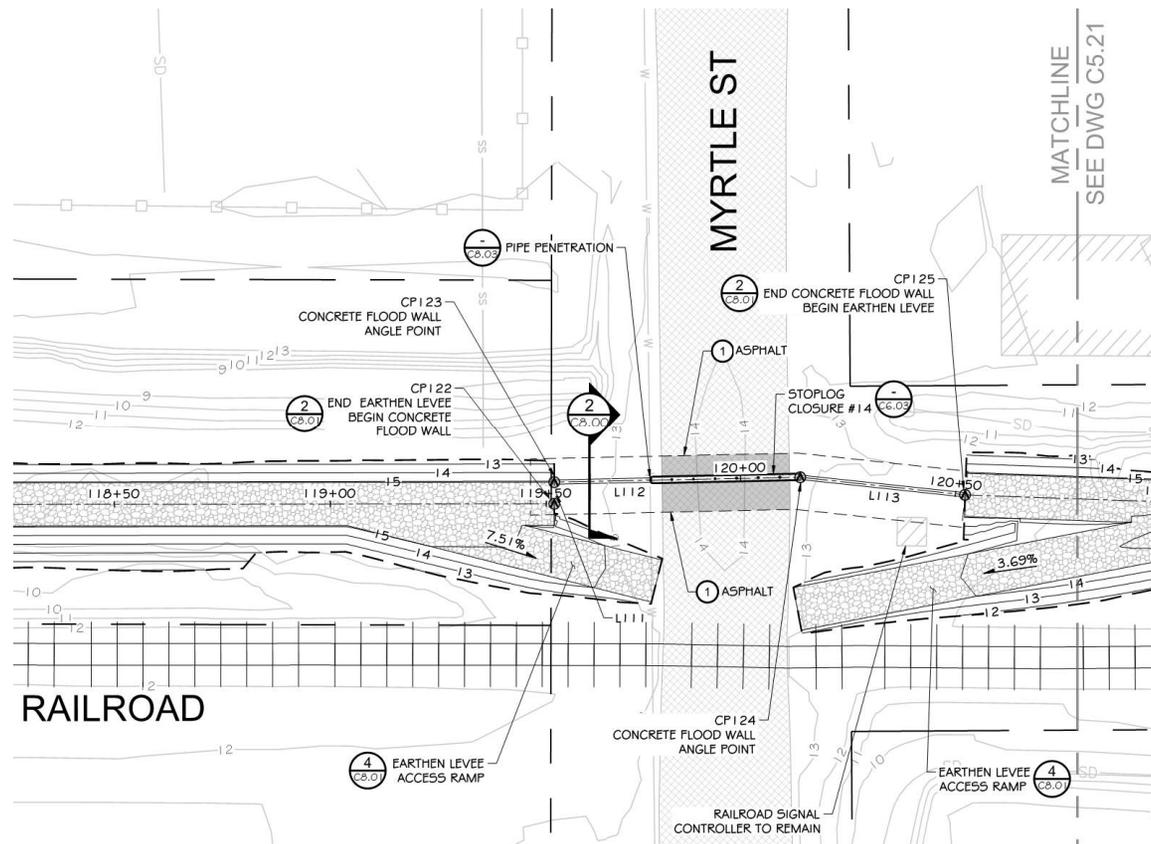
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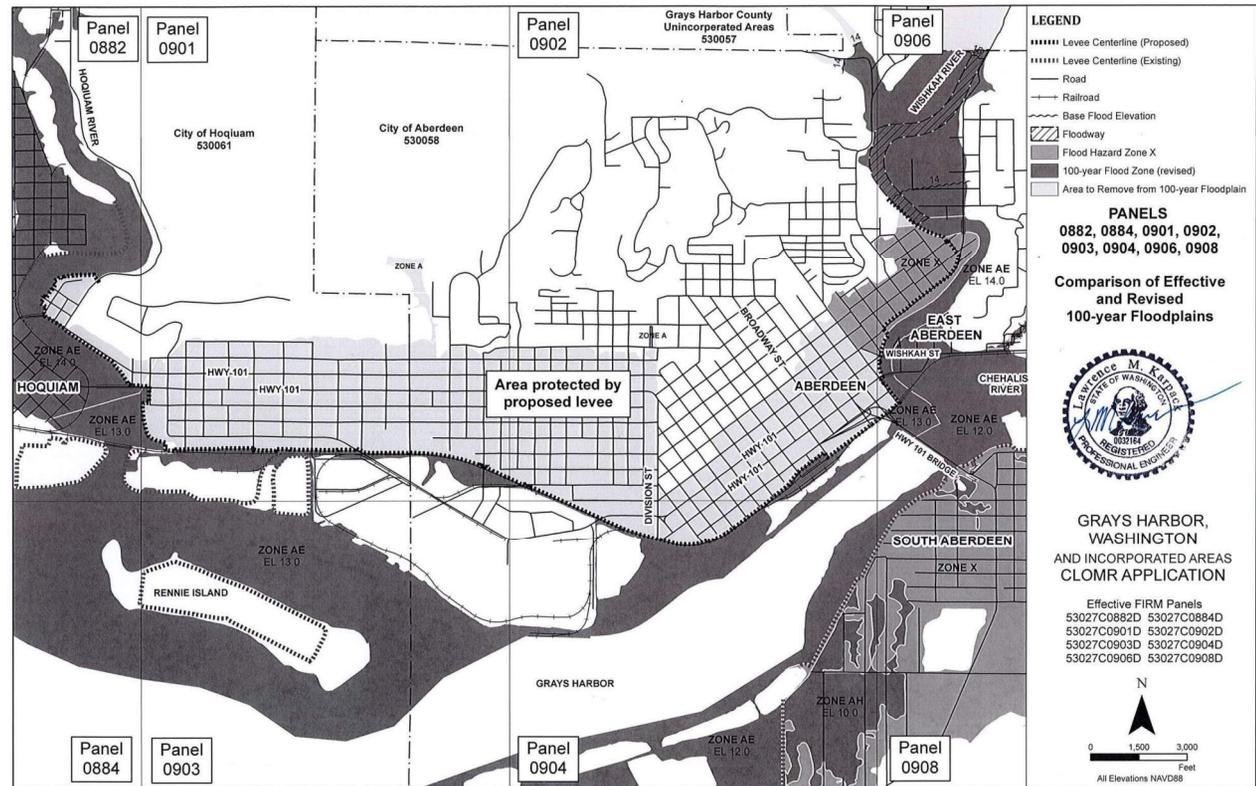
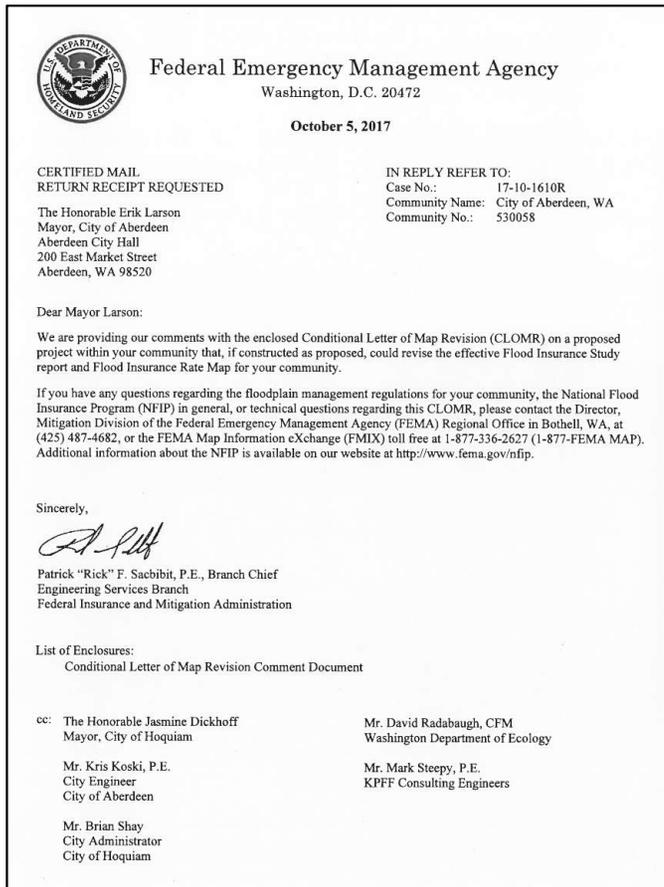


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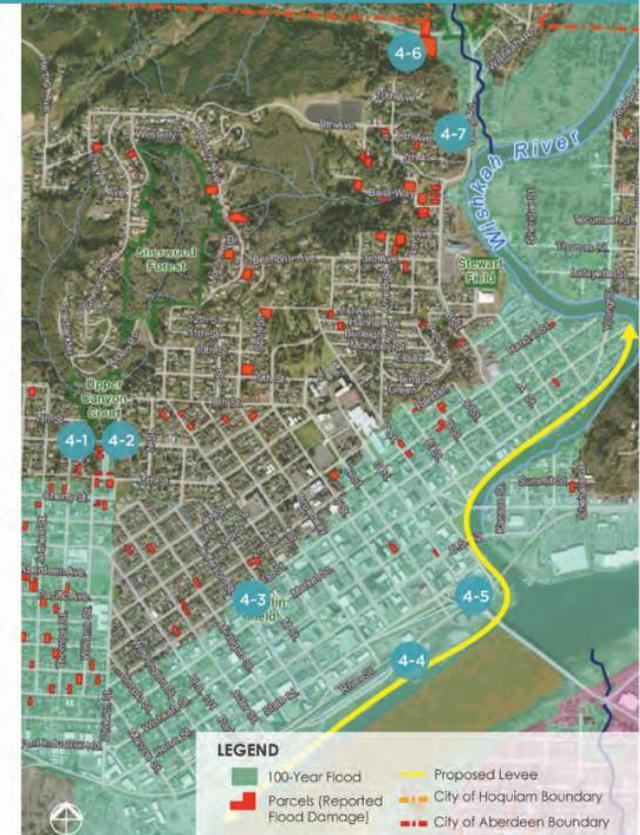
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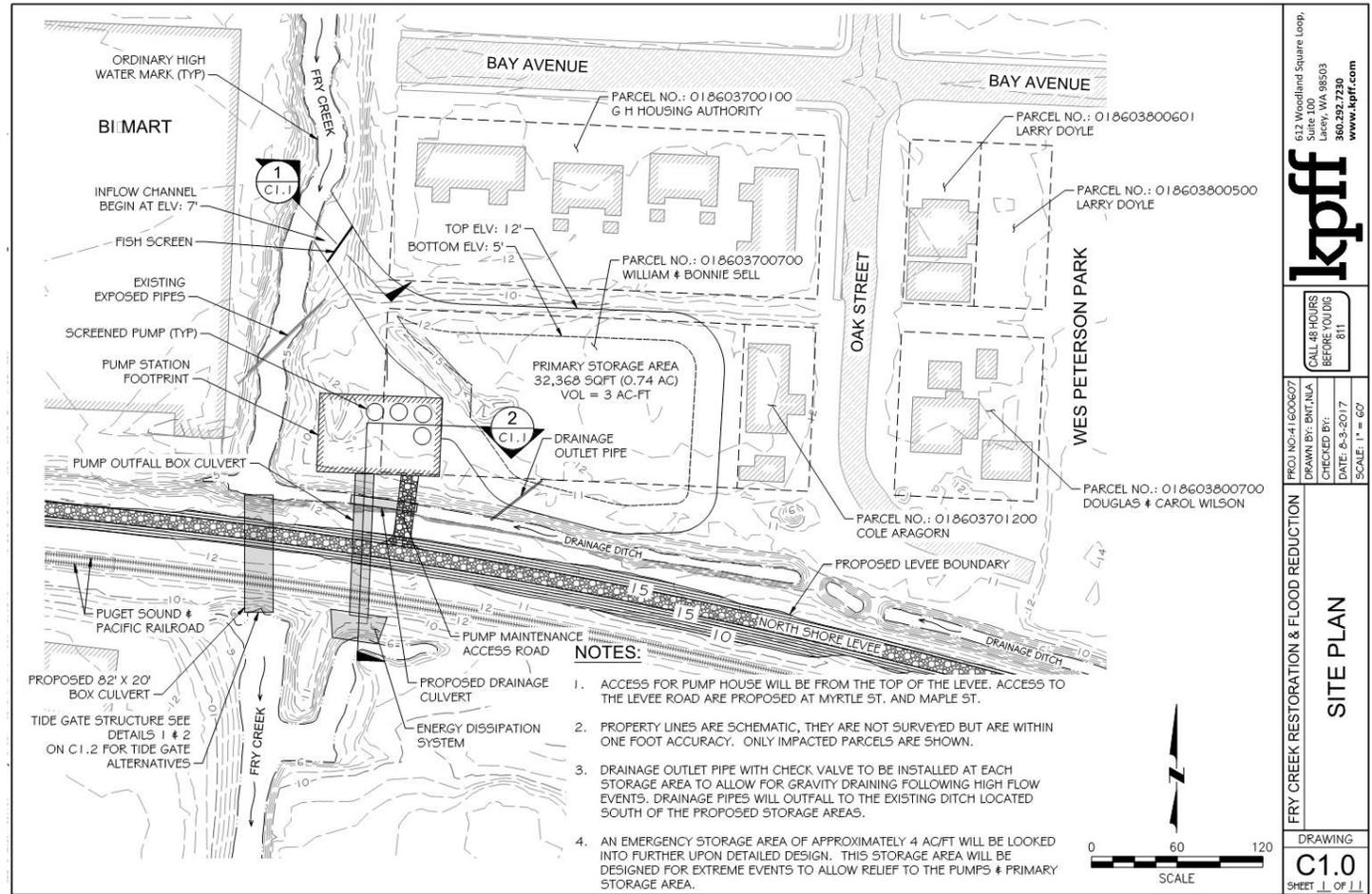
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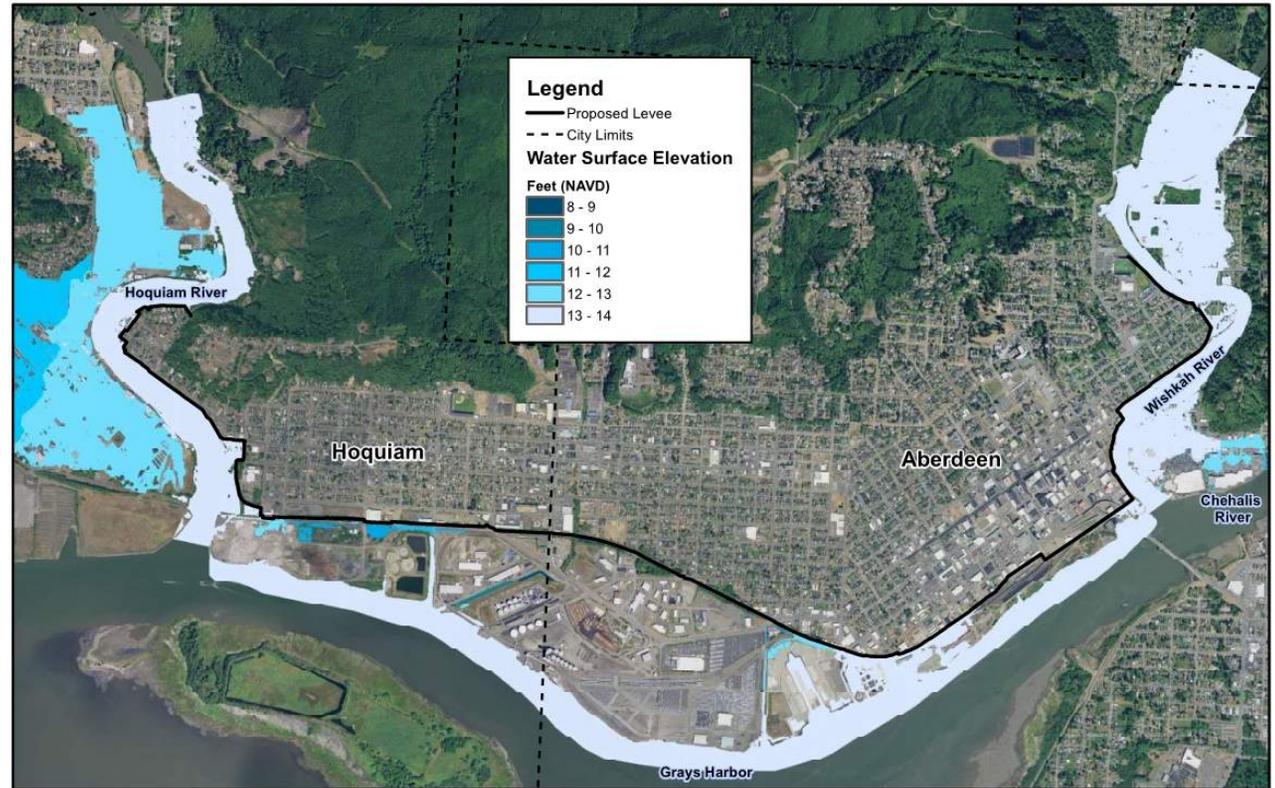


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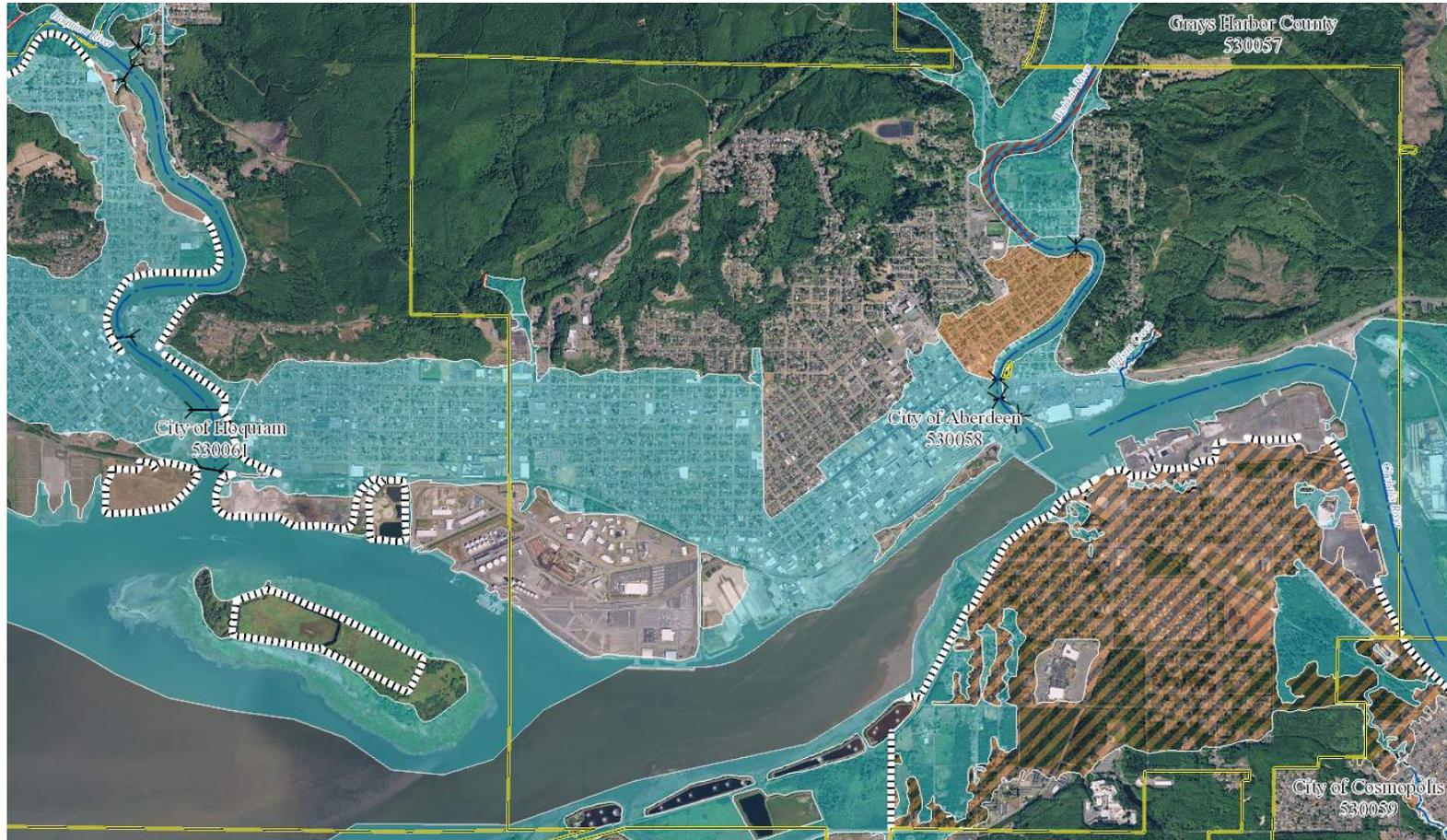


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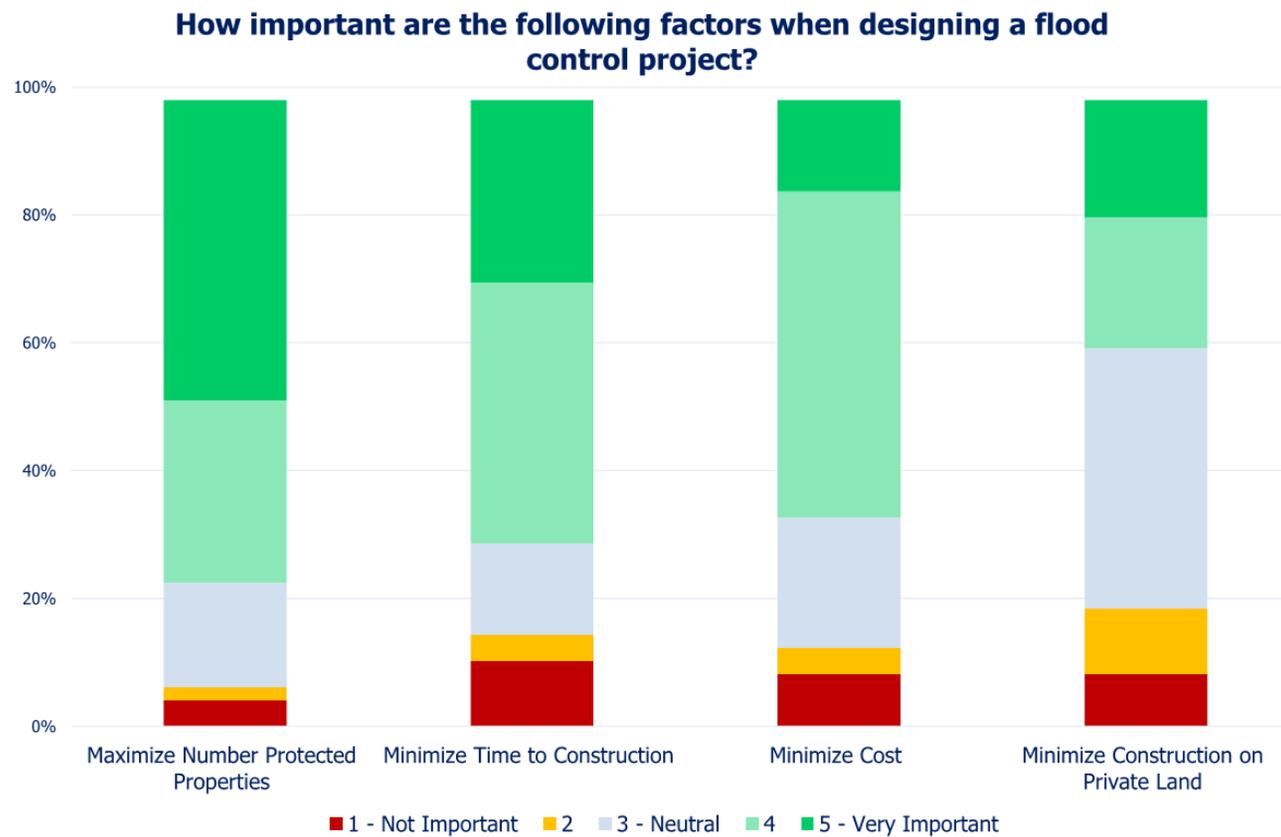
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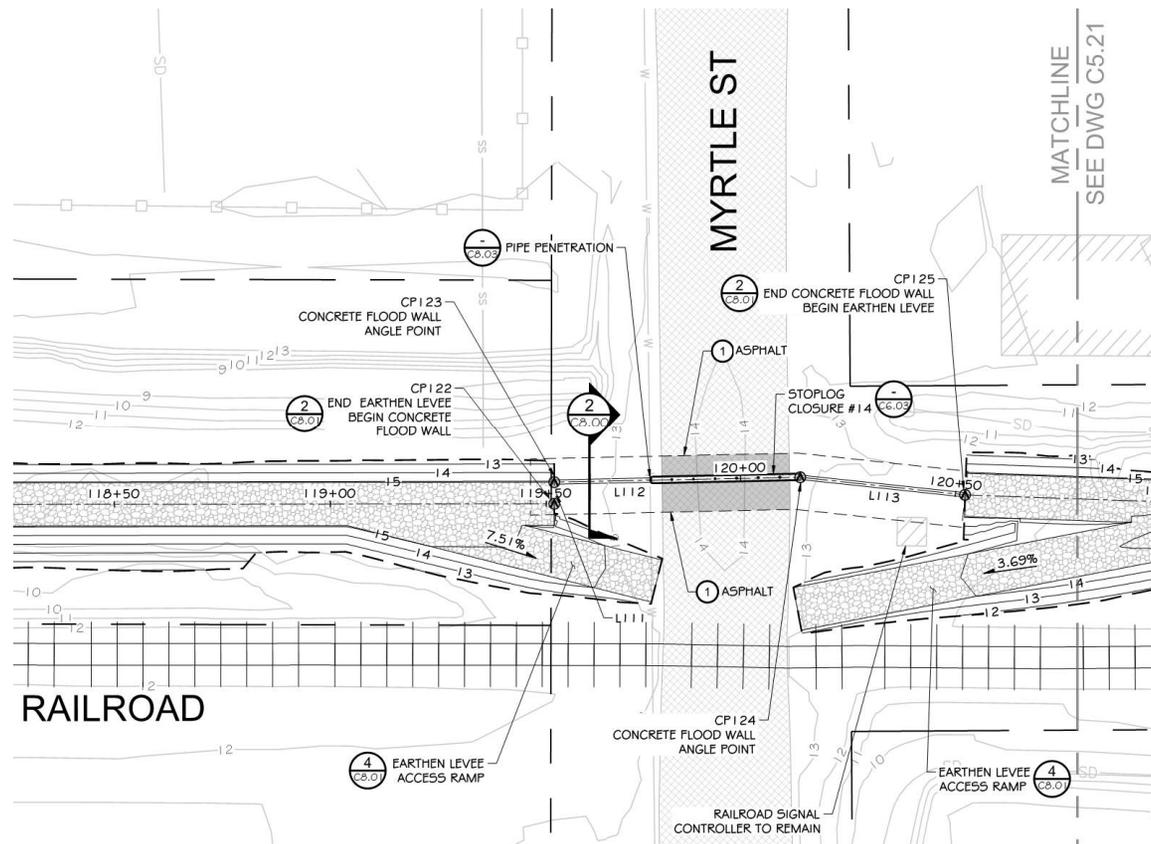
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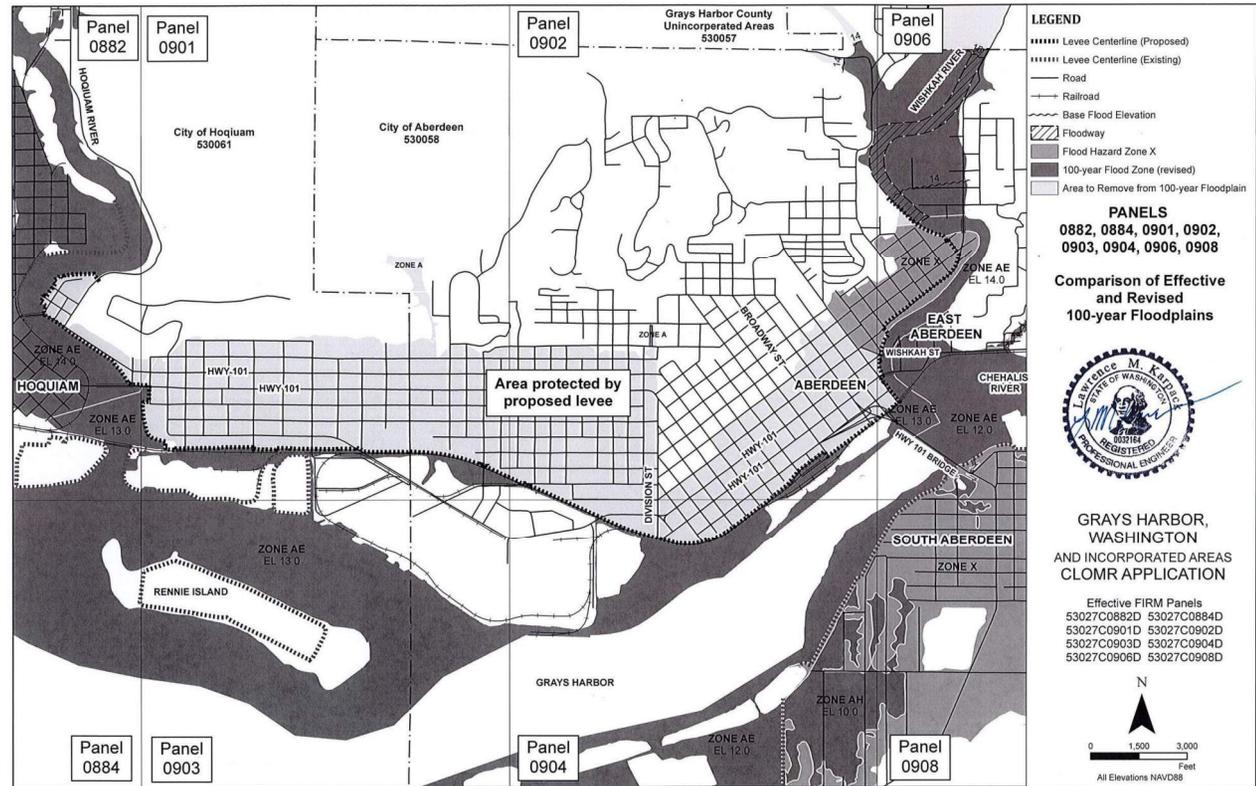
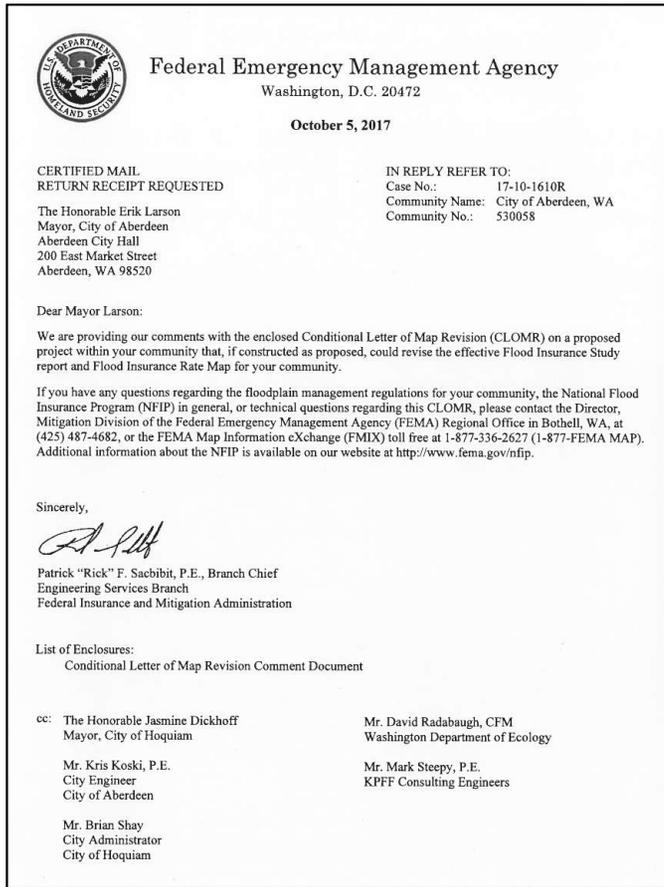


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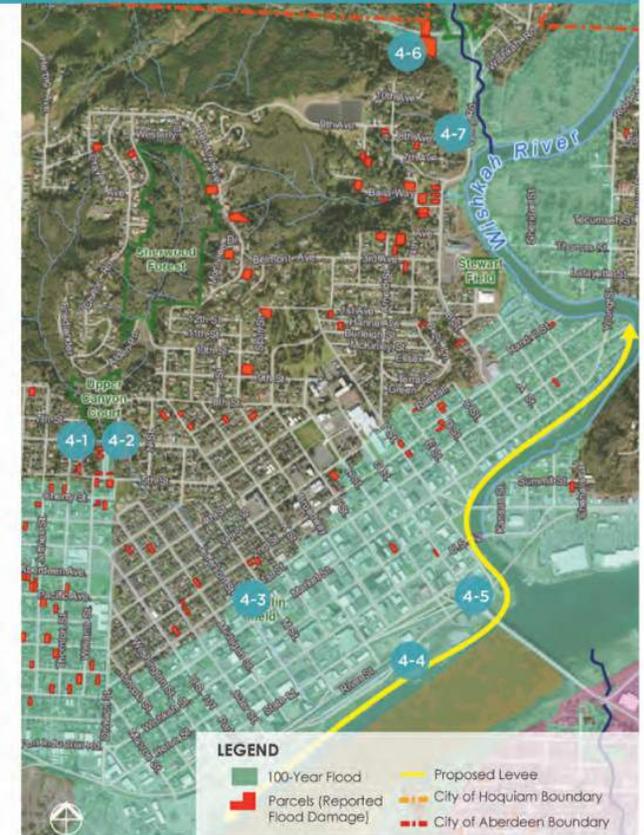
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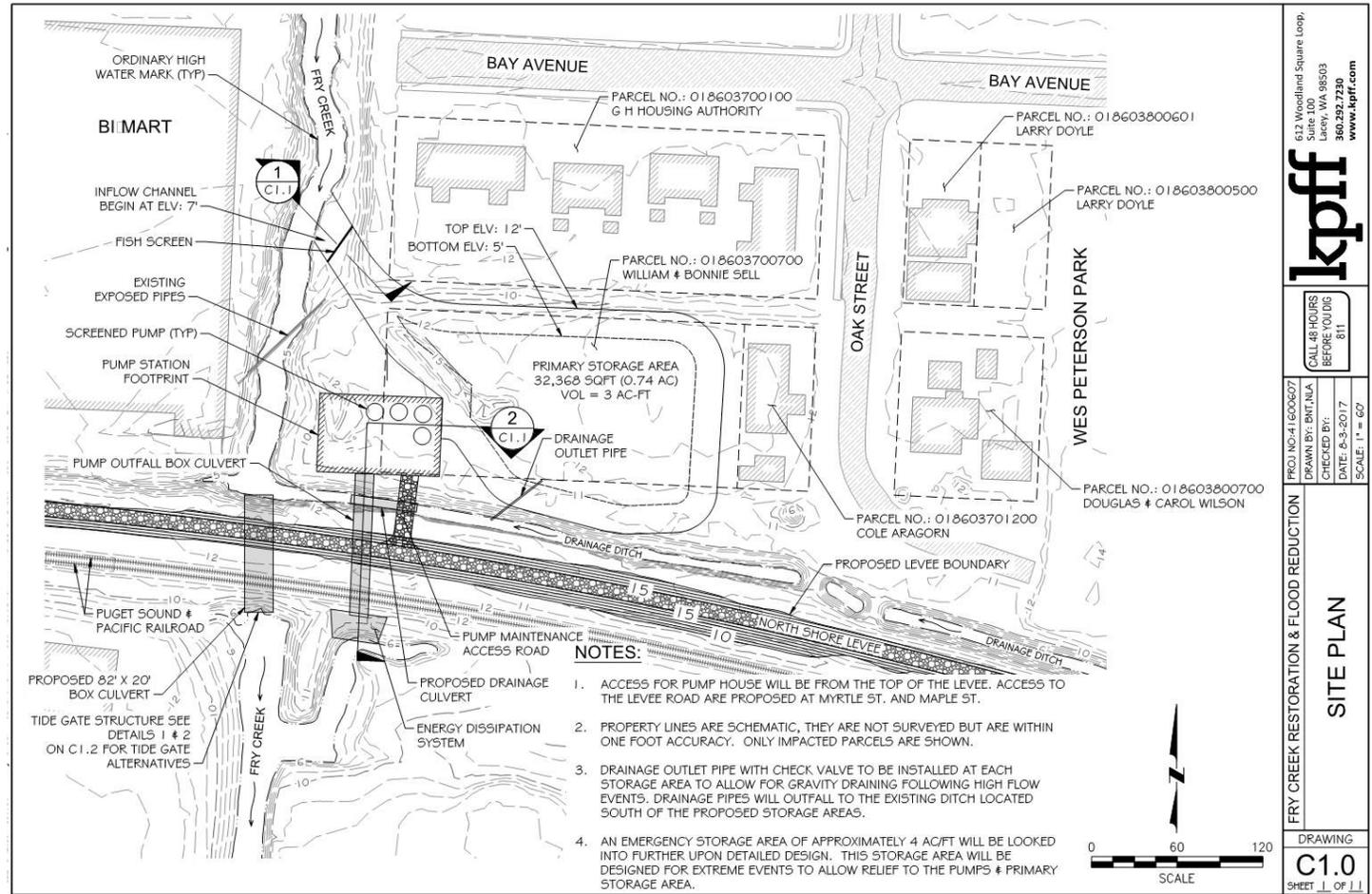
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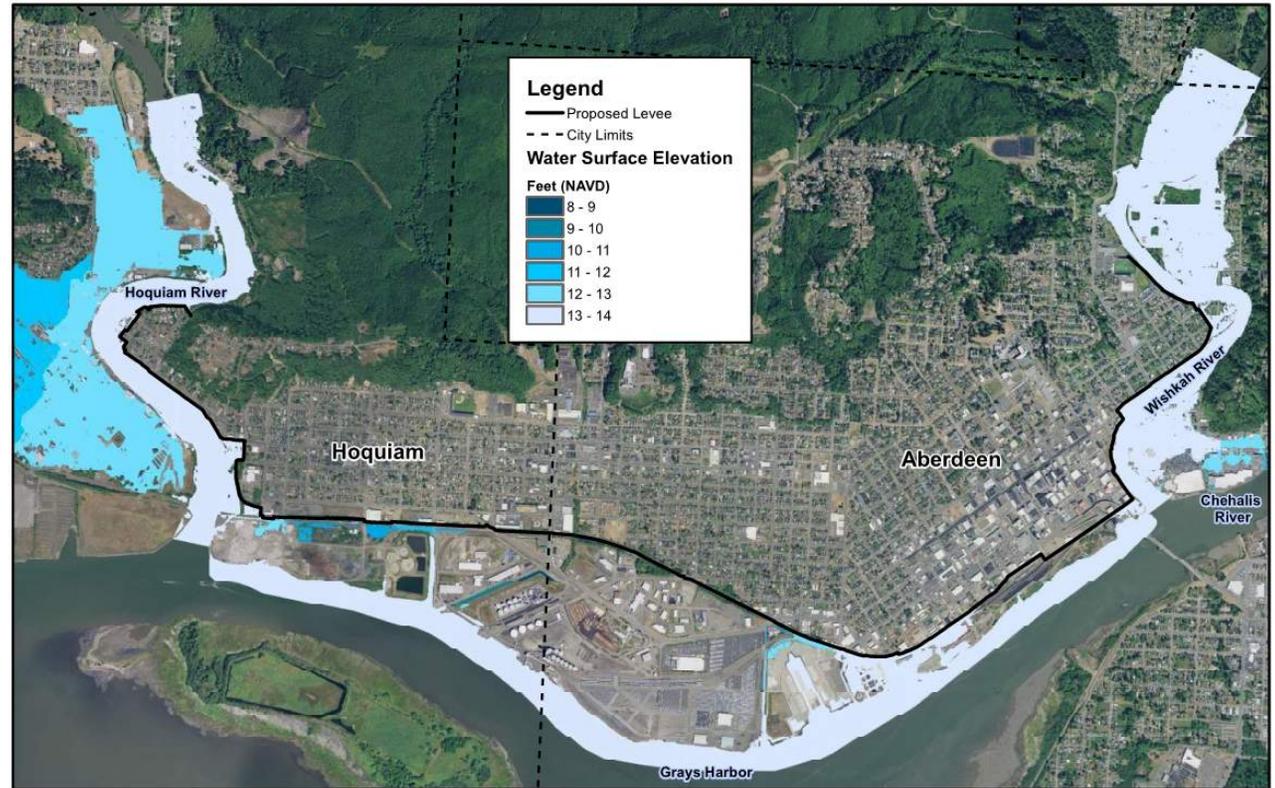


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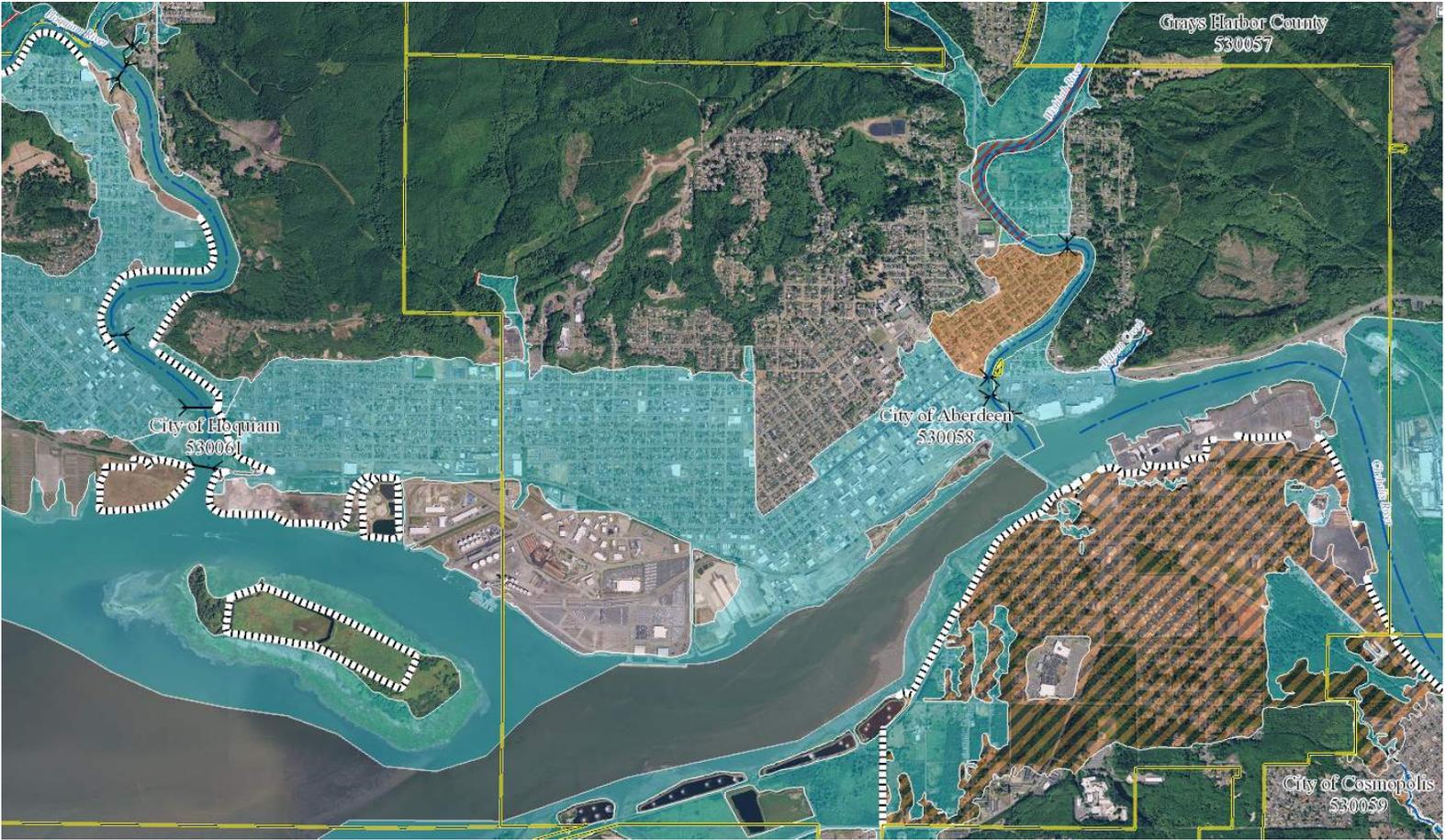


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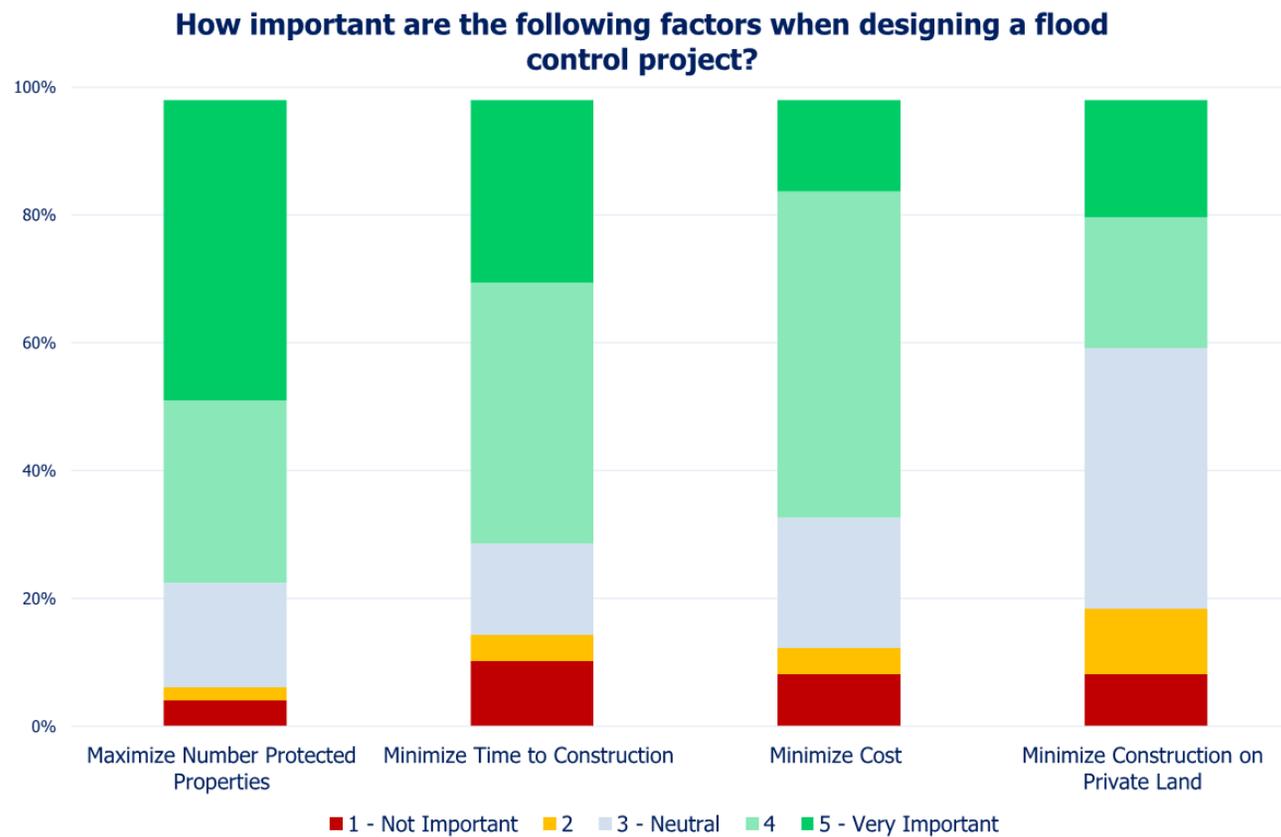
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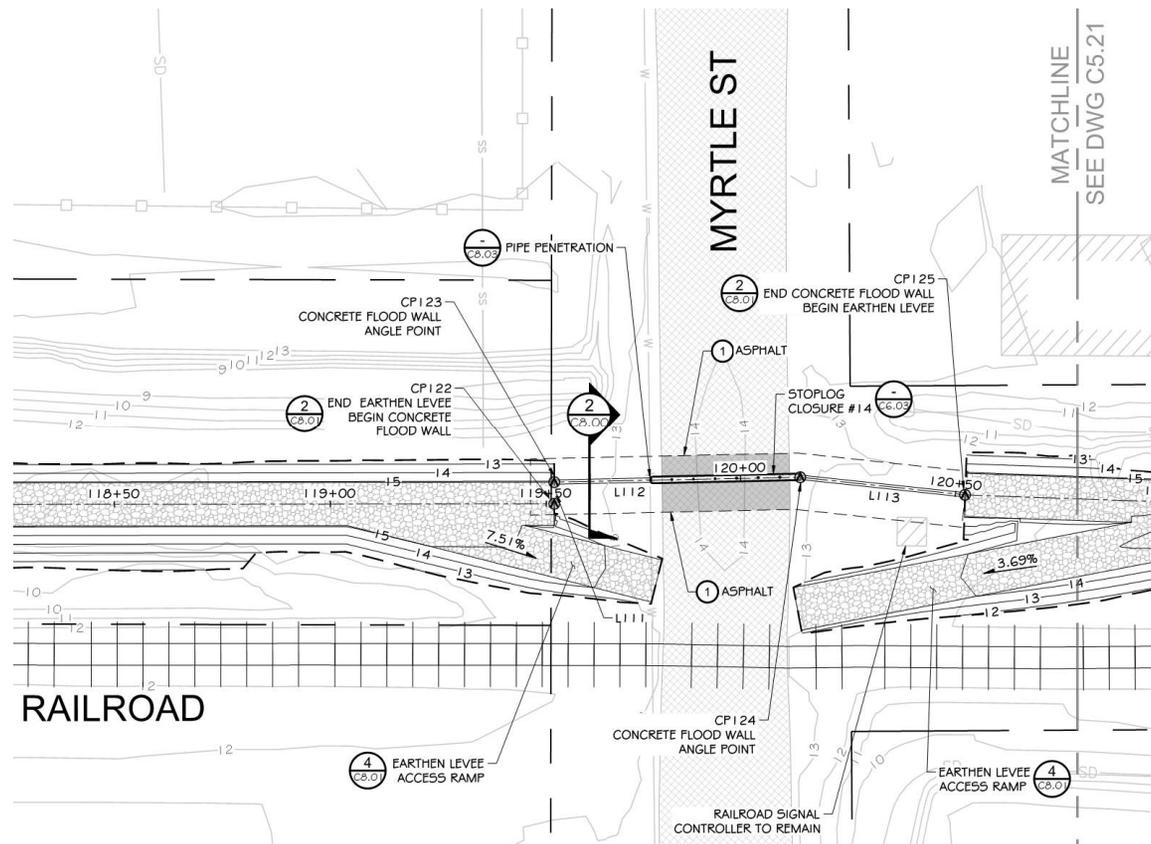
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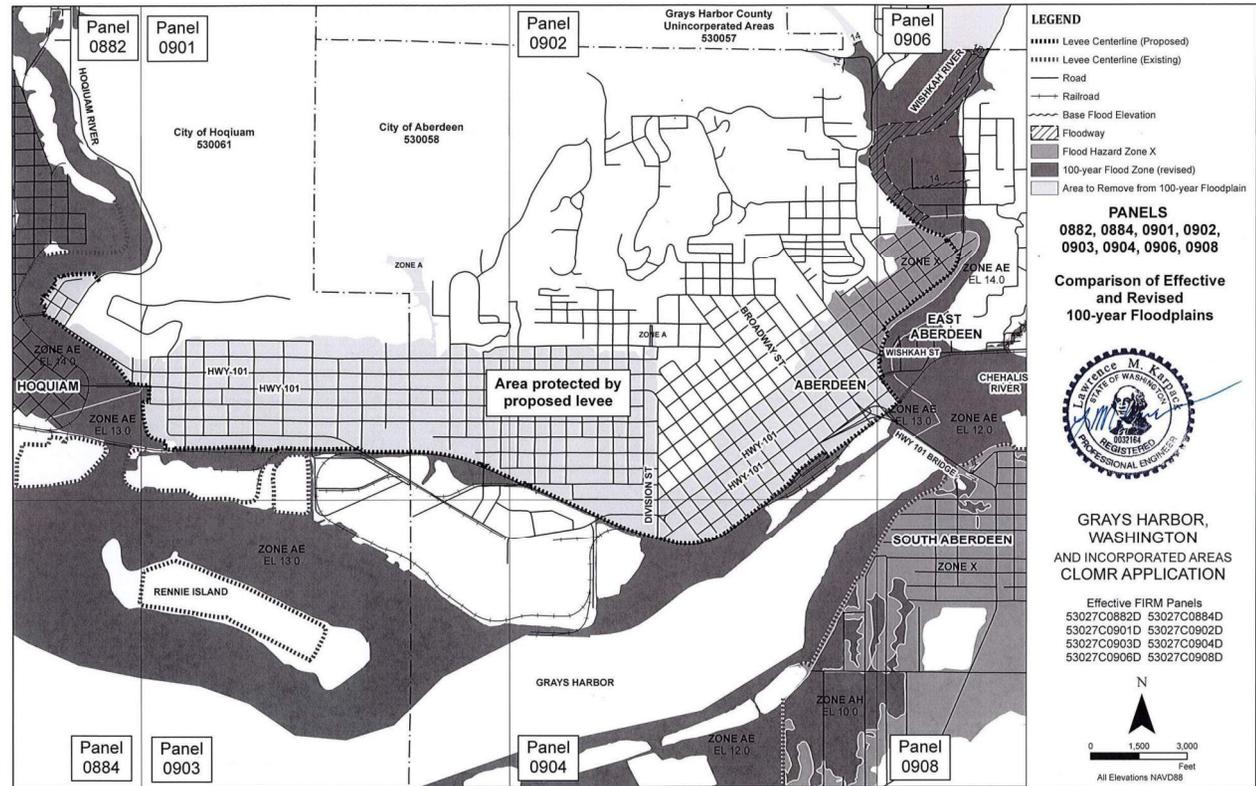
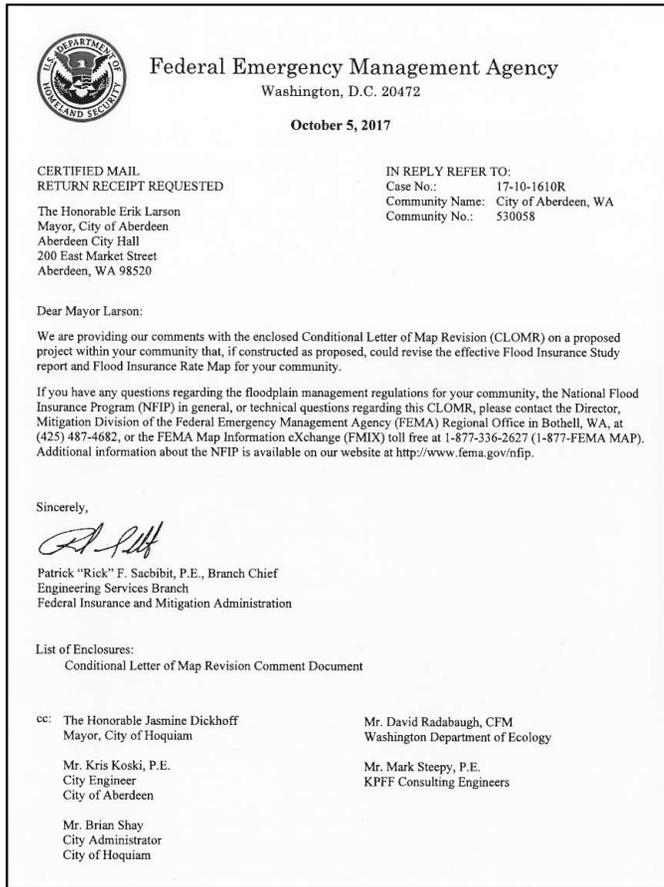


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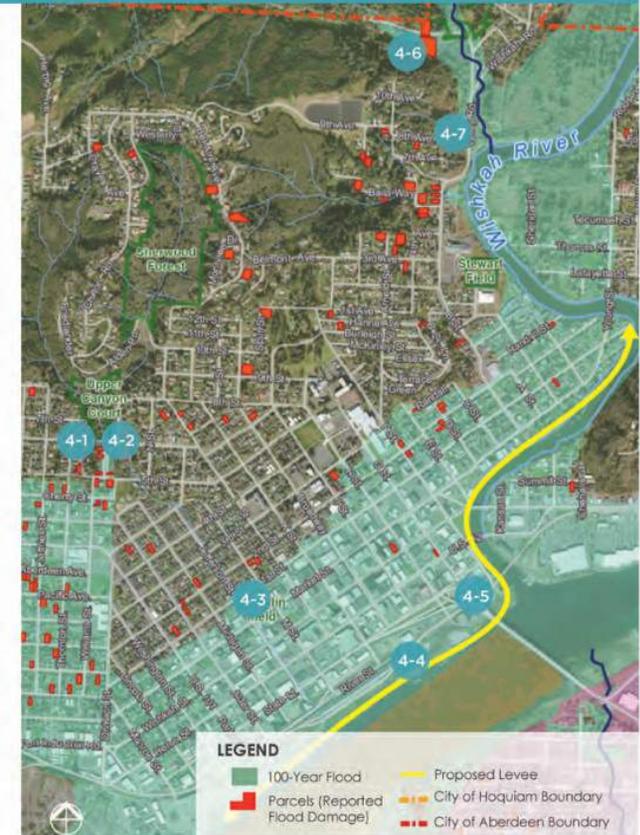
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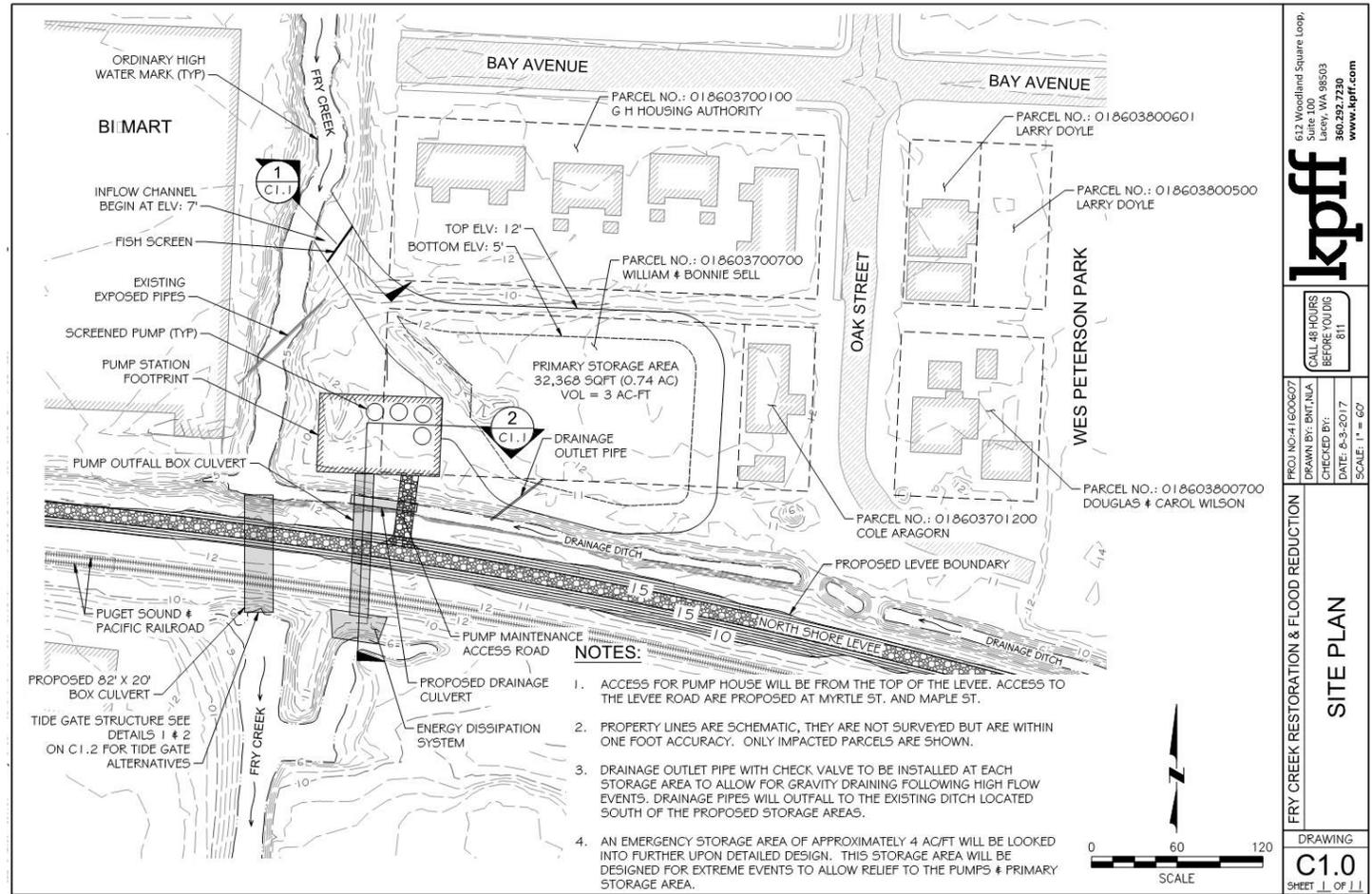
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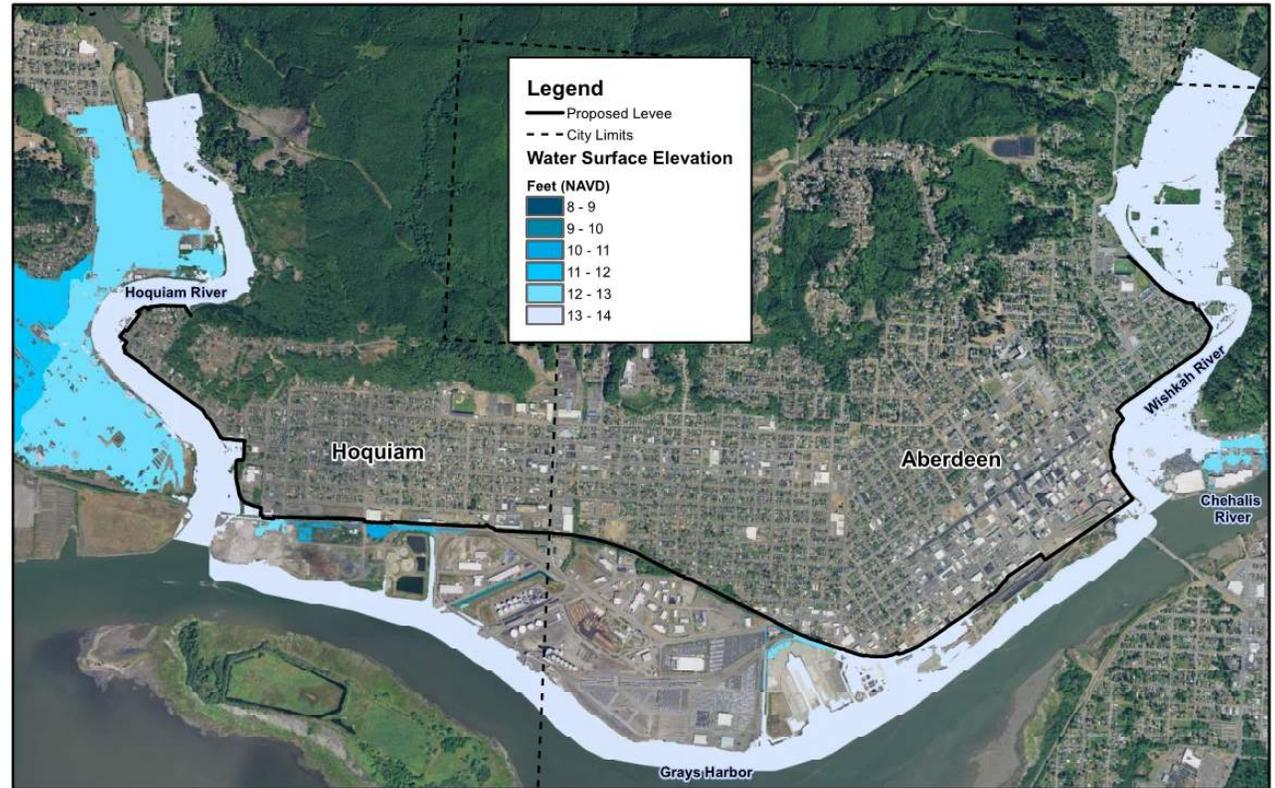


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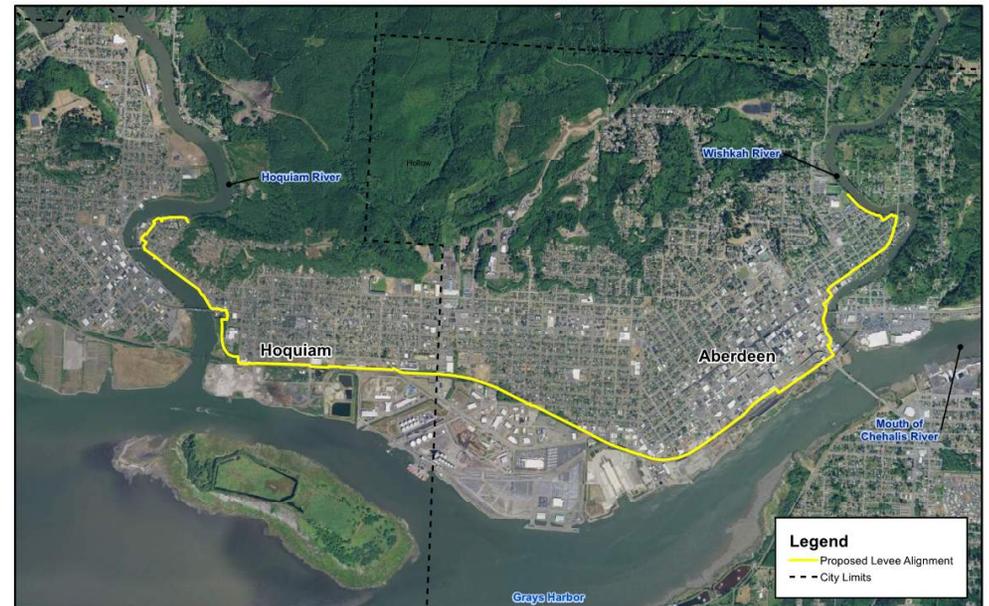


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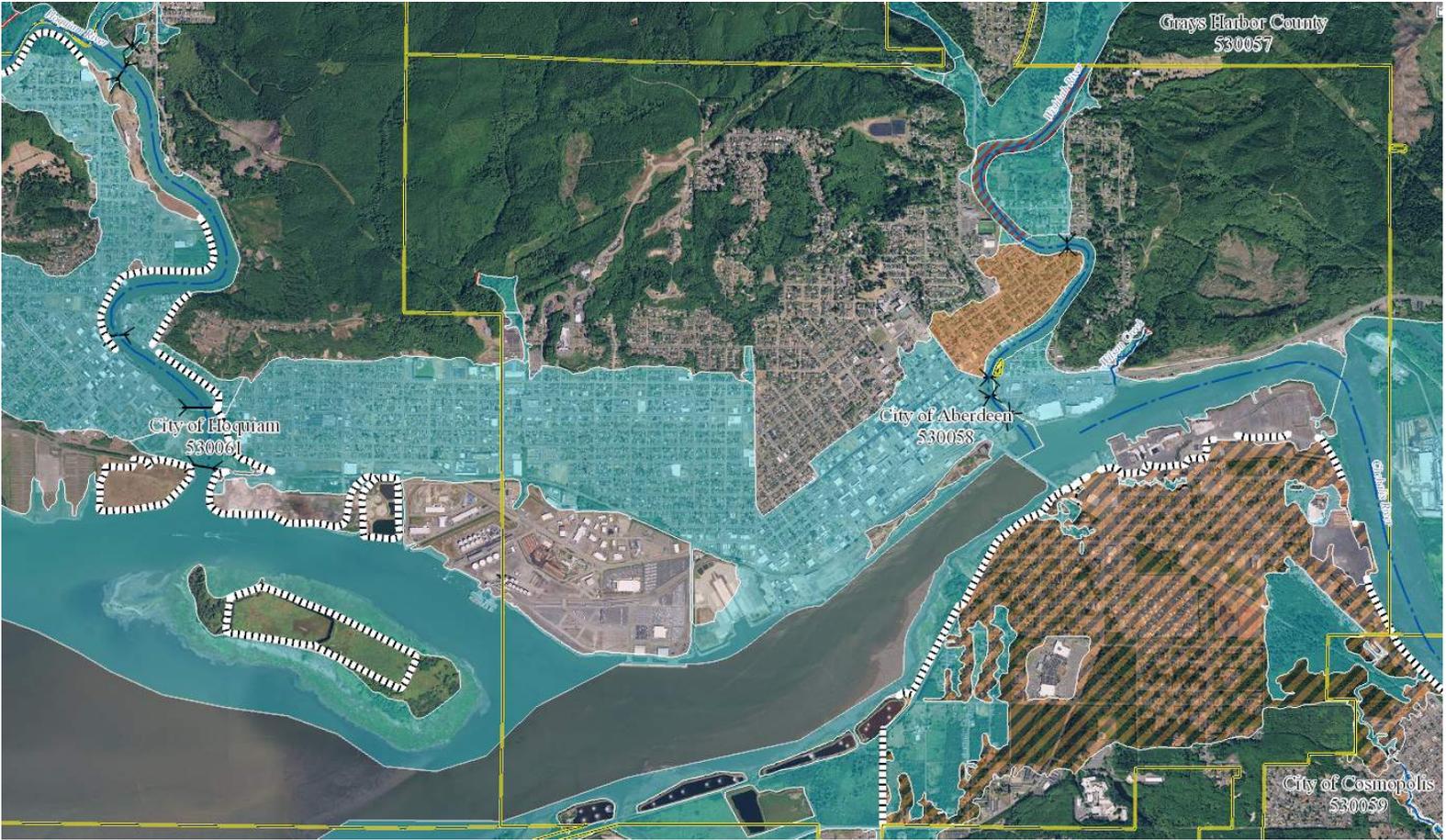


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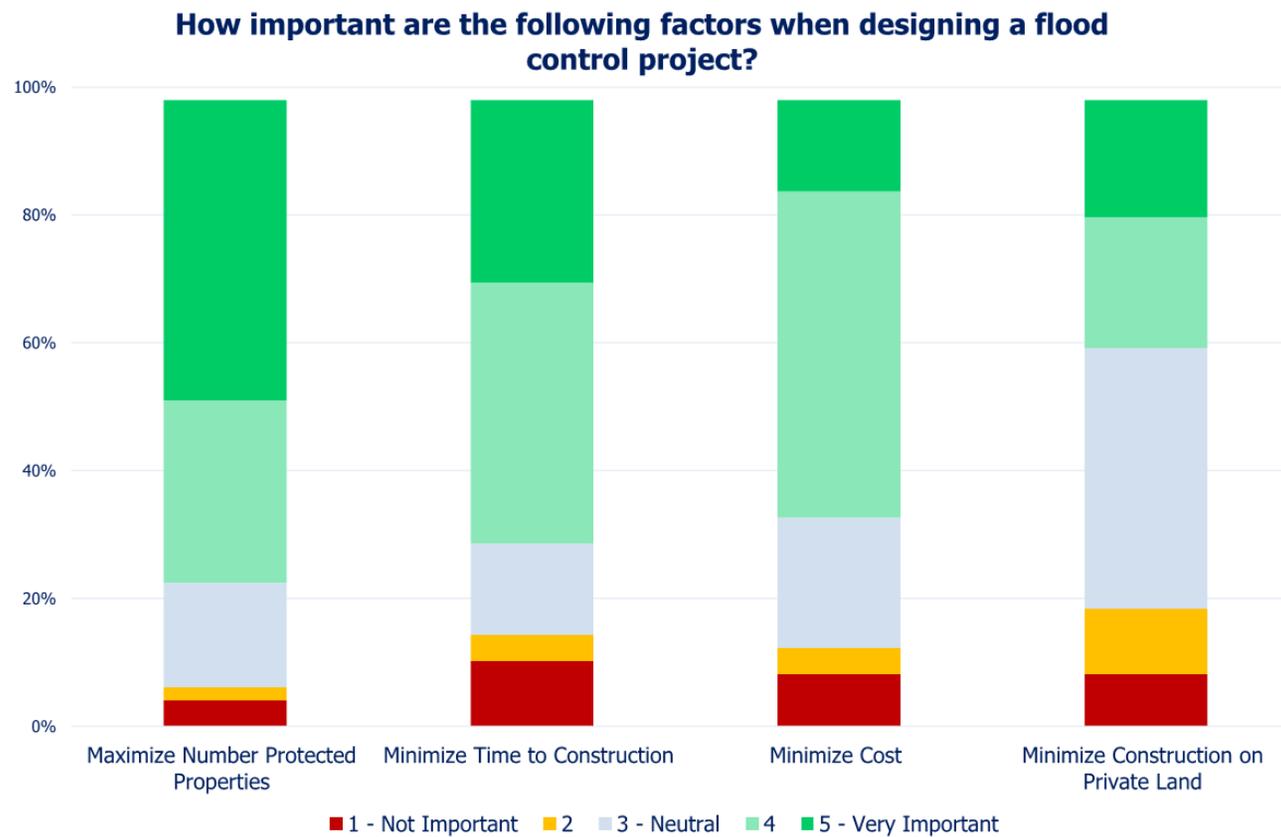
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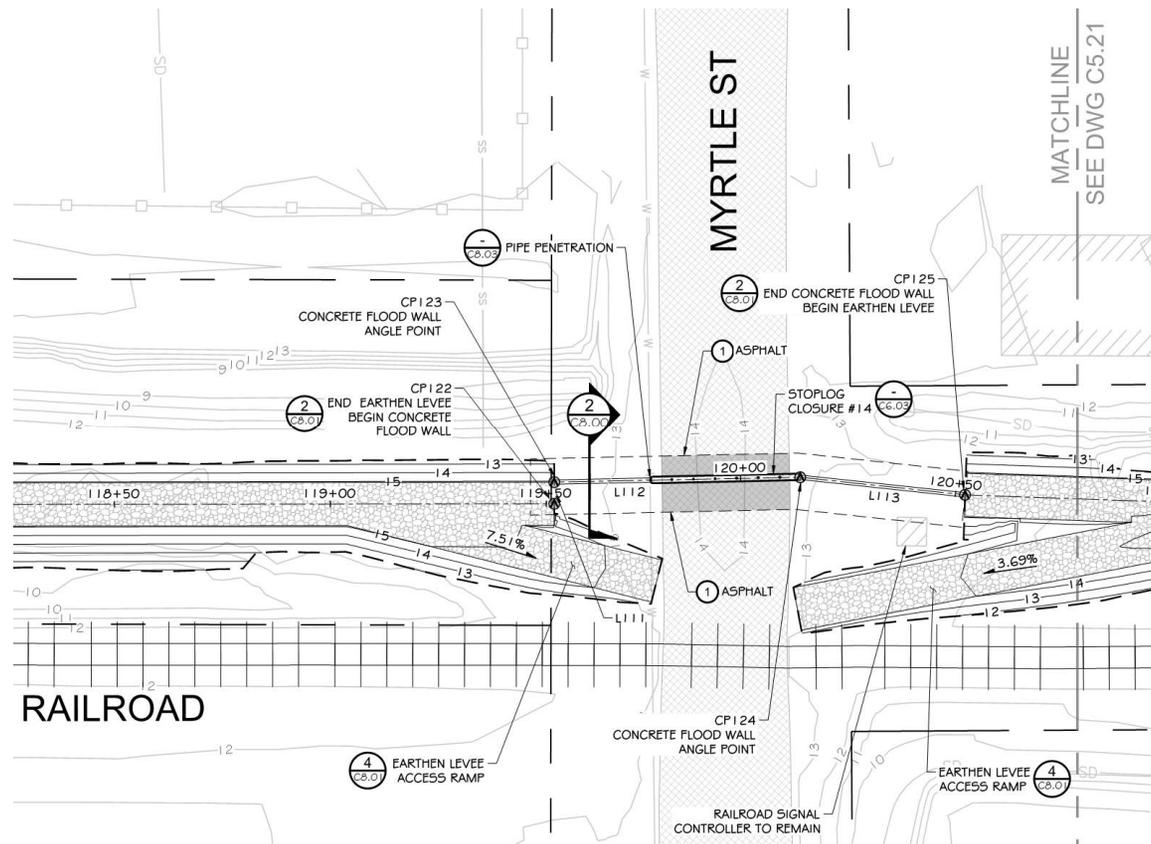
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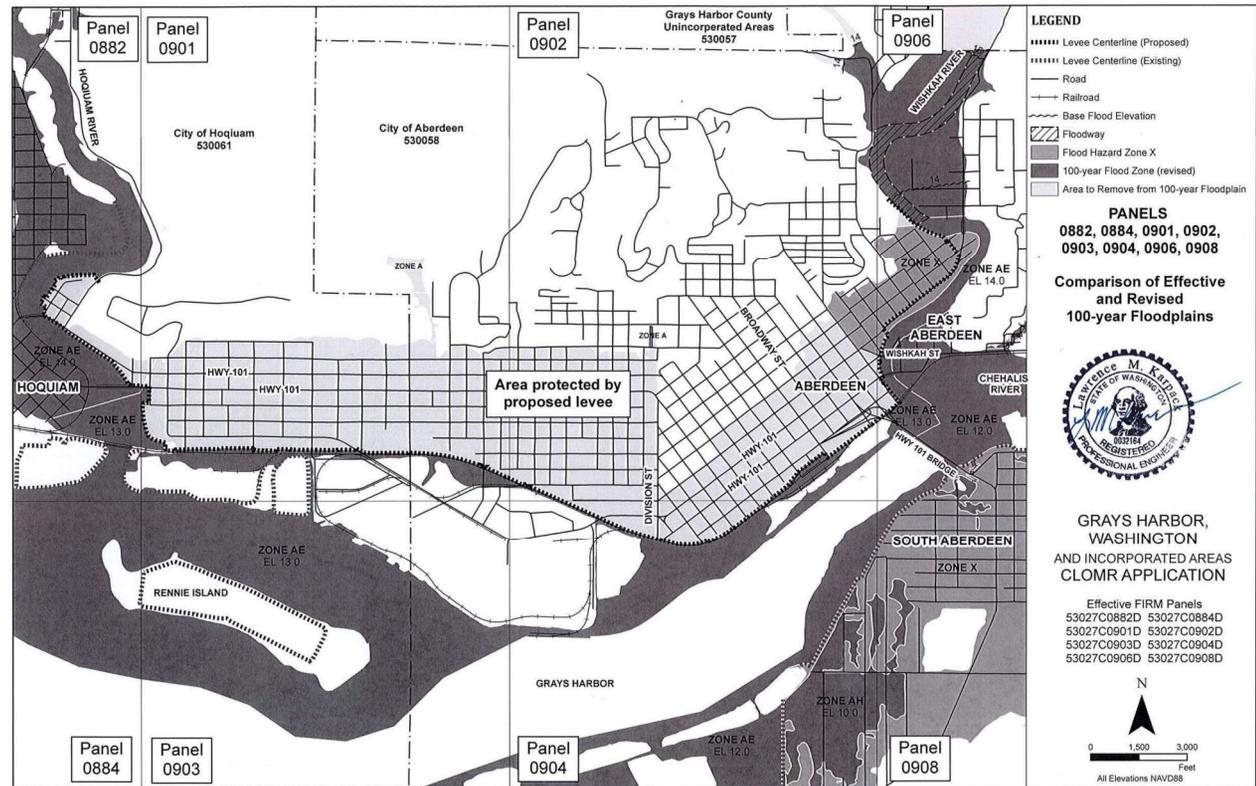
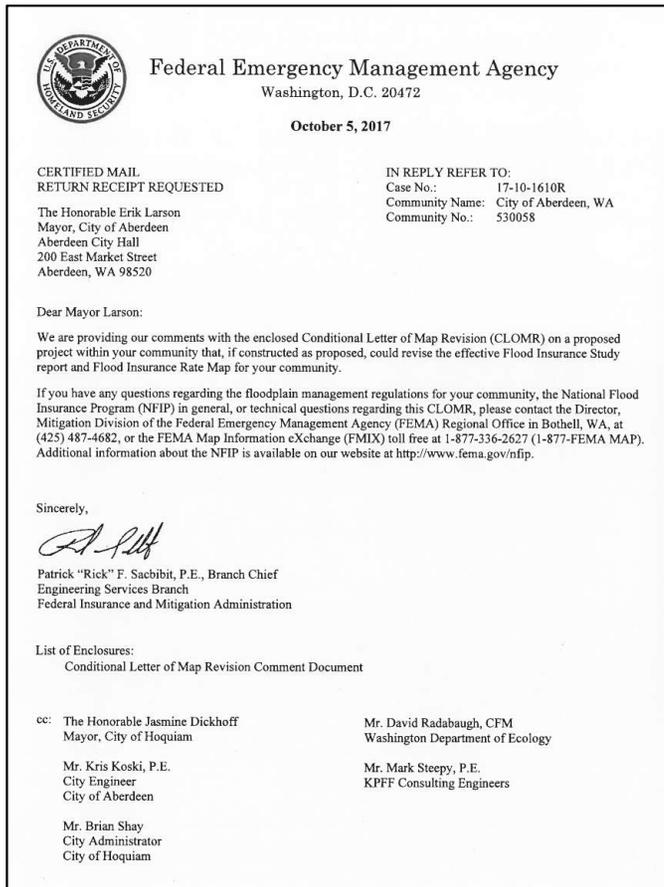


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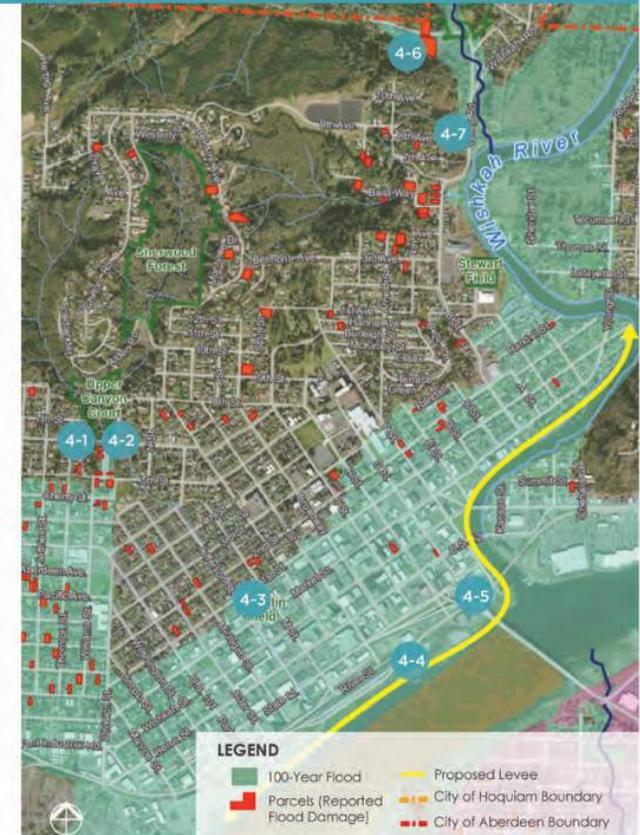
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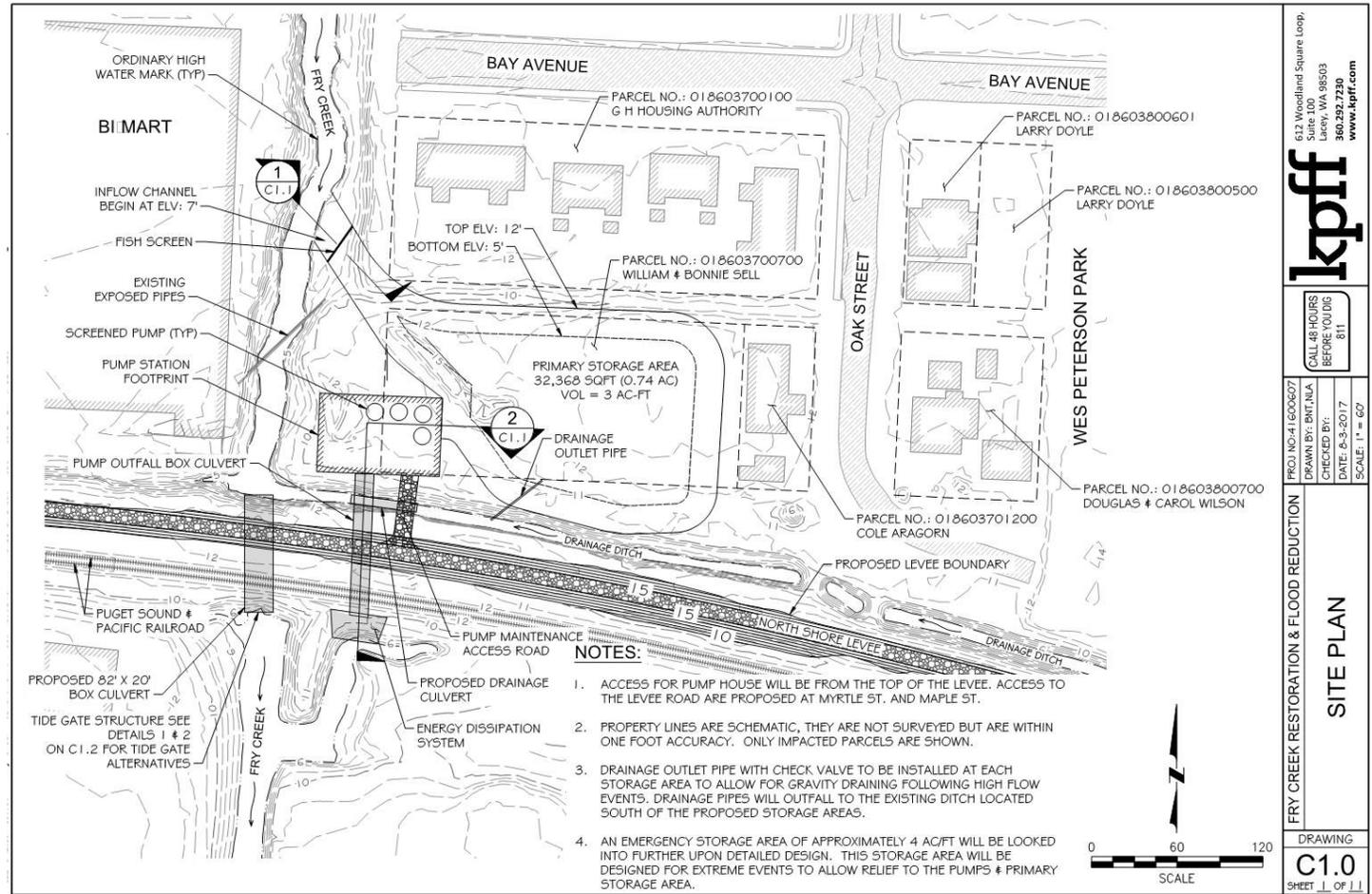
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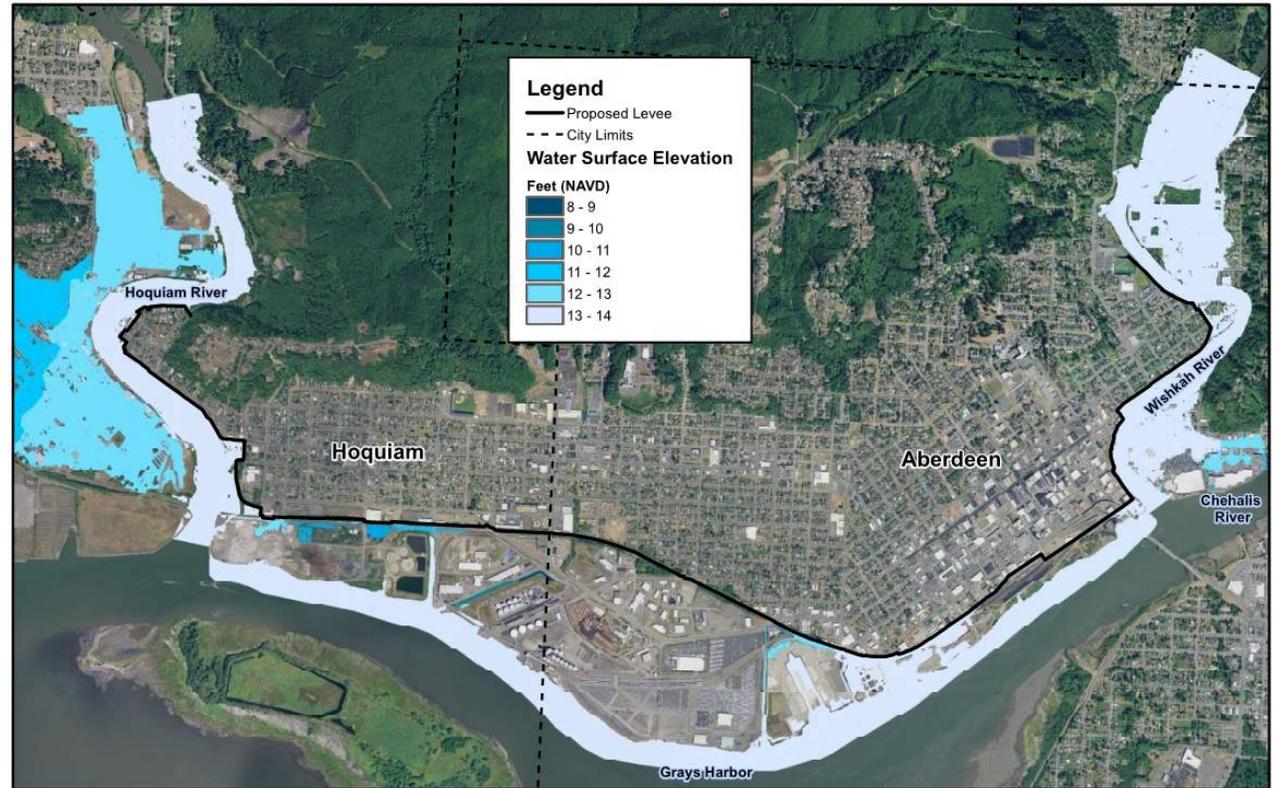


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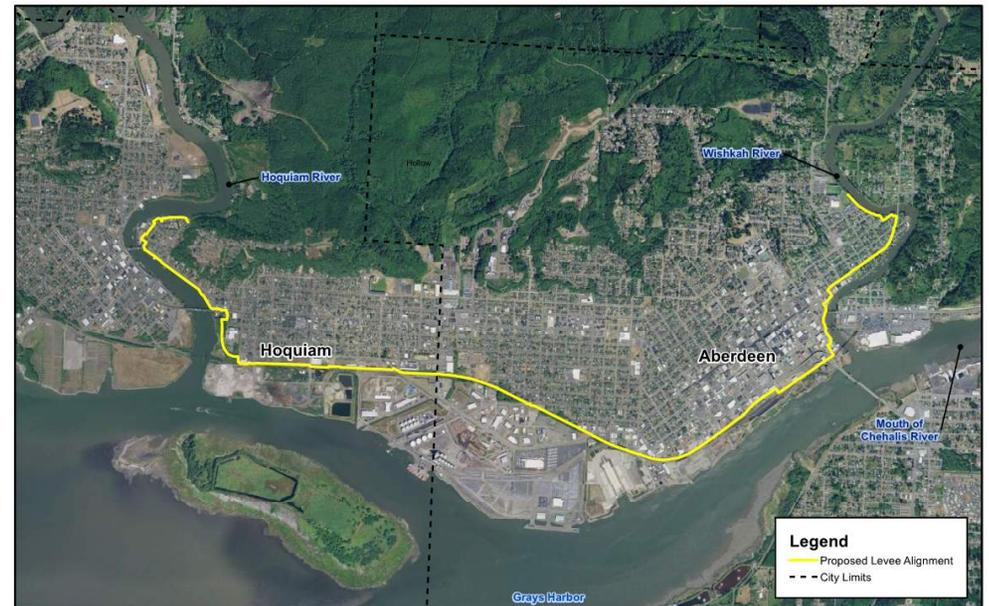


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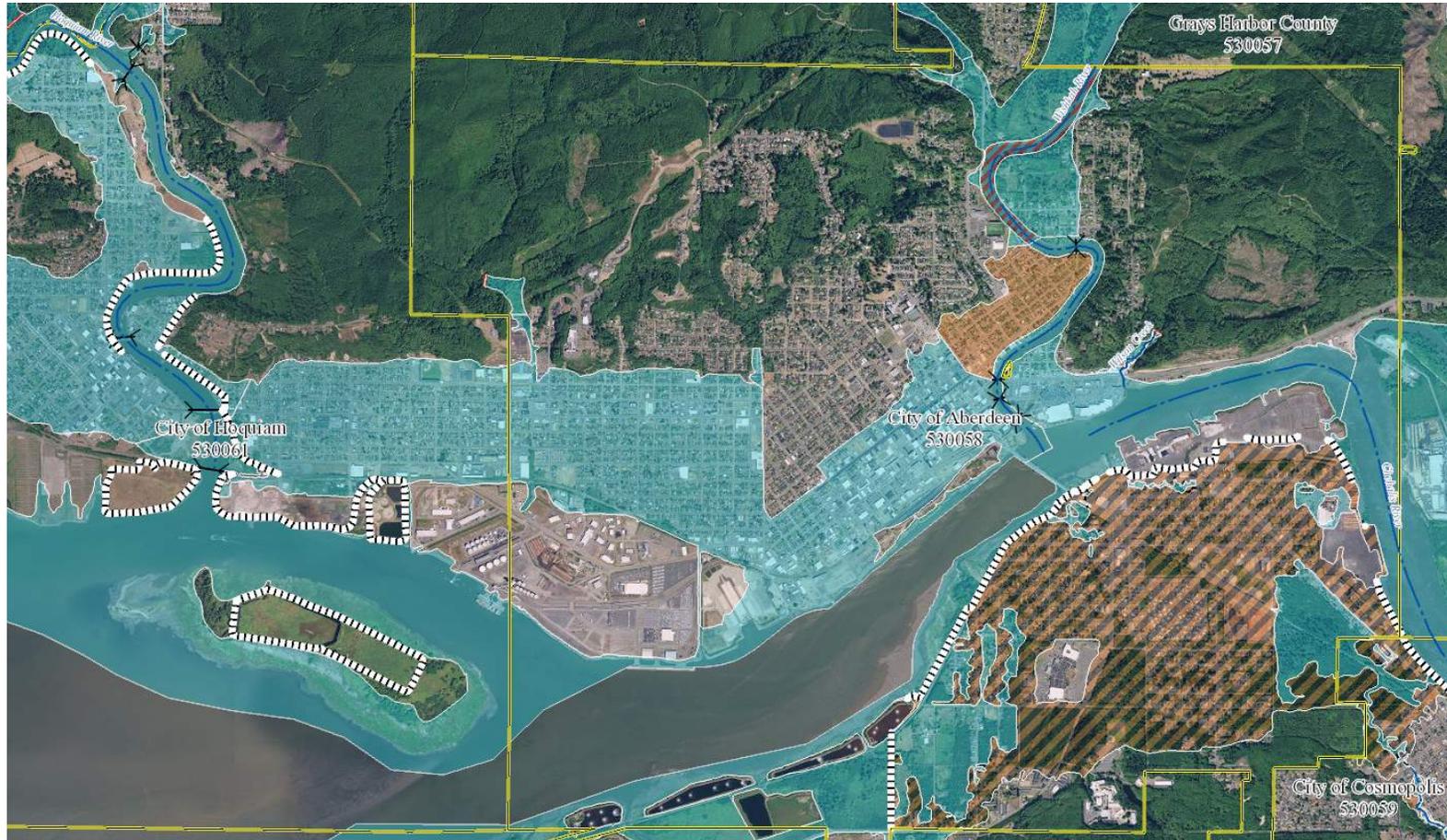


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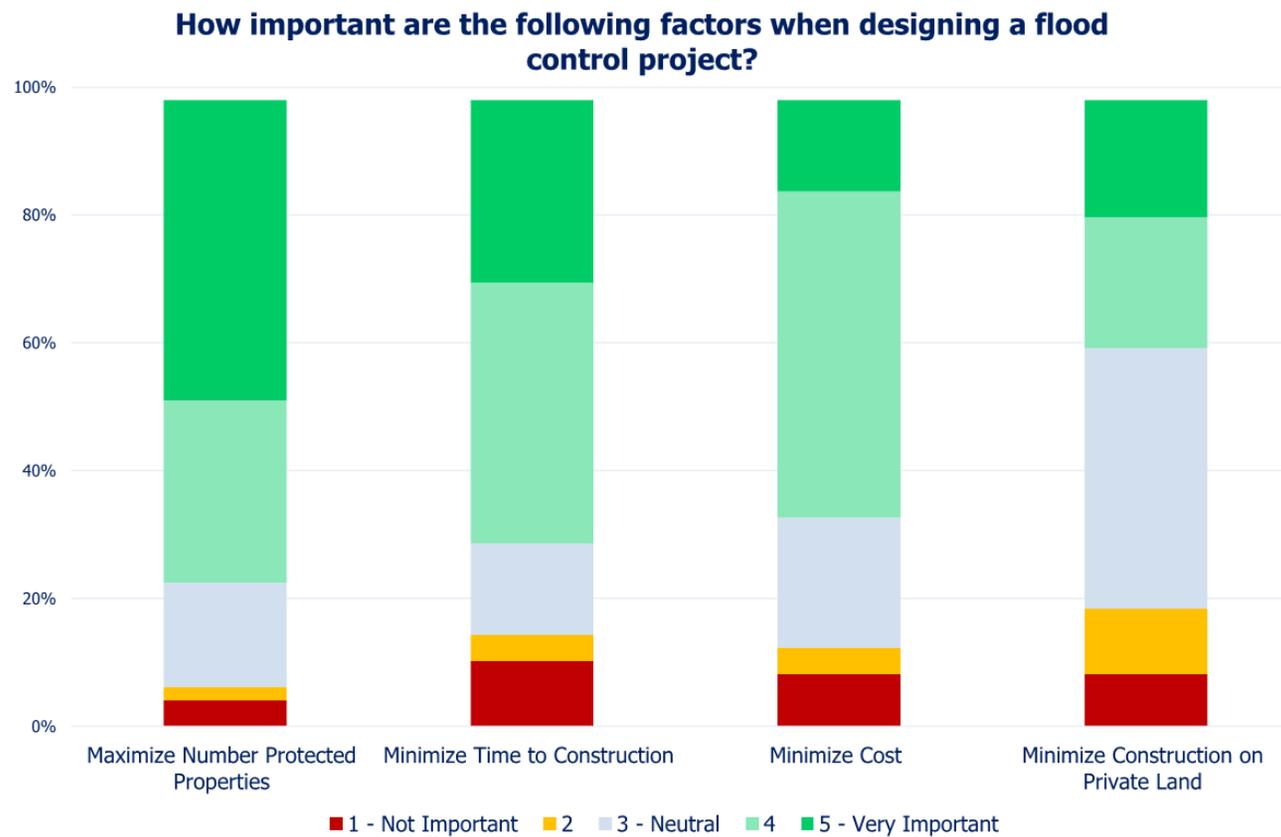
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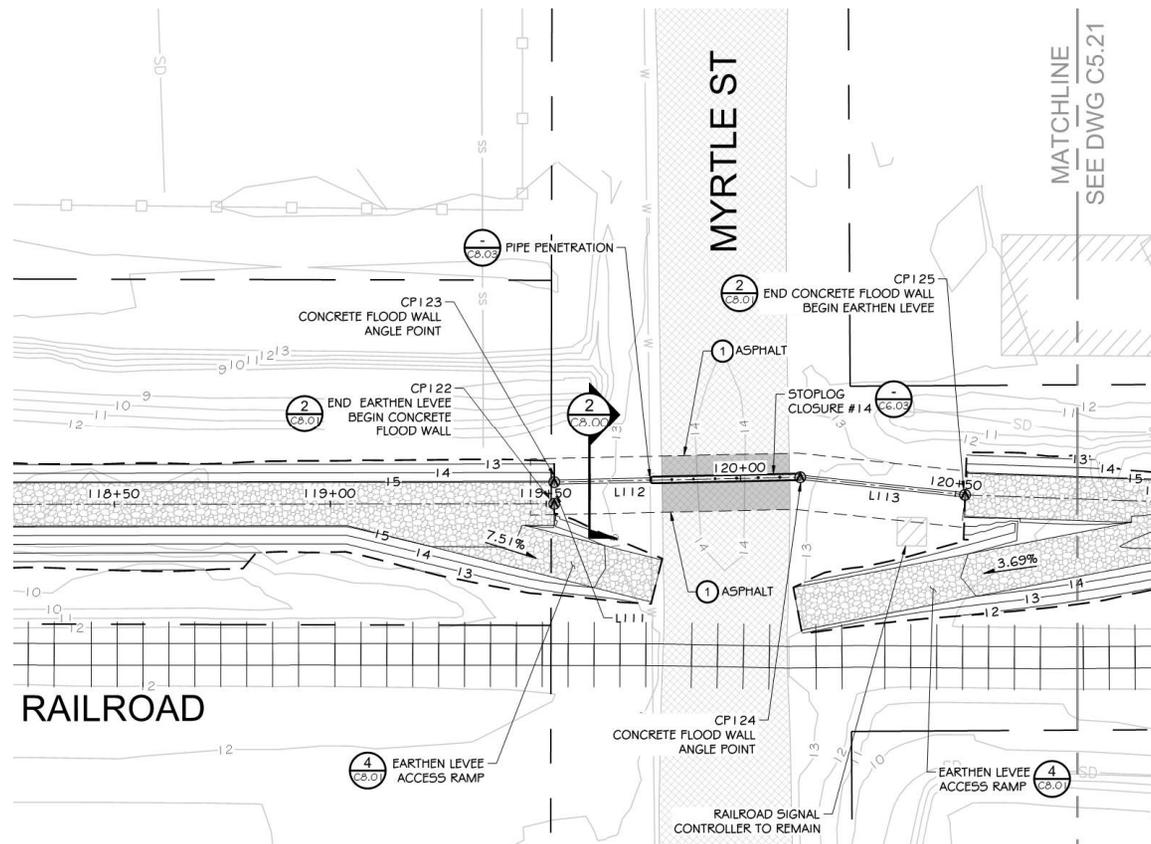
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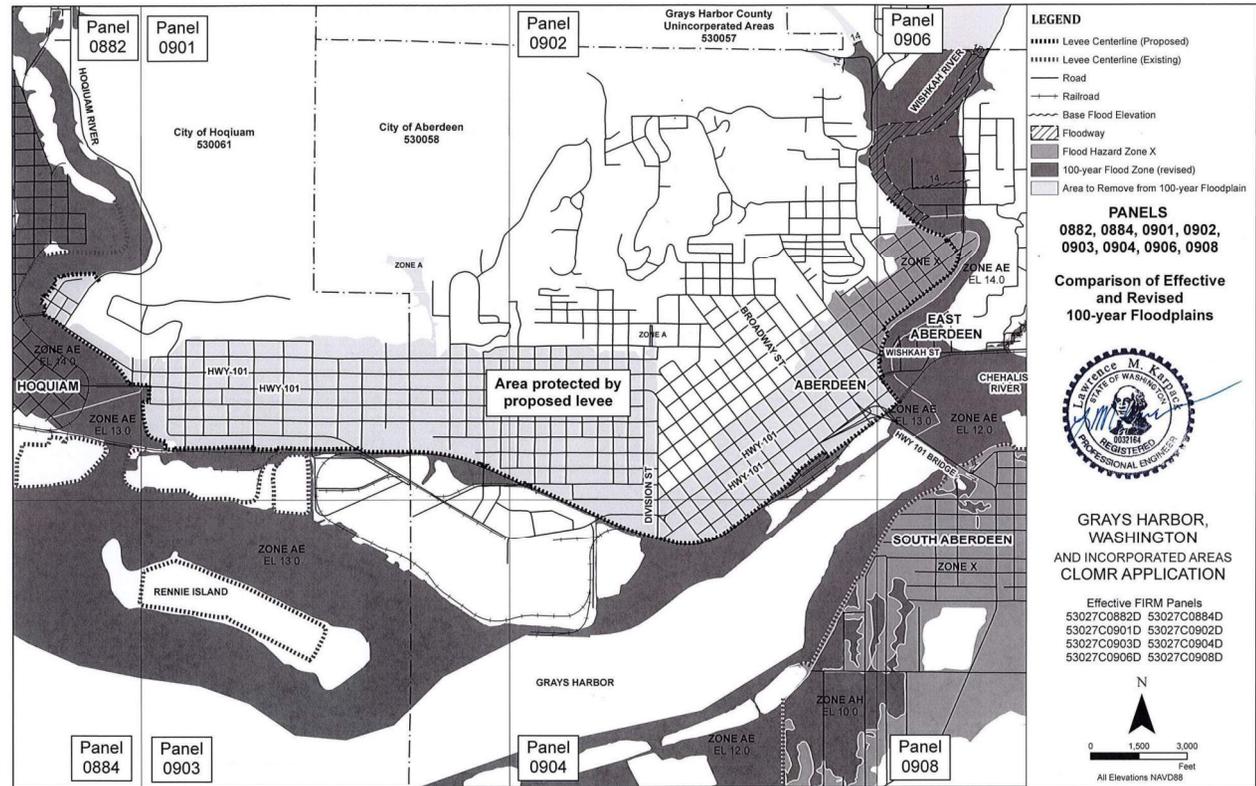
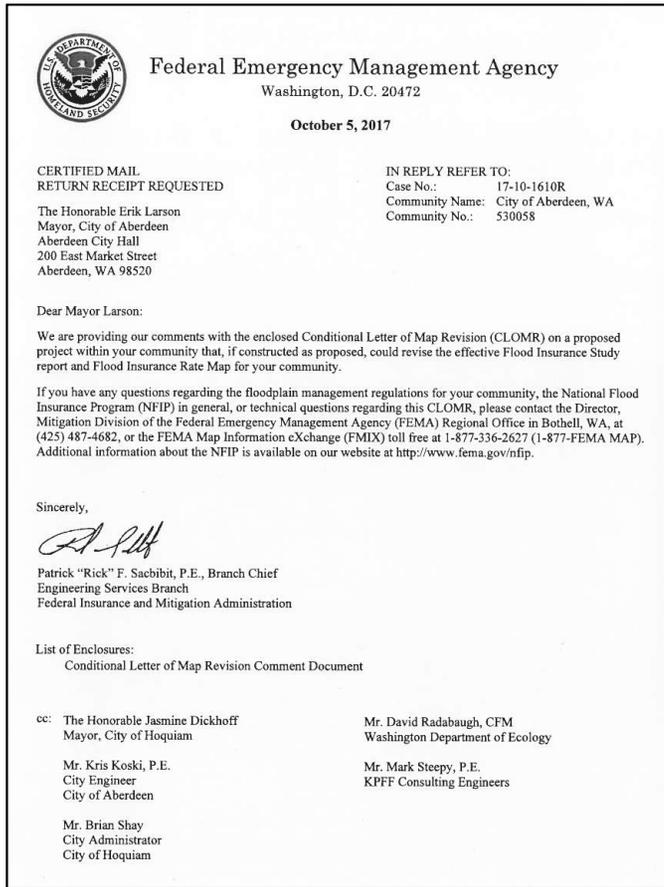


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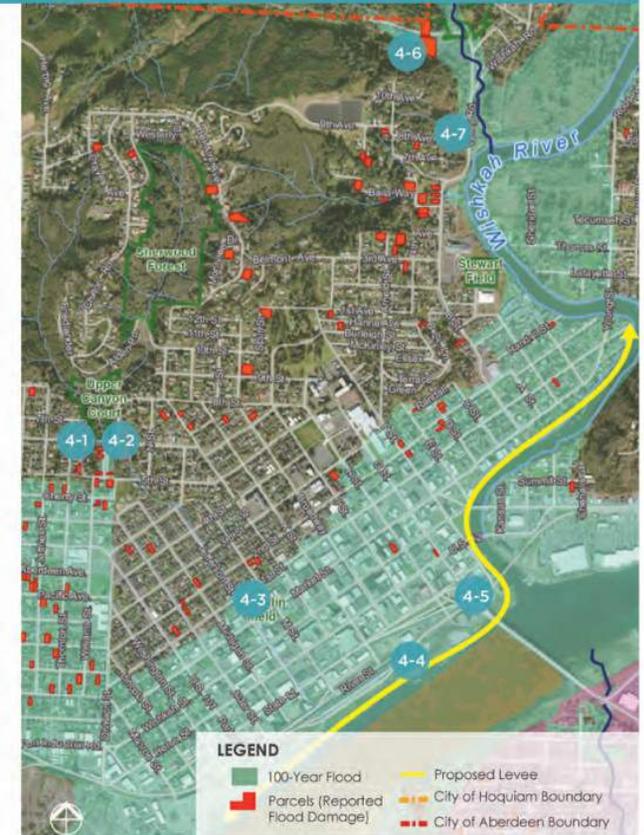
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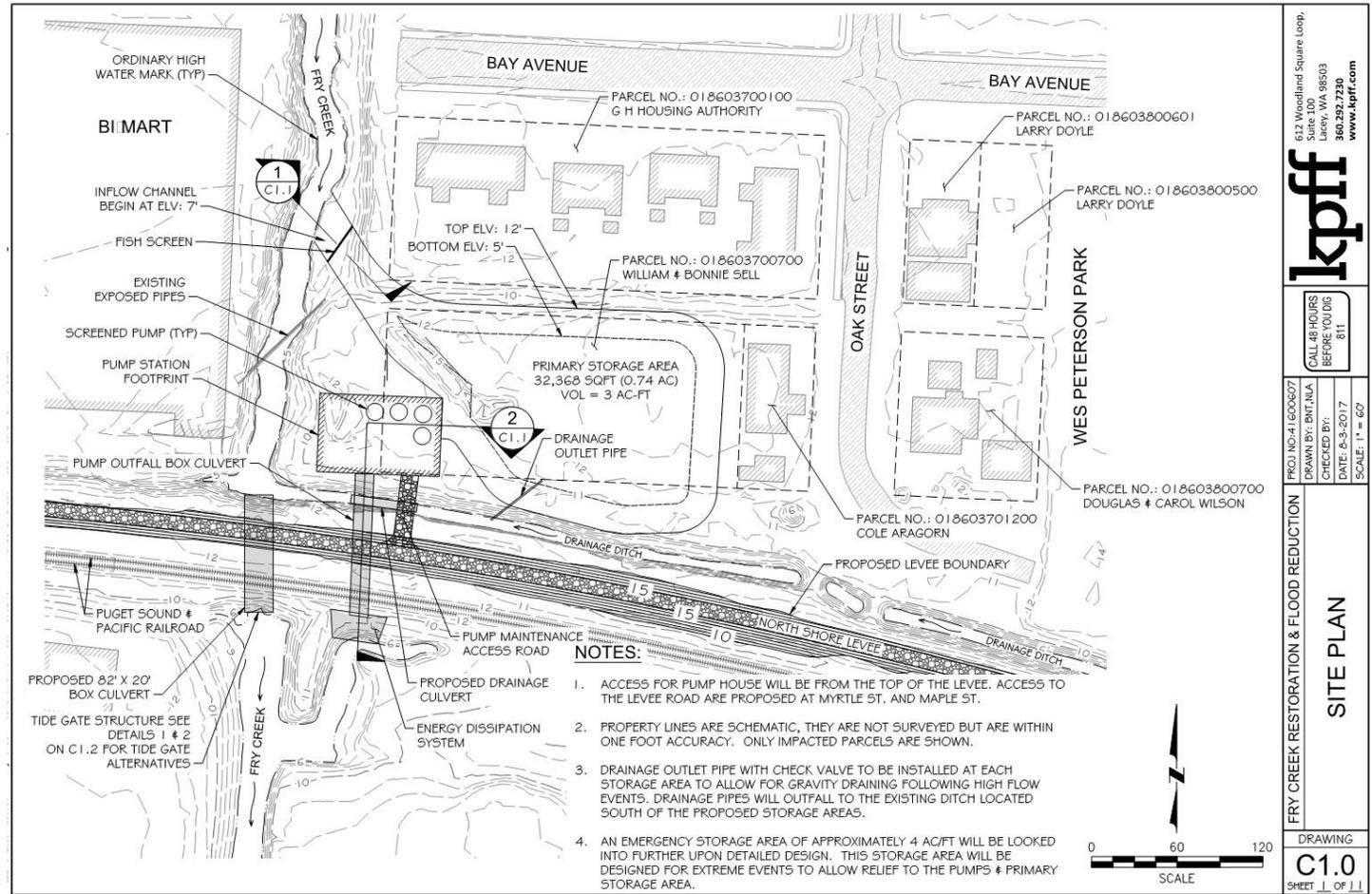
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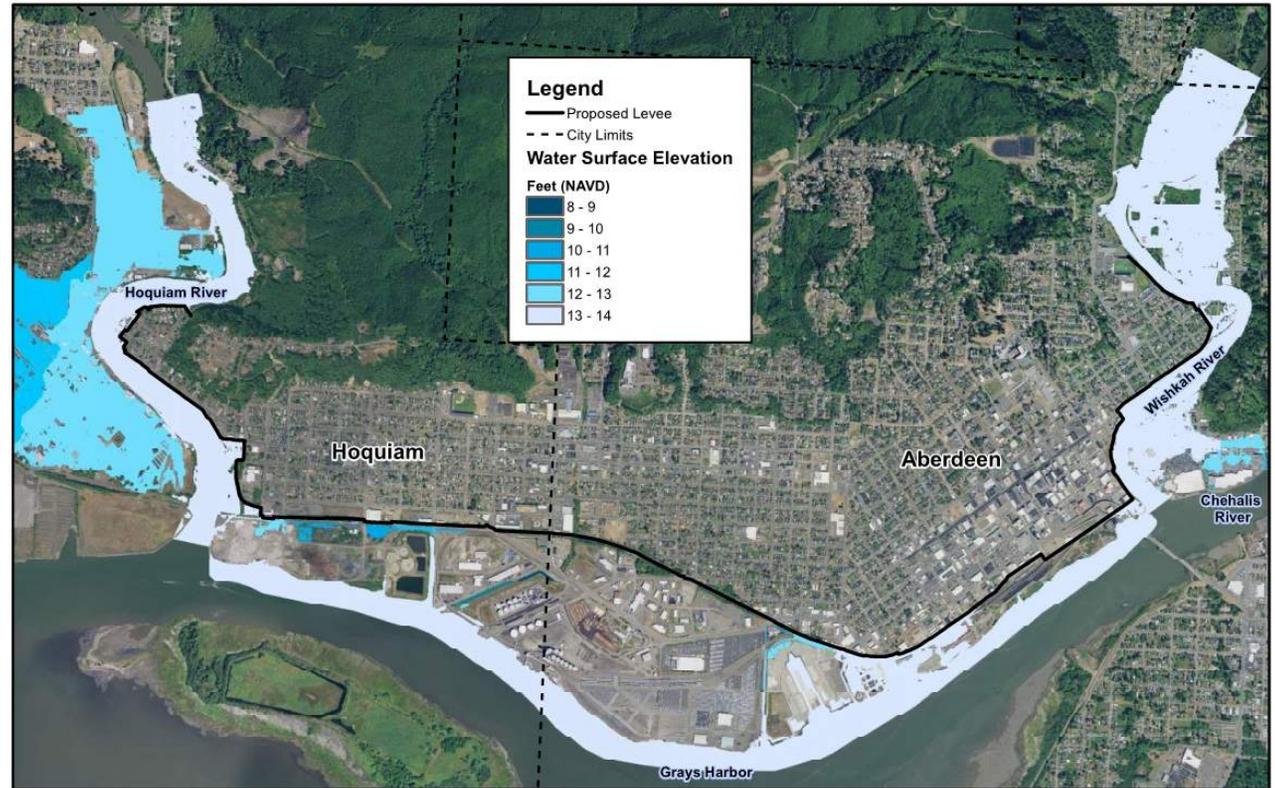


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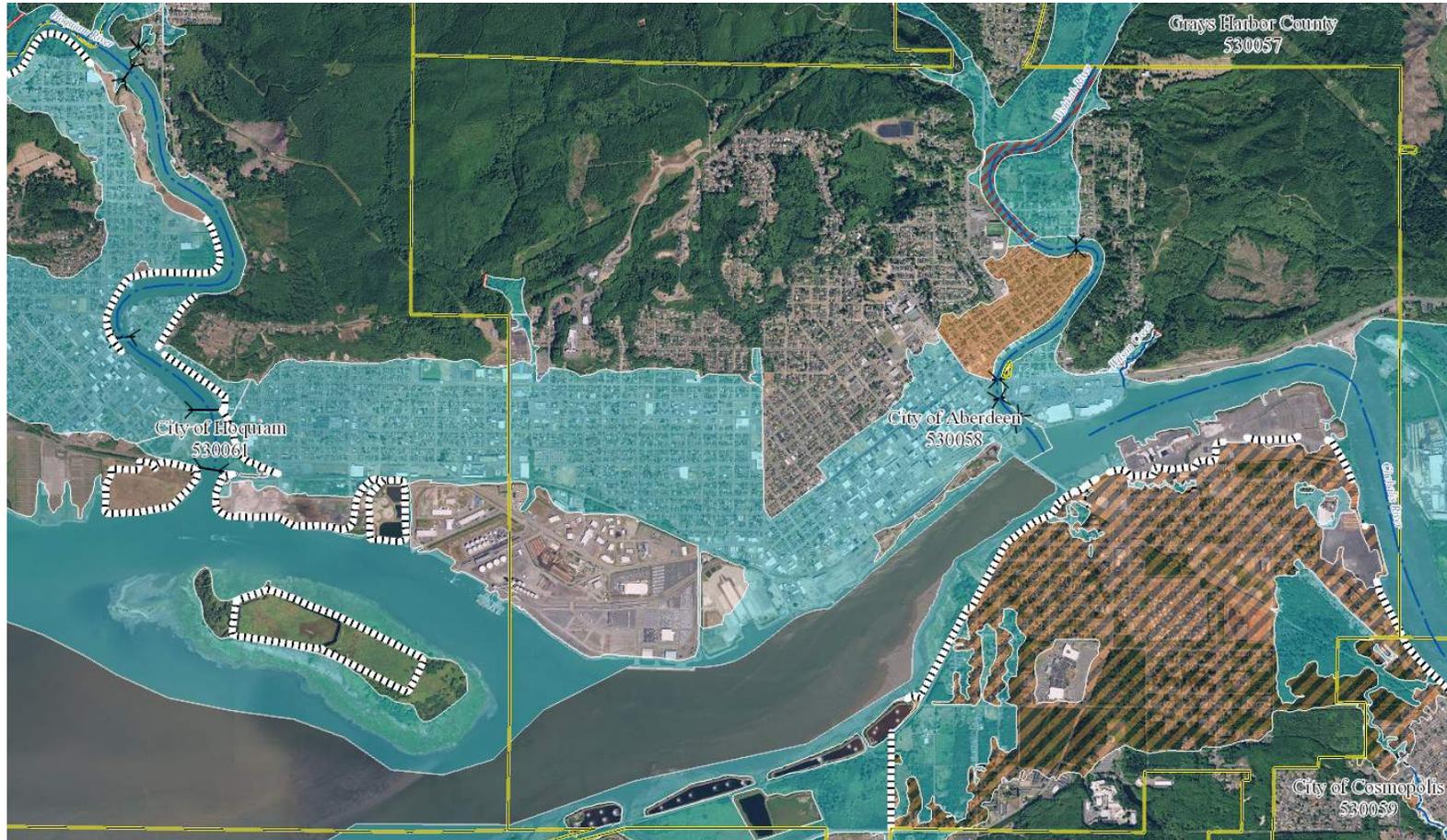


Conger Street in Aberdeen



Oak Street in Aberdeen

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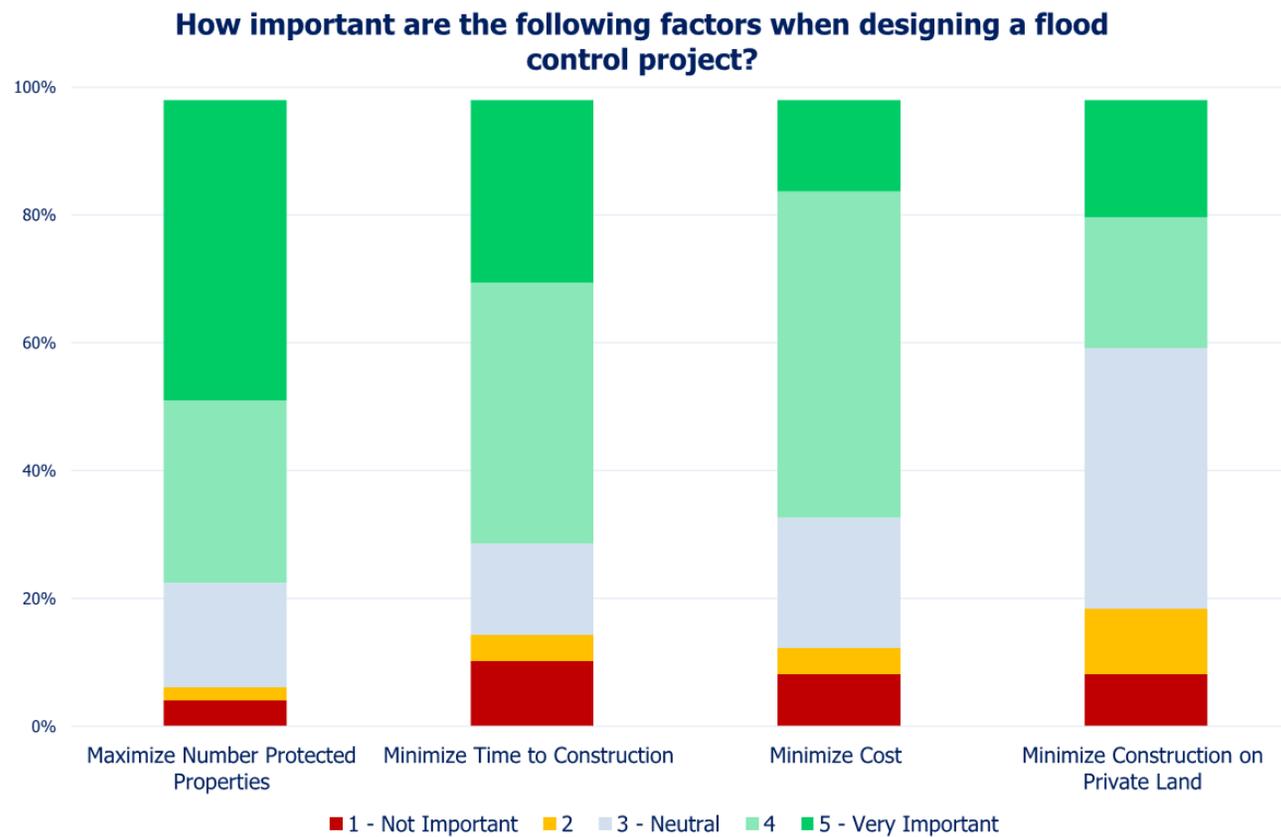
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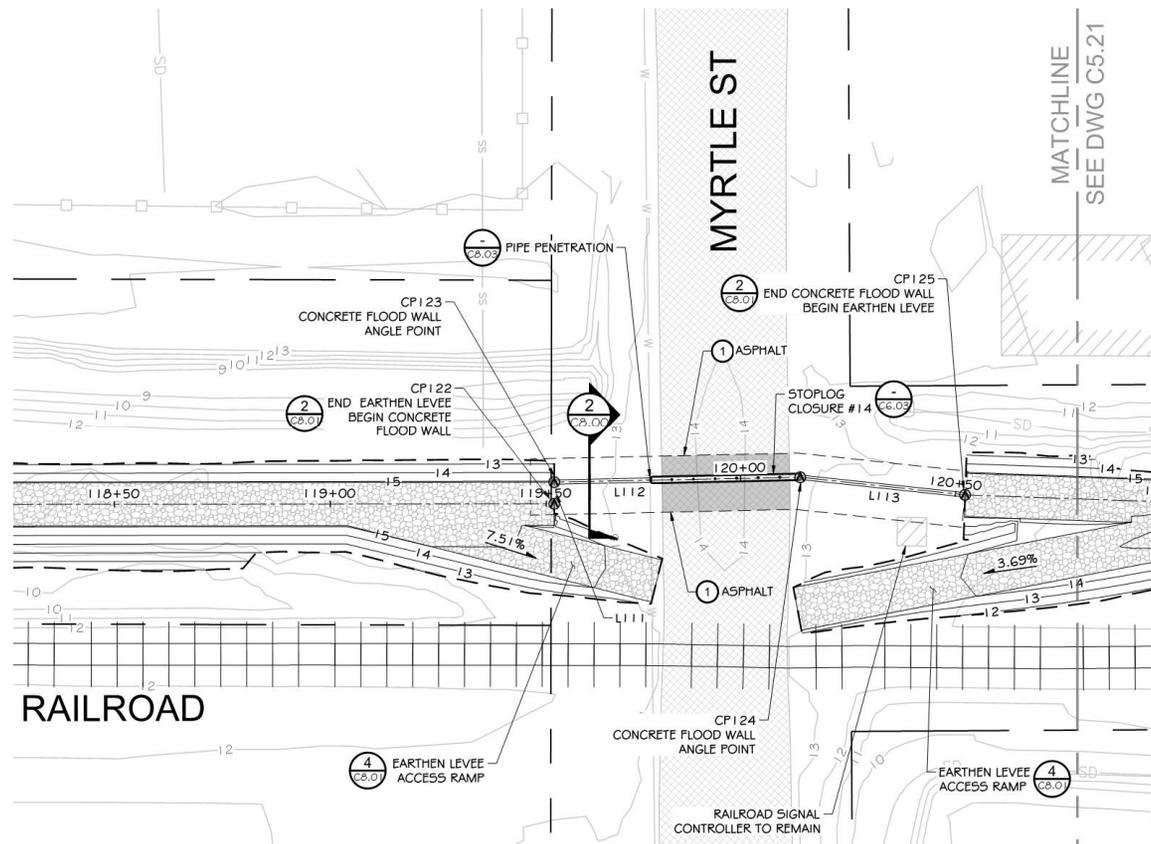
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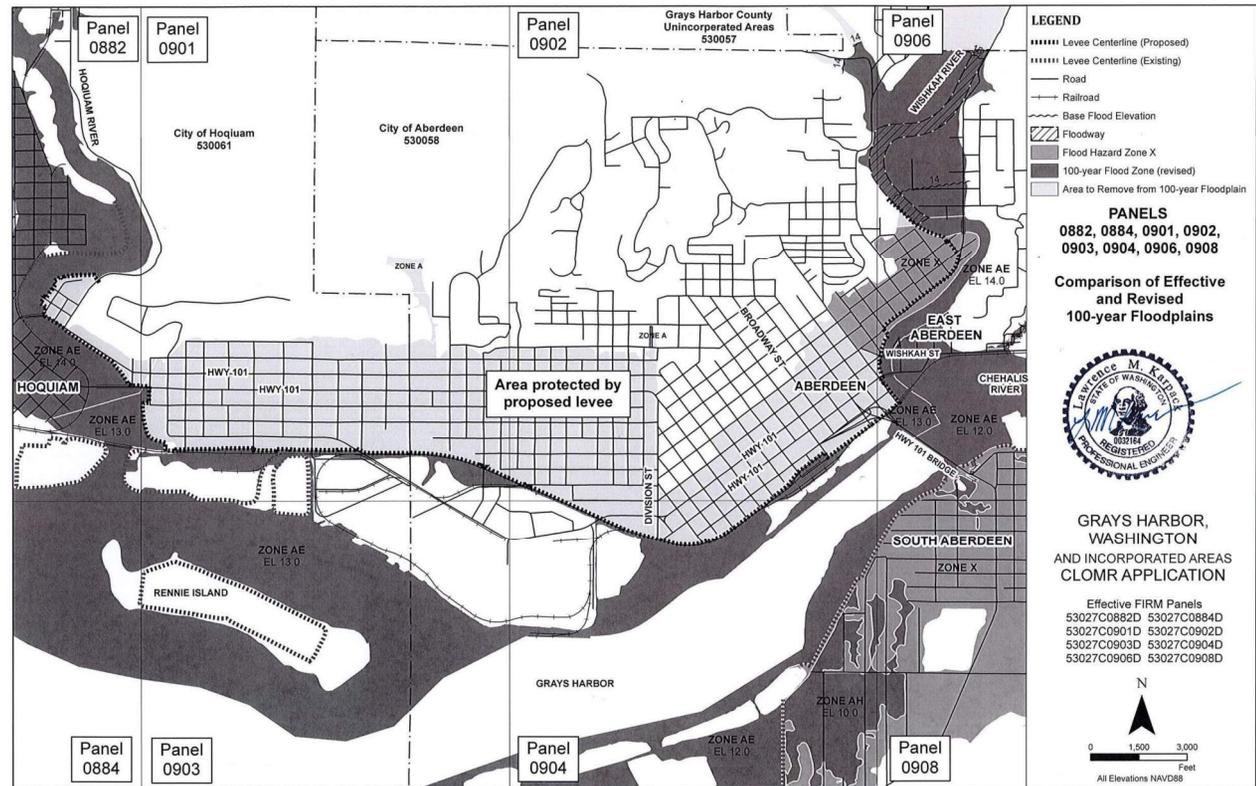
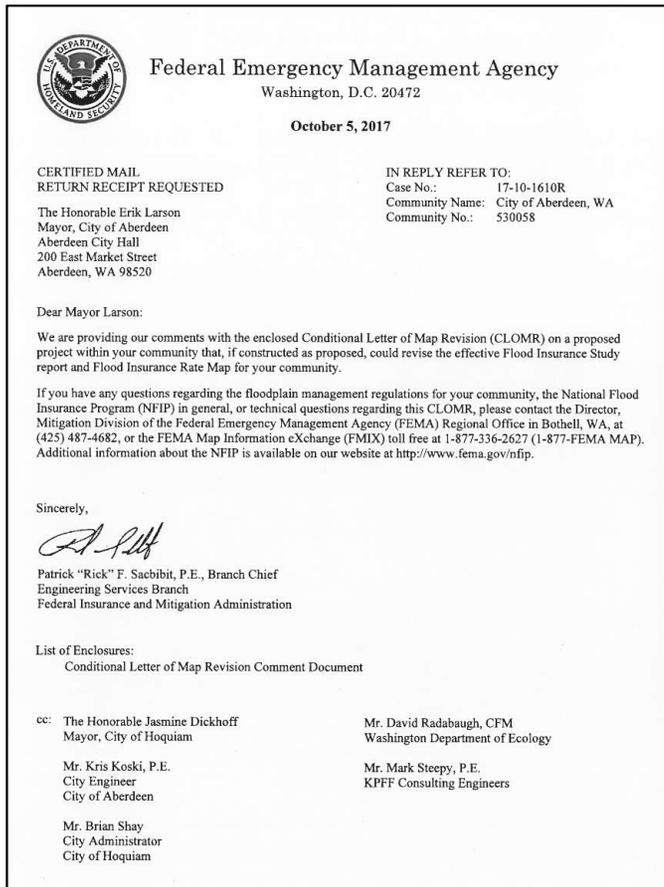


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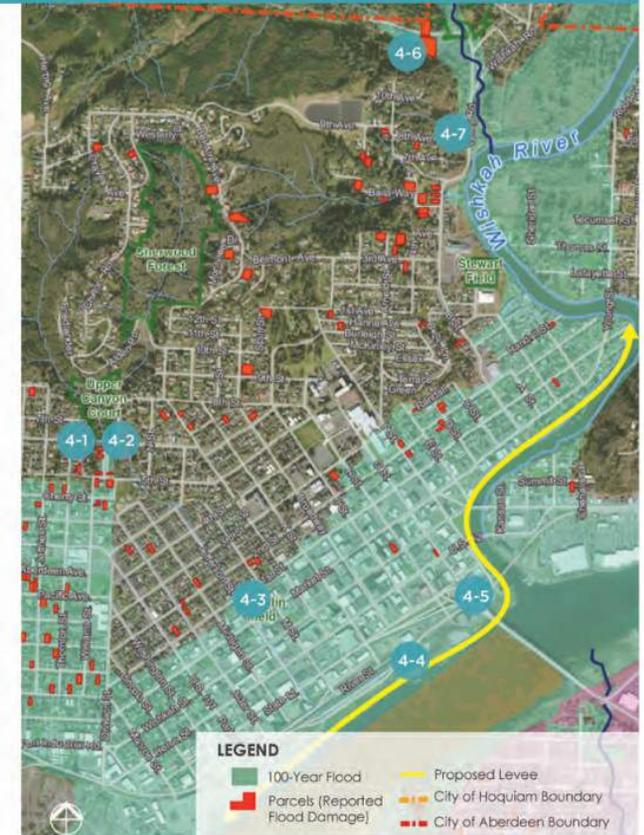
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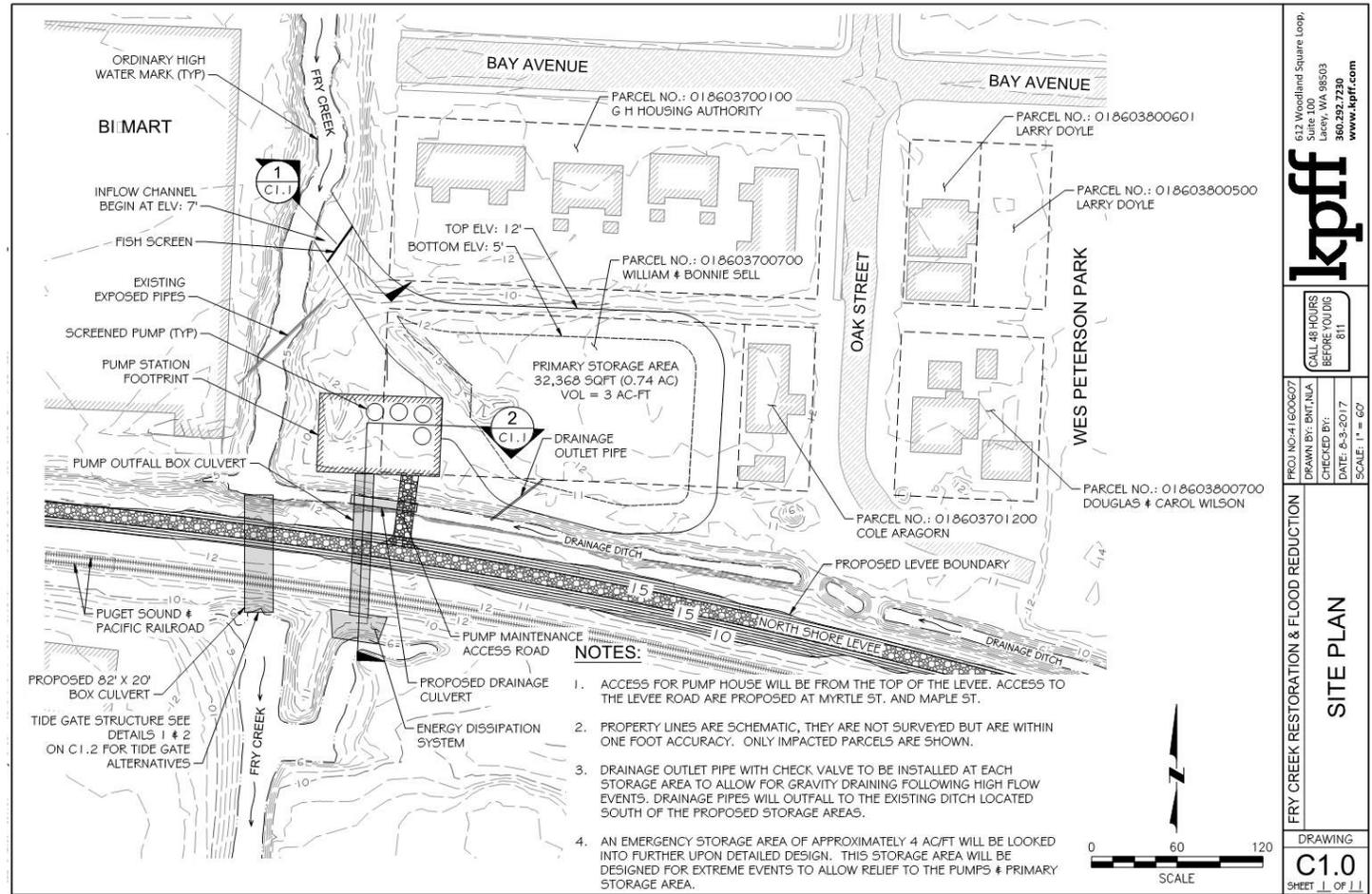
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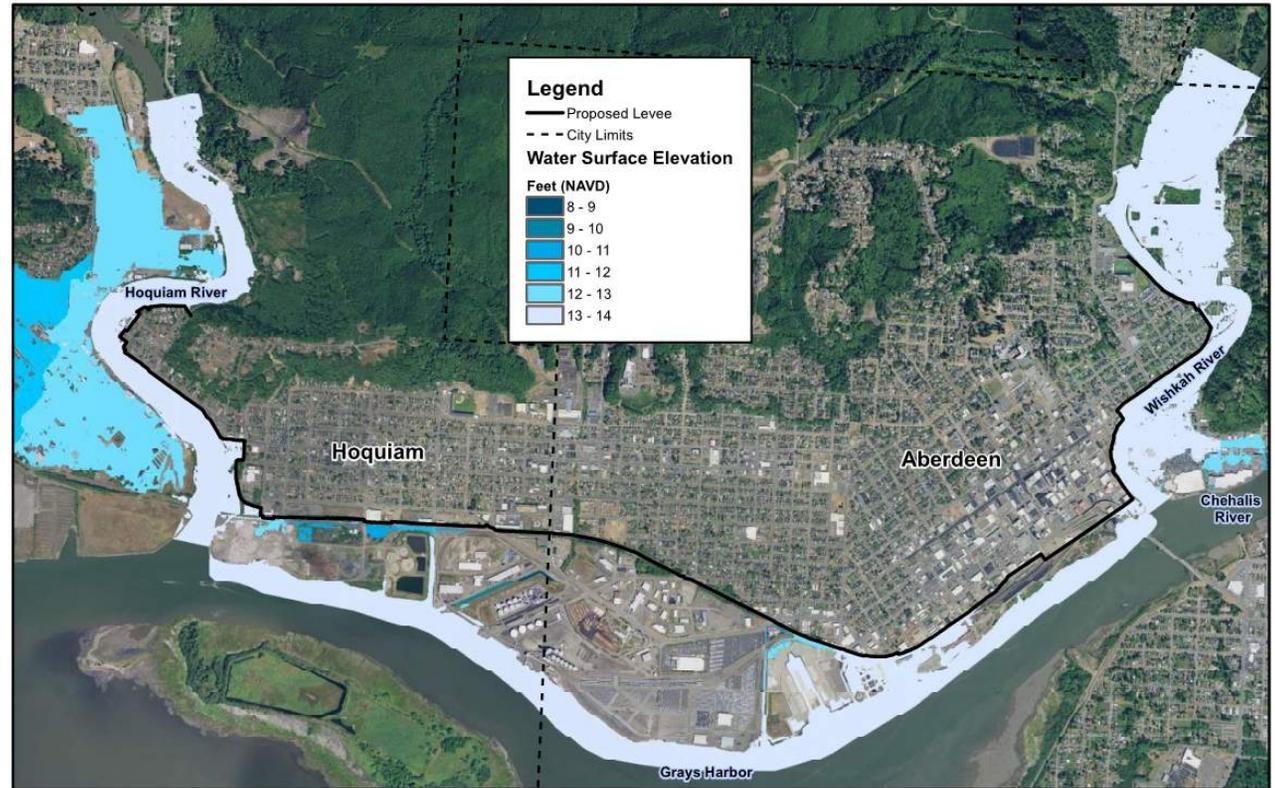


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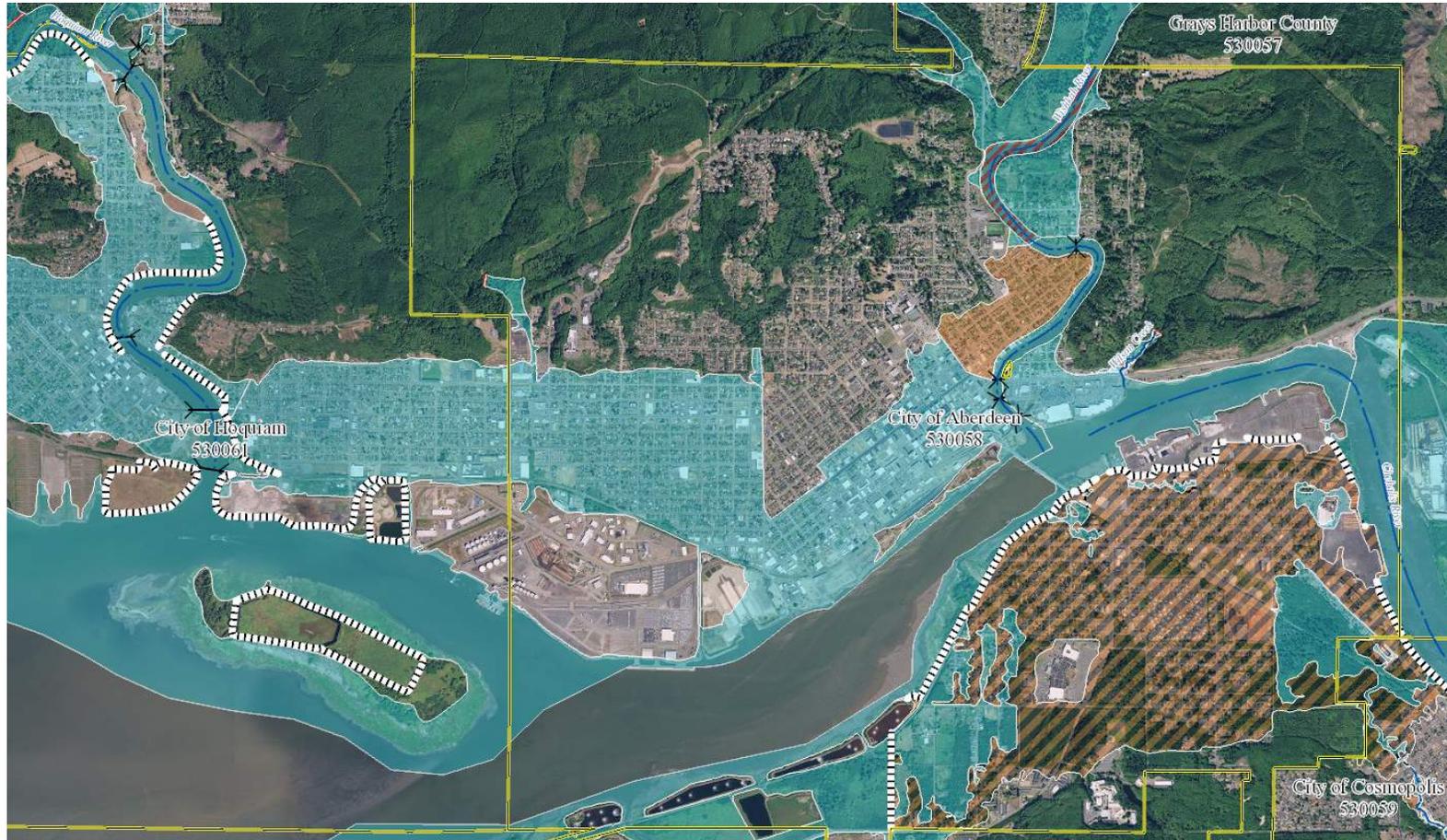


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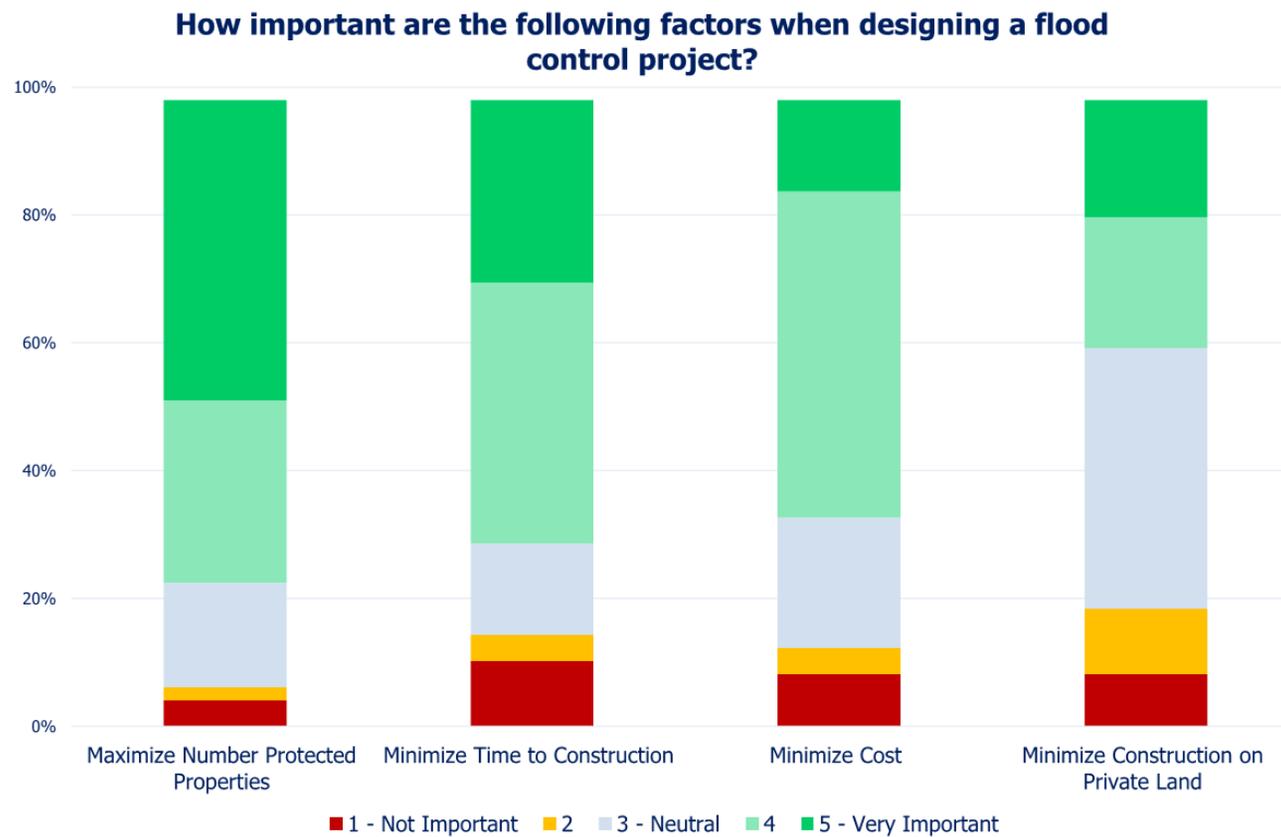
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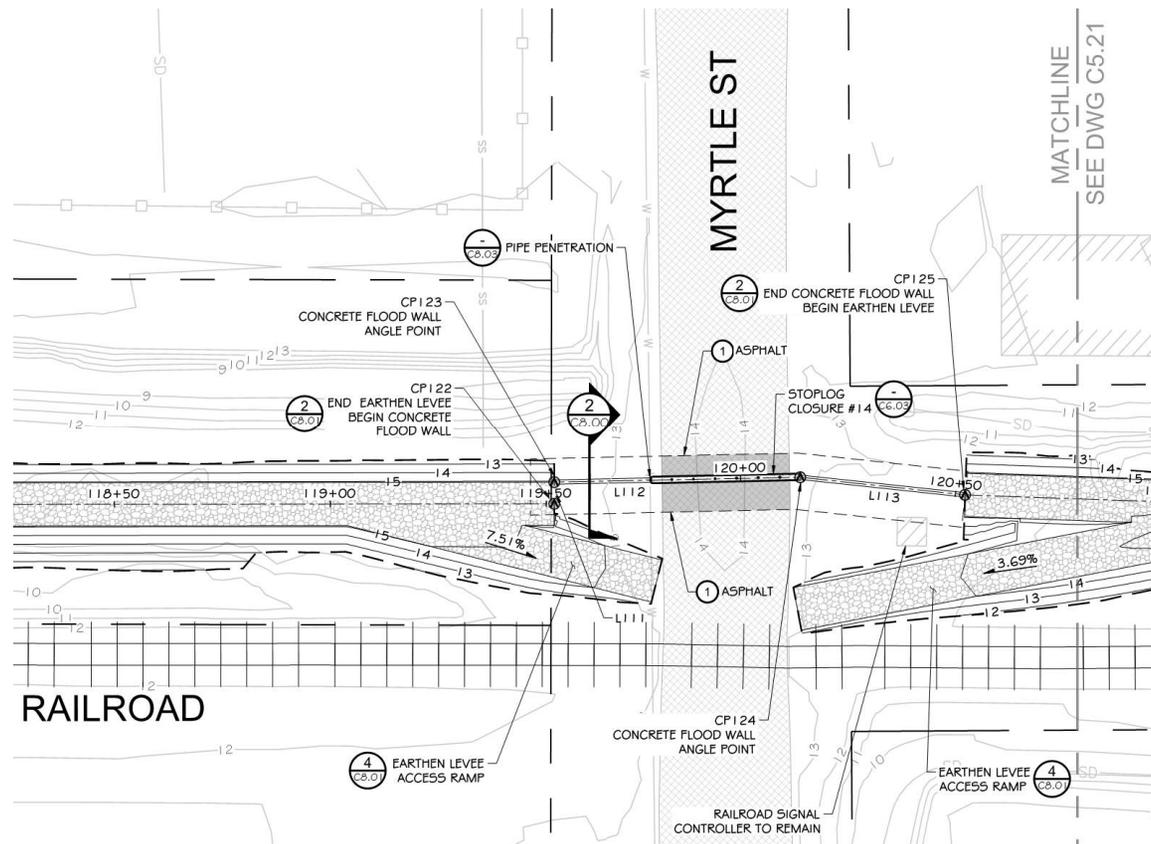
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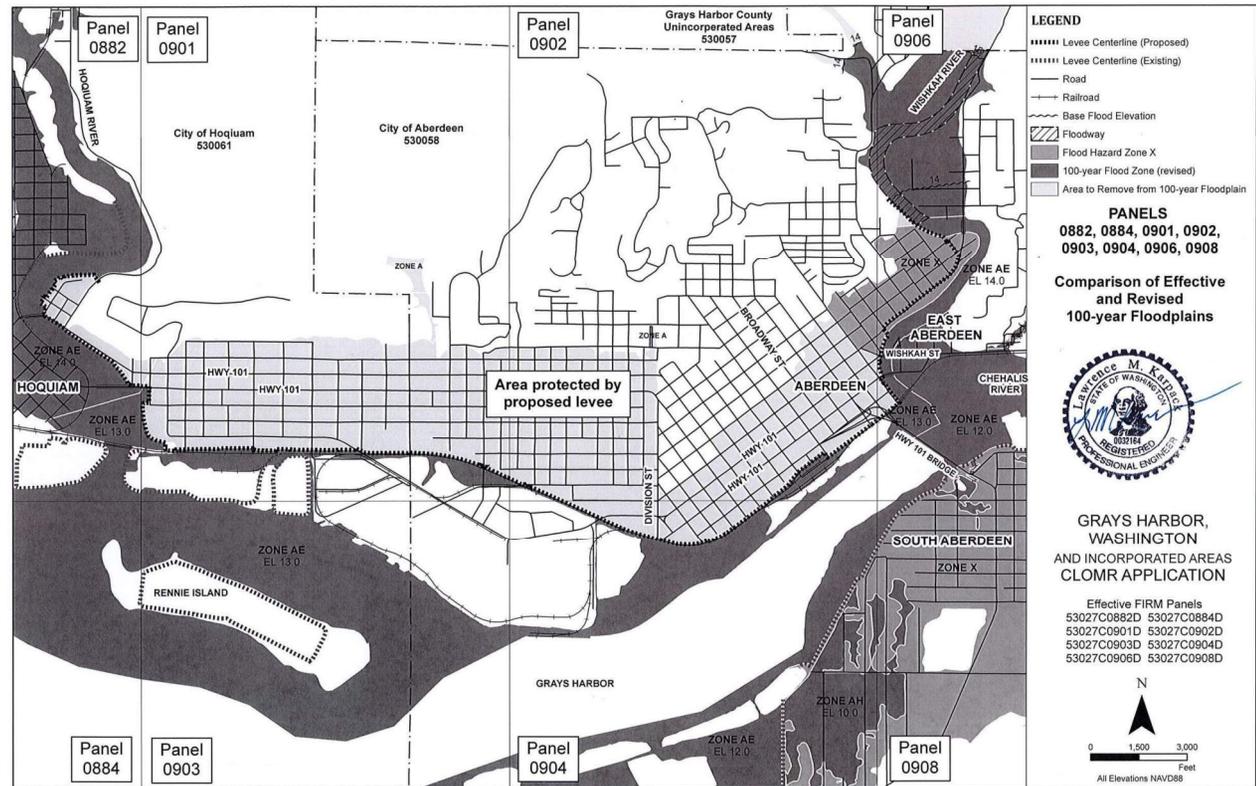
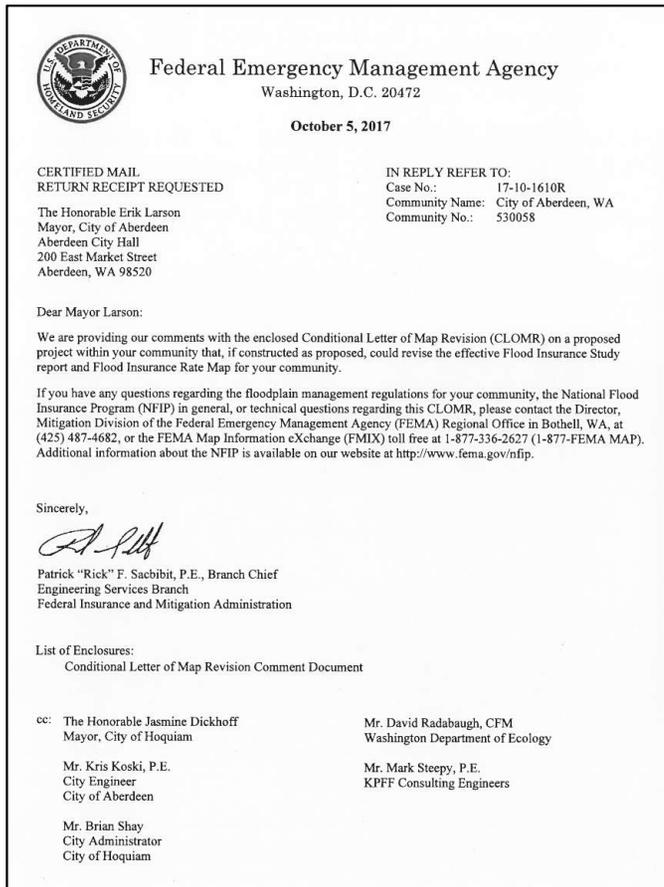


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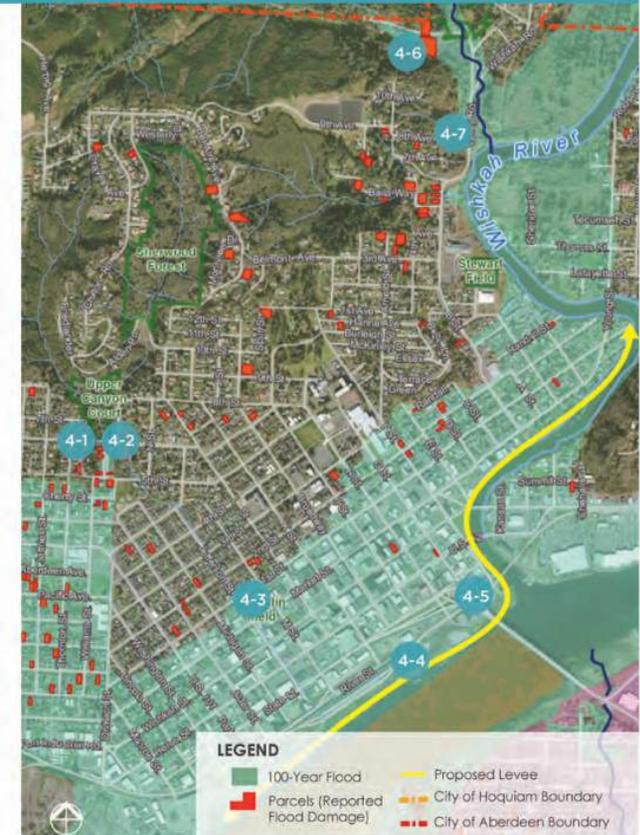
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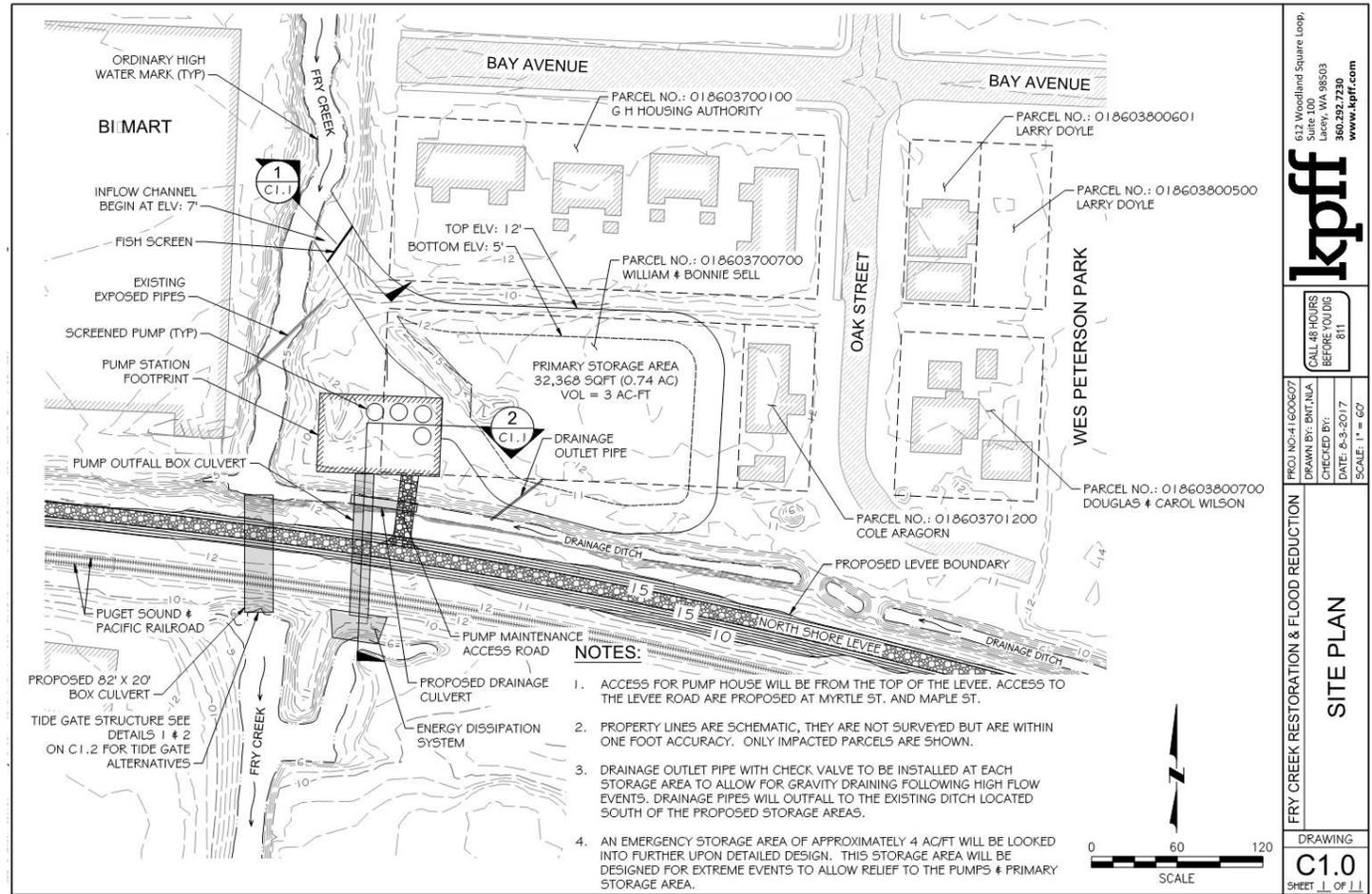
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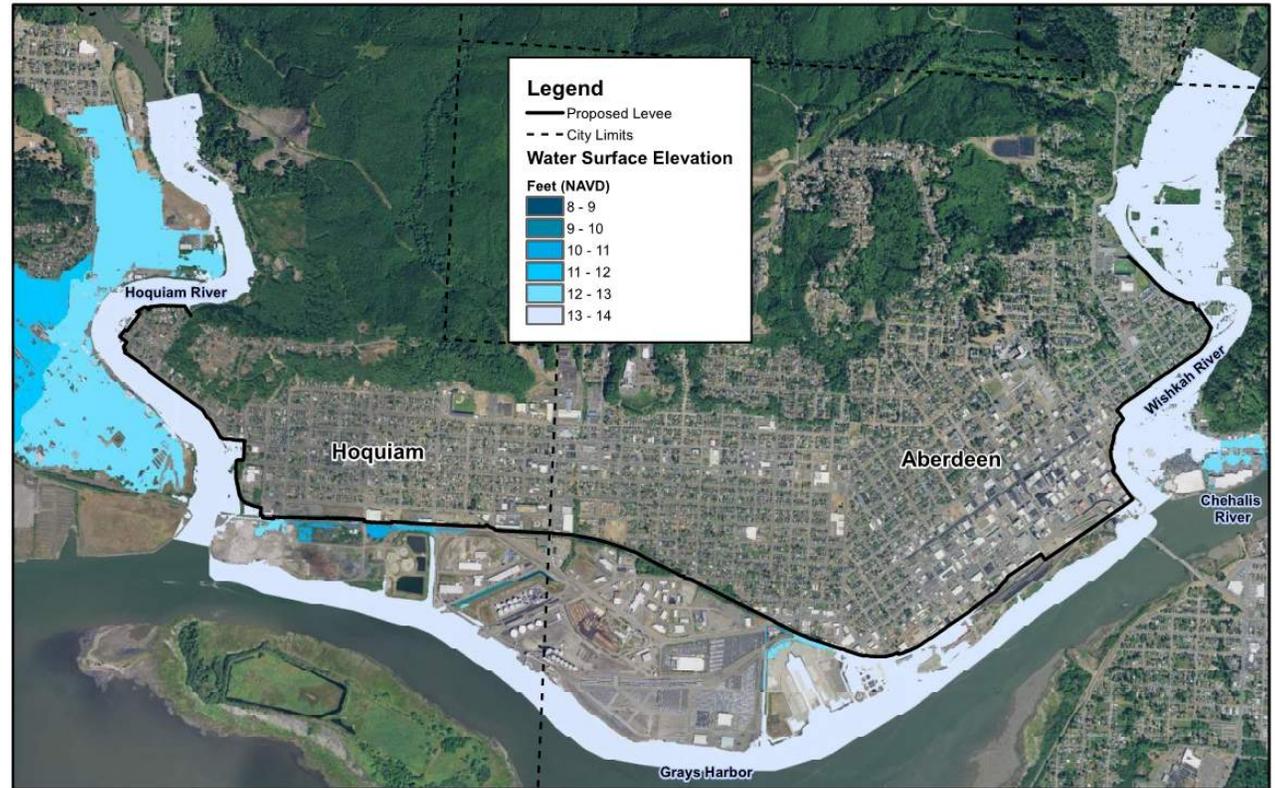


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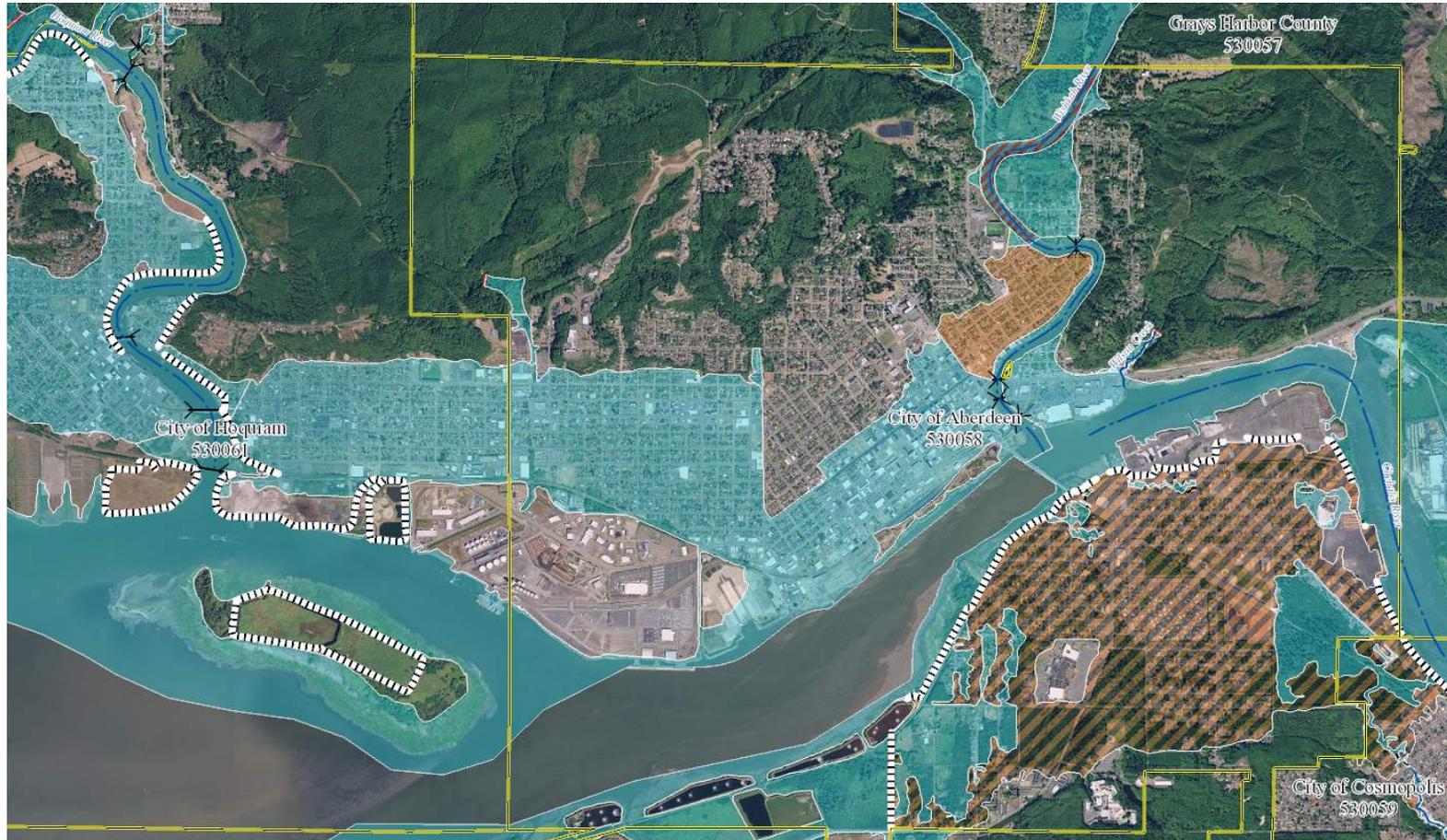


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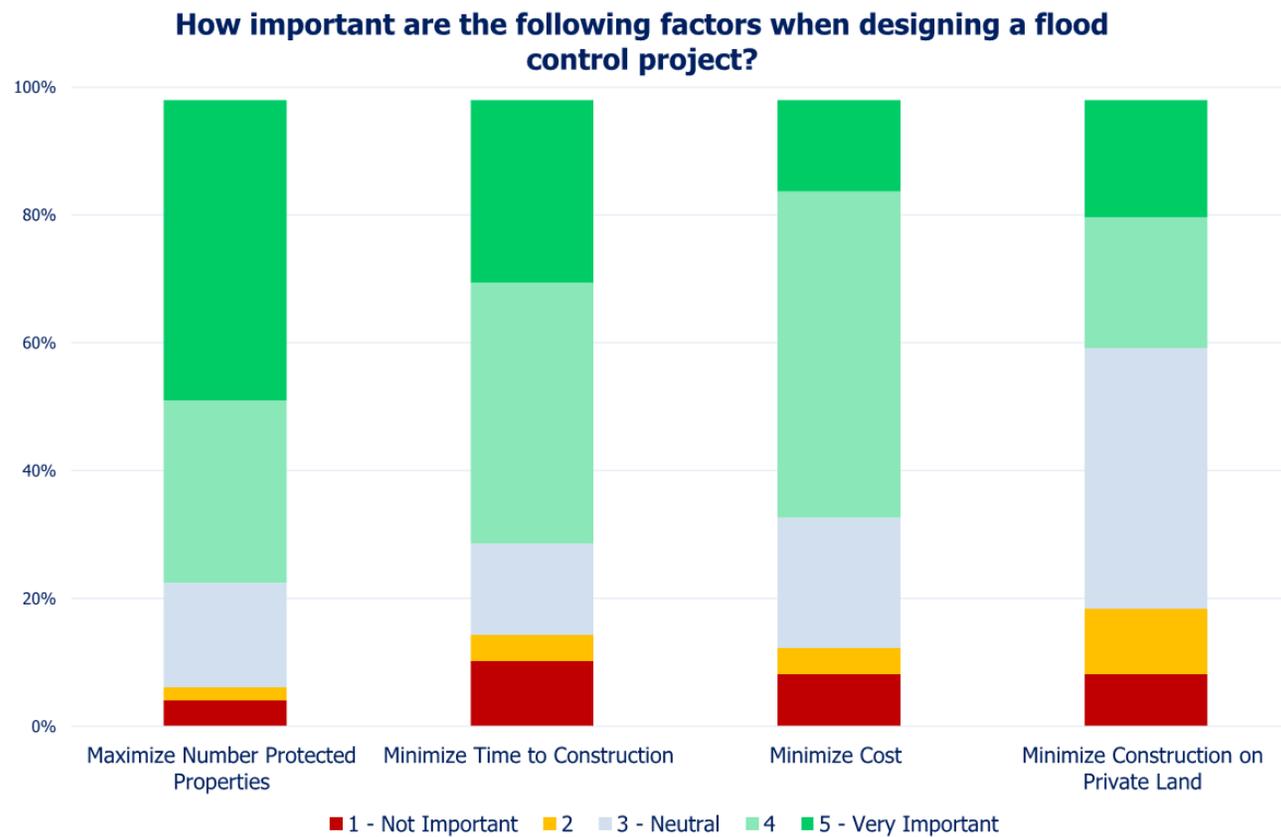
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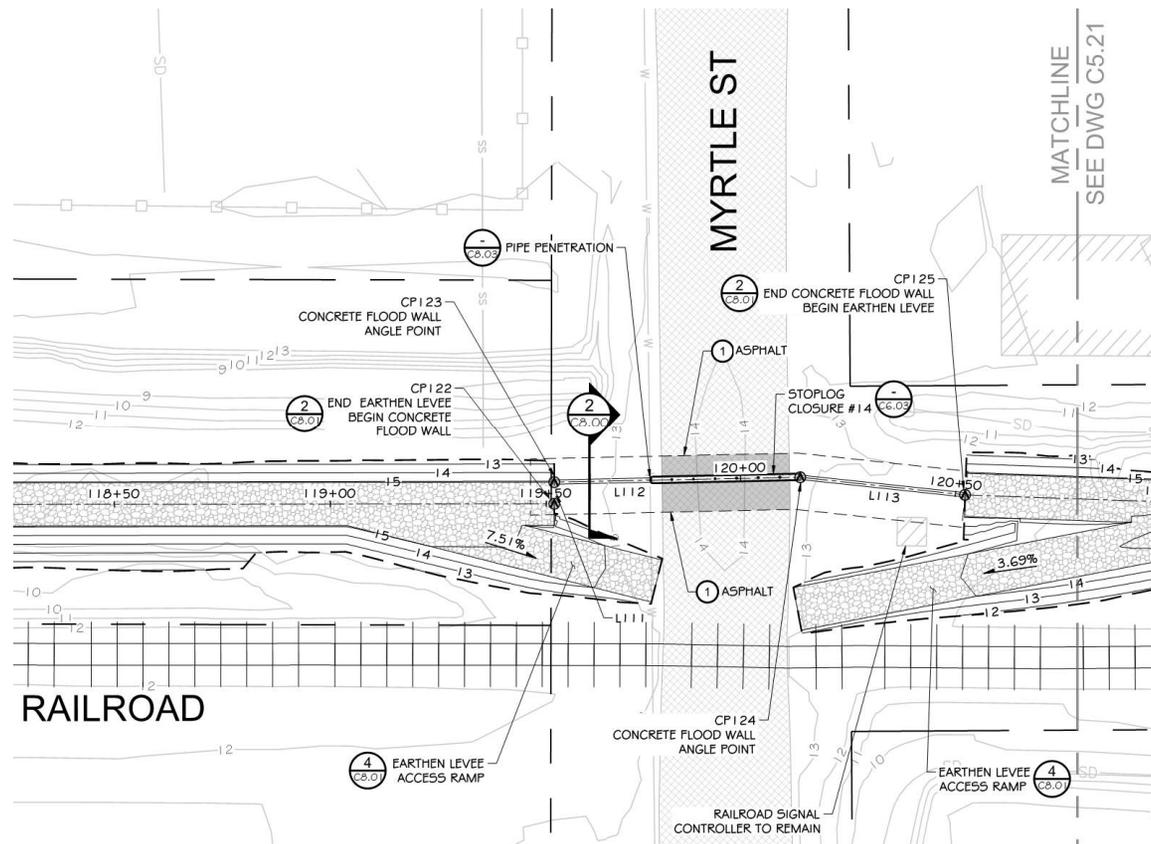
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 **Federal Emergency Management Agency**  
Washington, D.C. 20472

October 5, 2017

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Erik Larson  
Mayor, City of Aberdeen  
Aberdeen City Hall  
200 East Market Street  
Aberdeen, WA 98520

IN REPLY REFER TO:  
Case No.: 17-10-1610R  
Community Name: City of Aberdeen, WA  
Community No.: 530058

Dear Mayor Larson:

We are providing our comments with the enclosed Conditional Letter of Map Revision (CLOMR) on a proposed project within your community that, if constructed as proposed, could revise the effective Flood Insurance Study report and Flood Insurance Rate Map for your community.

If you have any questions regarding the floodplain management regulations for your community, the National Flood Insurance Program (NFIP) in general, or technical questions regarding this CLOMR, please contact the Director, Mitigation Division of the Federal Emergency Management Agency (FEMA) Regional Office in Bothell, WA, at (425) 487-4682, or the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

  
Patrick "Rick" F. Sacibit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration

List of Enclosures:  
Conditional Letter of Map Revision Comment Document

cc: The Honorable Jasmine Dickhoff  
Mayor, City of Hoquiam

Mr. David Radabaugh, CFM  
Washington Department of Ecology

Mr. Kris Koski, P.E.  
City Engineer  
City of Aberdeen

Mr. Mark Steepy, P.E.  
KPF Consulting Engineers

Mr. Brian Shay  
City Administrator  
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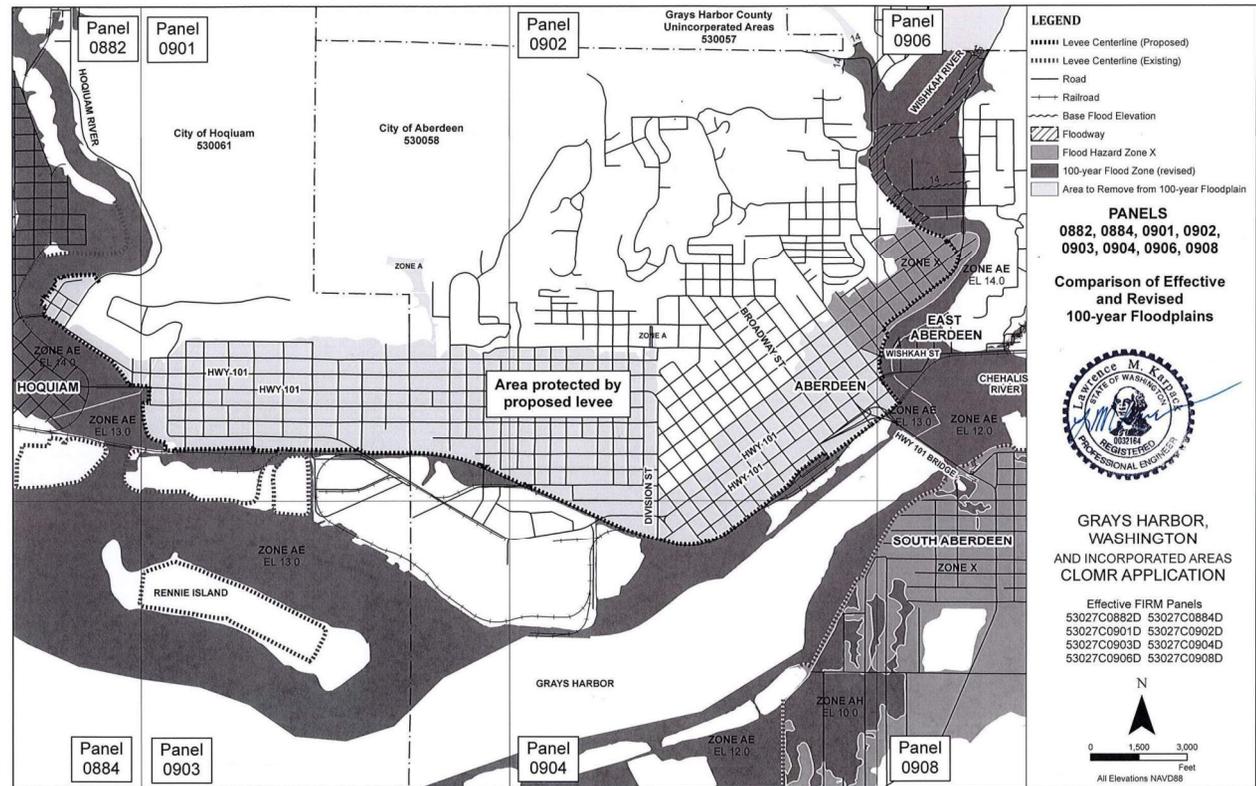


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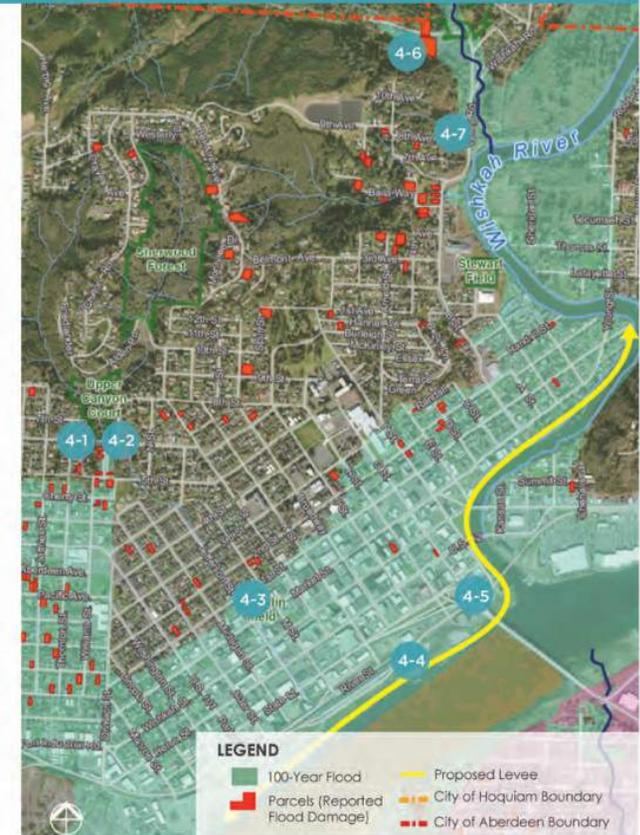
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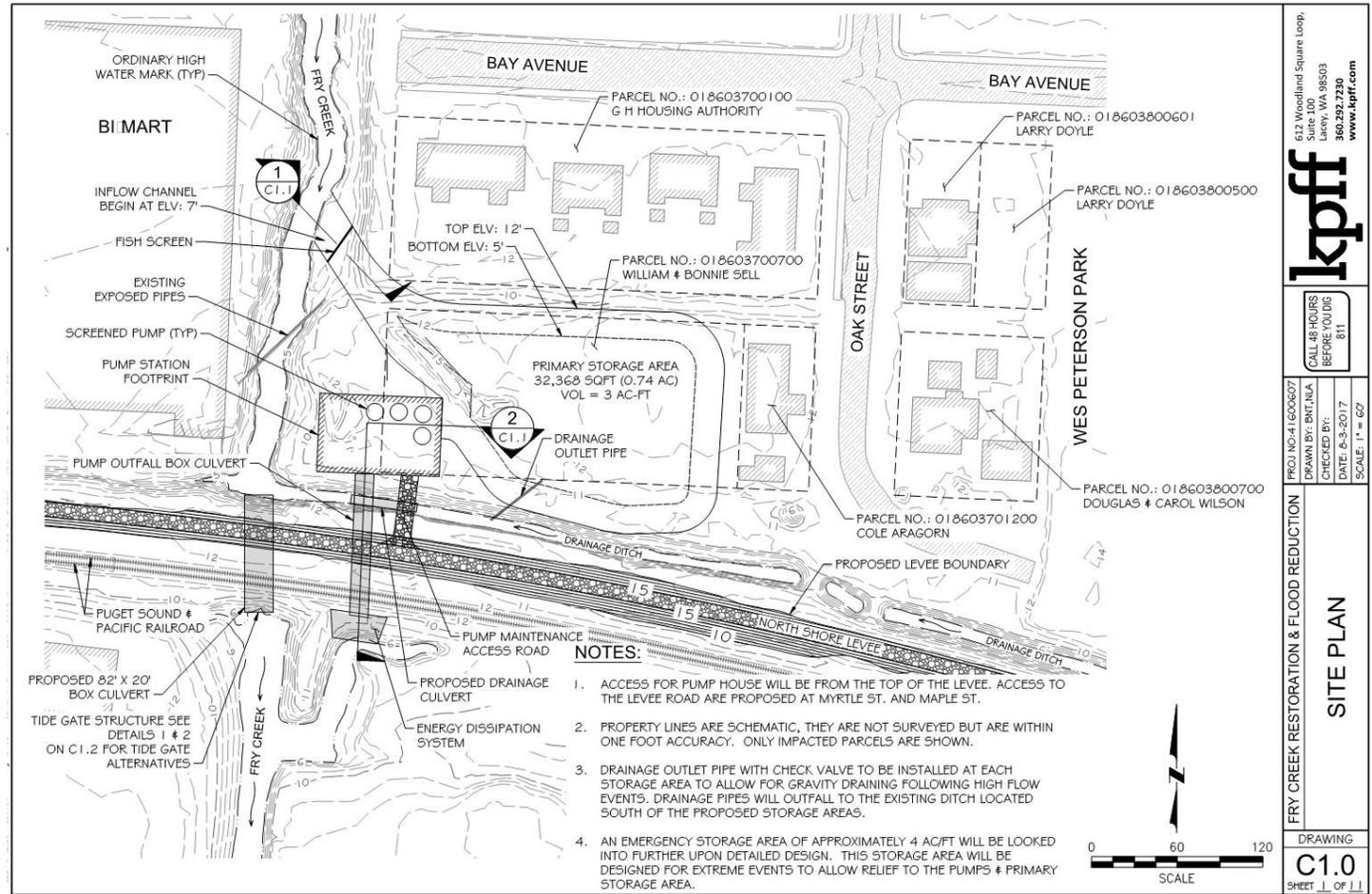
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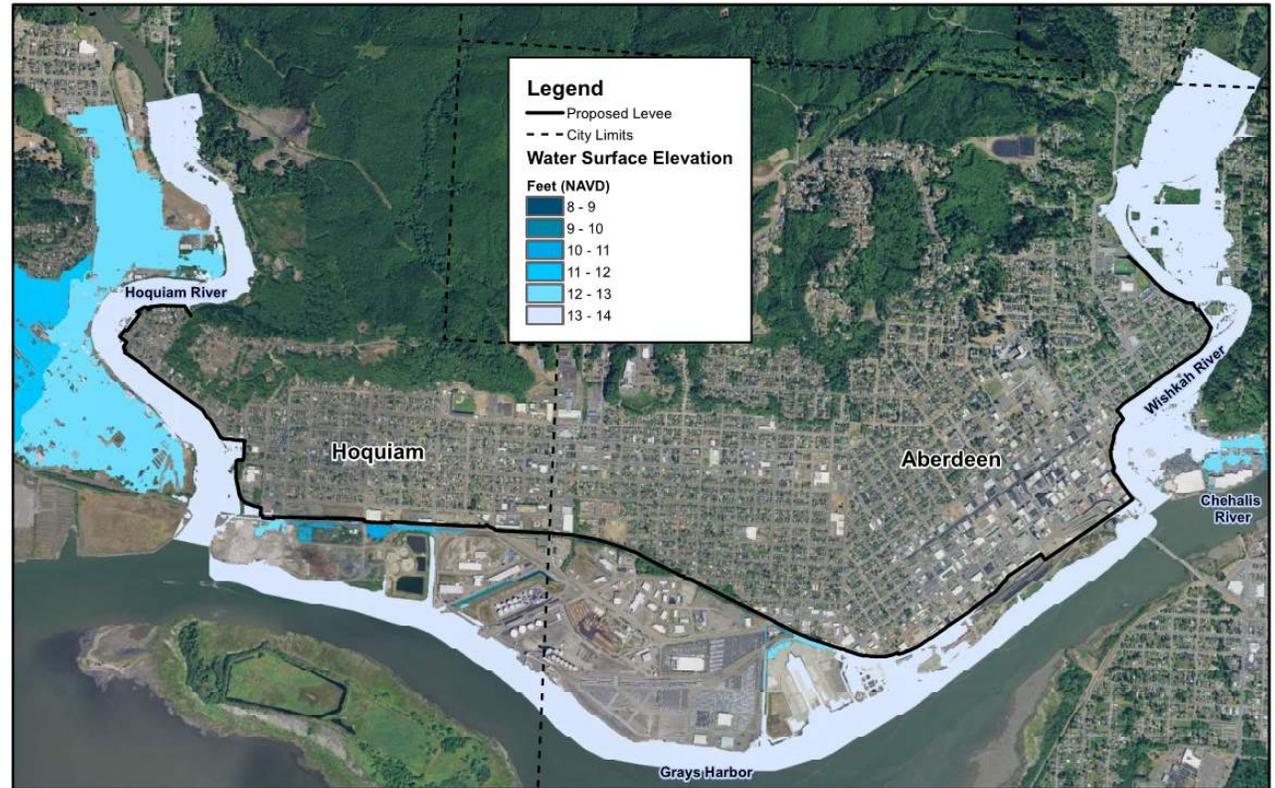


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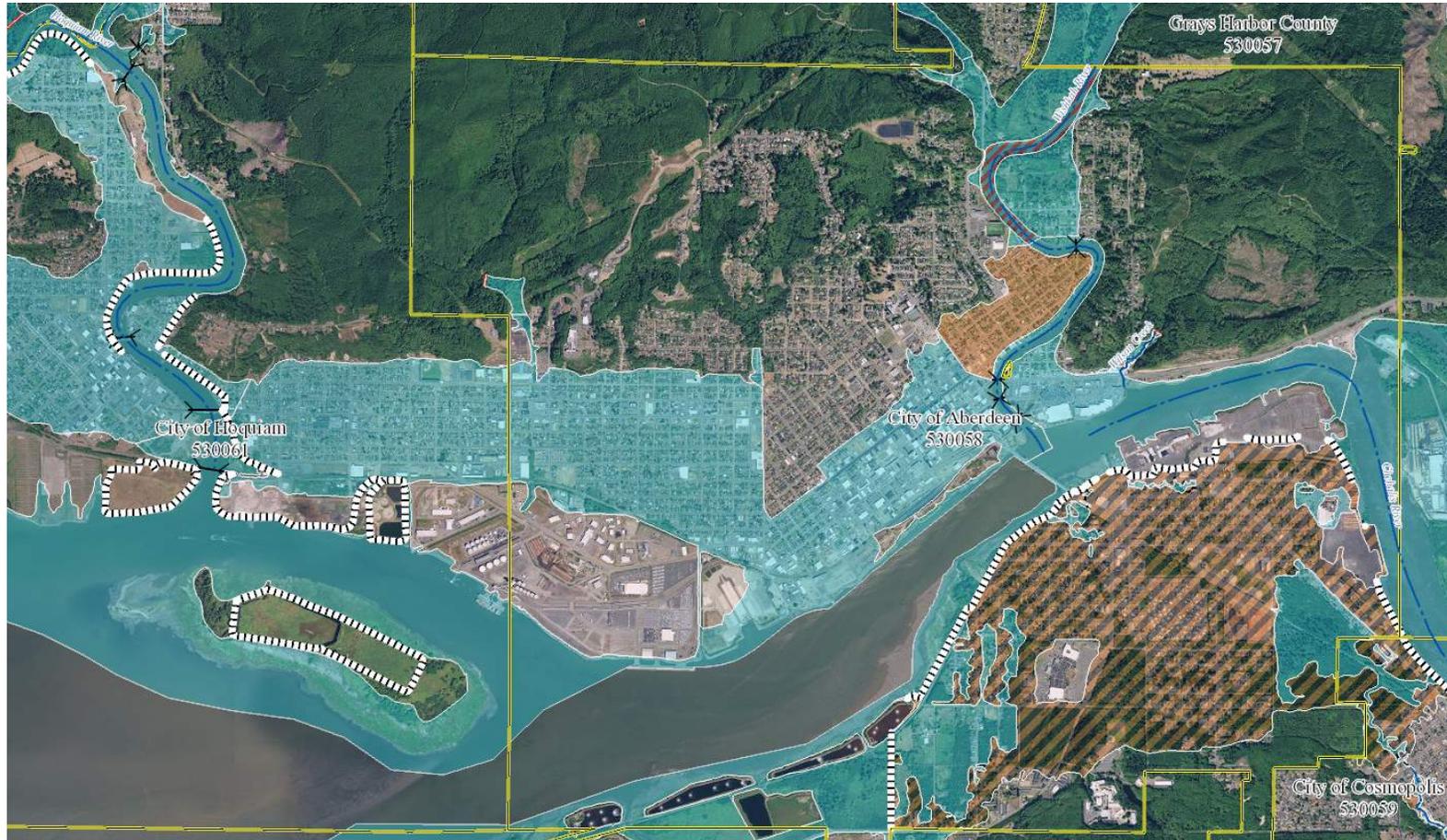


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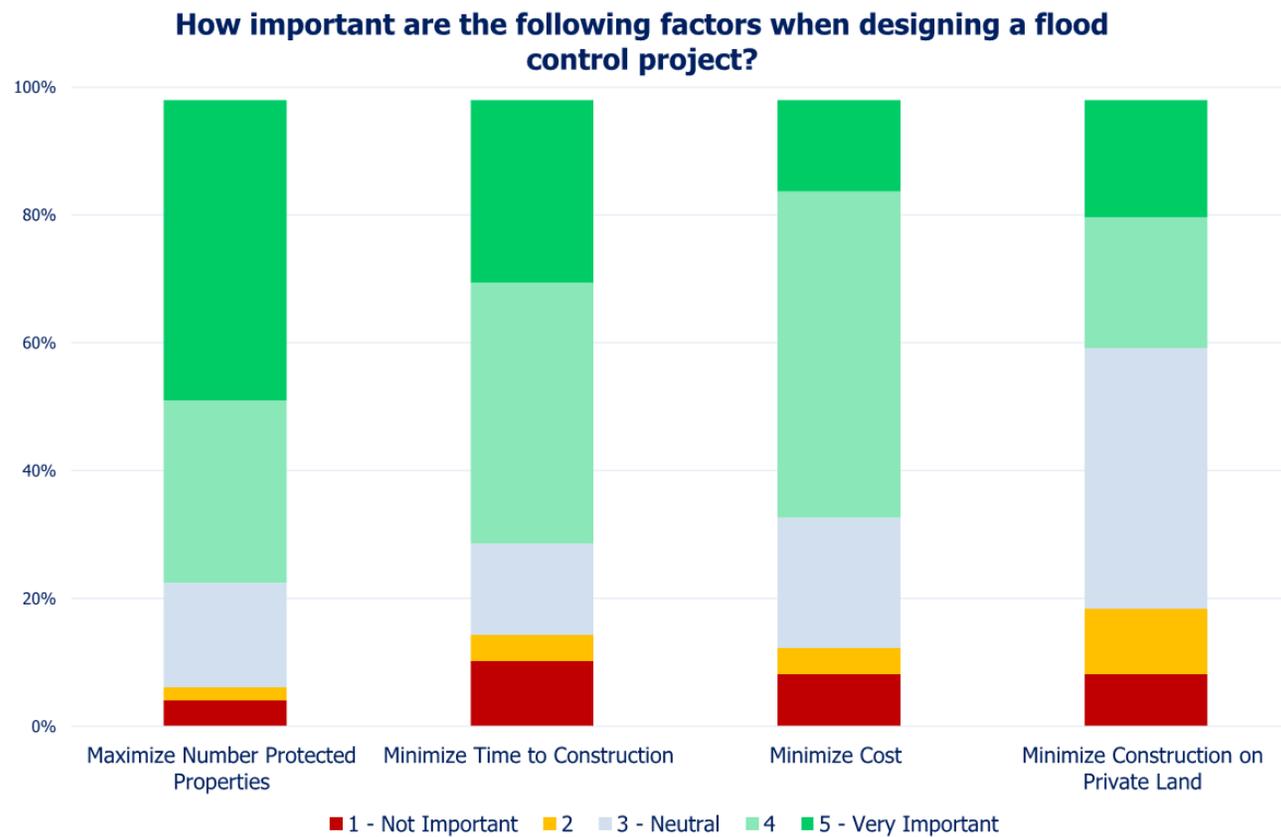
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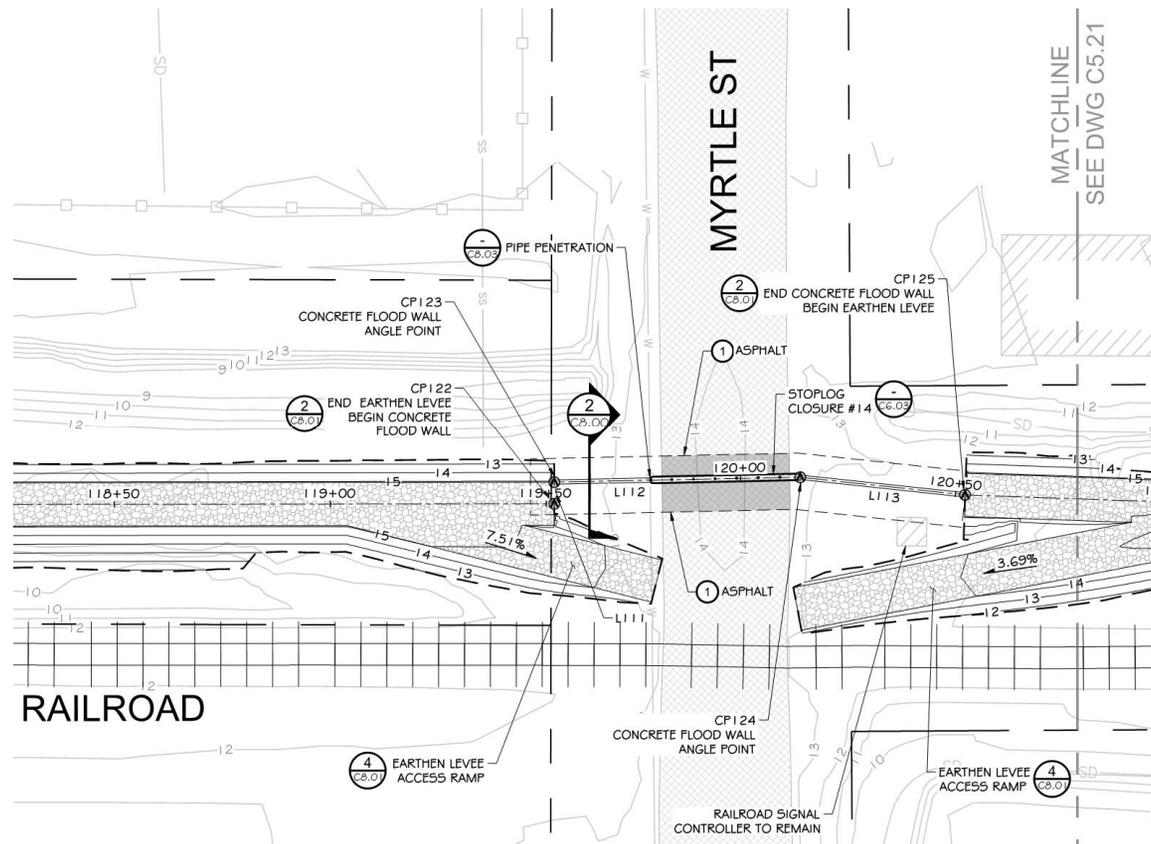
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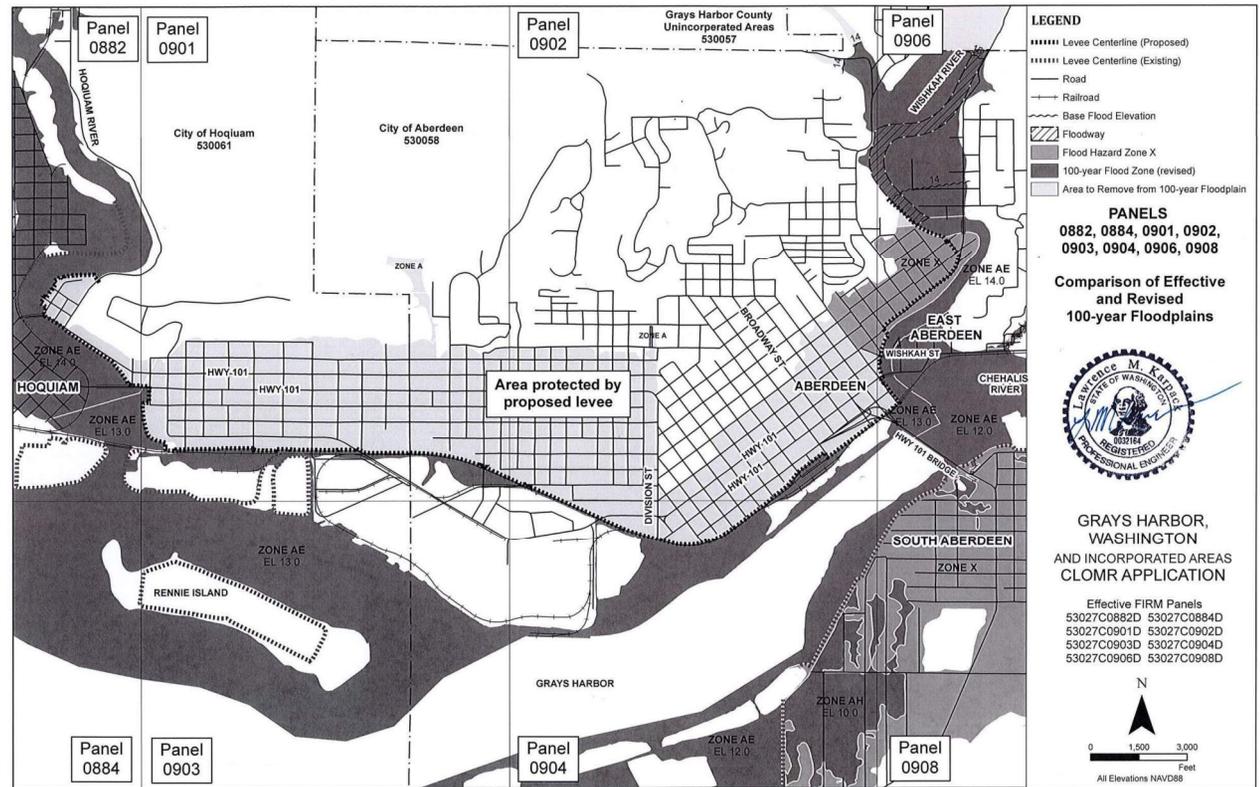
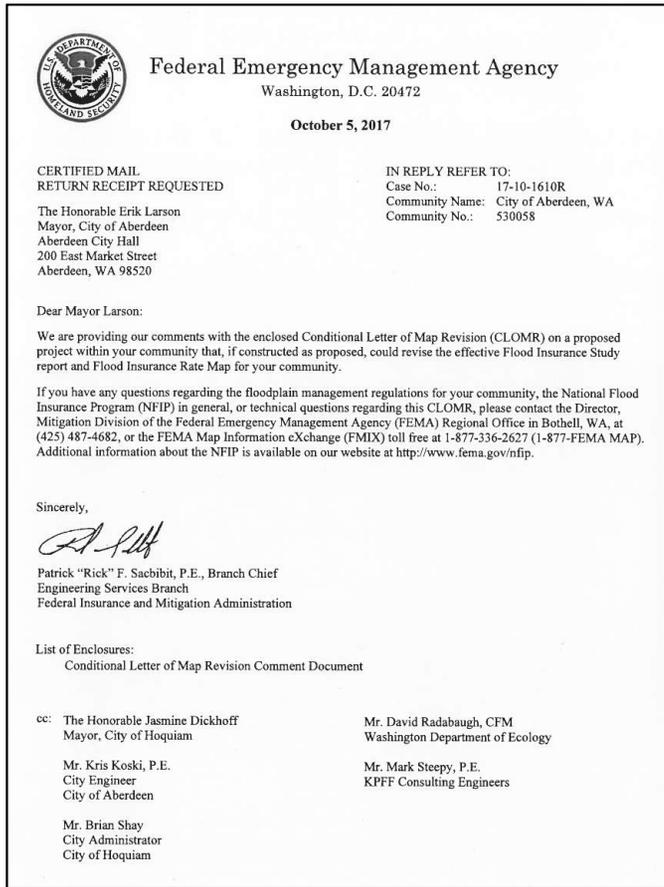


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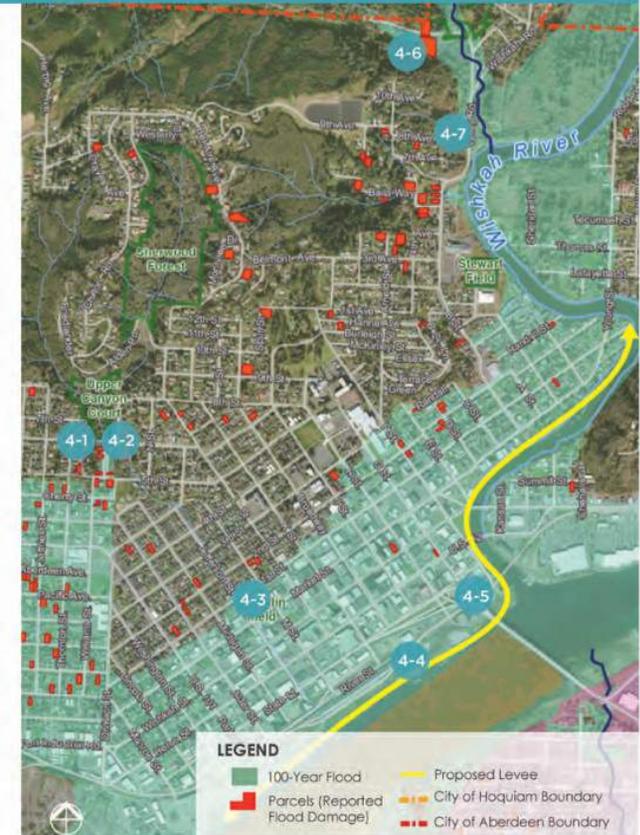
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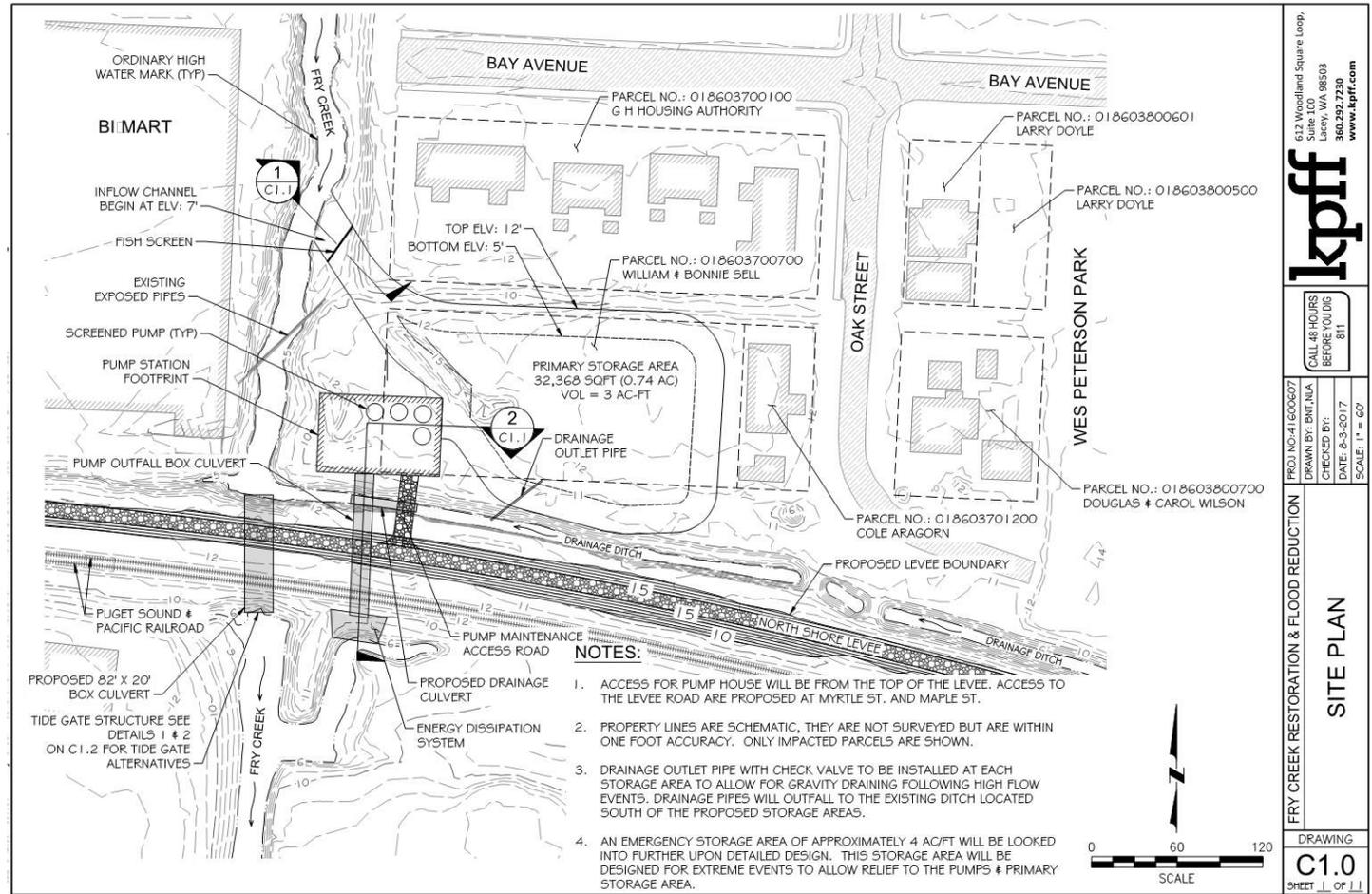
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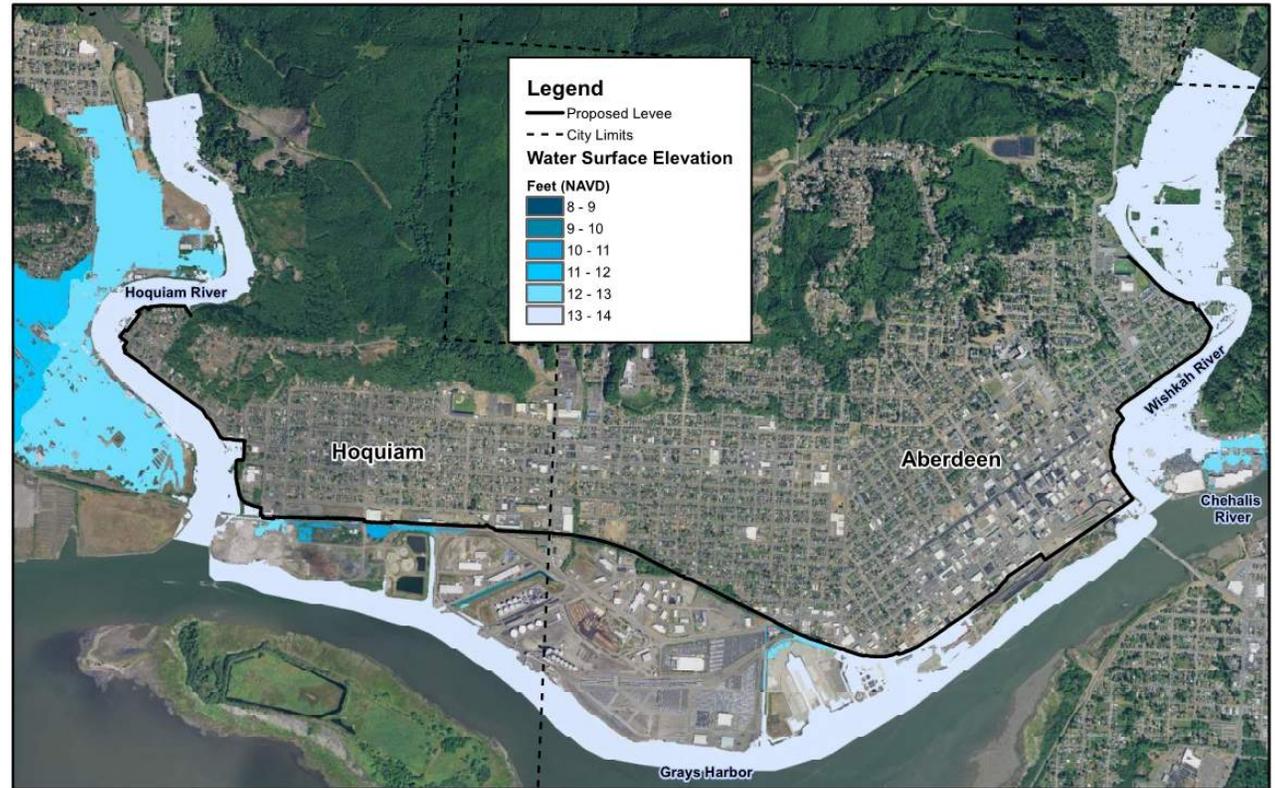


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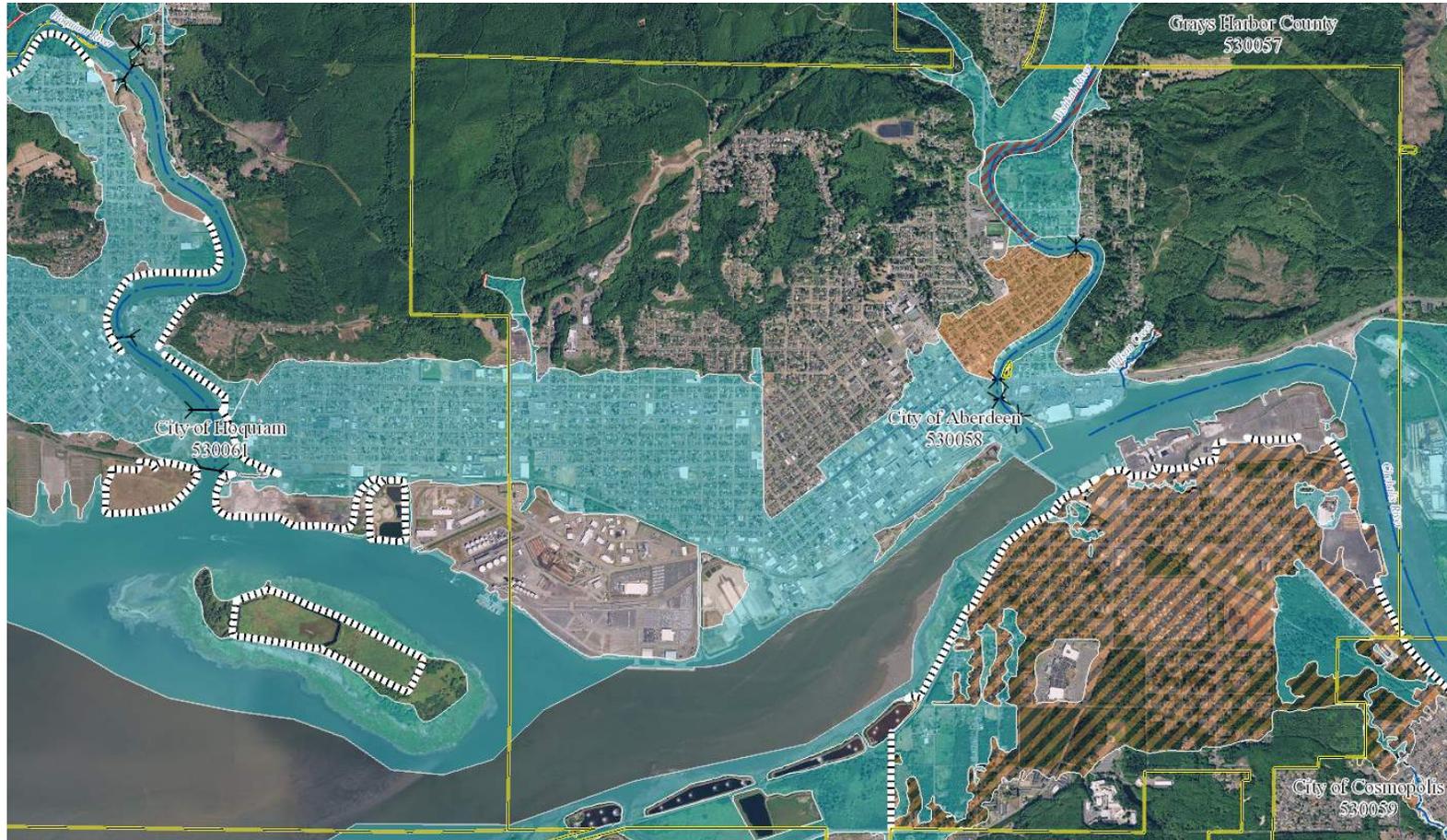


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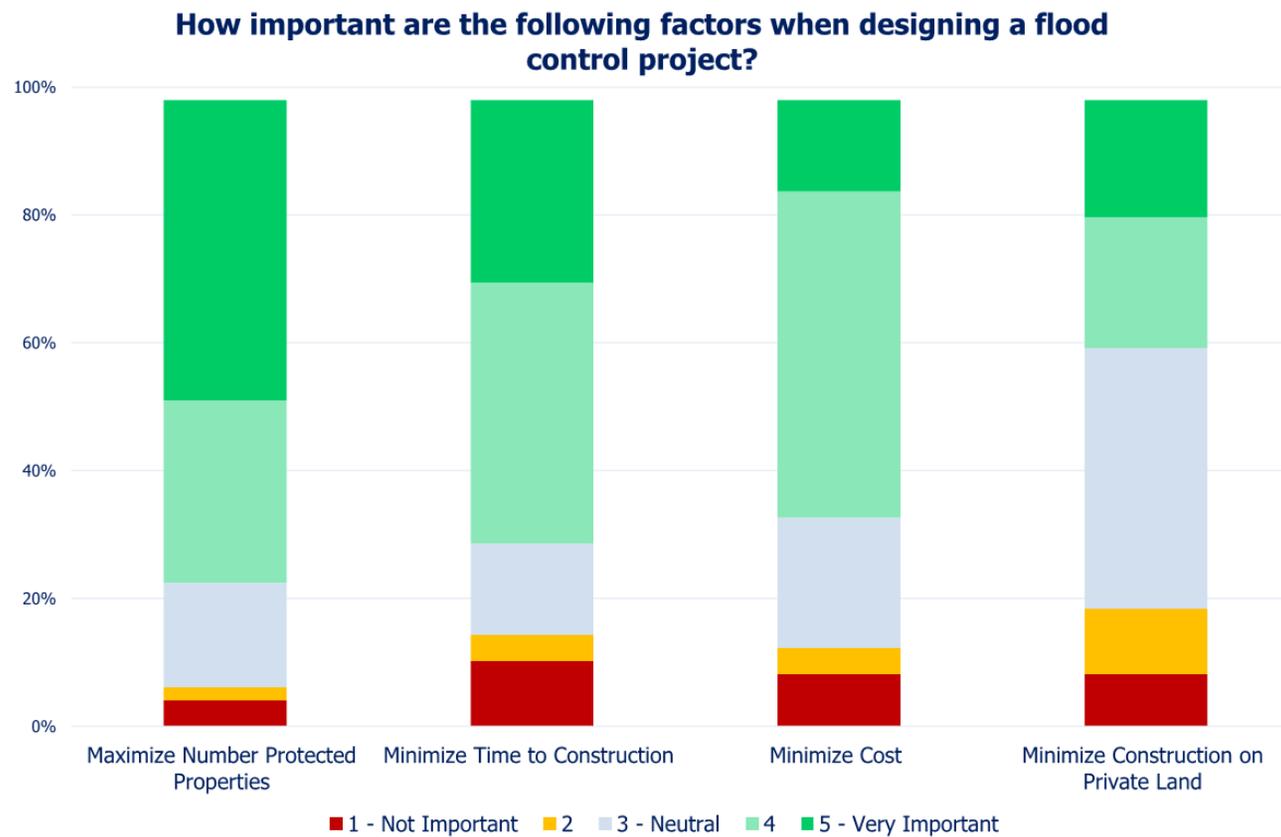
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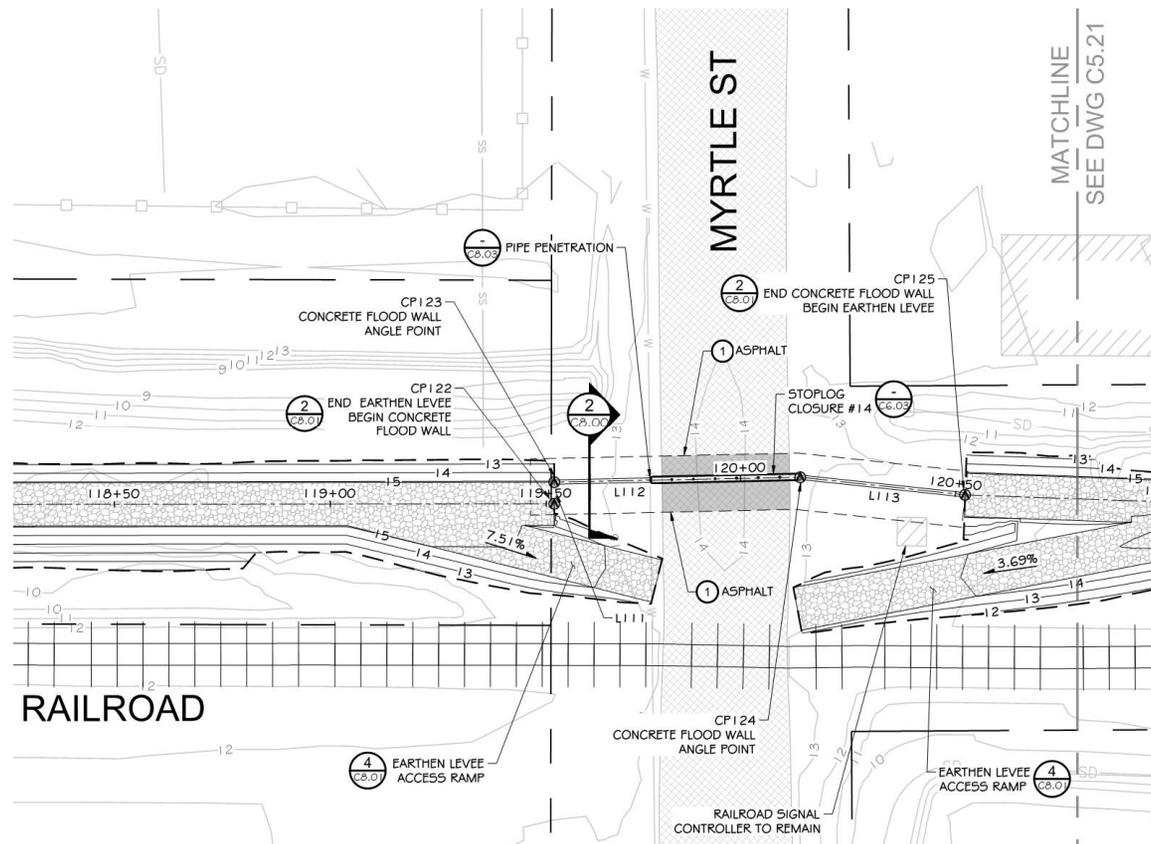
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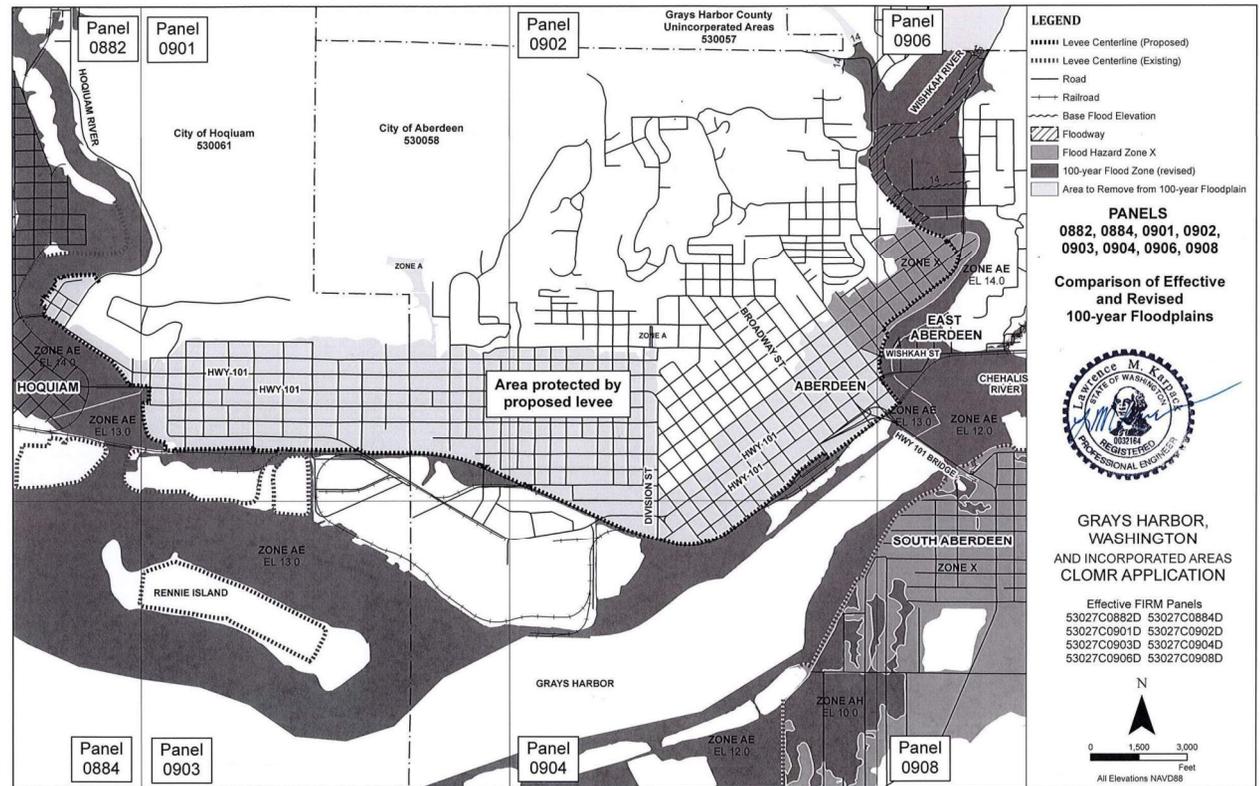
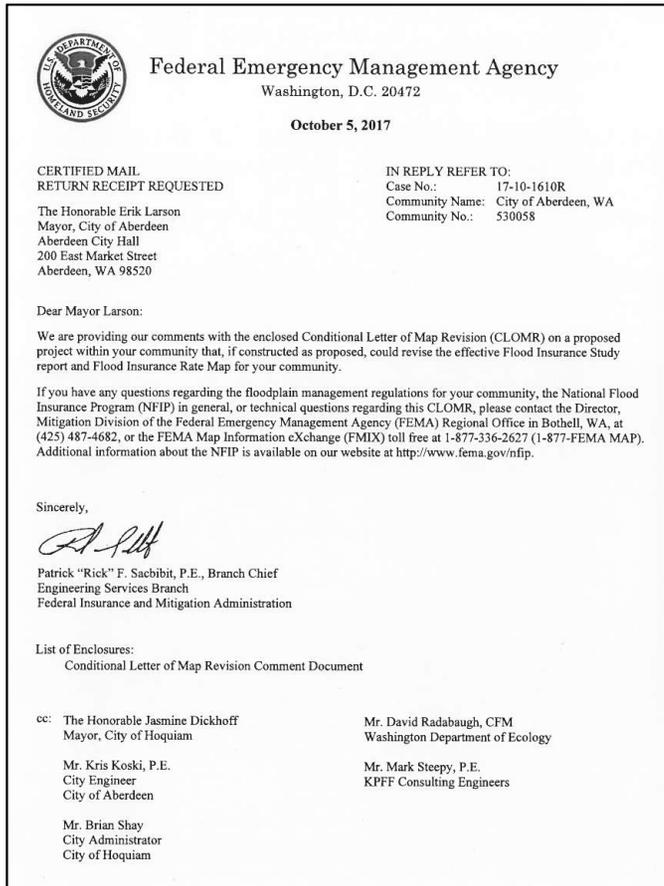


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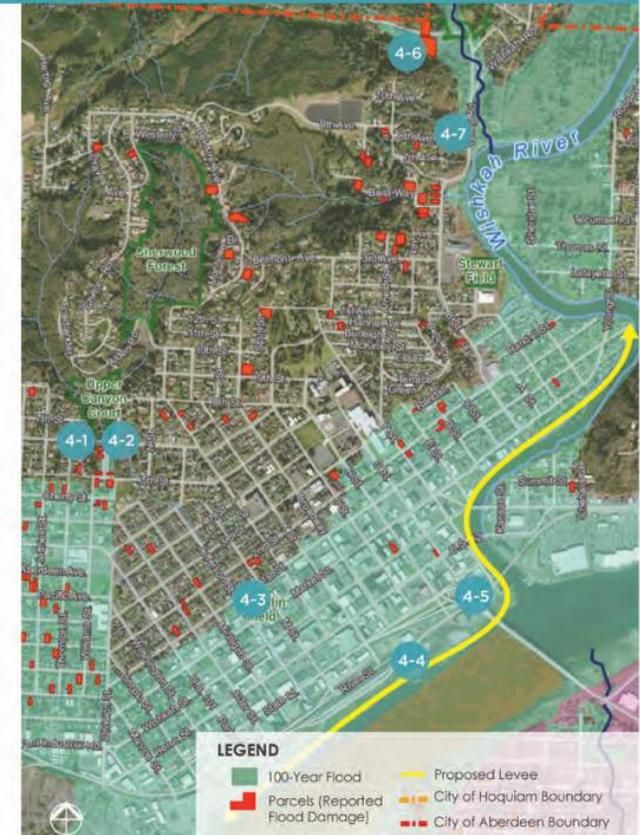
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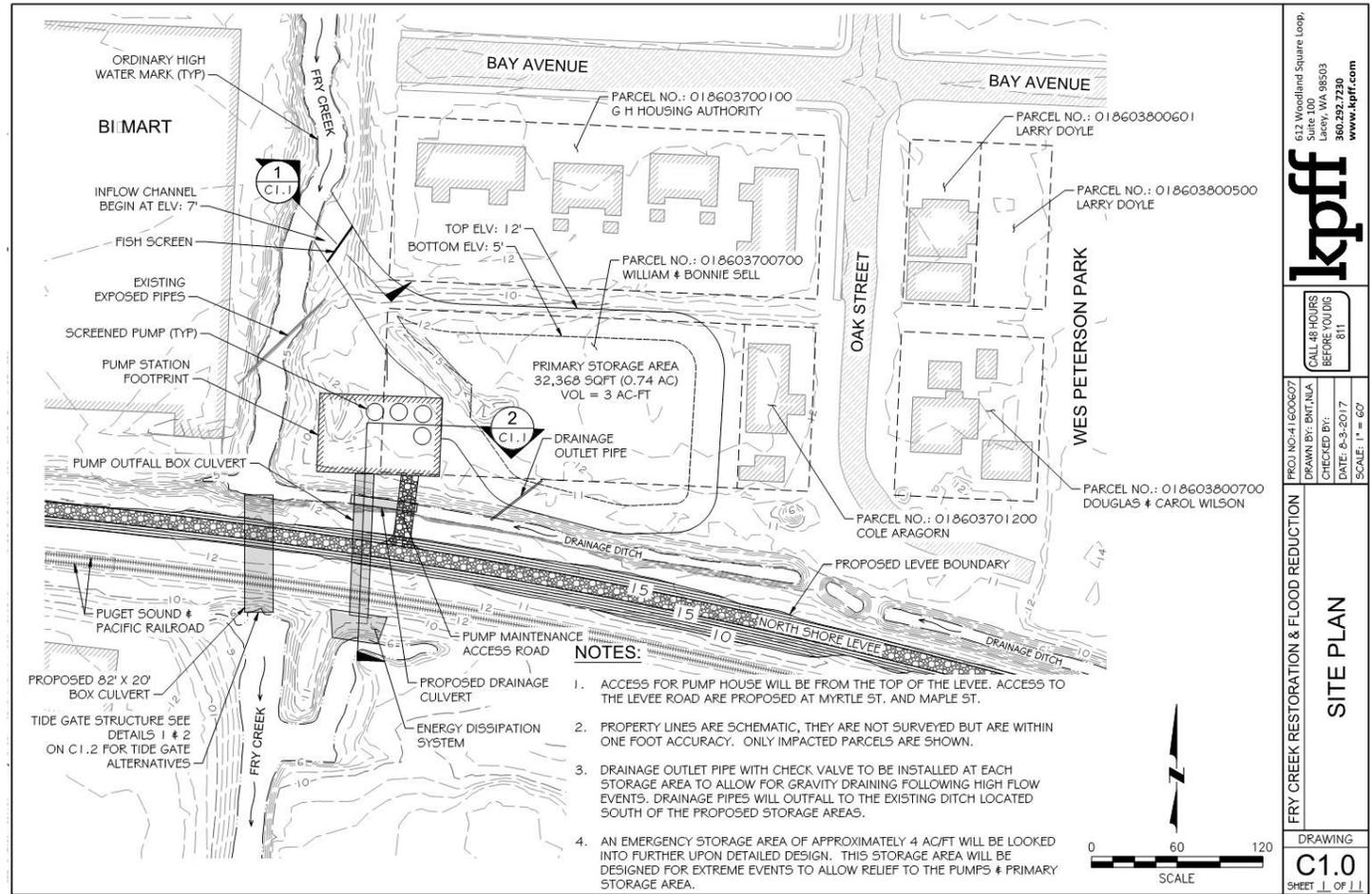
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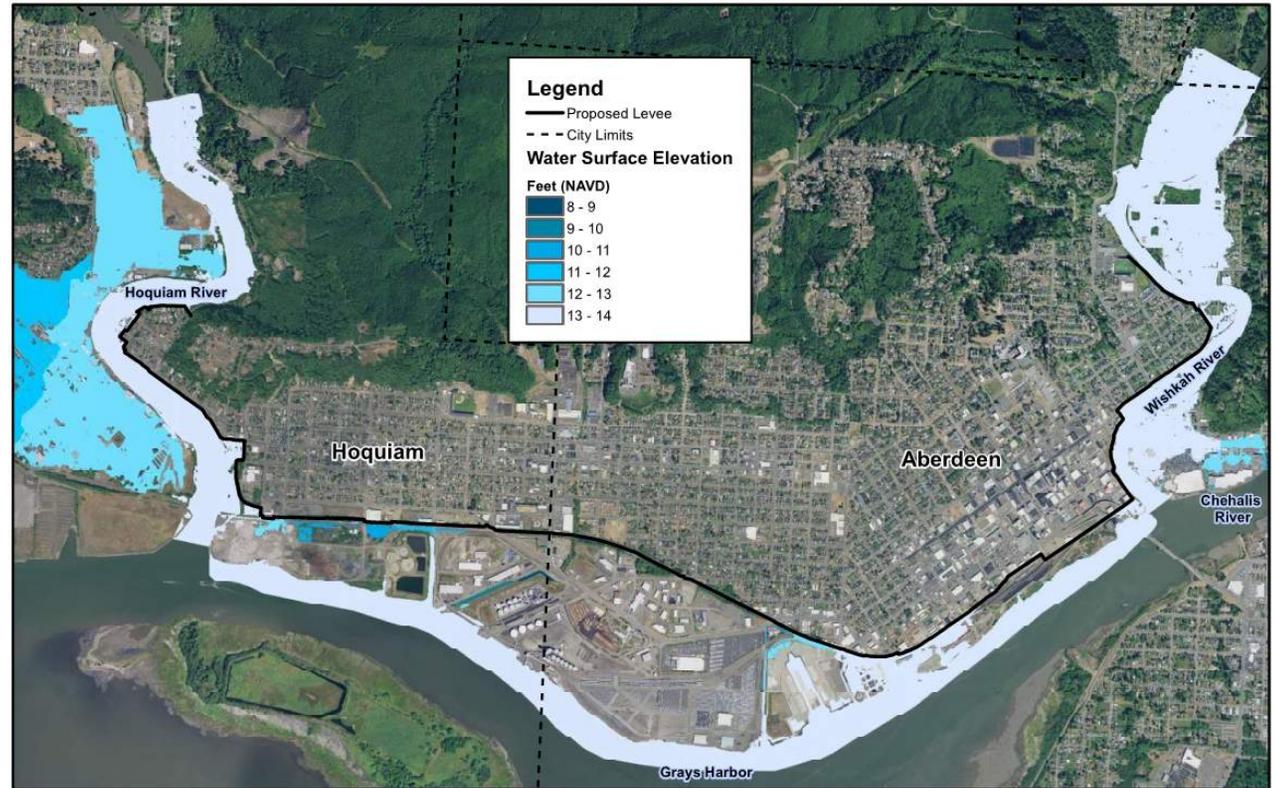


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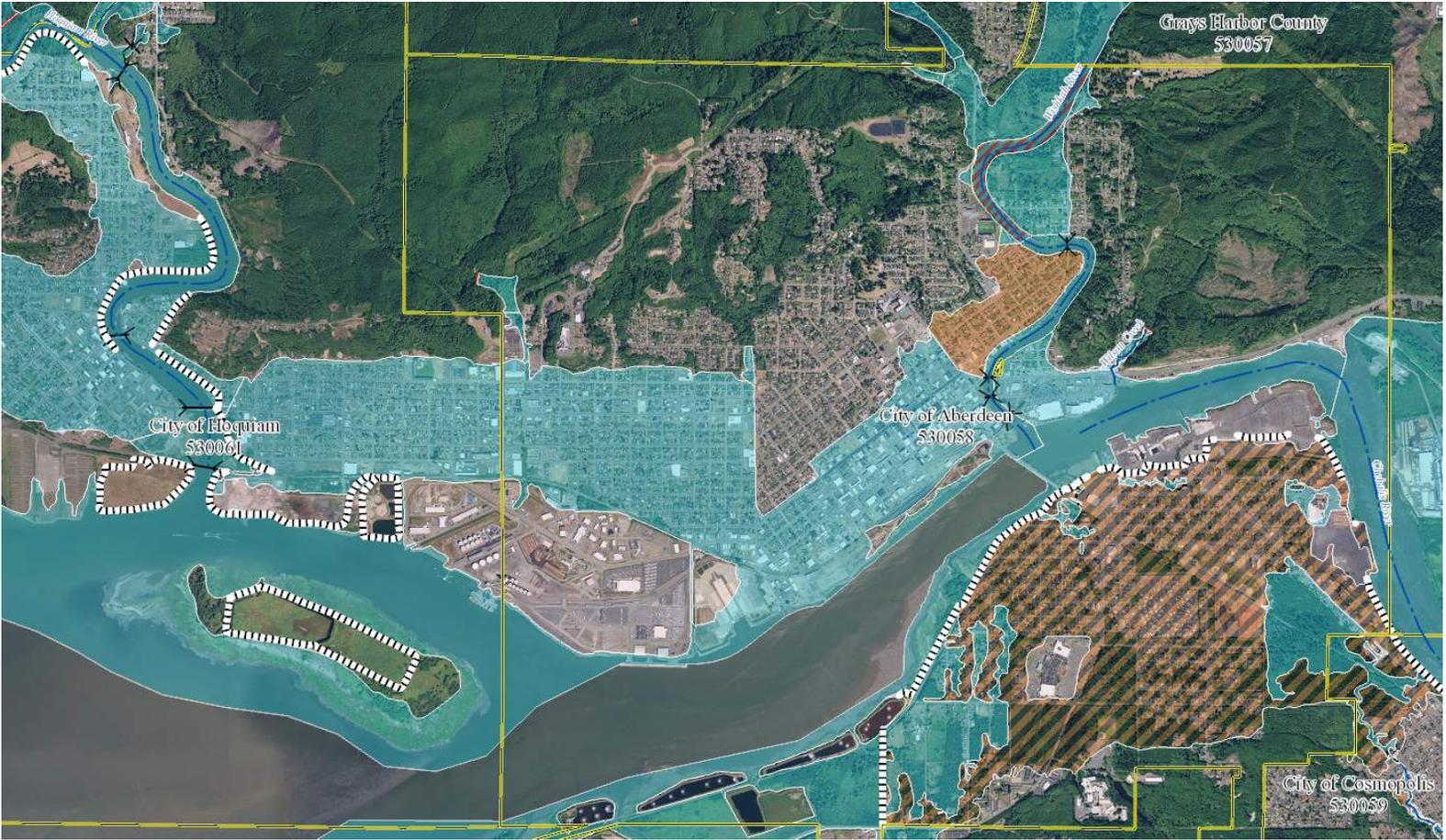


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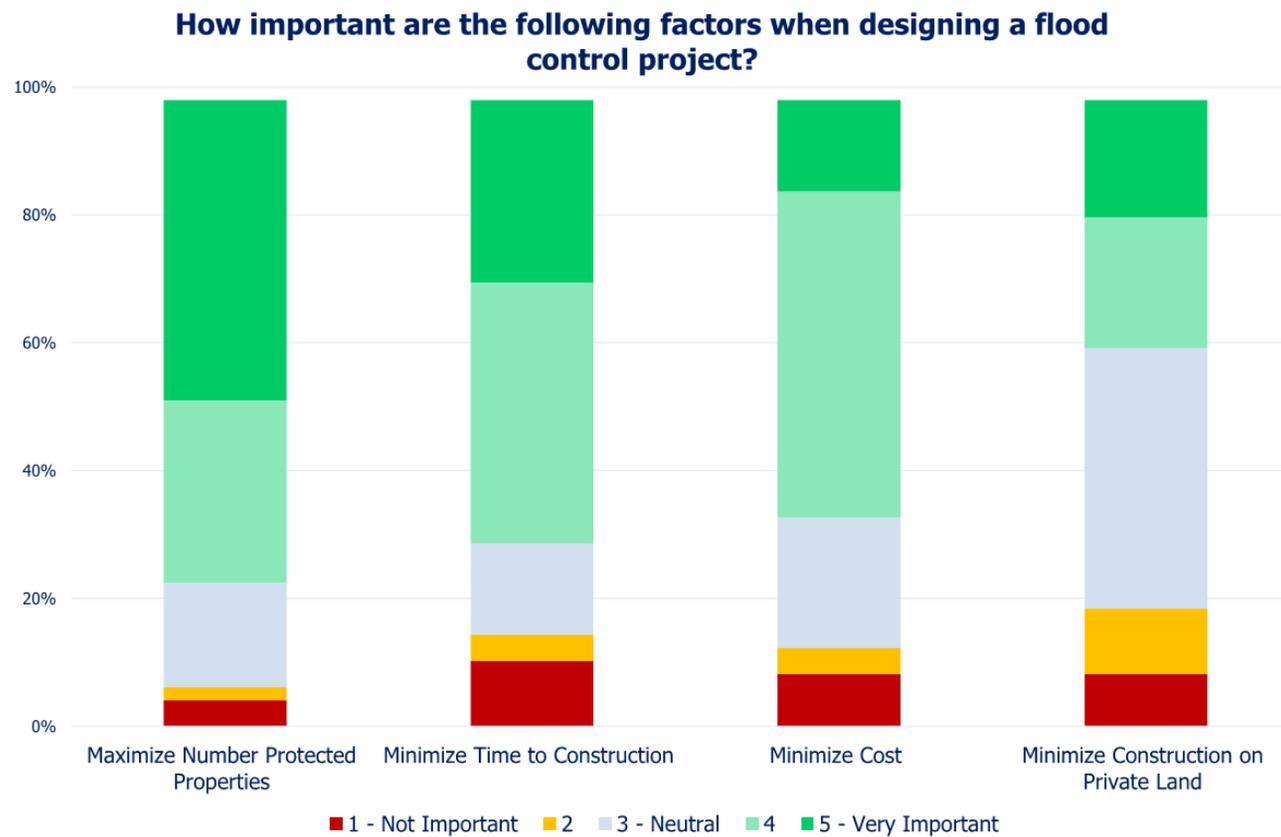
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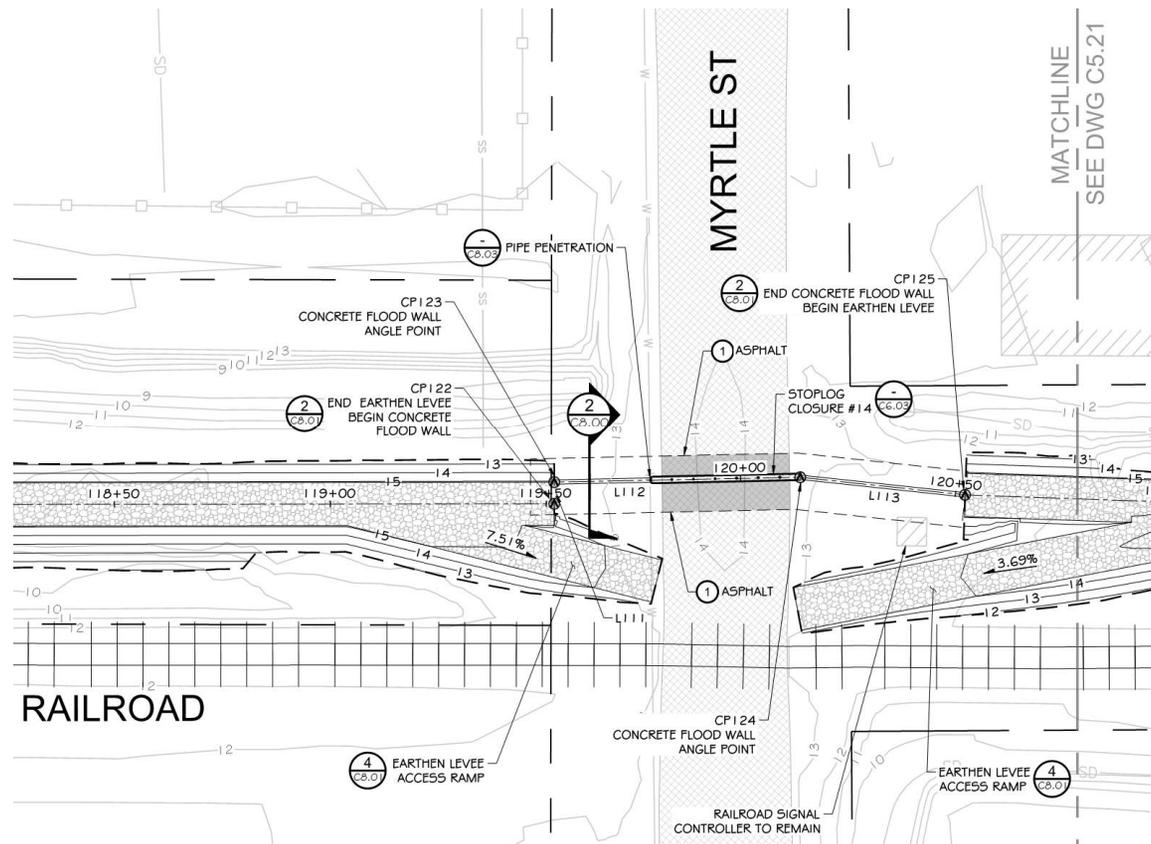
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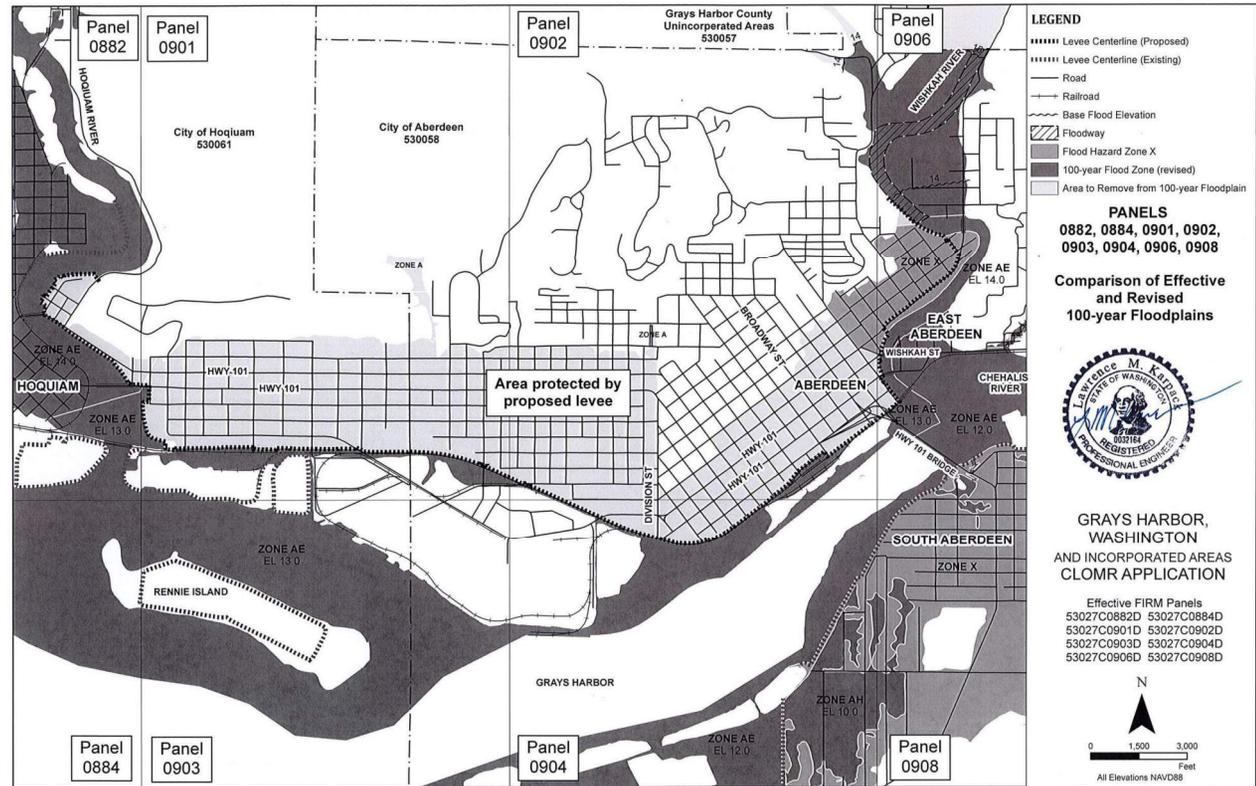
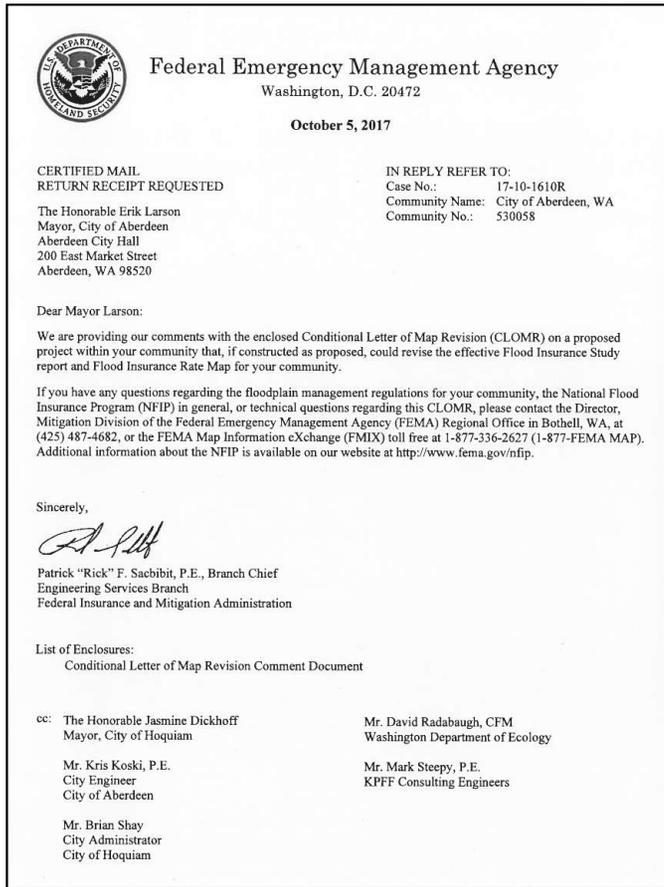


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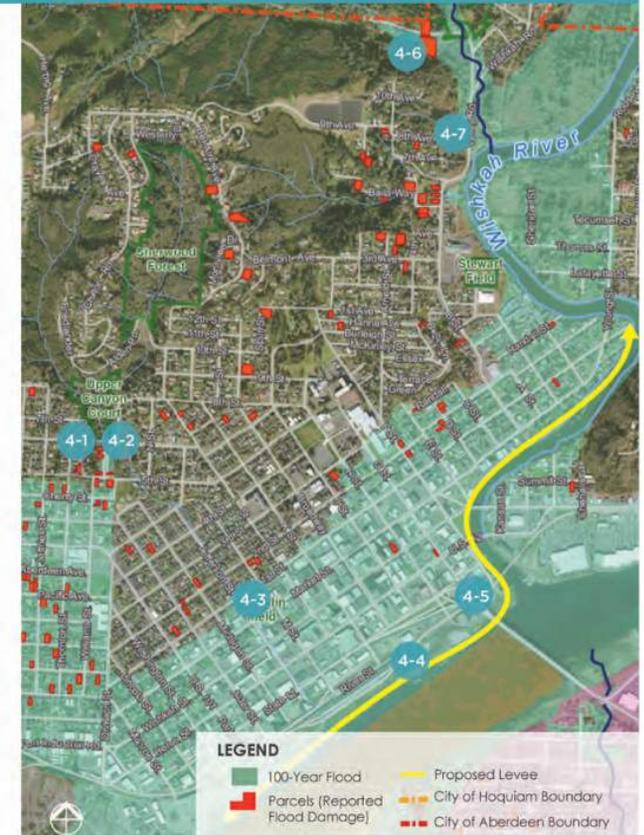
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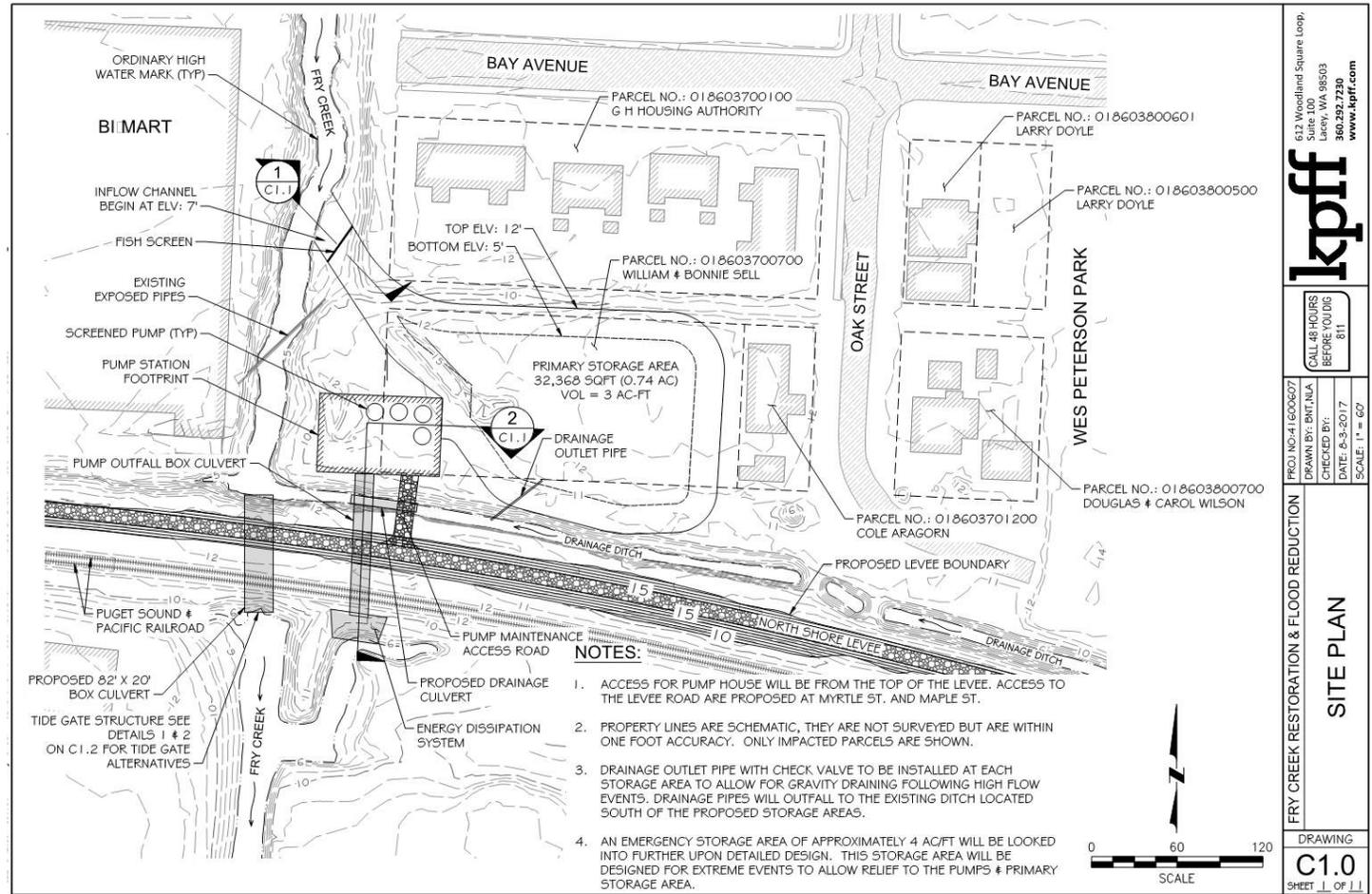
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# Fry Creek Project Coordination: Future Pump Station



612 Woodland Square Loop,  
Lacey, WA 98503  
360.292.7230  
www.kpff.com

**kpff**

CALL 48 HOURS BEFORE TIDING 811

PROJ. NO.: 41600607  
DRAWN BY: BNT/INA  
CHECKED BY:  
DATE: 8-5-2017  
SCALE: 1" = 60'

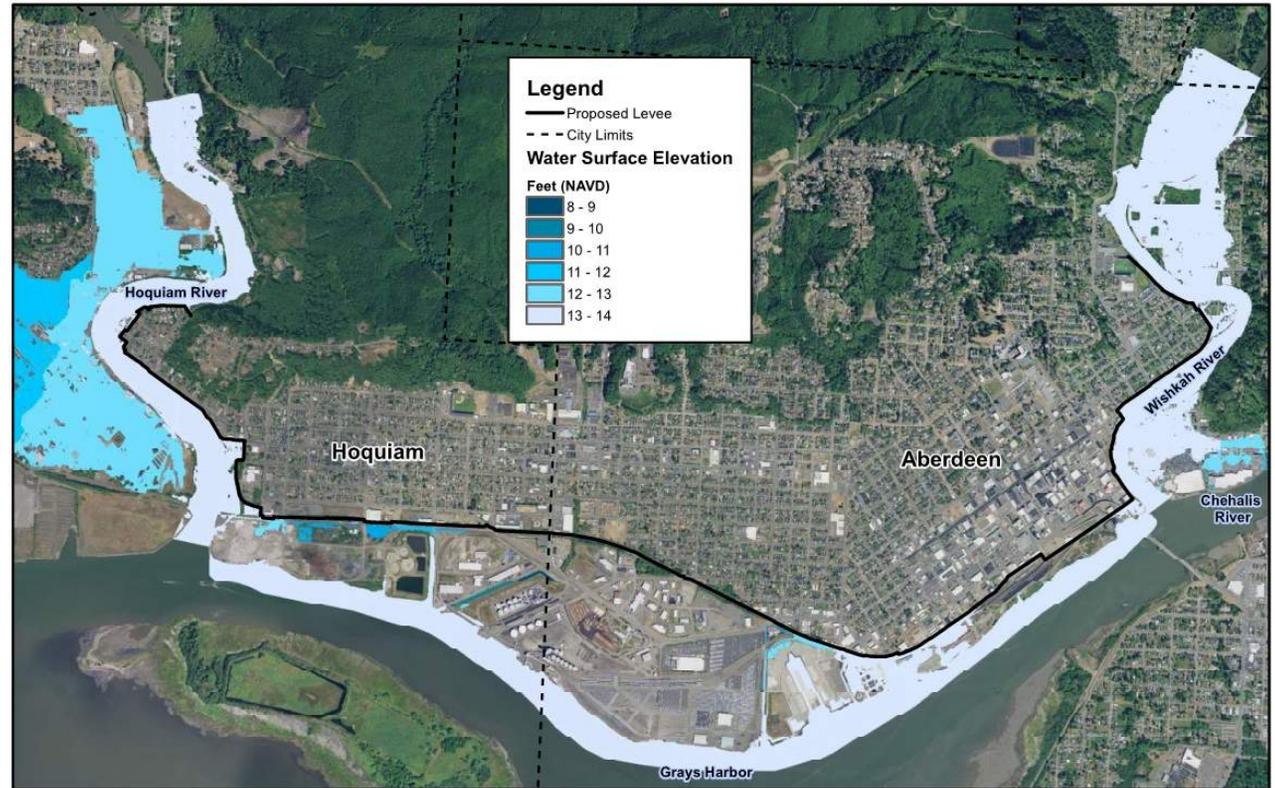
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DRAWING  
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SHEET 1 OF 1

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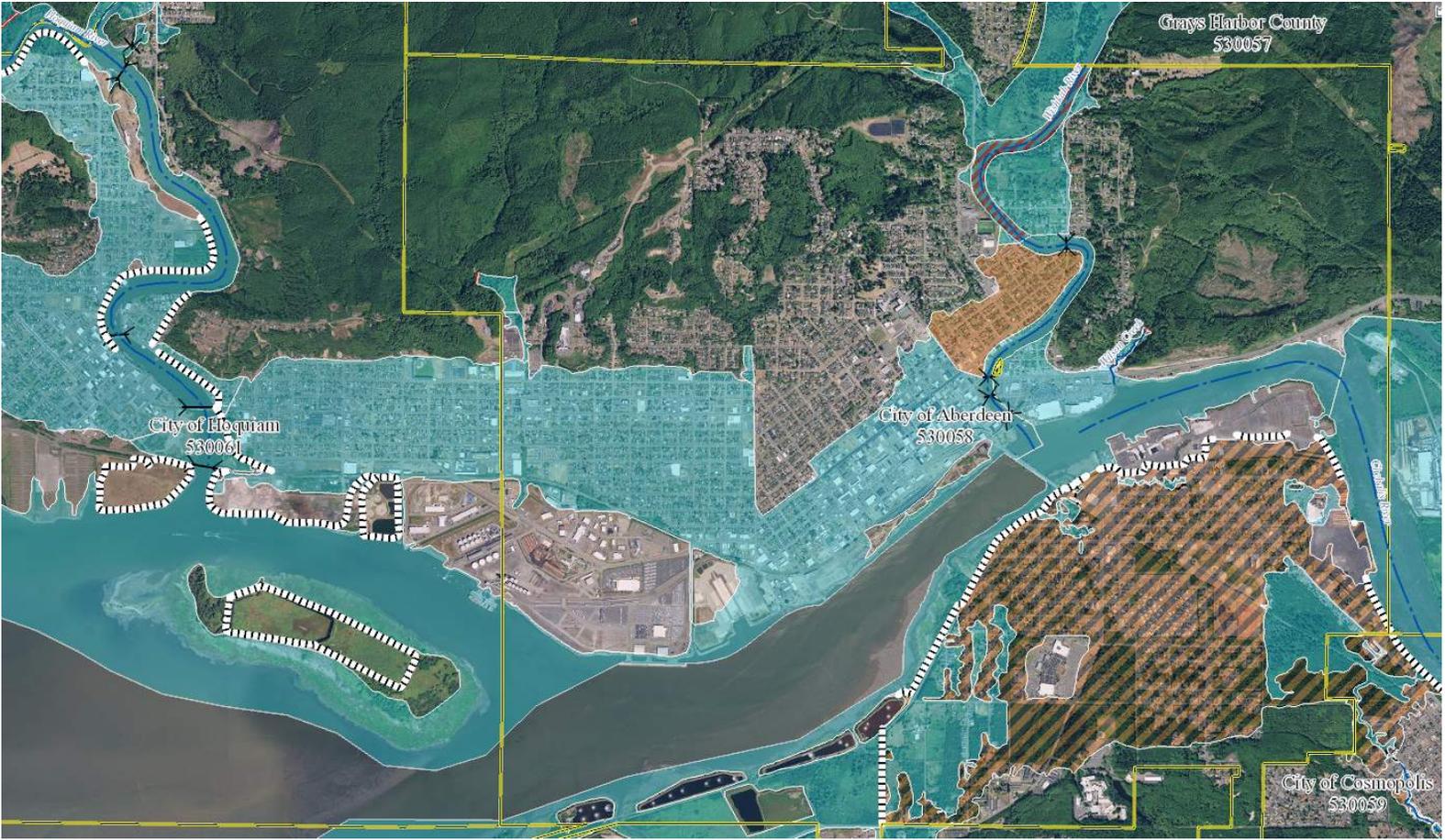


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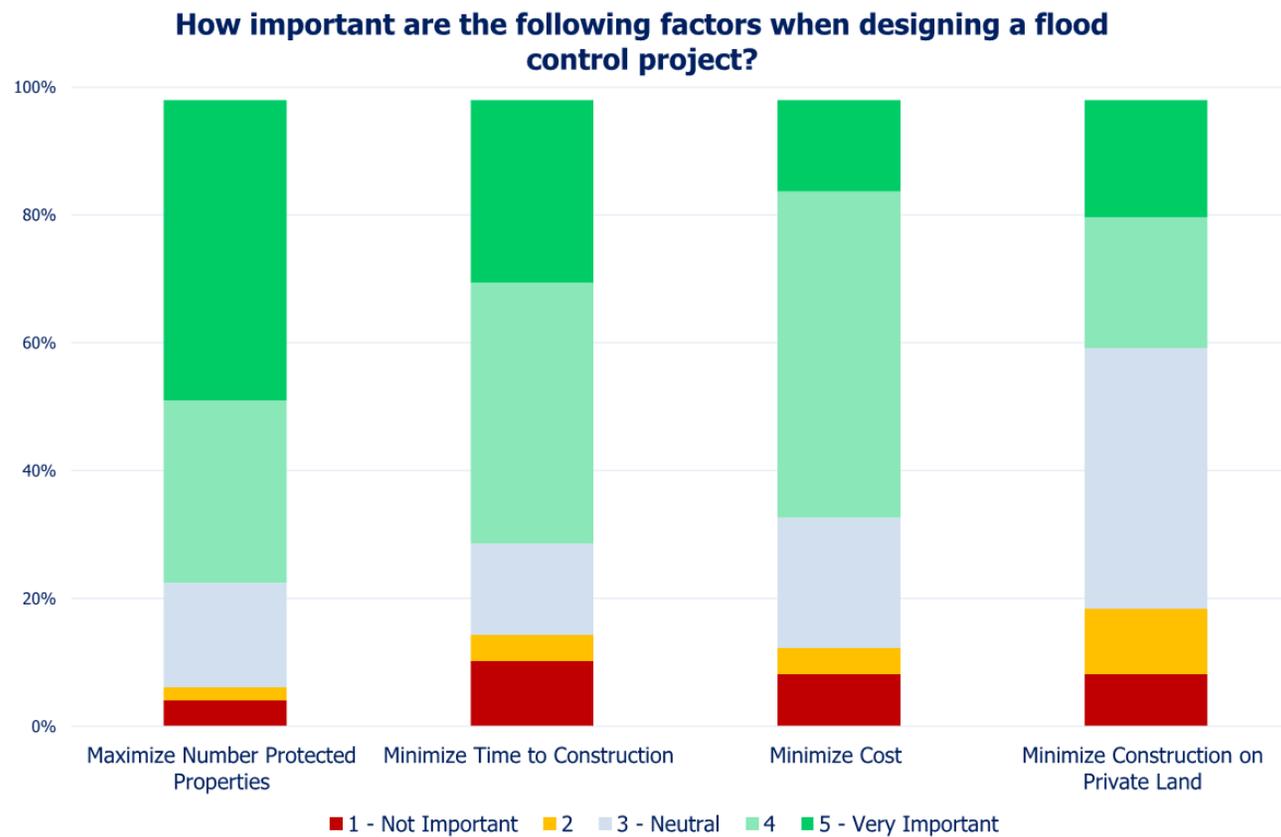
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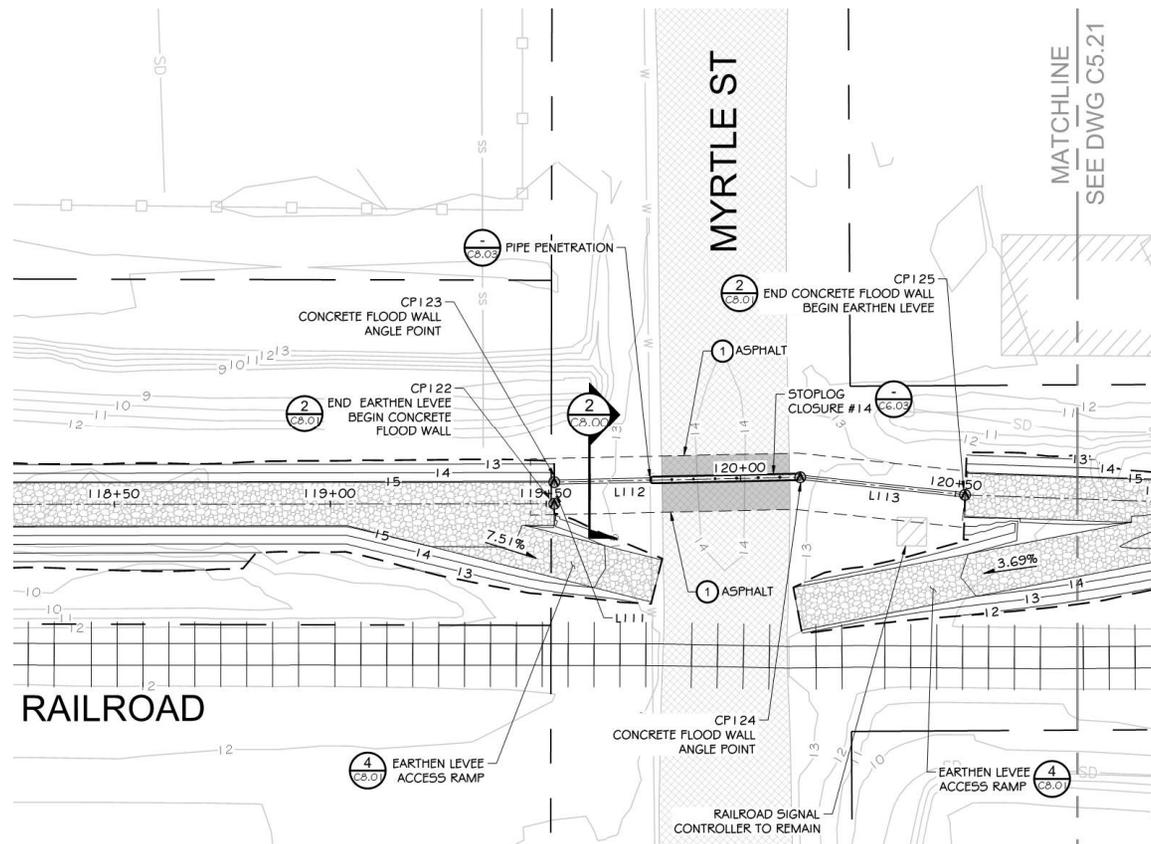
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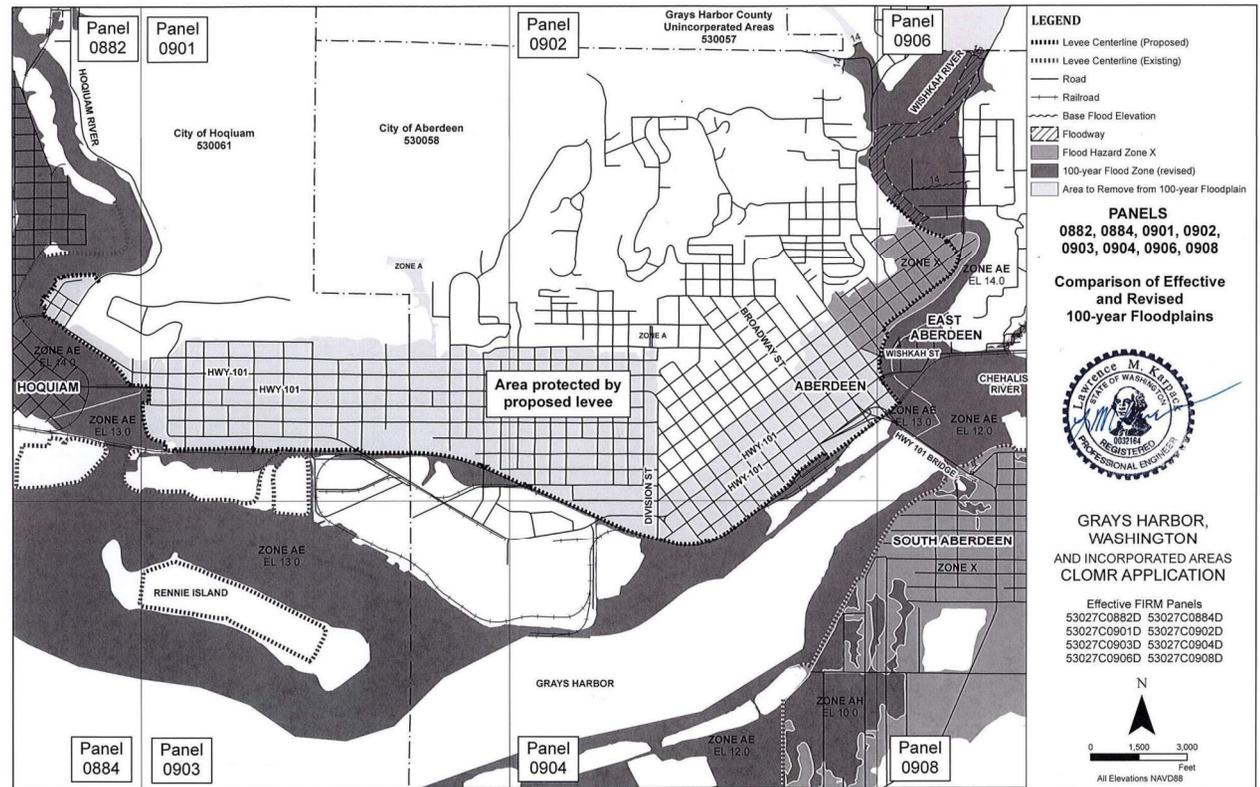
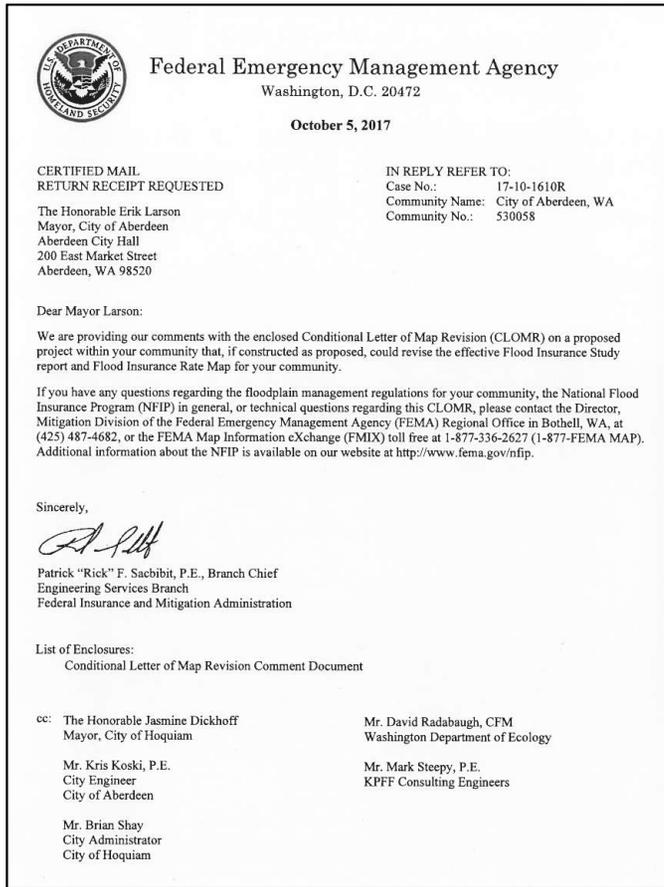


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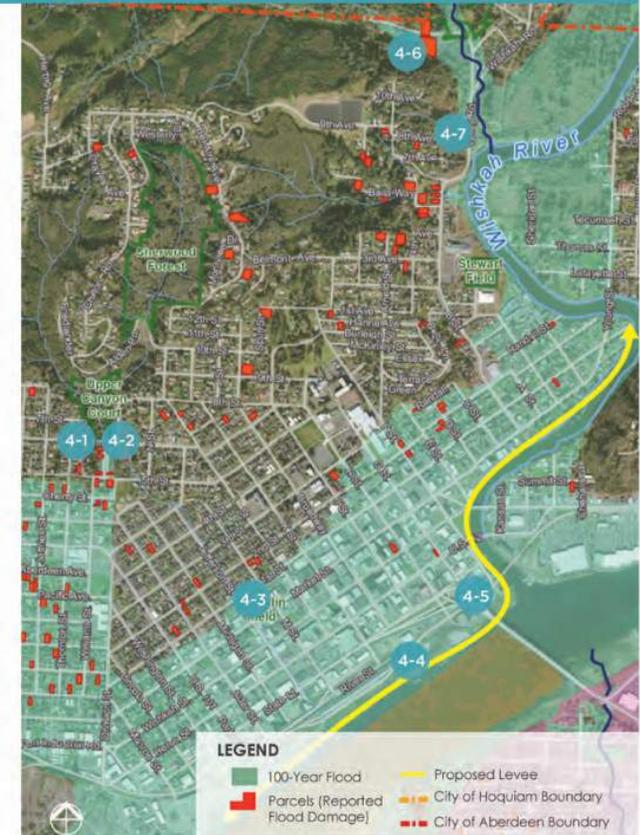
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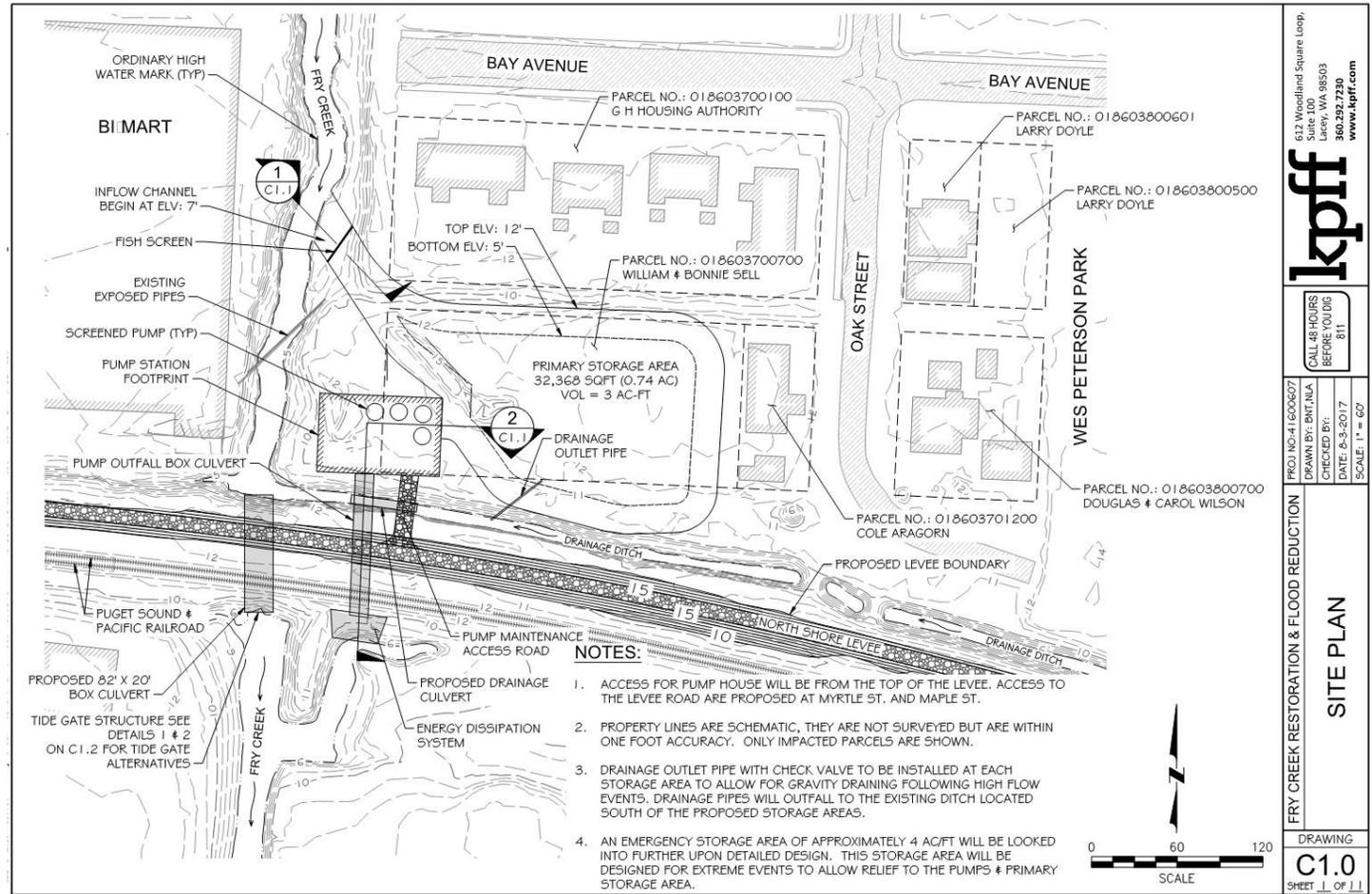
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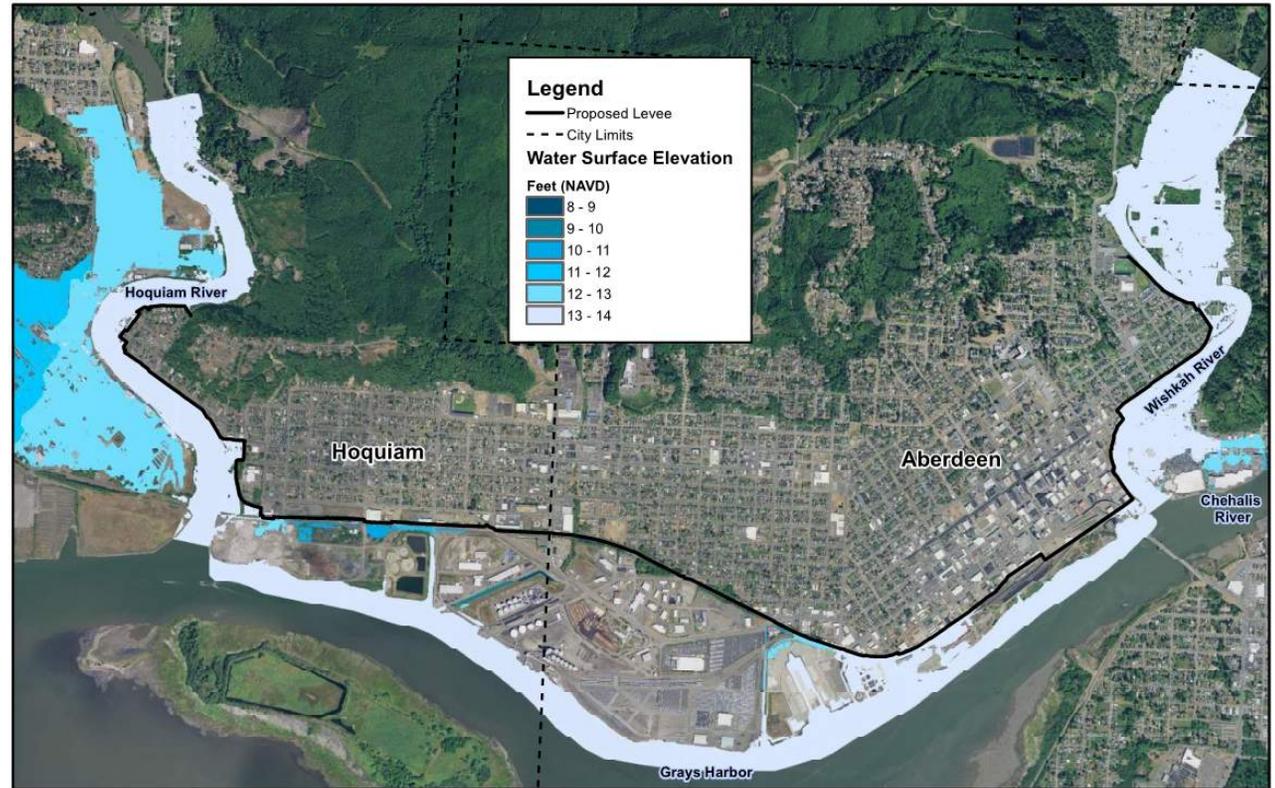


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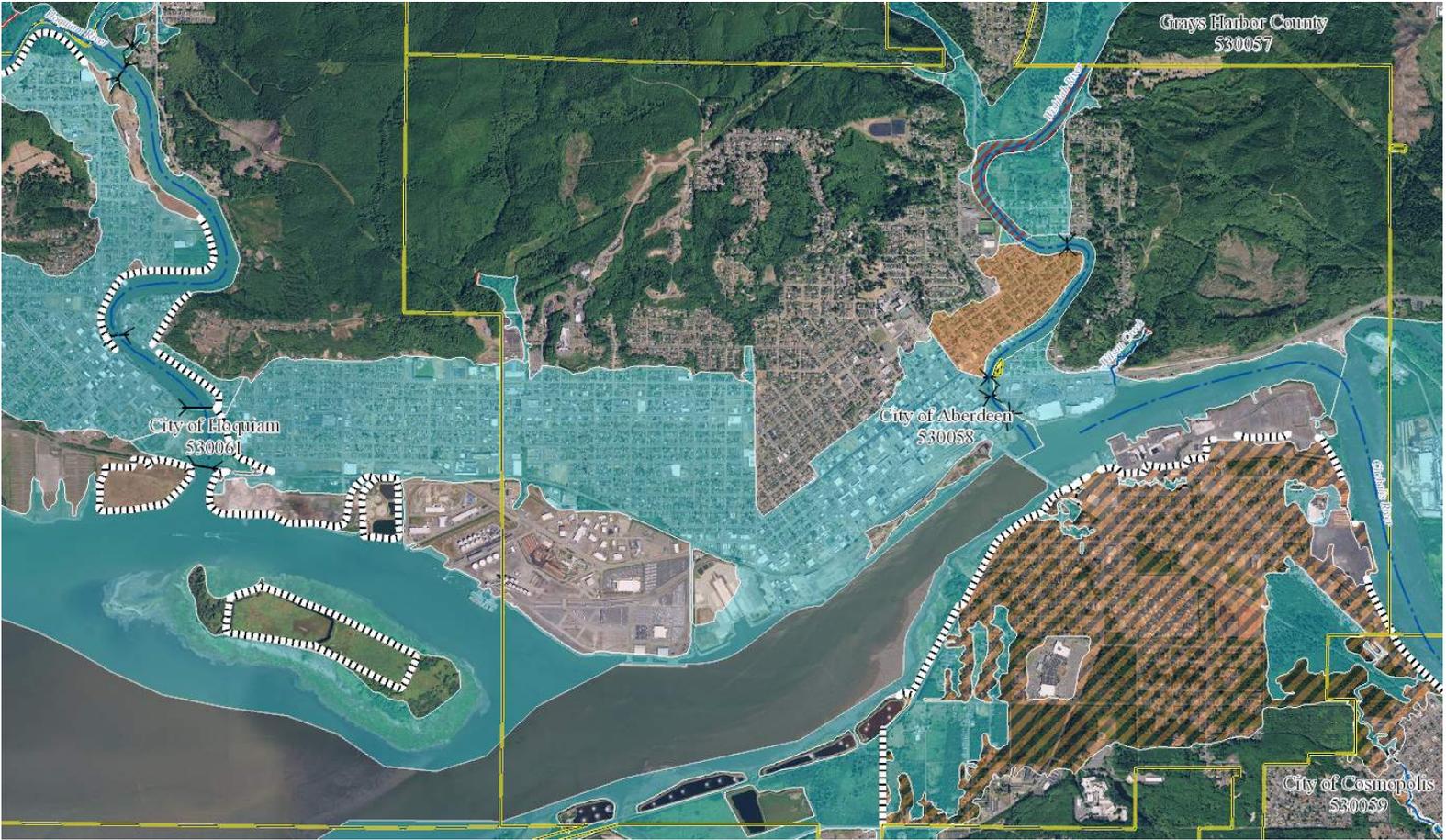


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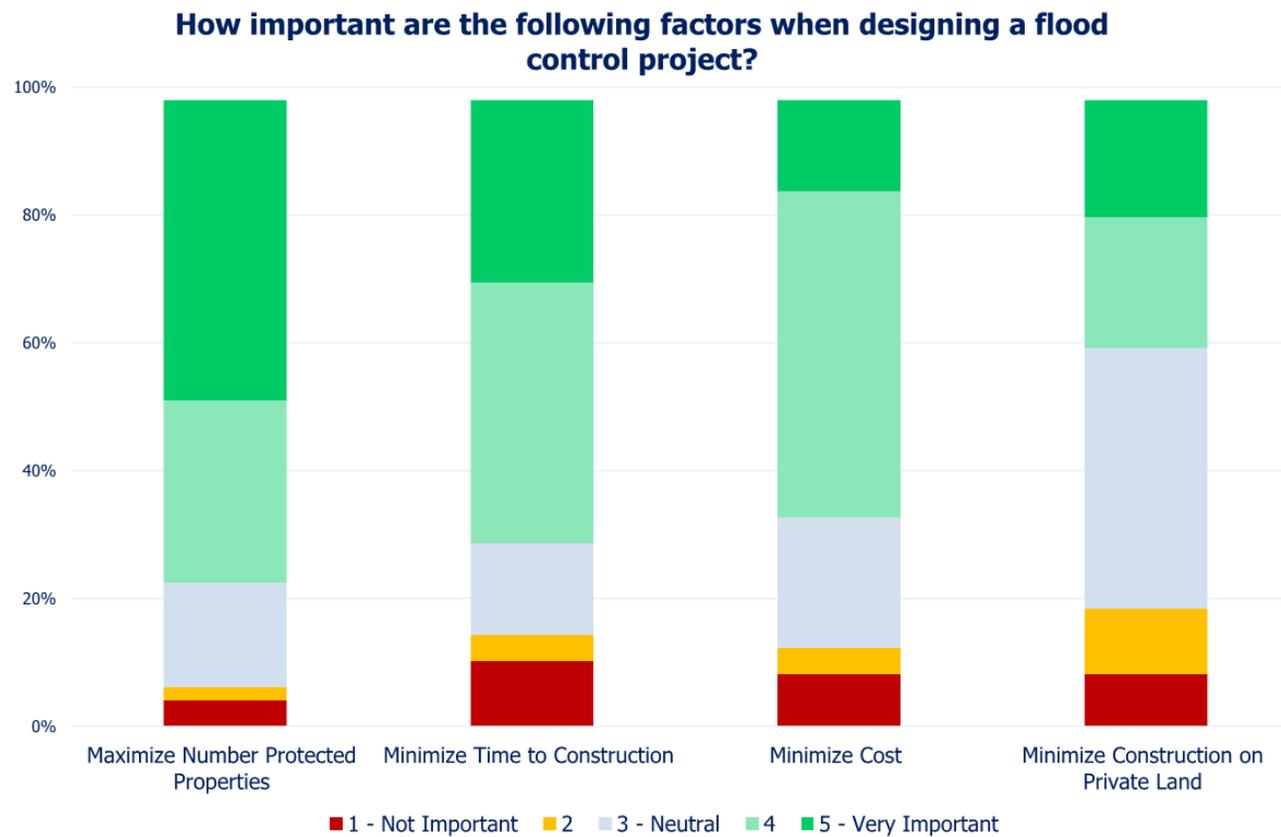
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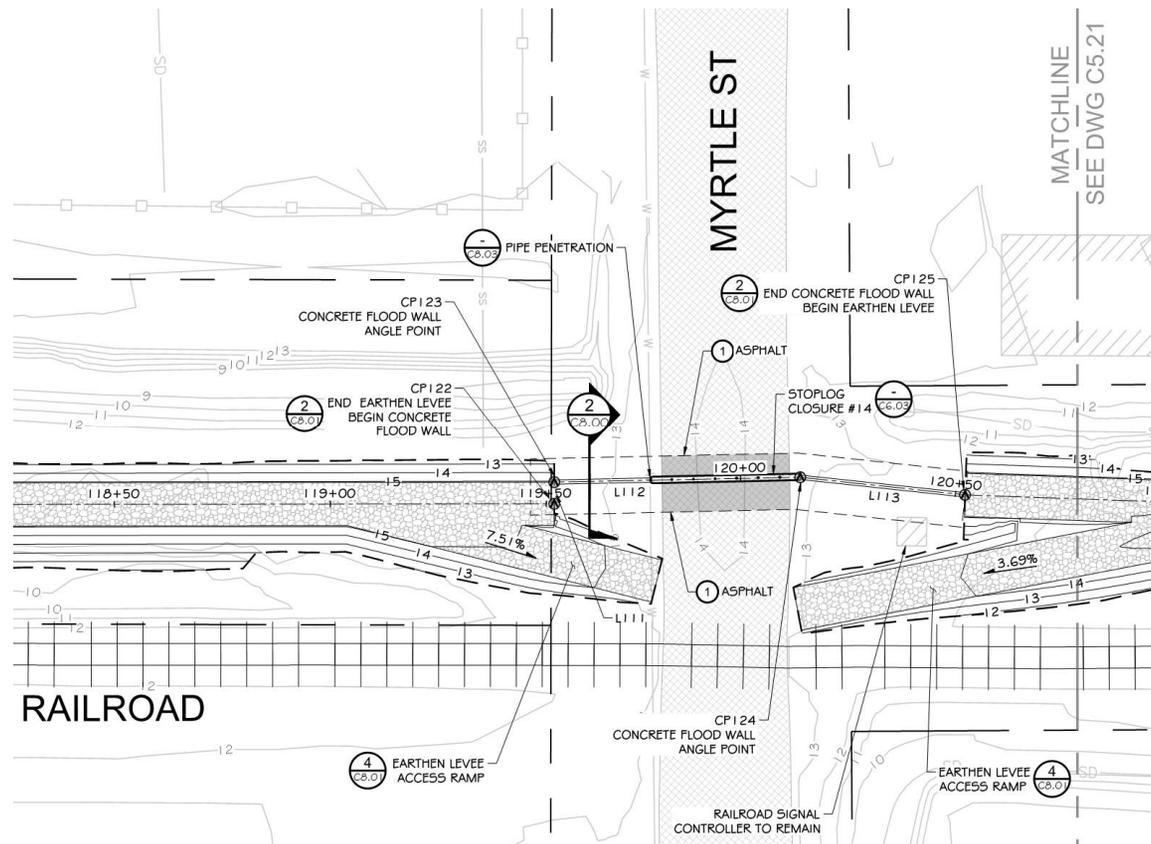
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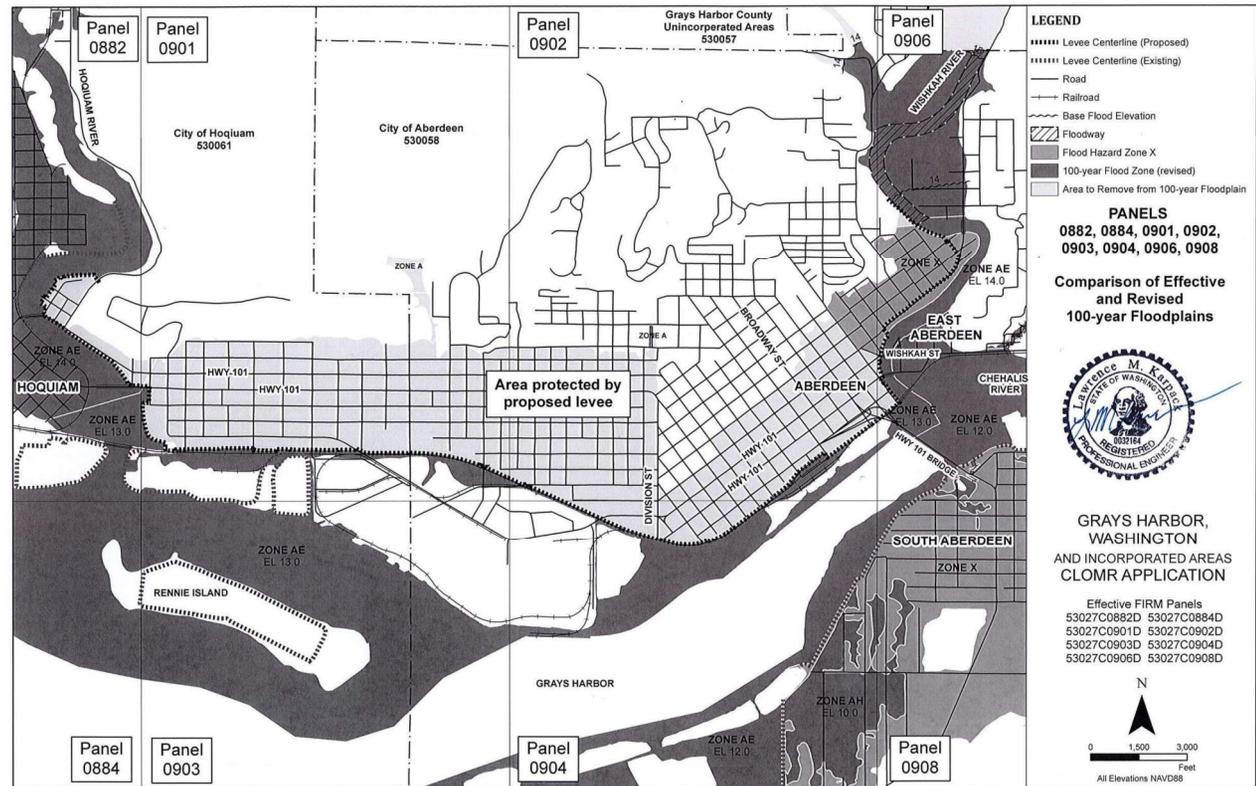
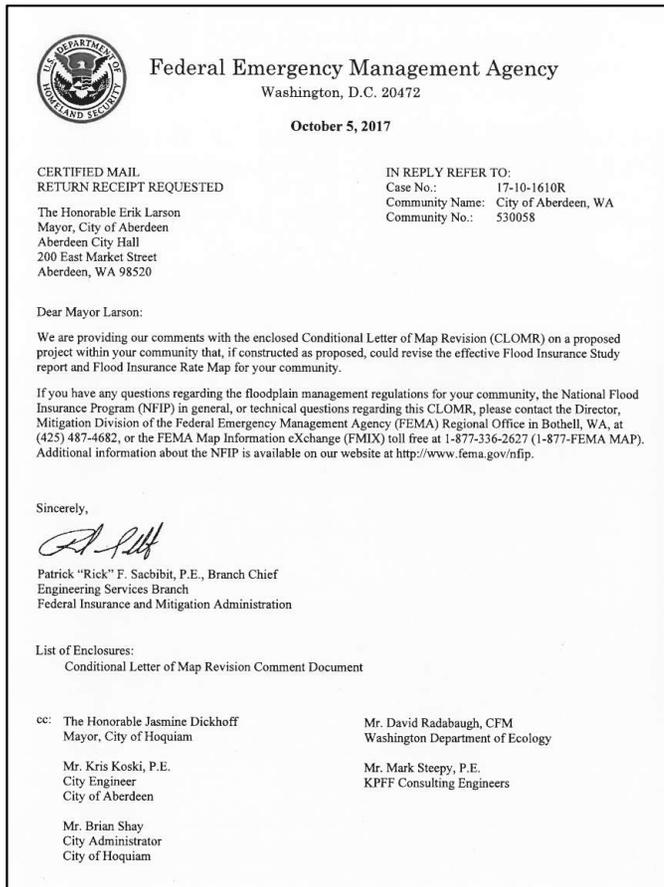


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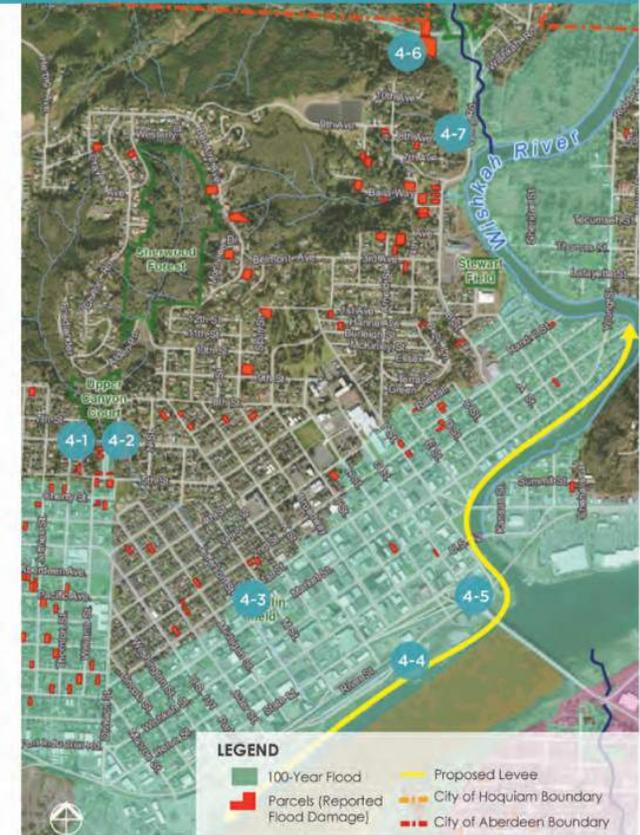
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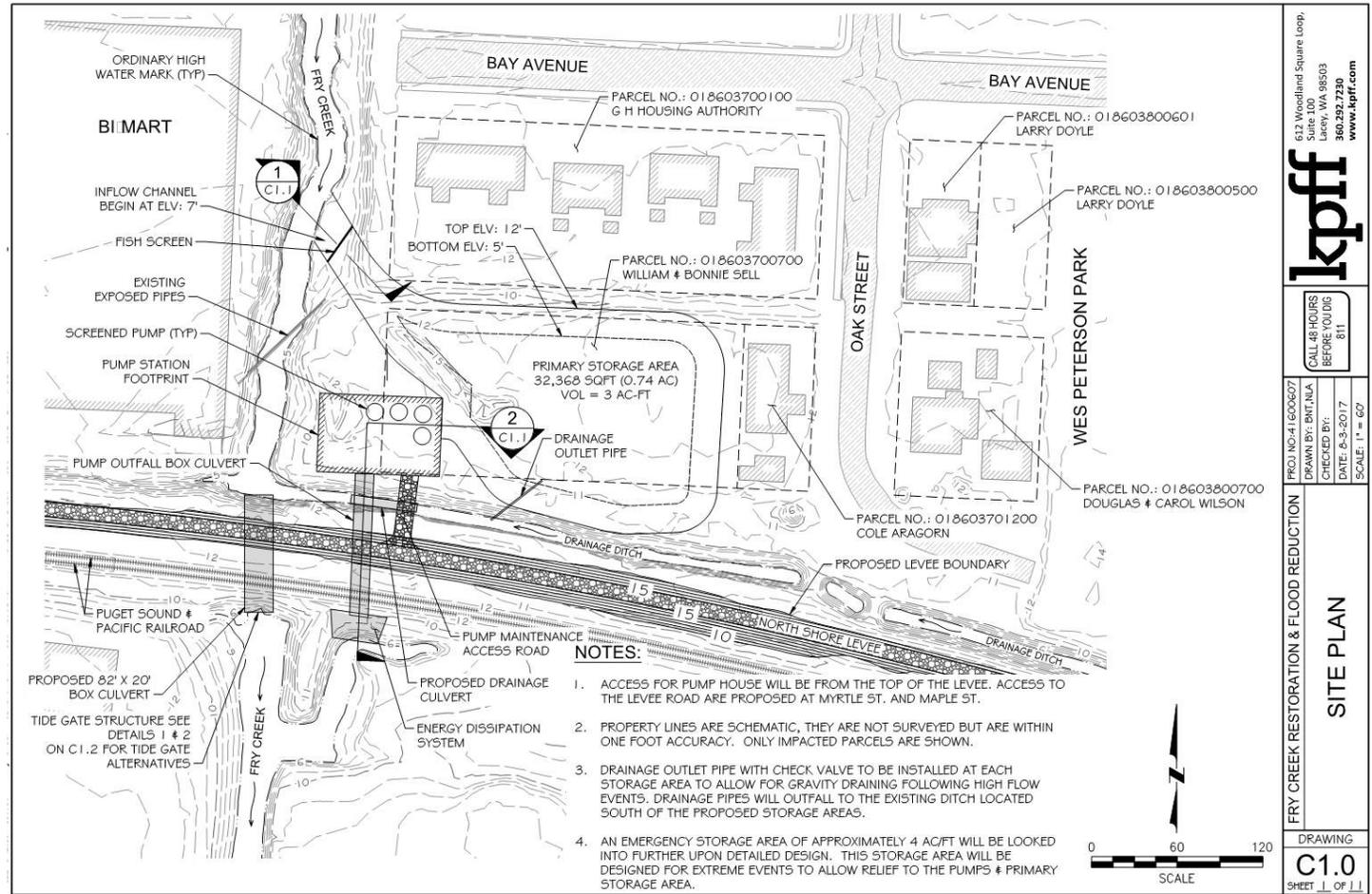
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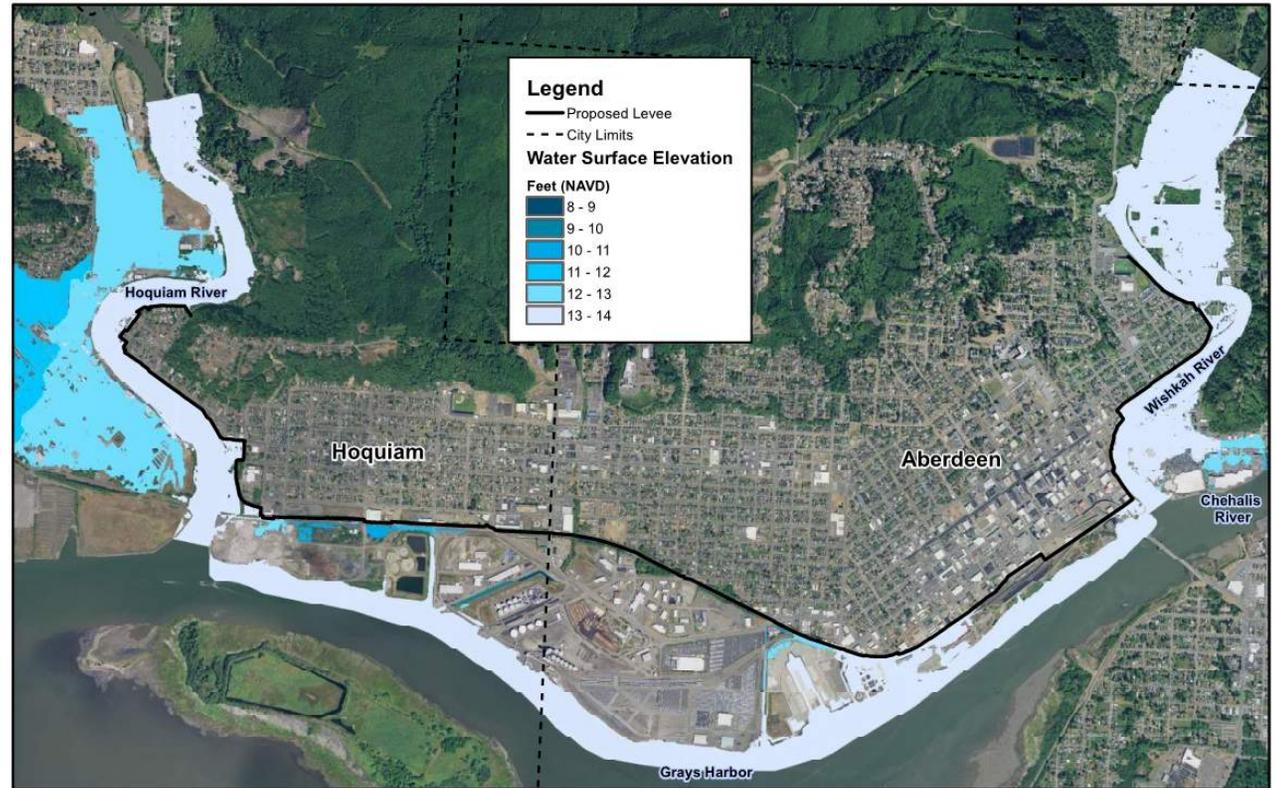


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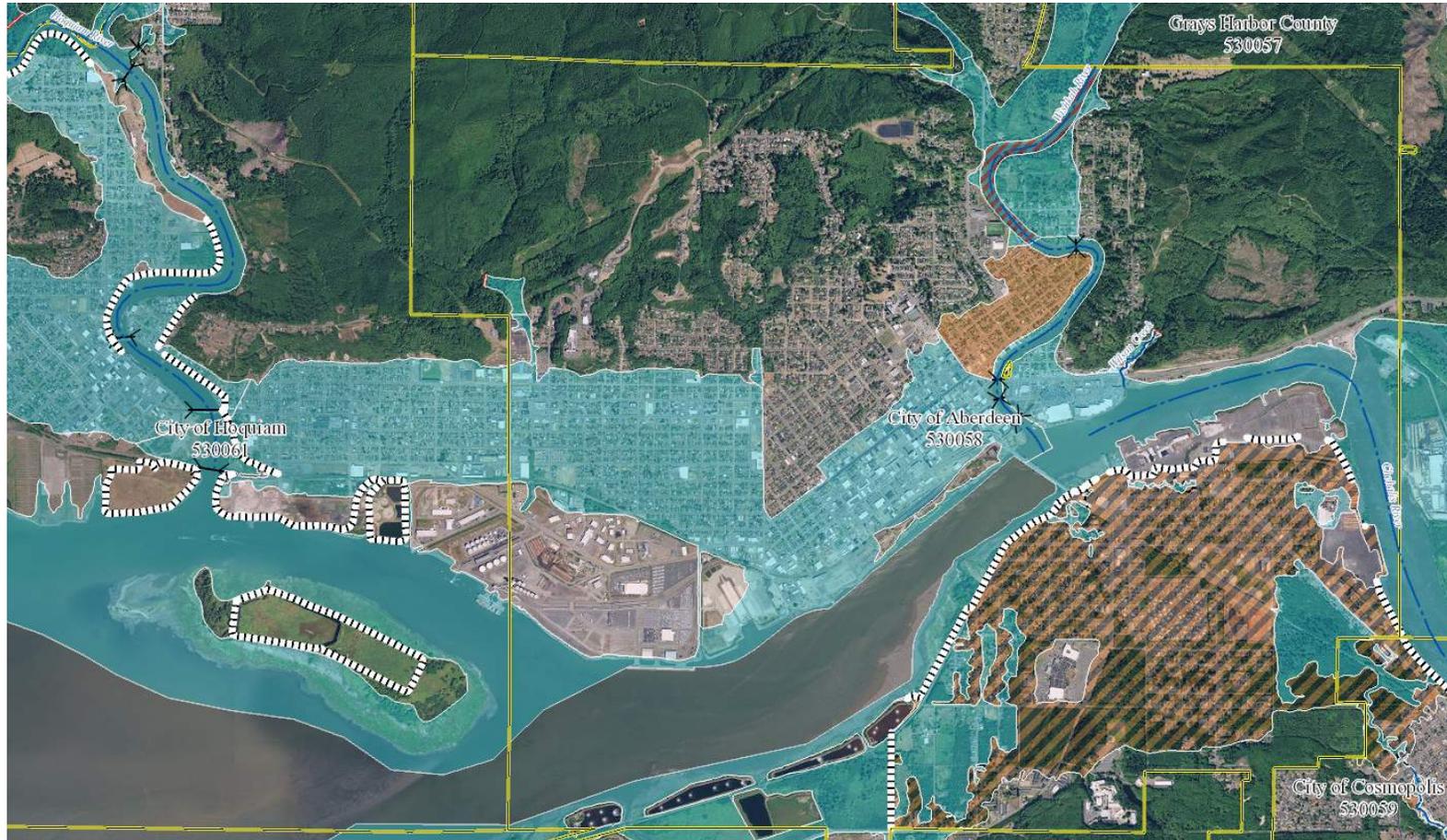


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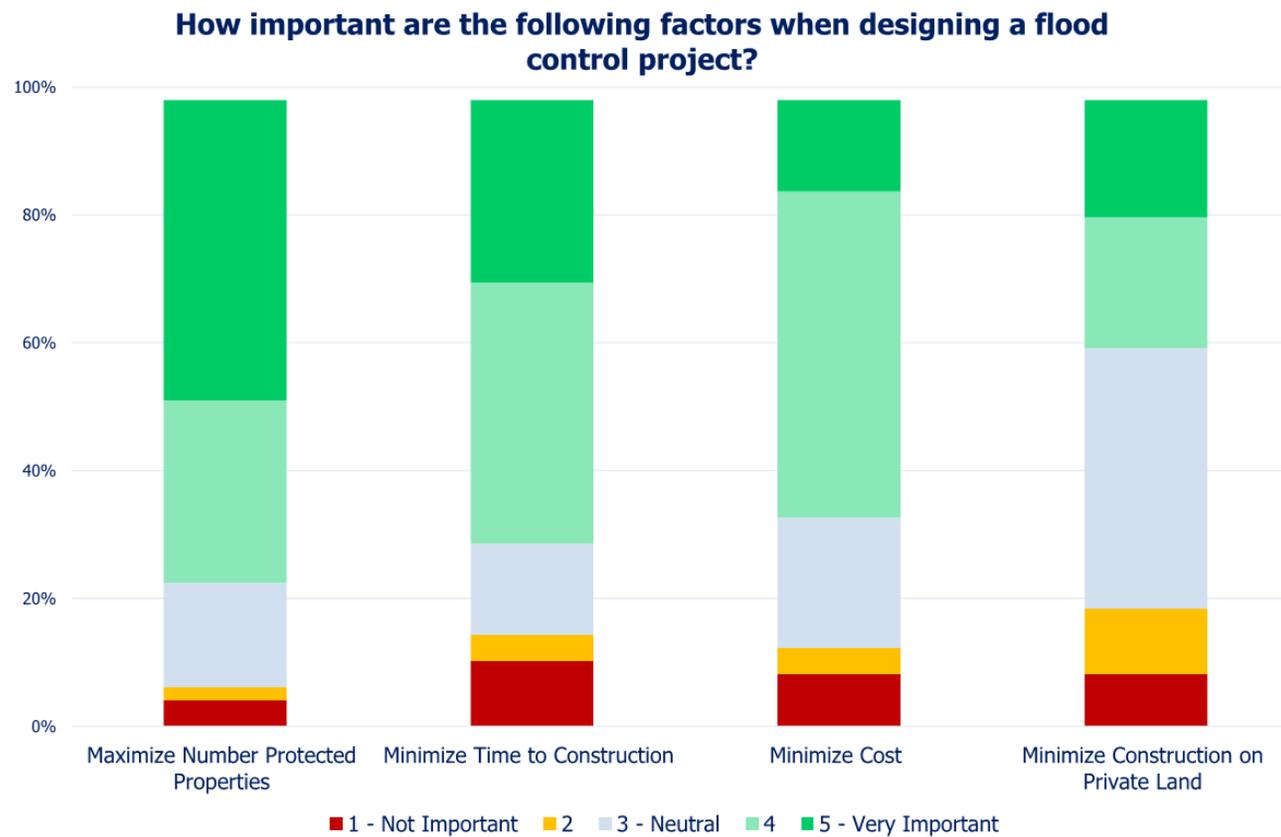
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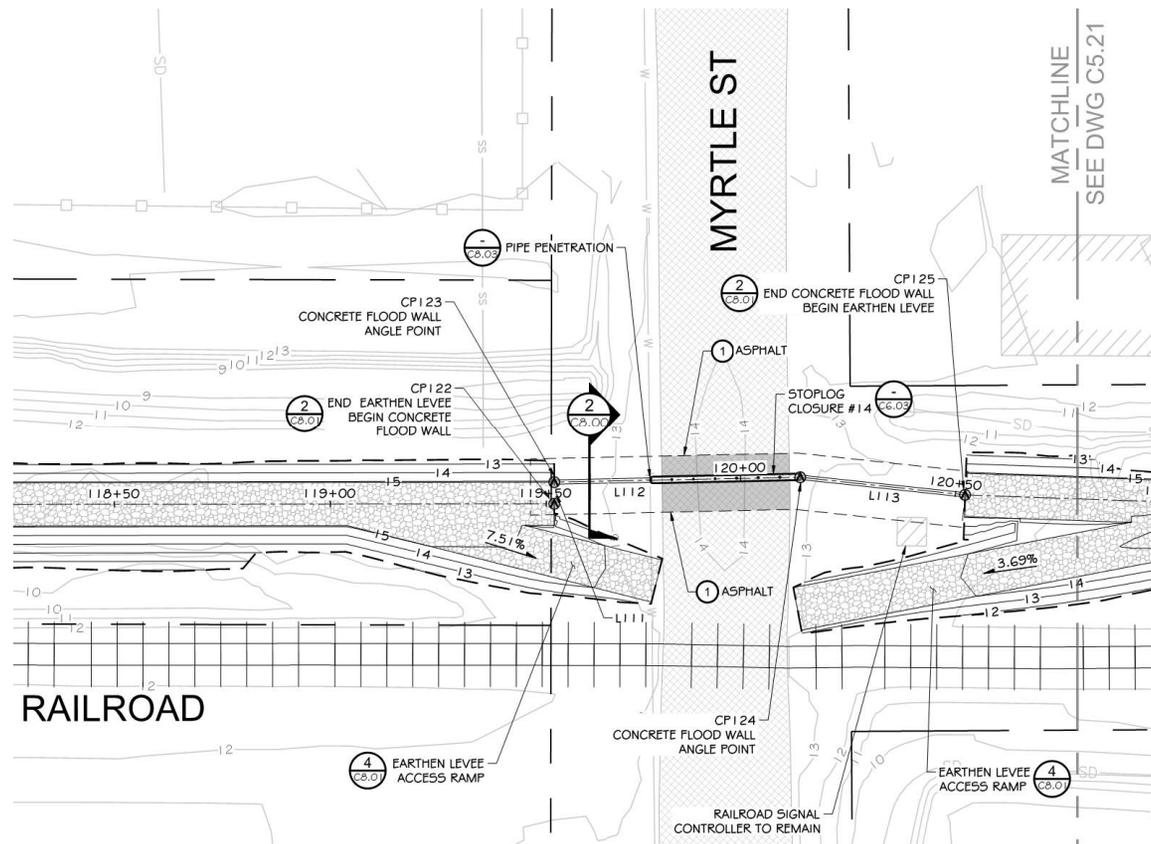
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 **Federal Emergency Management Agency**  
Washington, D.C. 20472

October 5, 2017

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Erik Larson  
Mayor, City of Aberdeen  
Aberdeen City Hall  
200 East Market Street  
Aberdeen, WA 98520

IN REPLY REFER TO:  
Case No.: 17-10-1610R  
Community Name: City of Aberdeen, WA  
Community No.: 530058

Dear Mayor Larson:

We are providing our comments with the enclosed Conditional Letter of Map Revision (CLOMR) on a proposed project within your community that, if constructed as proposed, could revise the effective Flood Insurance Study report and Flood Insurance Rate Map for your community.

If you have any questions regarding the floodplain management regulations for your community, the National Flood Insurance Program (NFIP) in general, or technical questions regarding this CLOMR, please contact the Director, Mitigation Division of the Federal Emergency Management Agency (FEMA) Regional Office in Bothell, WA, at (425) 487-4682, or the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

  
Patrick "Rick" F. Sacibit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration

List of Enclosures:  
Conditional Letter of Map Revision Comment Document

cc: The Honorable Jasmine Dickhoff  
Mayor, City of Hoquiam

Mr. David Radabaugh, CFM  
Washington Department of Ecology

Mr. Kris Koski, P.E.  
City Engineer  
City of Aberdeen

Mr. Mark Steepy, P.E.  
KPF Consulting Engineers

Mr. Brian Shay  
City Administrator  
City of Hoquiam

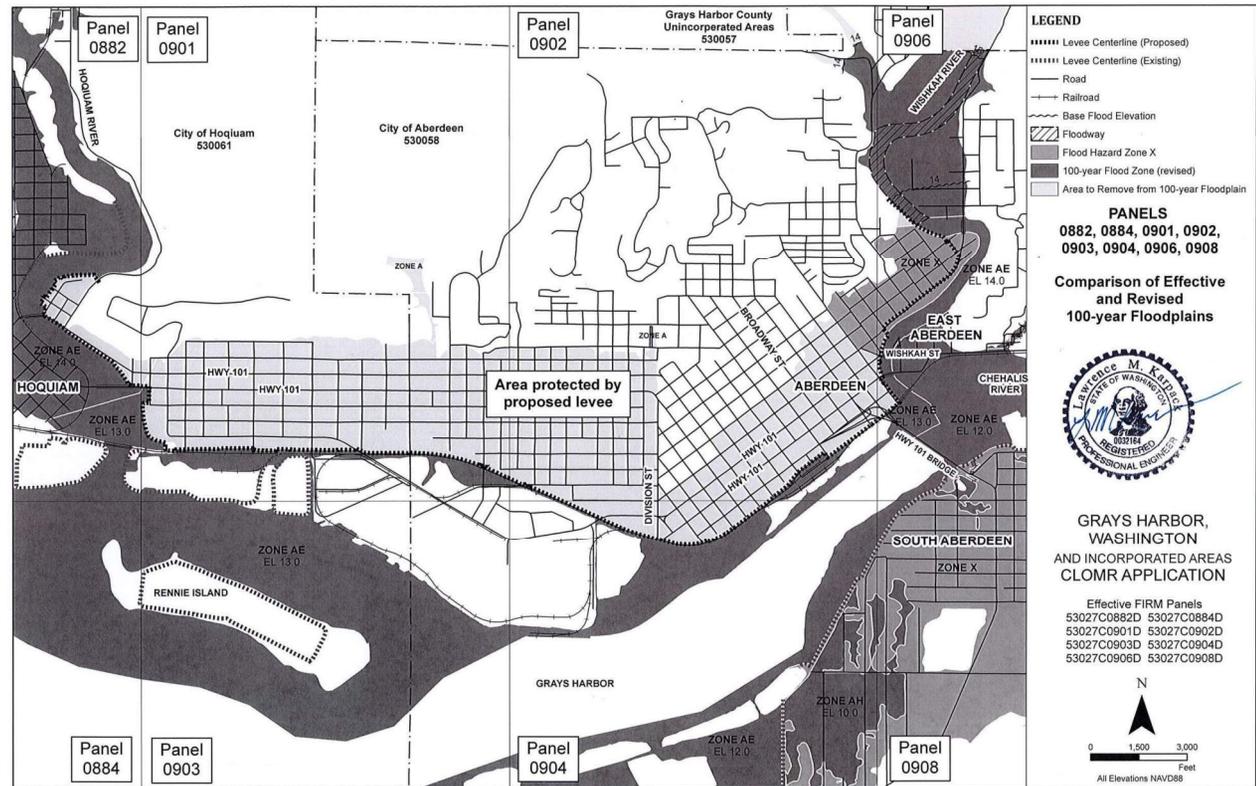


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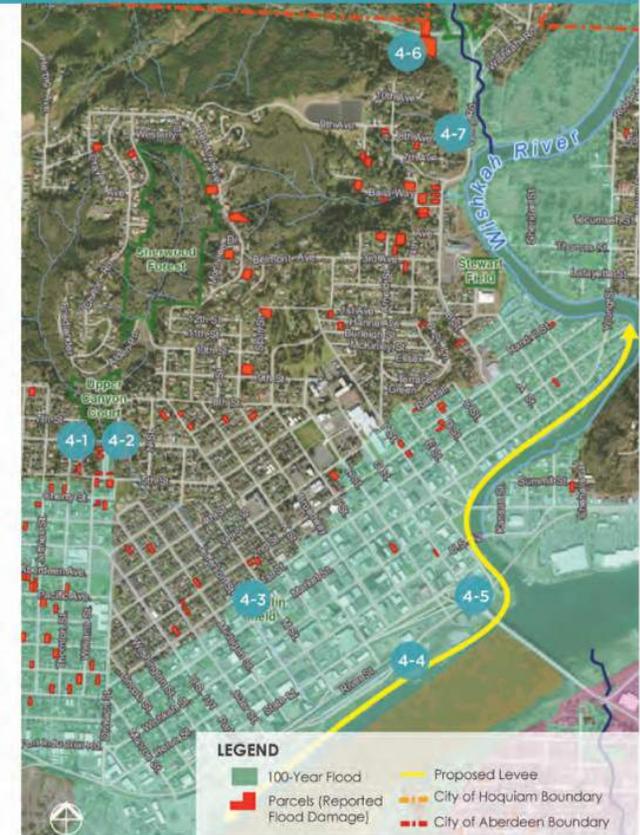
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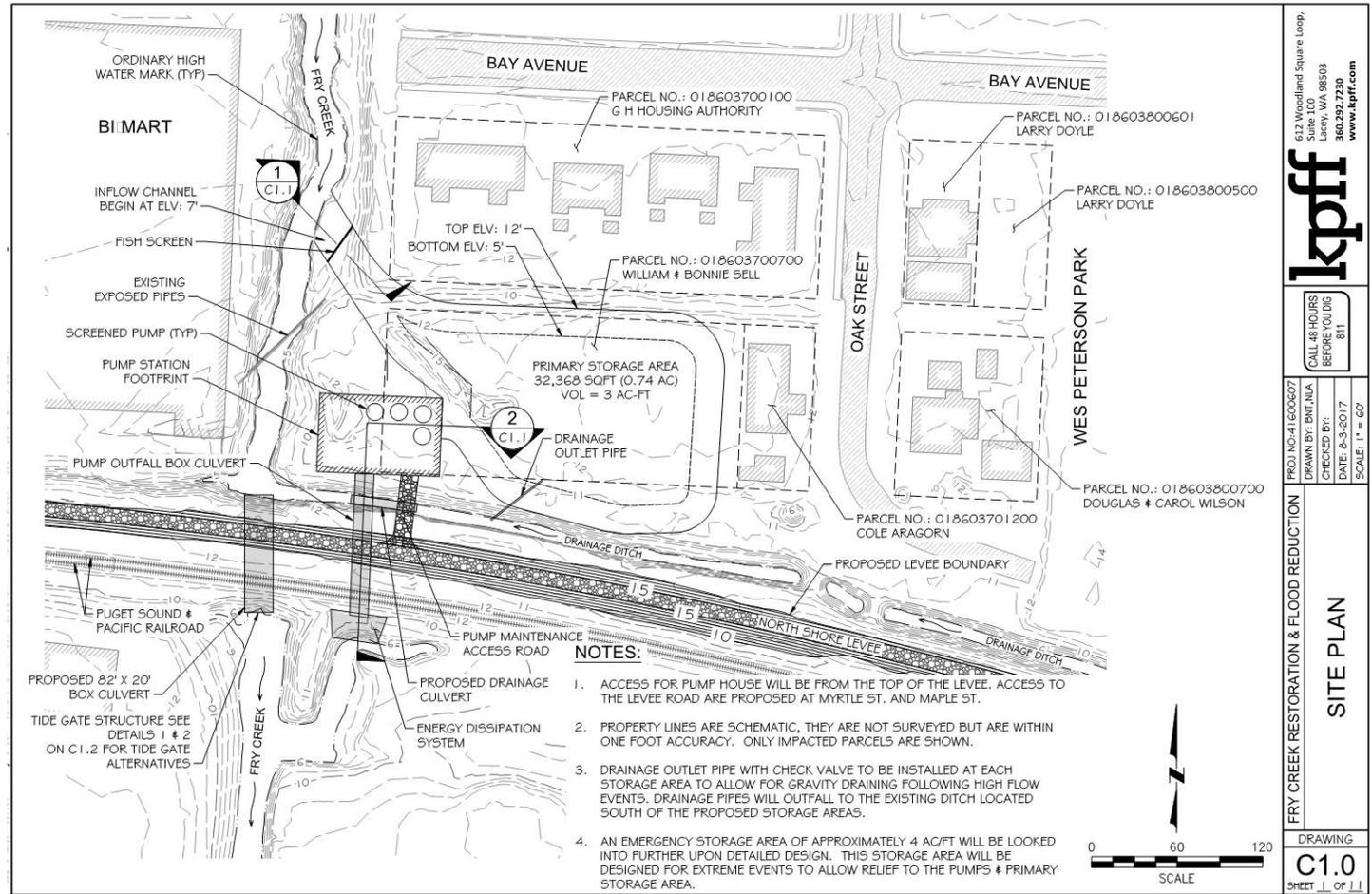
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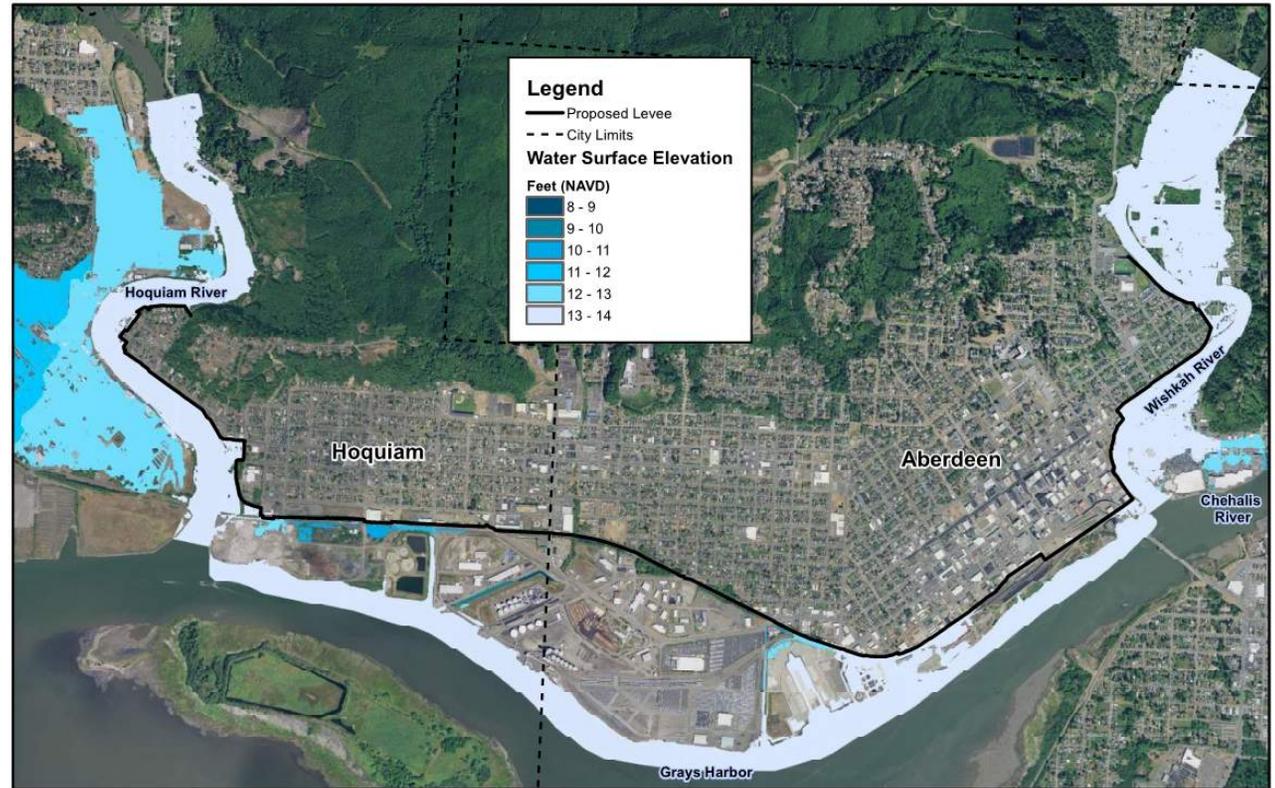


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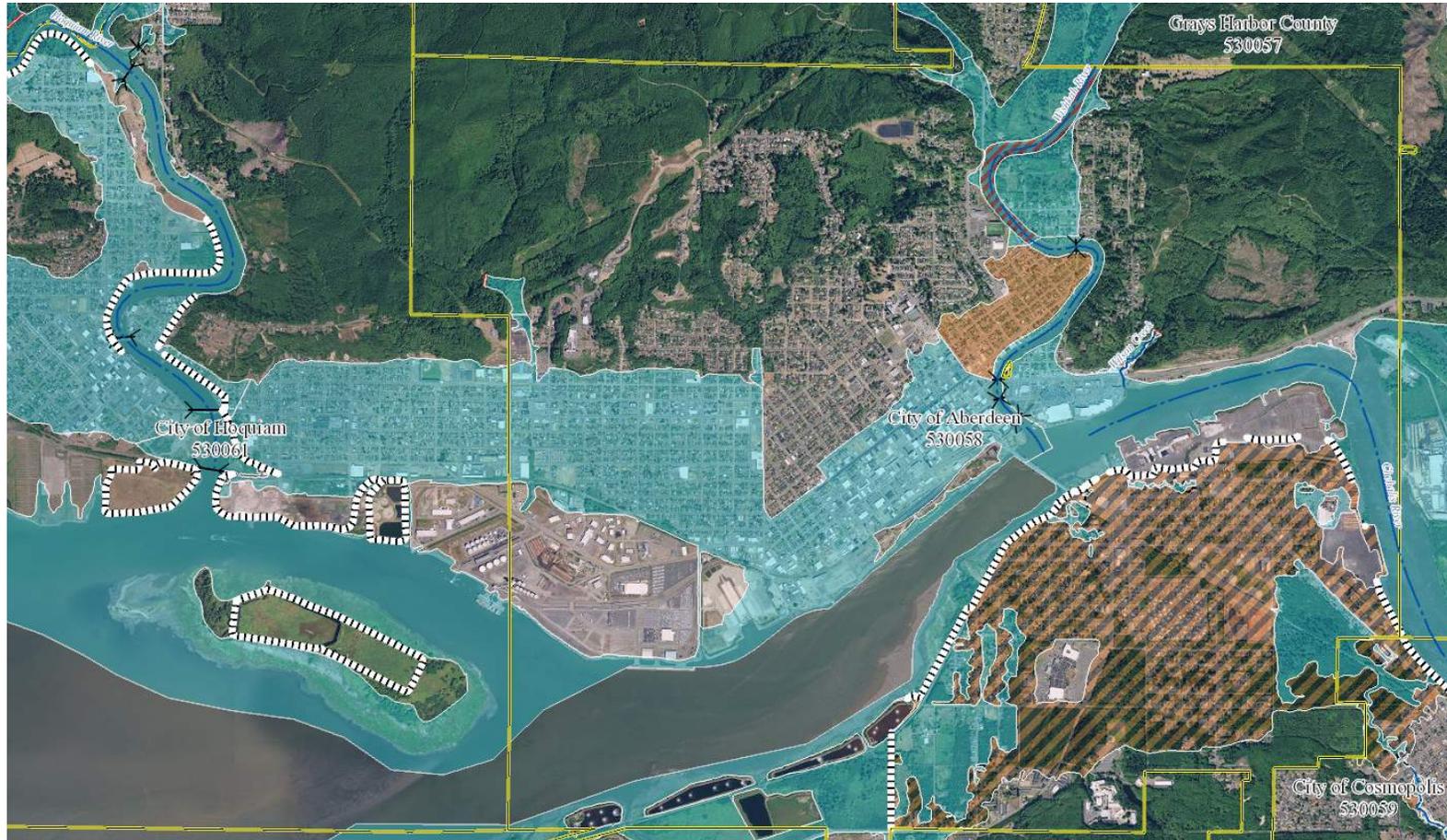


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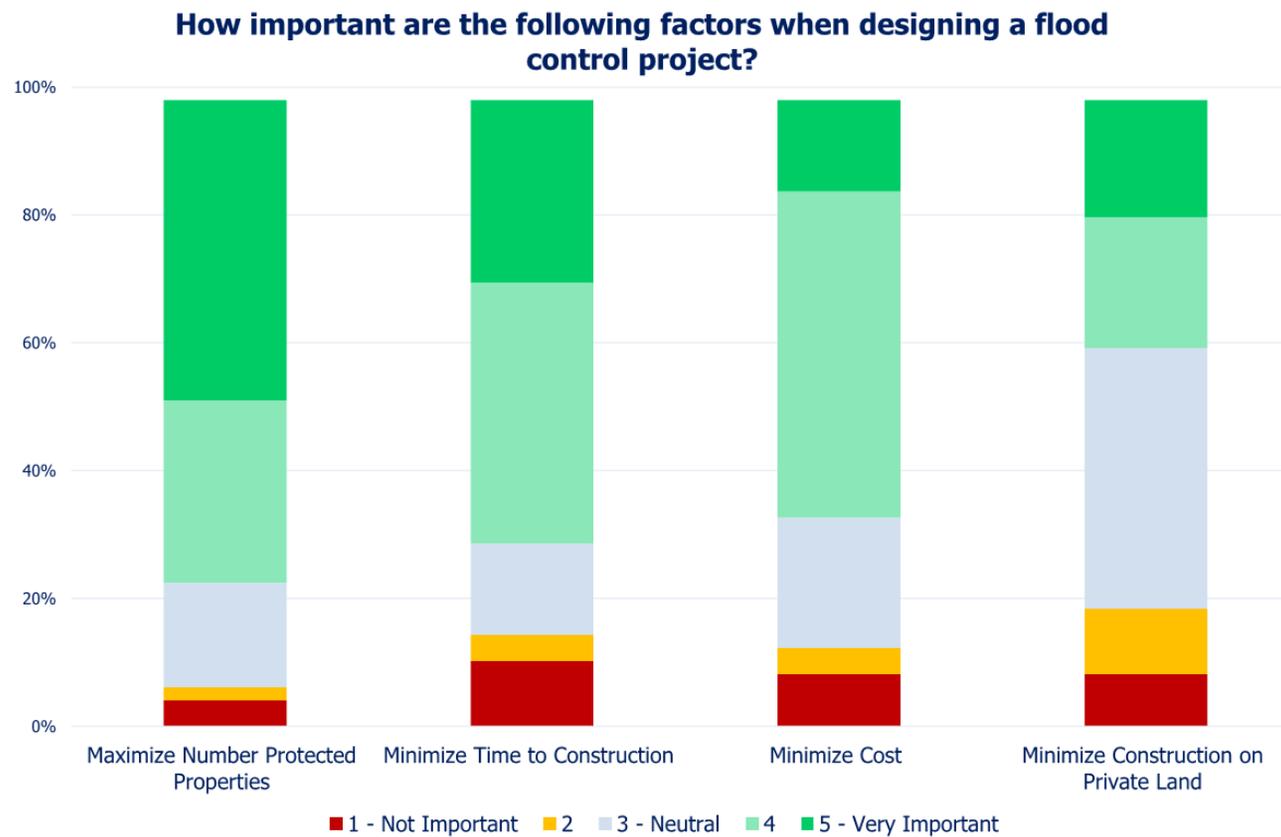
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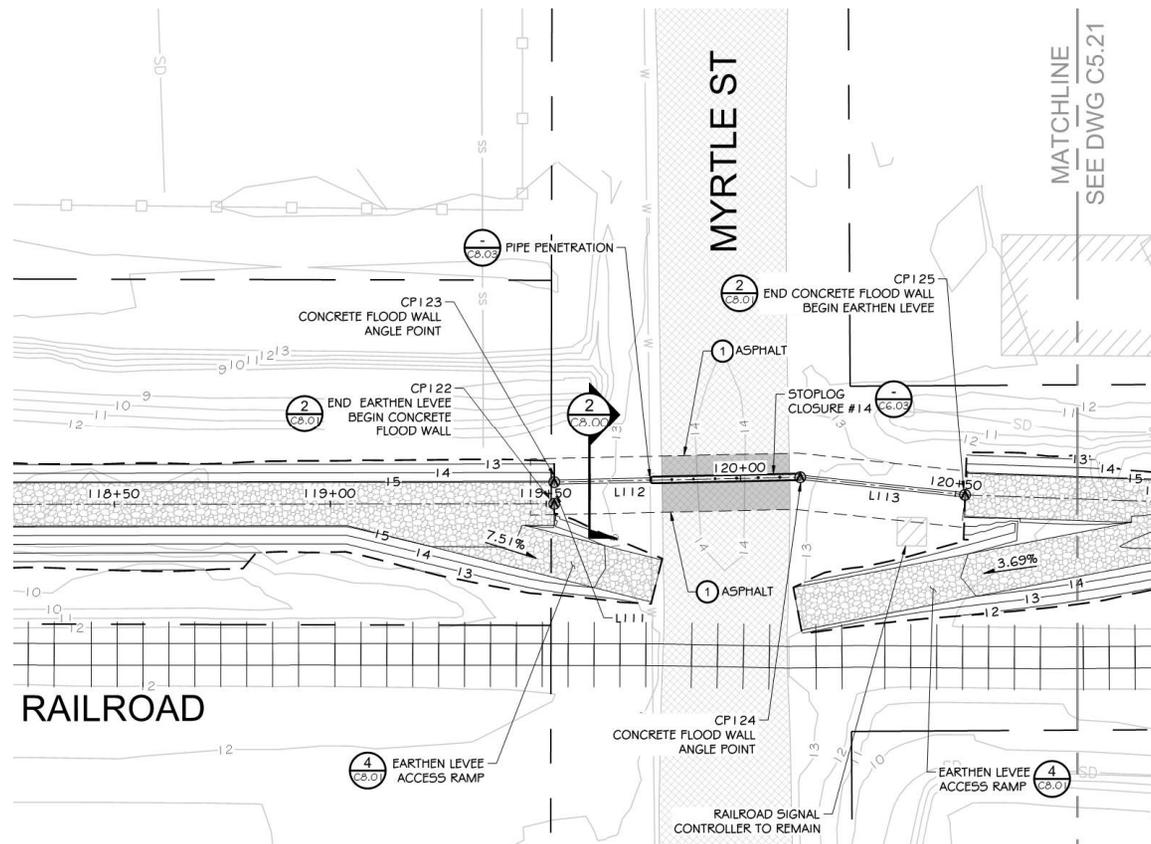
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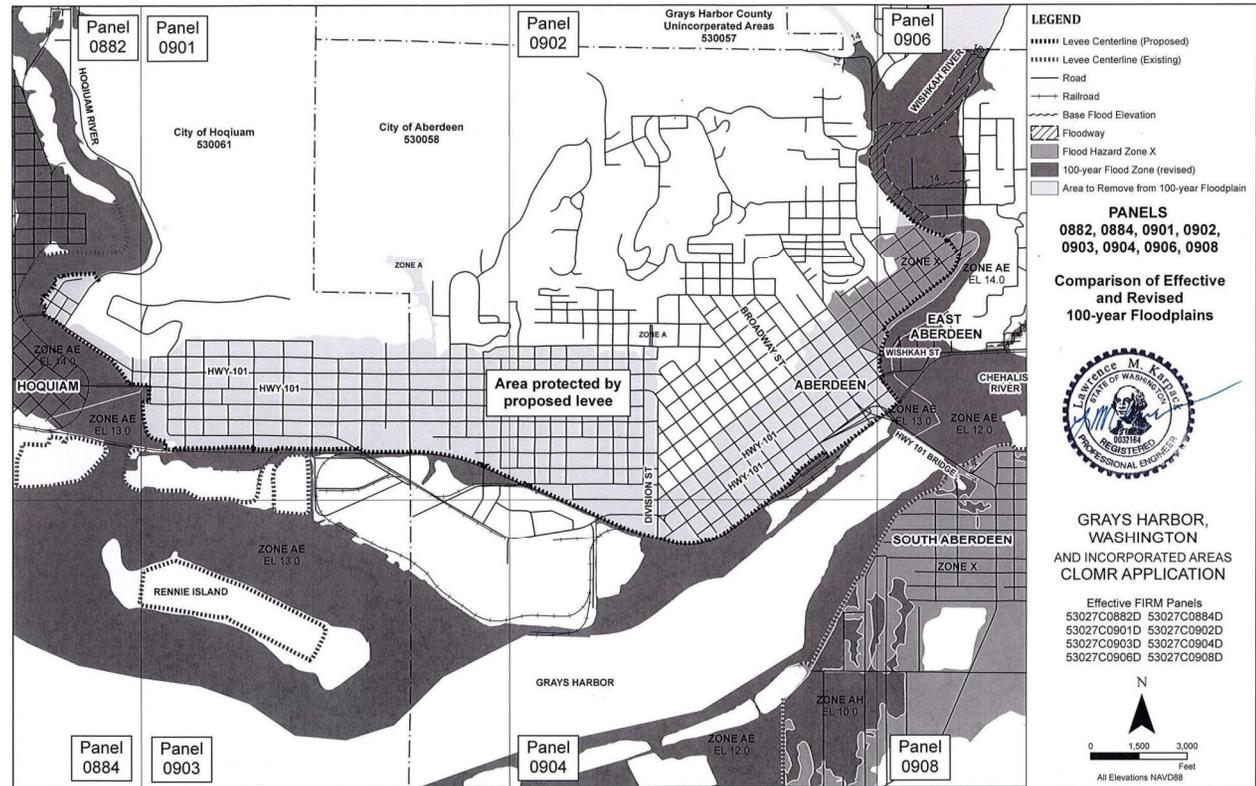
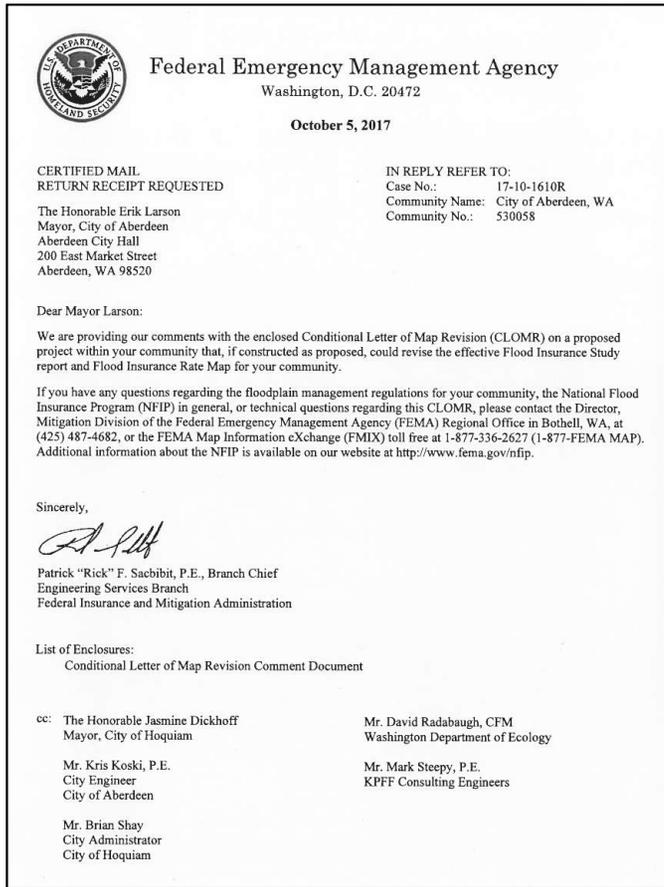


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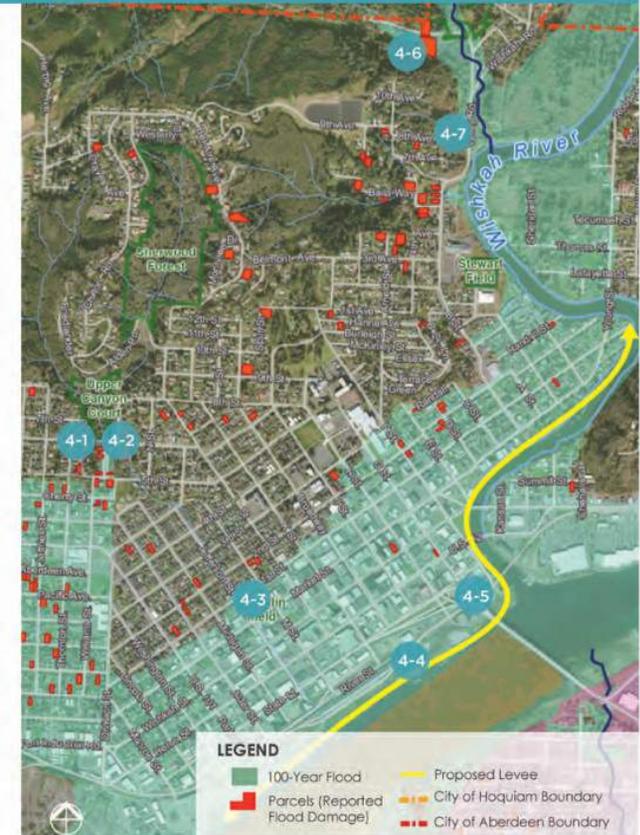
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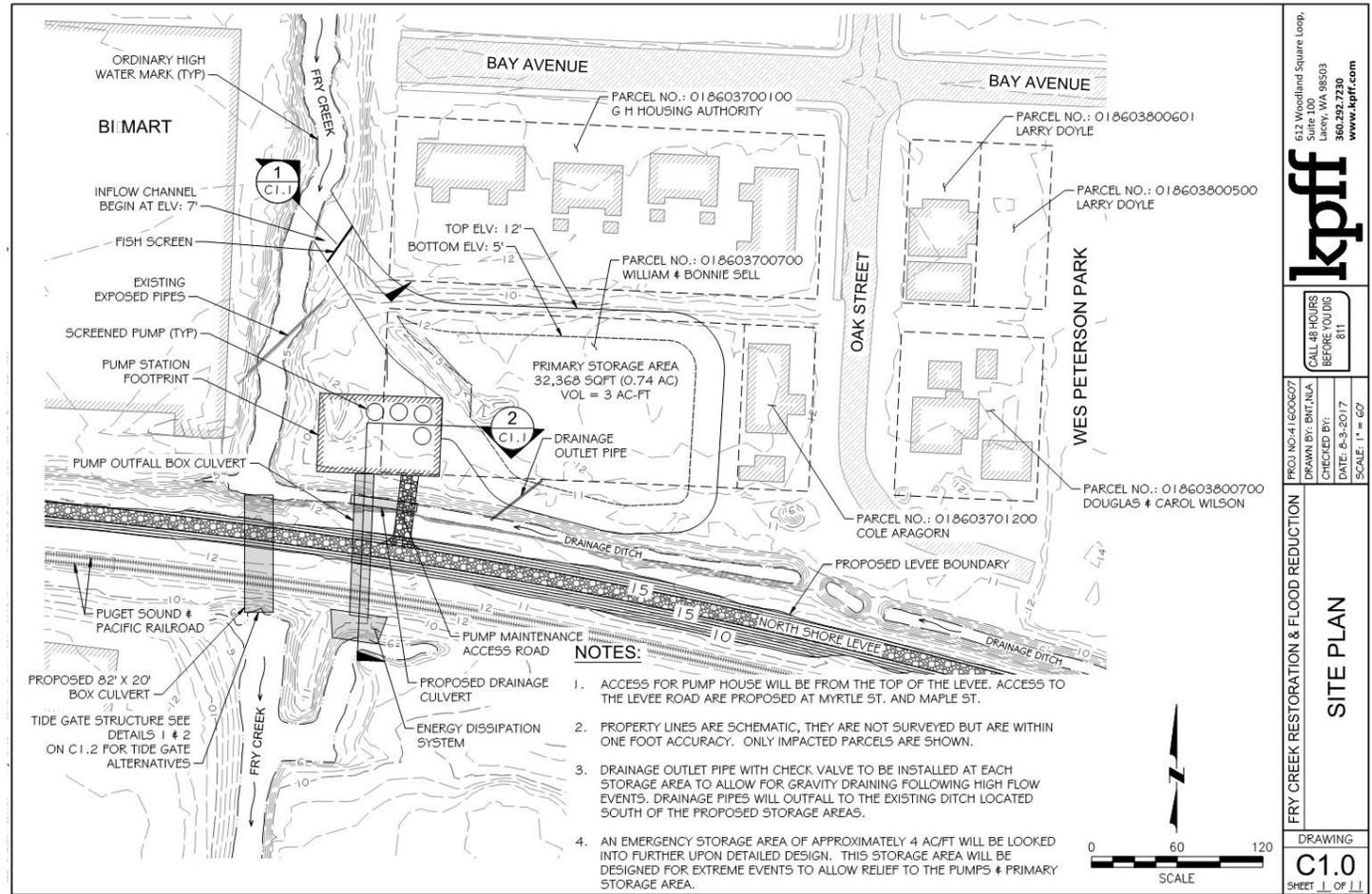
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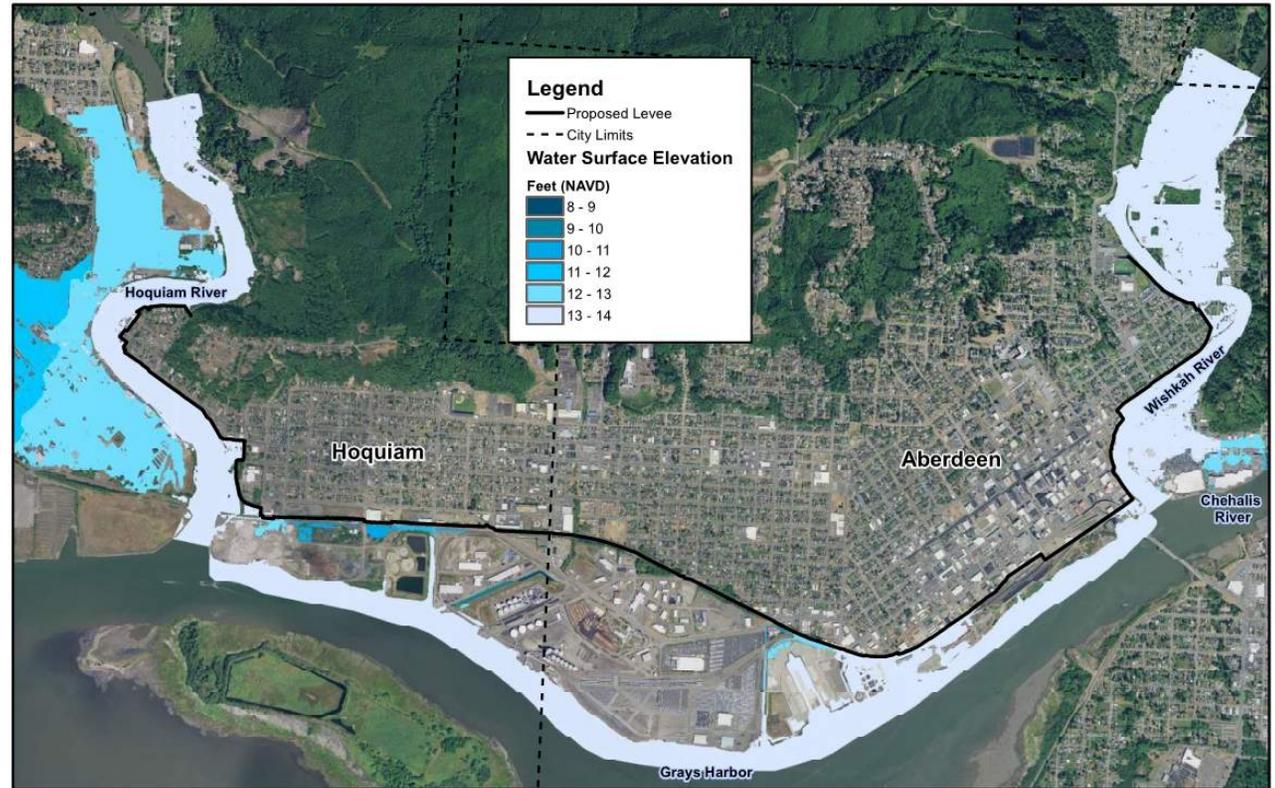


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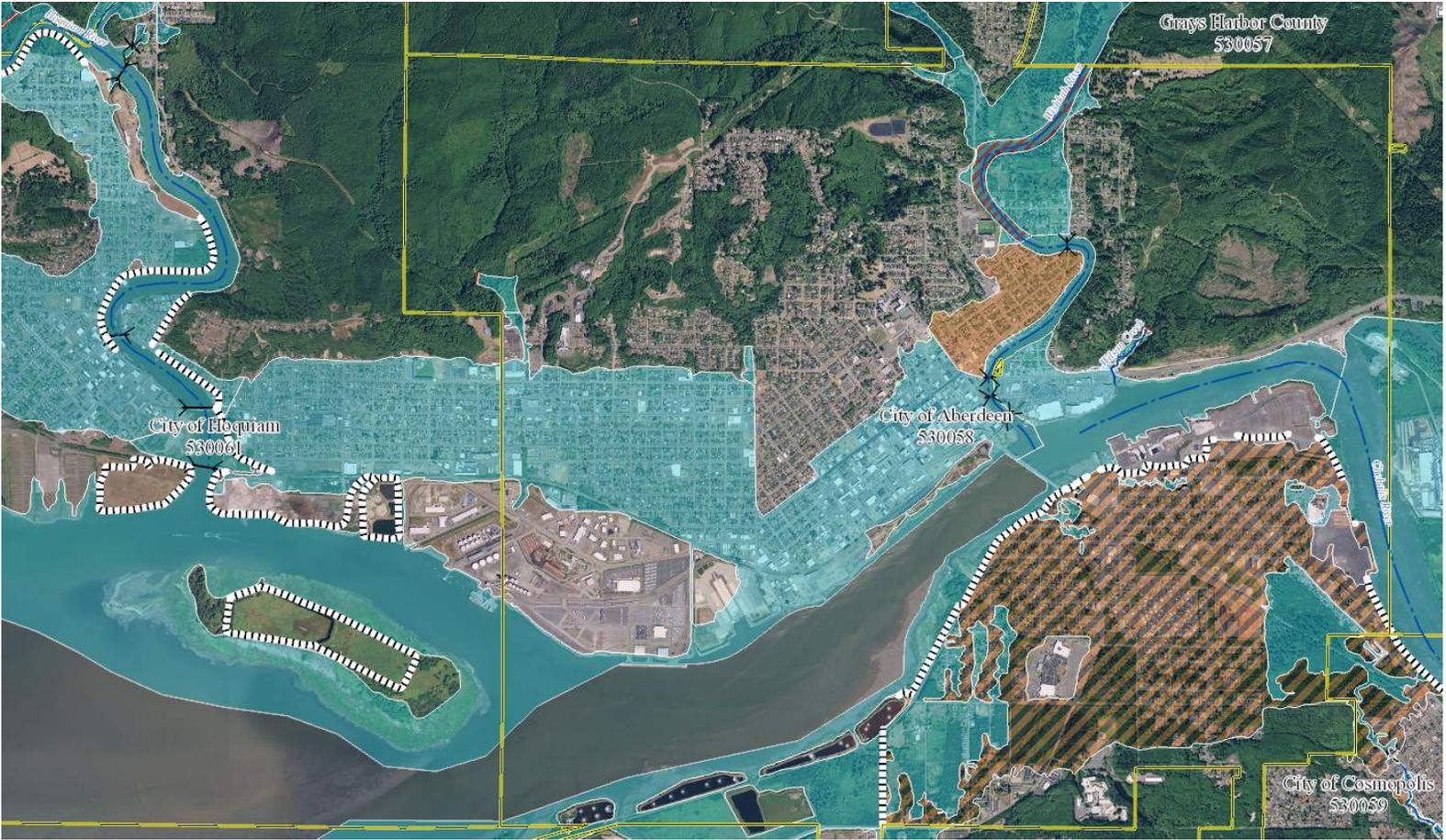


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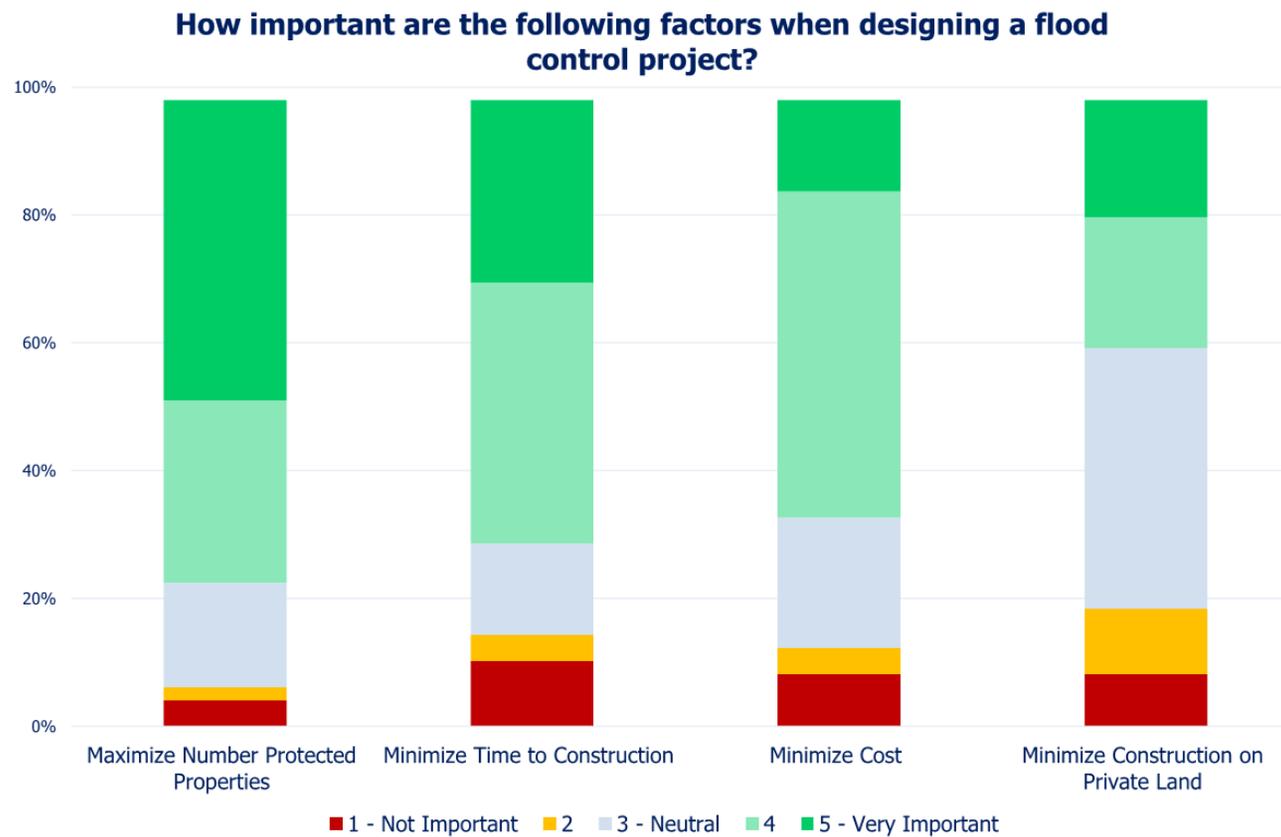
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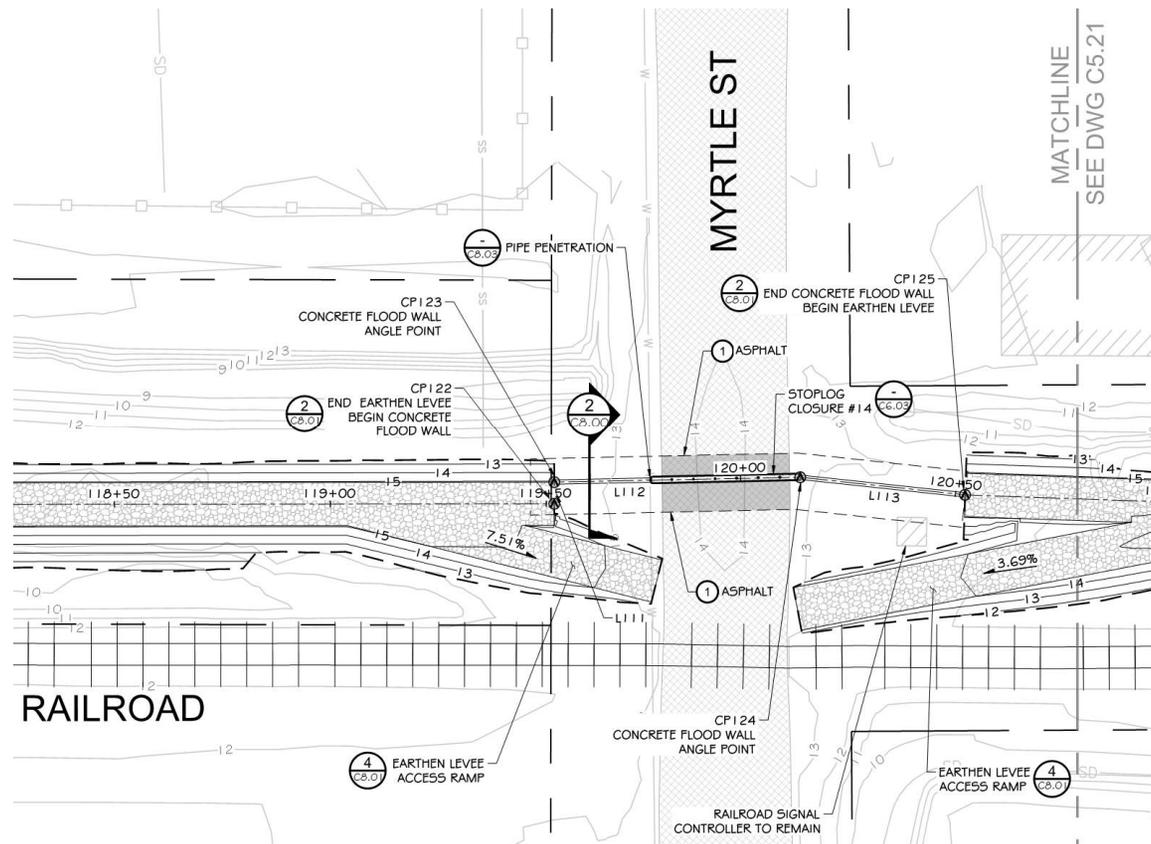
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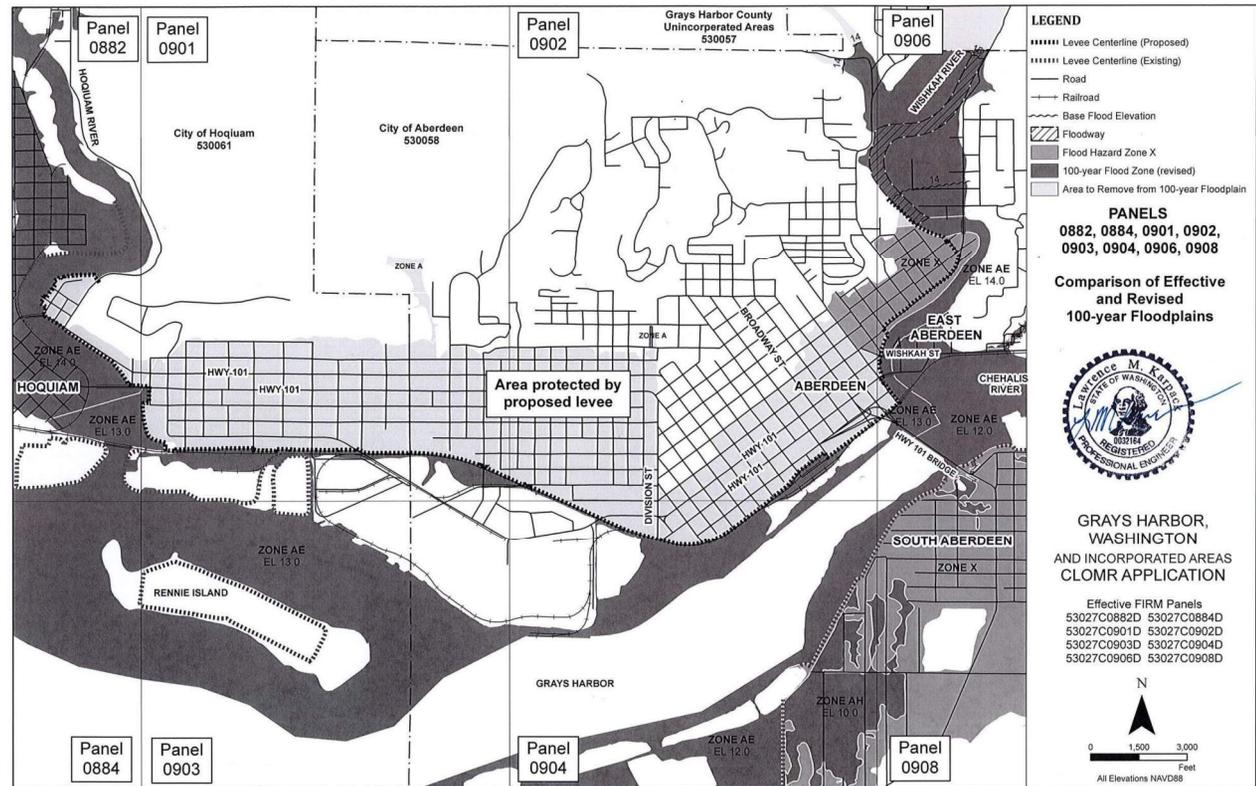
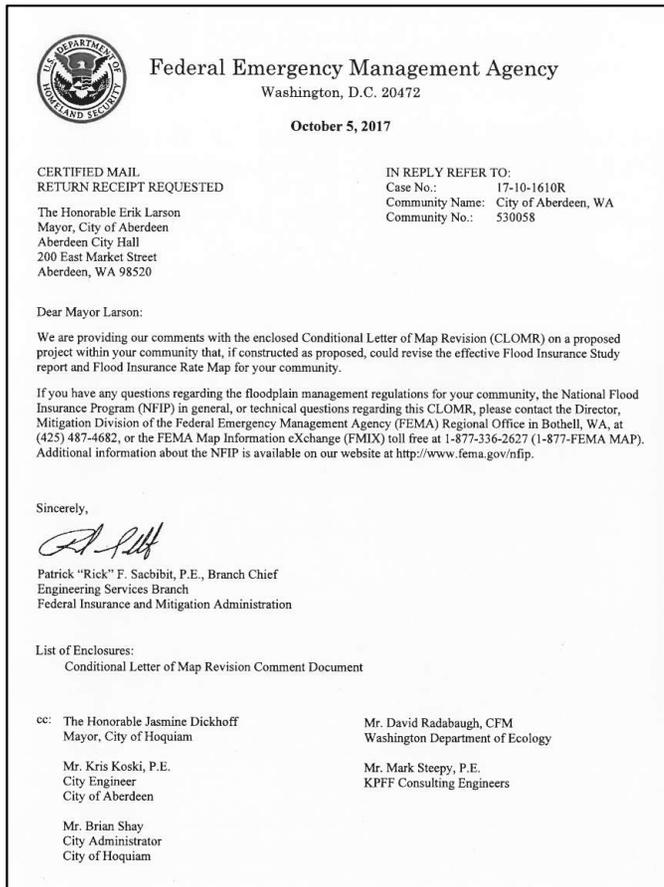


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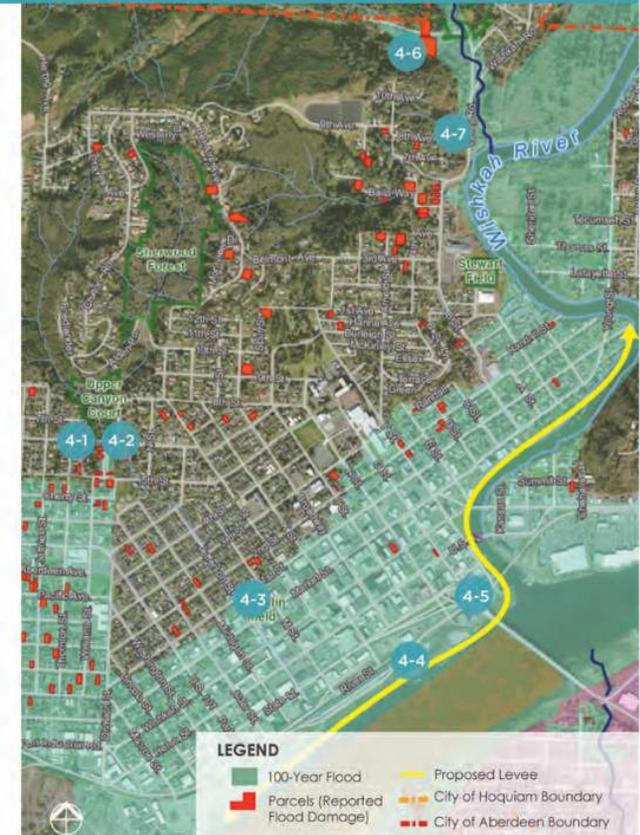
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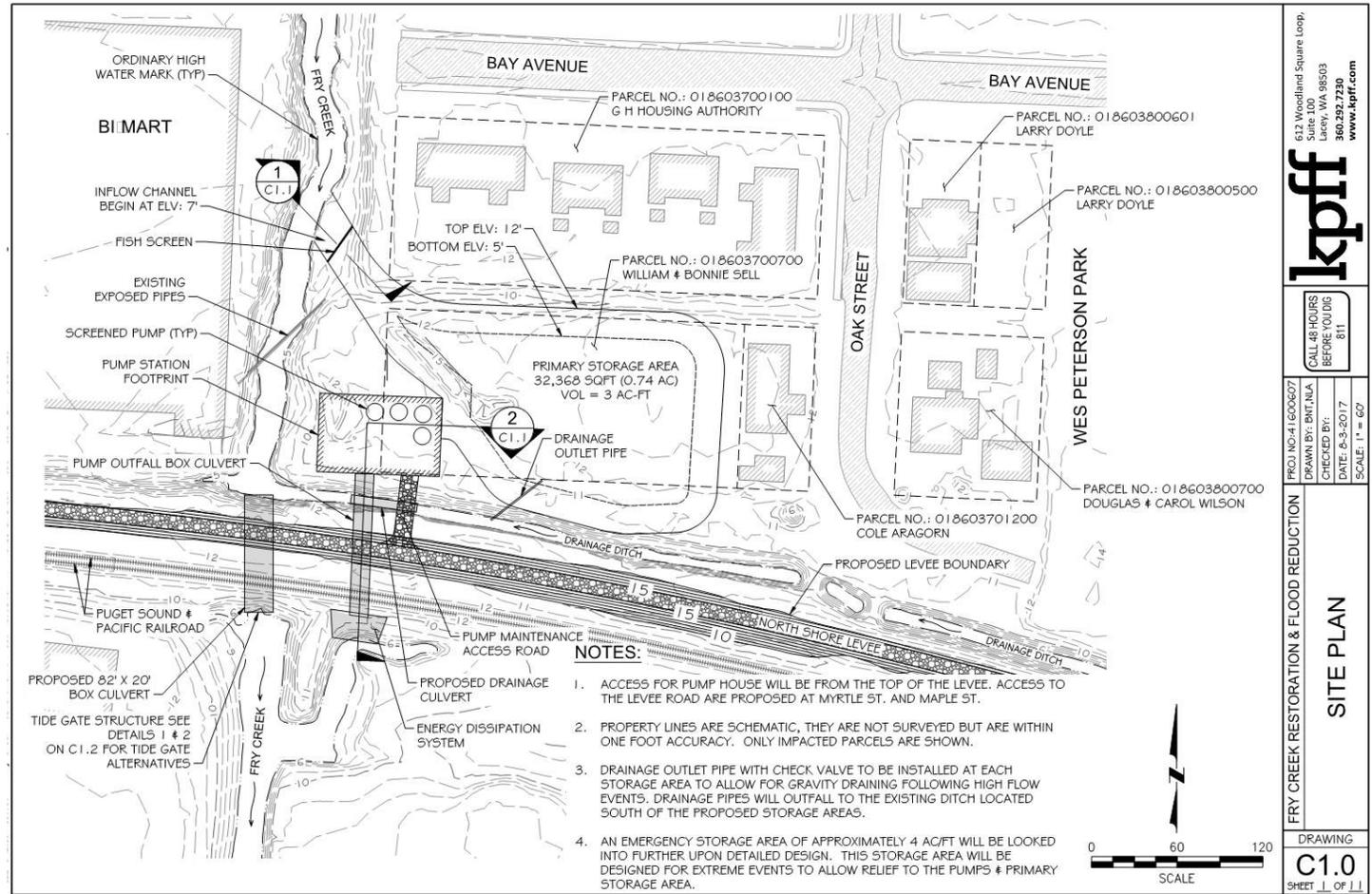
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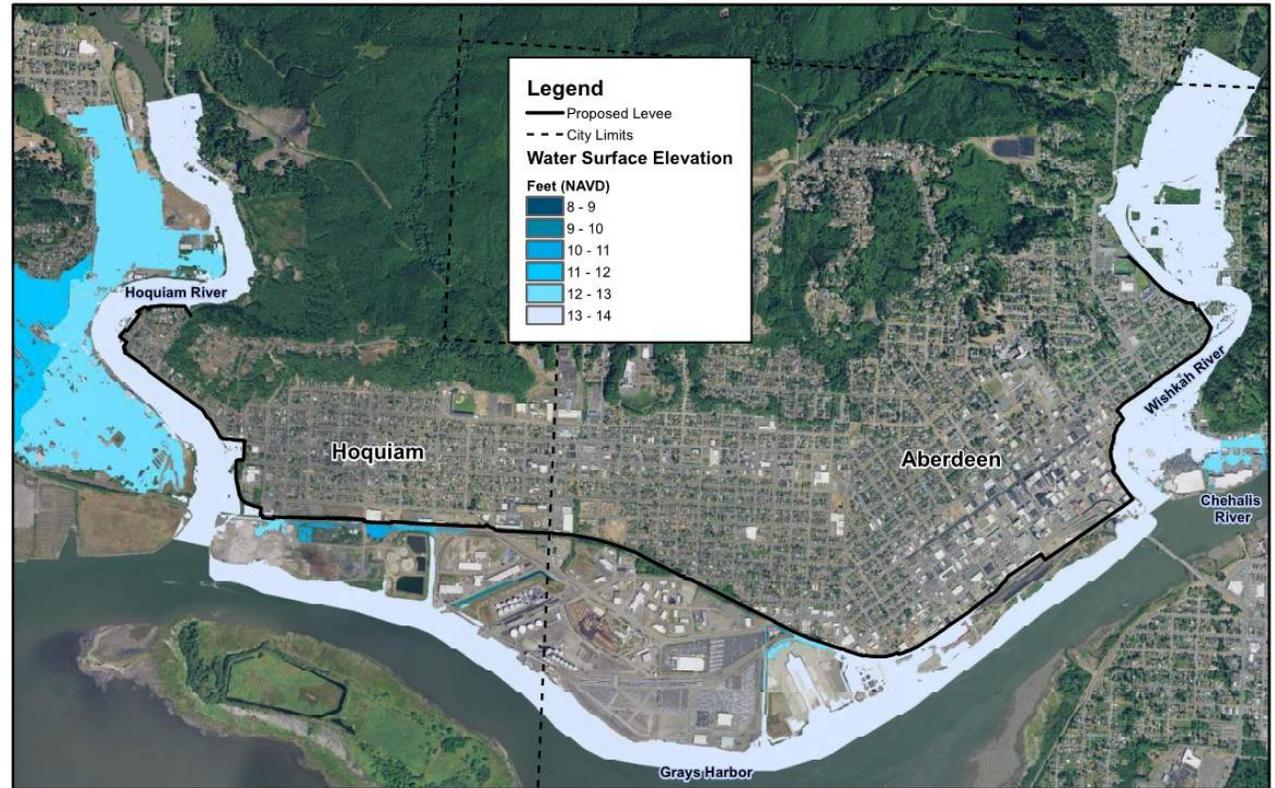


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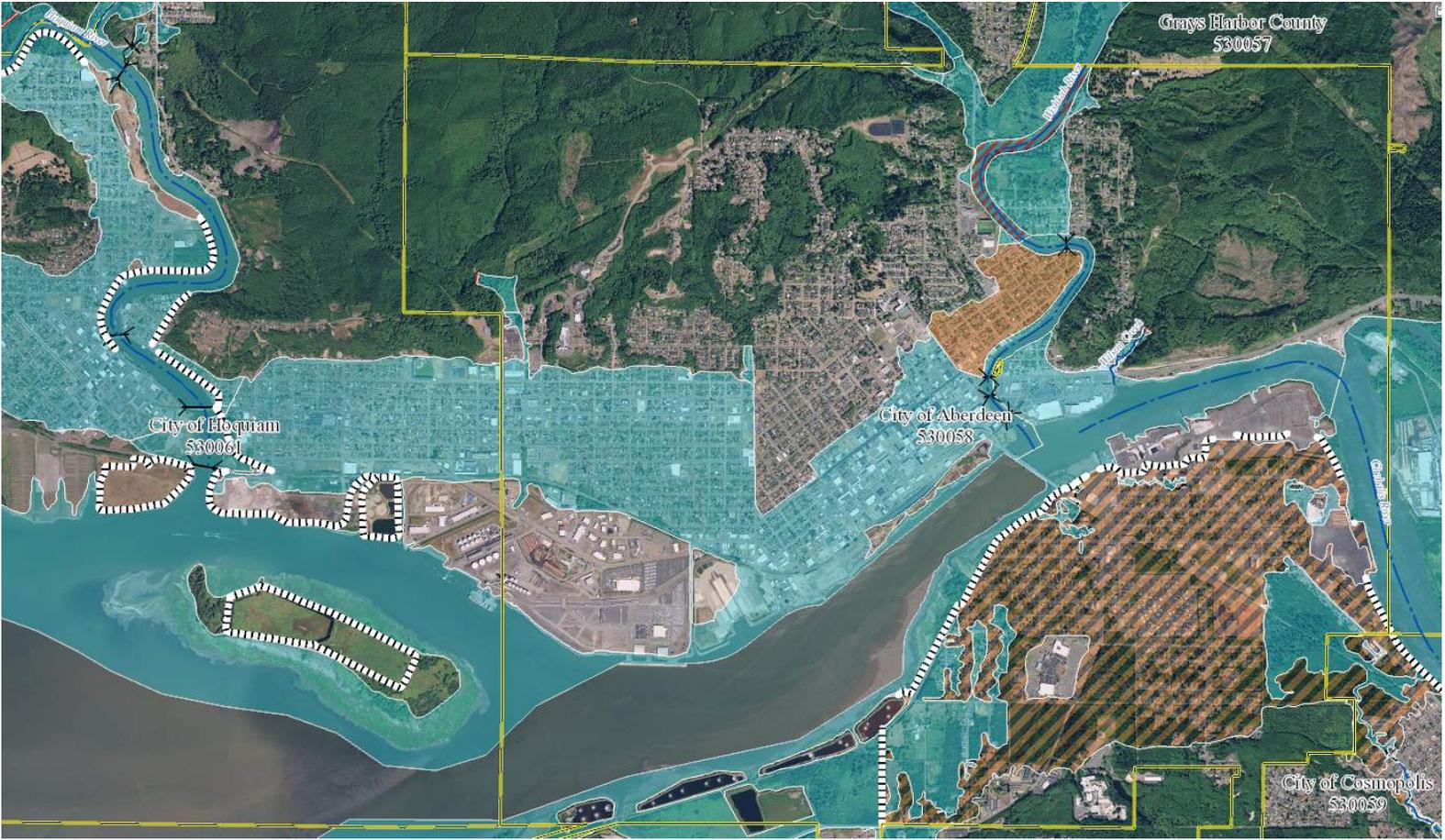


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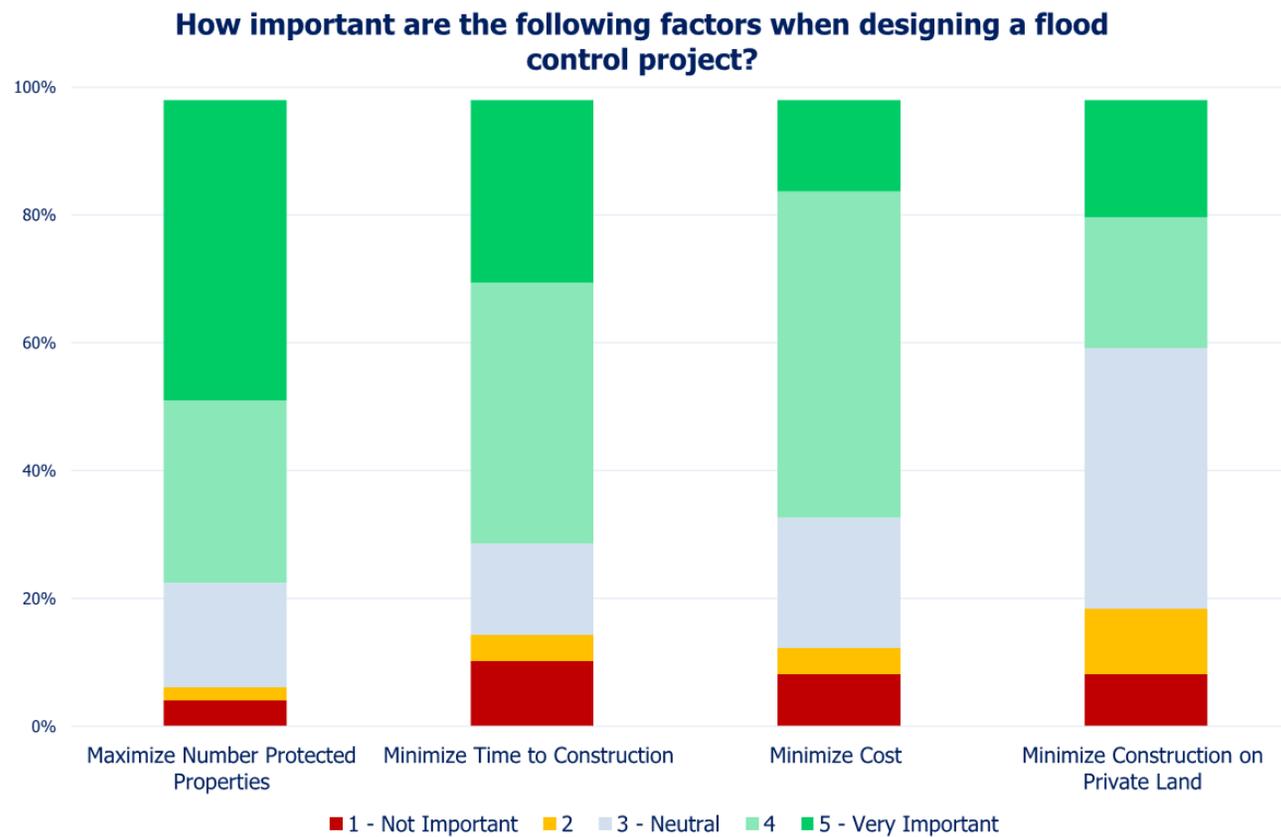
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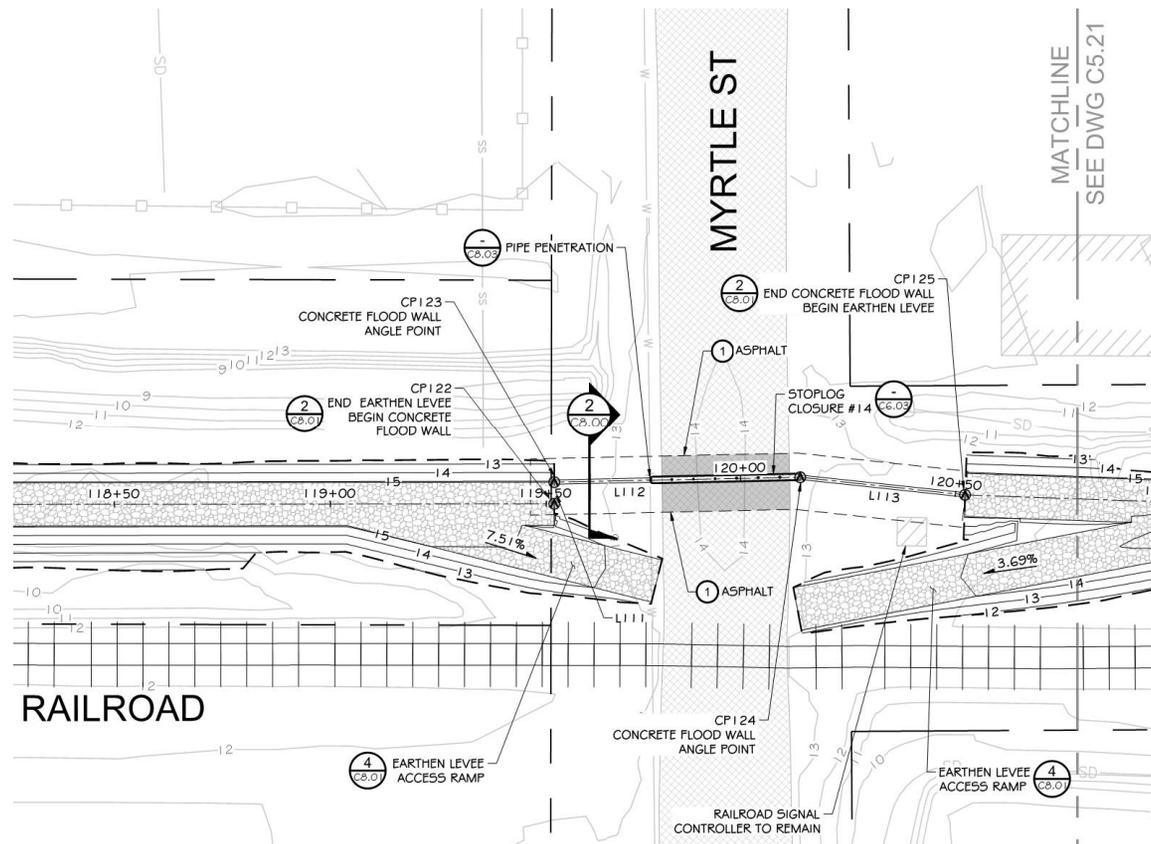
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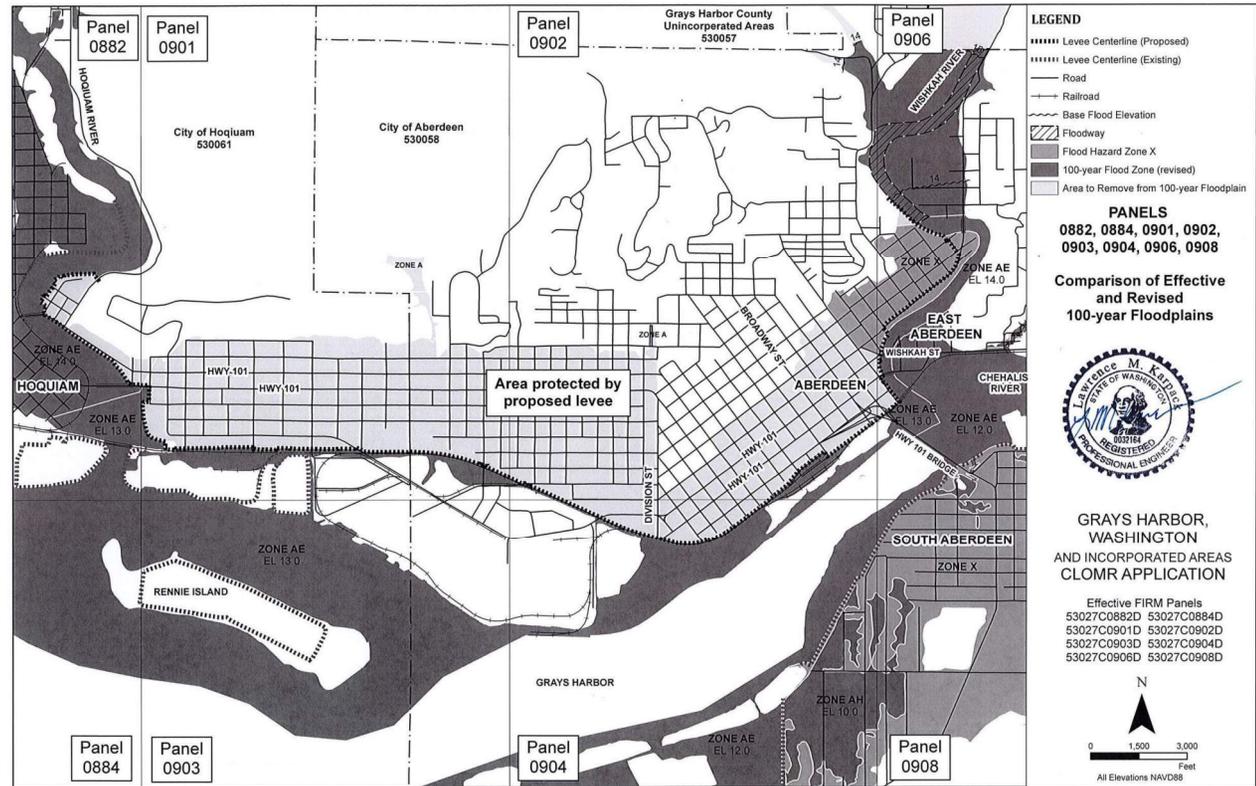
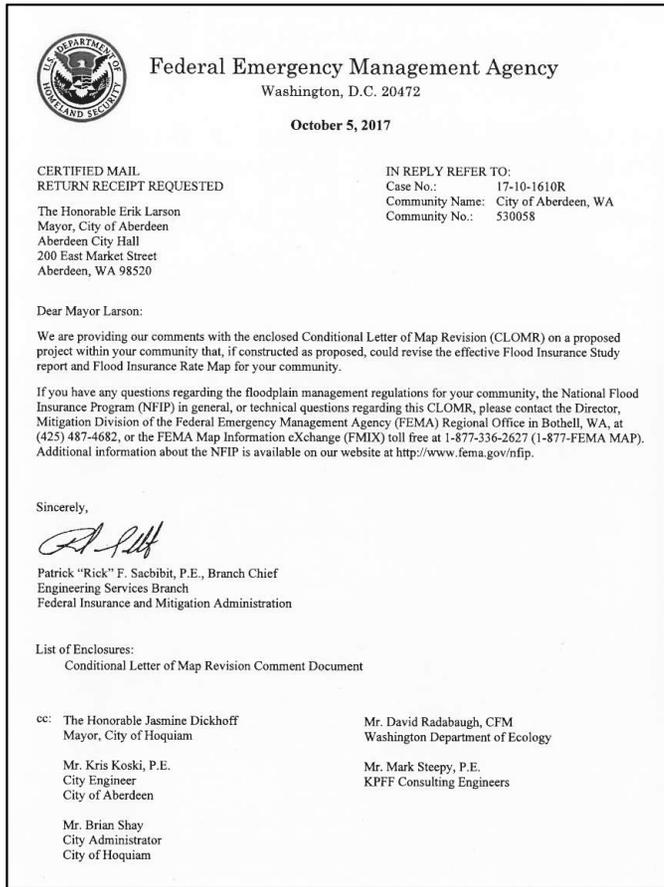


Figure 2

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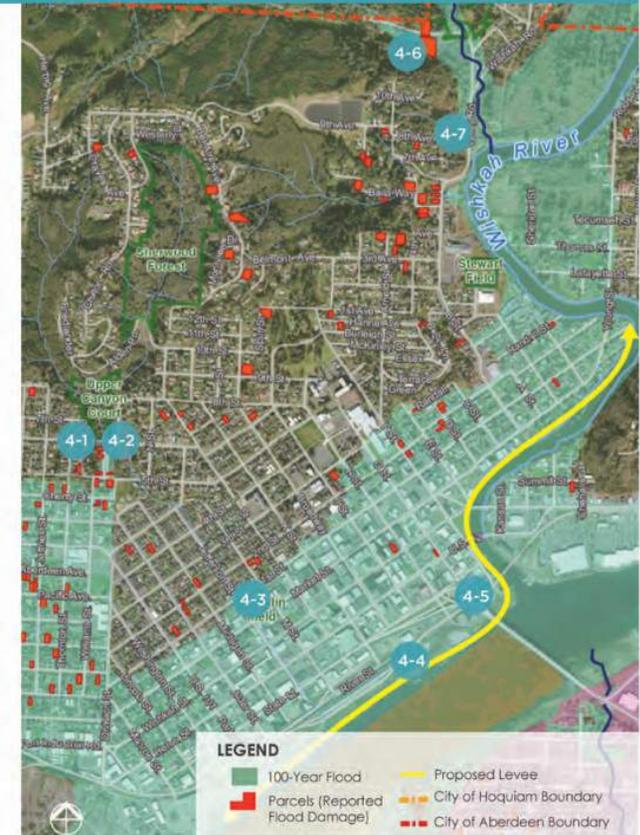
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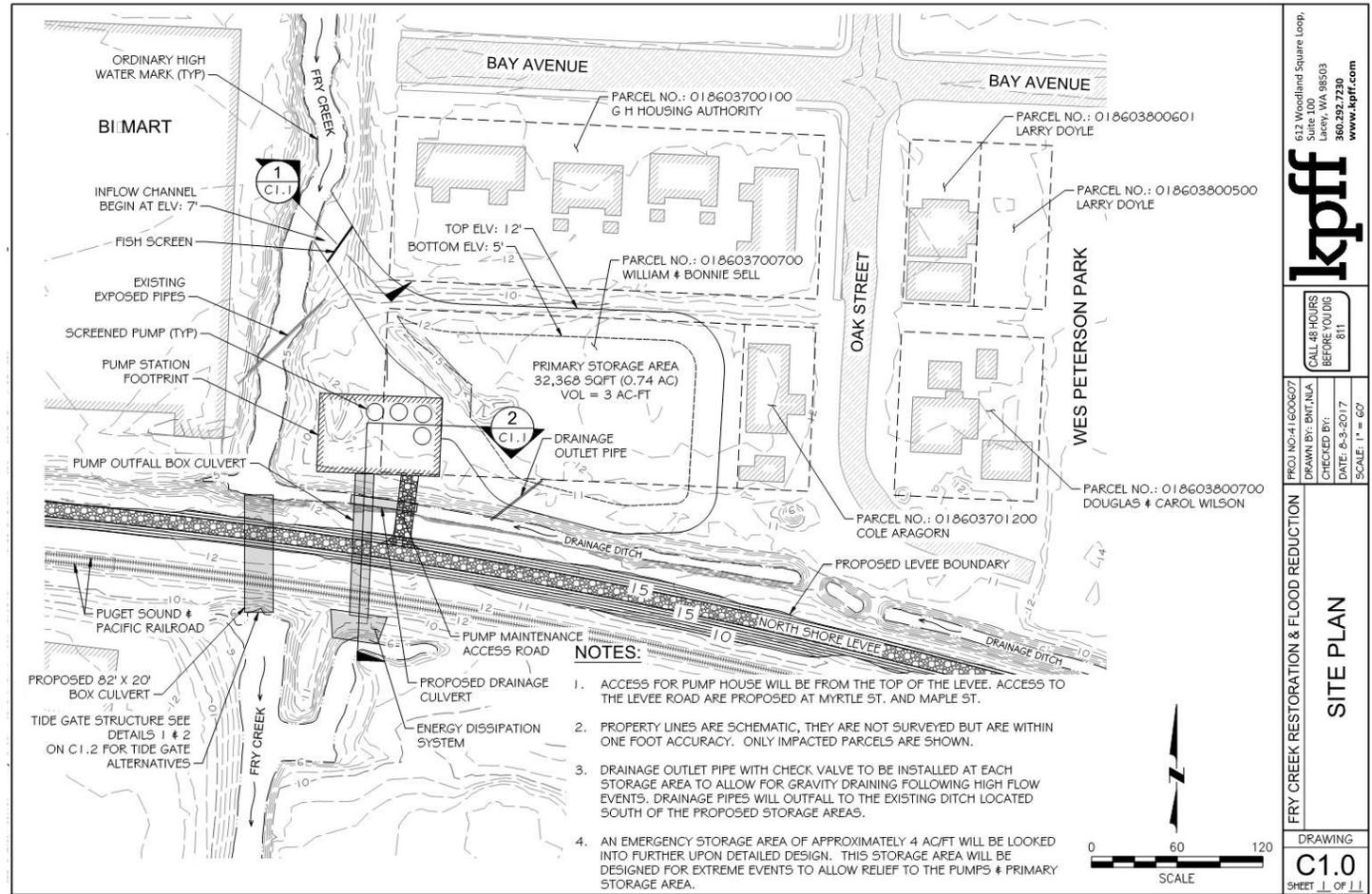
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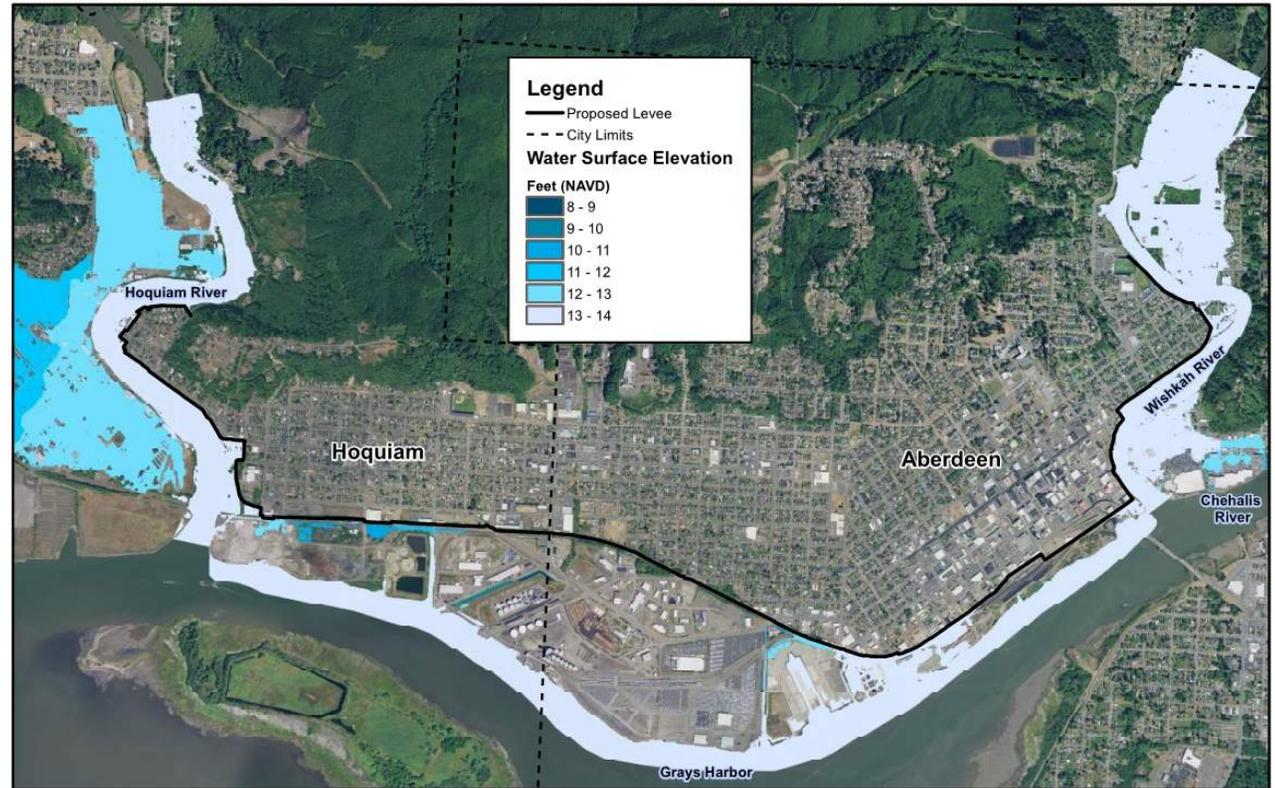


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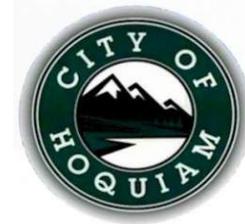


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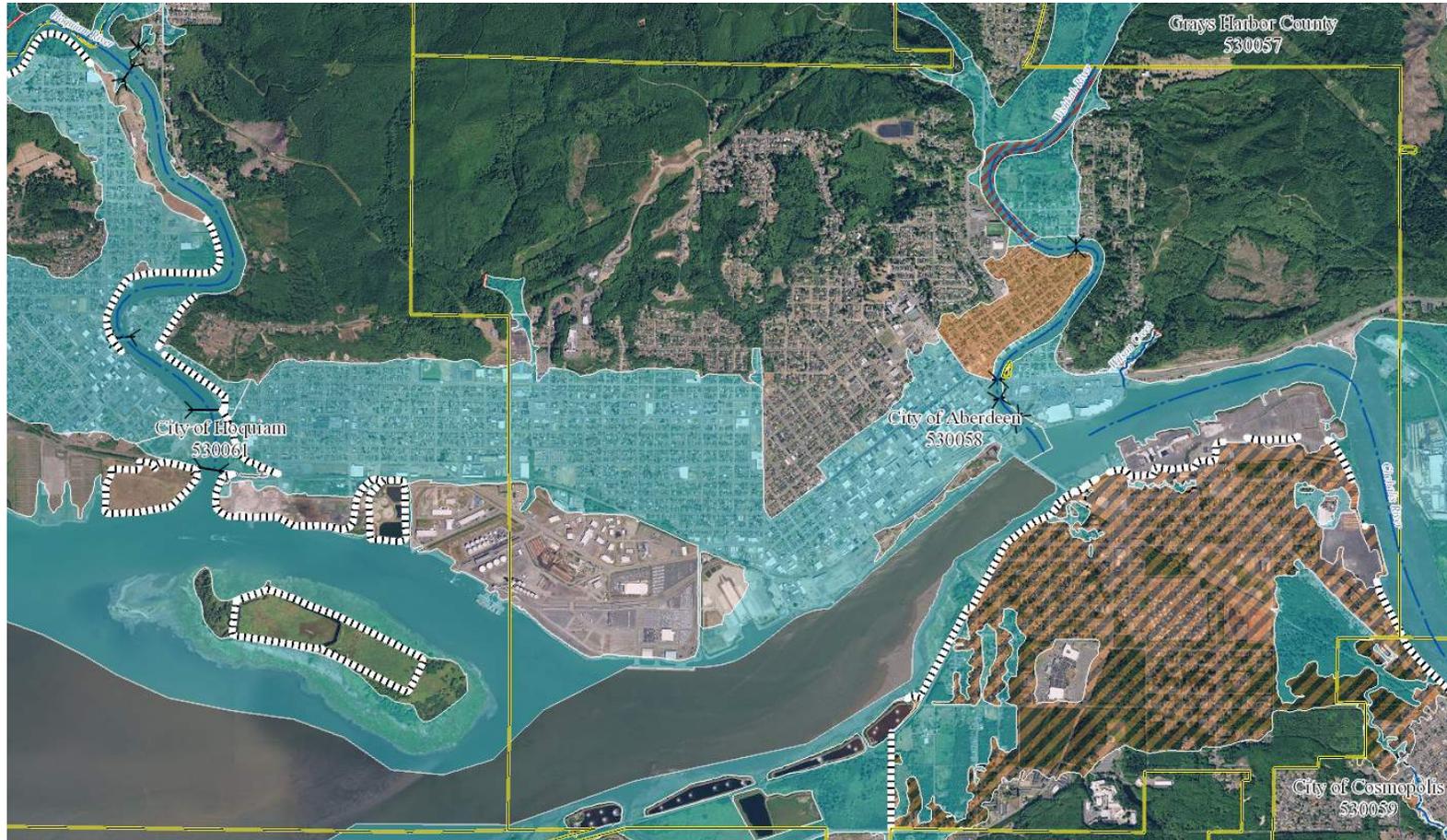


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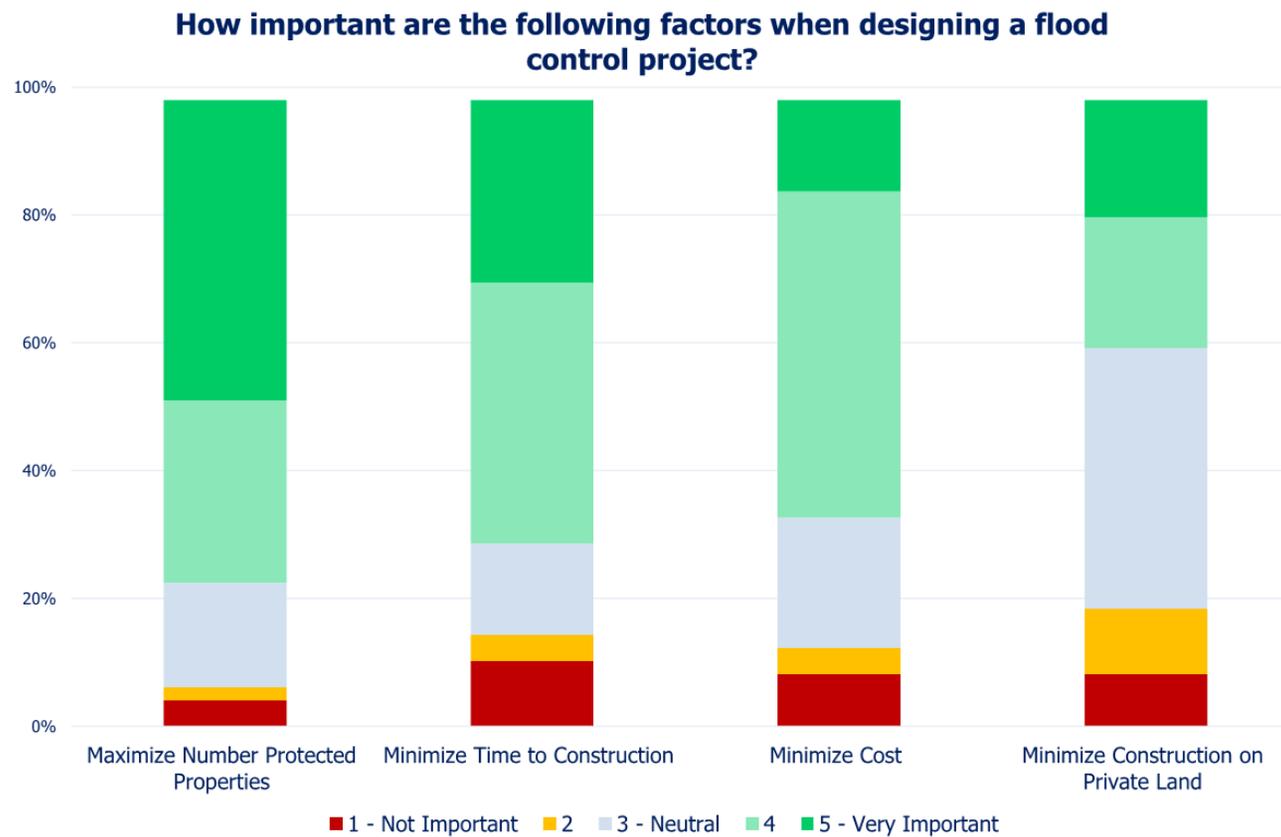
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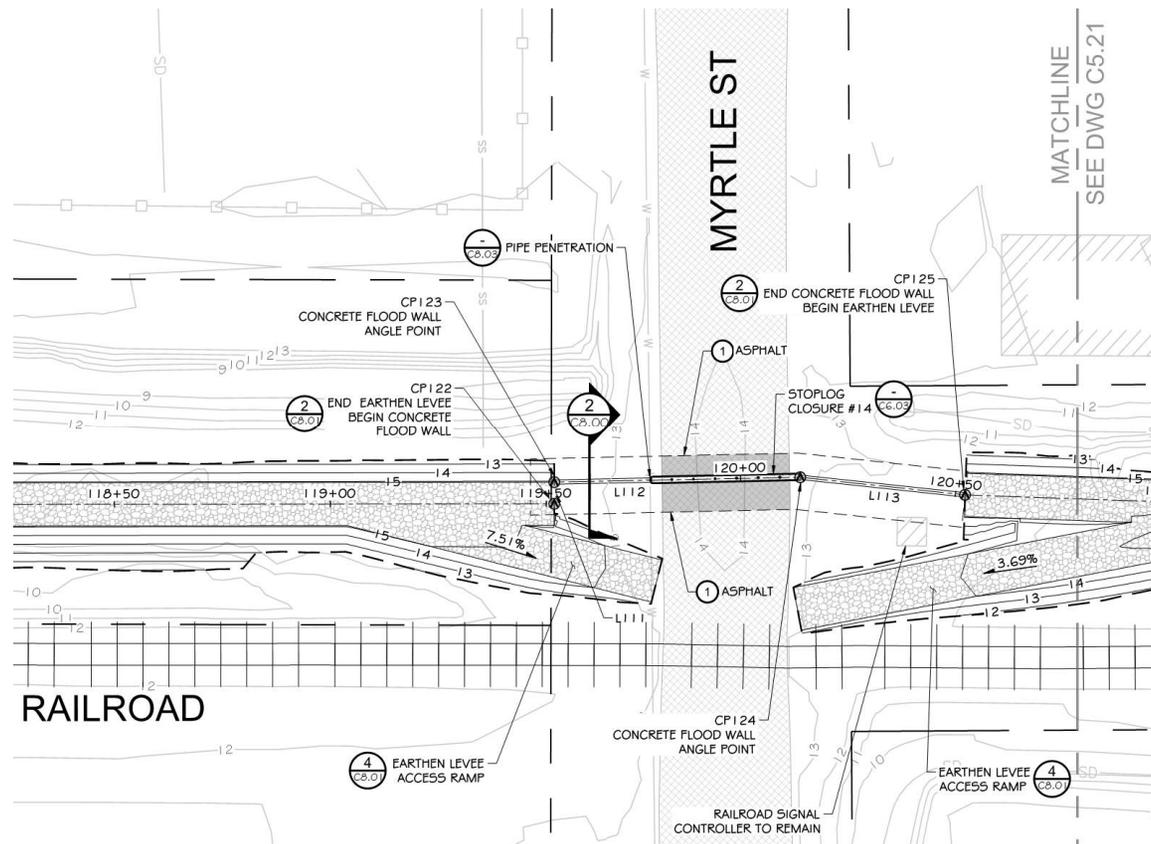
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 **Federal Emergency Management Agency**  
Washington, D.C. 20472

October 5, 2017

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Erik Larson  
Mayor, City of Aberdeen  
Aberdeen City Hall  
200 East Market Street  
Aberdeen, WA 98520

IN REPLY REFER TO:  
Case No.: 17-10-1610R  
Community Name: City of Aberdeen, WA  
Community No.: 530058

Dear Mayor Larson:

We are providing our comments with the enclosed Conditional Letter of Map Revision (CLOMR) on a proposed project within your community that, if constructed as proposed, could revise the effective Flood Insurance Study report and Flood Insurance Rate Map for your community.

If you have any questions regarding the floodplain management regulations for your community, the National Flood Insurance Program (NFIP) in general, or technical questions regarding this CLOMR, please contact the Director, Mitigation Division of the Federal Emergency Management Agency (FEMA) Regional Office in Bothell, WA, at (425) 487-4682, or the FEMA Map Information eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

  
Patrick "Rick" F. Sacibit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration

List of Enclosures:  
Conditional Letter of Map Revision Comment Document

cc: The Honorable Jasmine Dickhoff  
Mayor, City of Hoquiam

Mr. David Radabaugh, CFM  
Washington Department of Ecology

Mr. Kris Koski, P.E.  
City Engineer  
City of Aberdeen

Mr. Mark Steepy, P.E.  
KPF Consulting Engineers

Mr. Brian Shay  
City Administrator  
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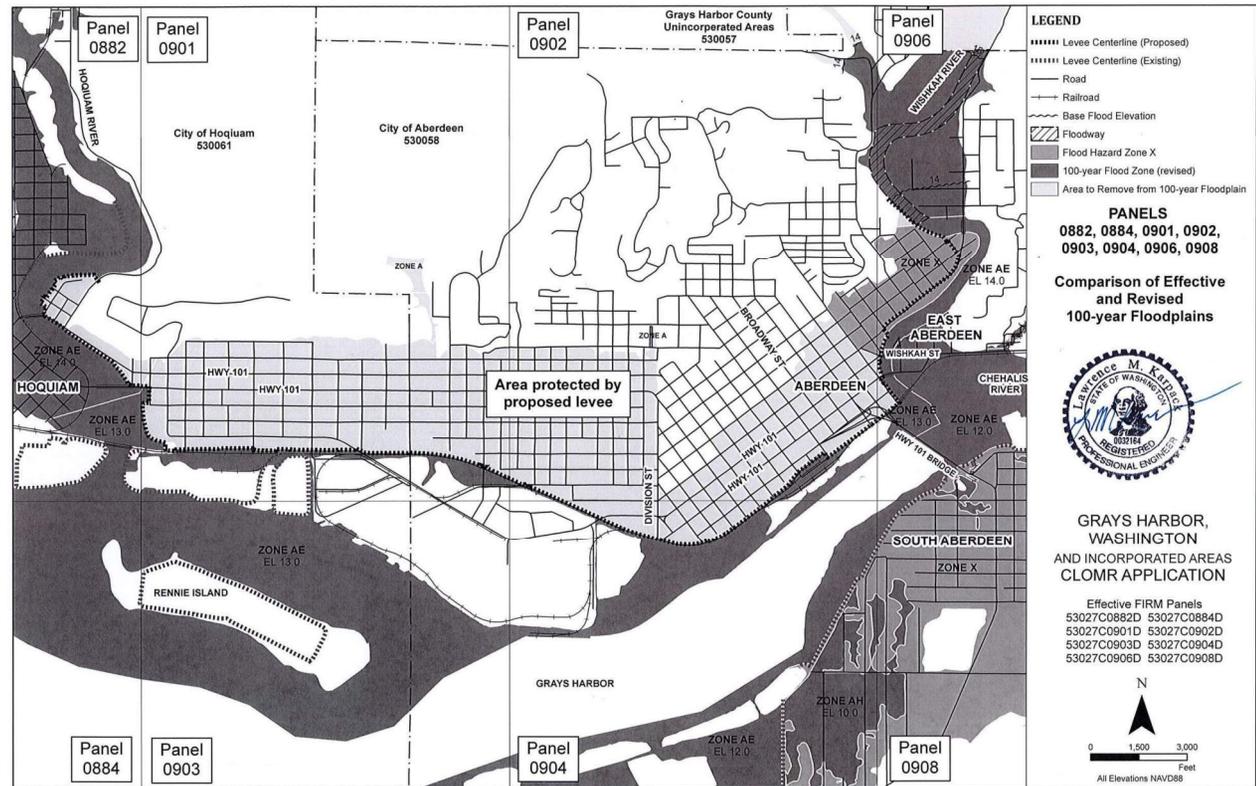


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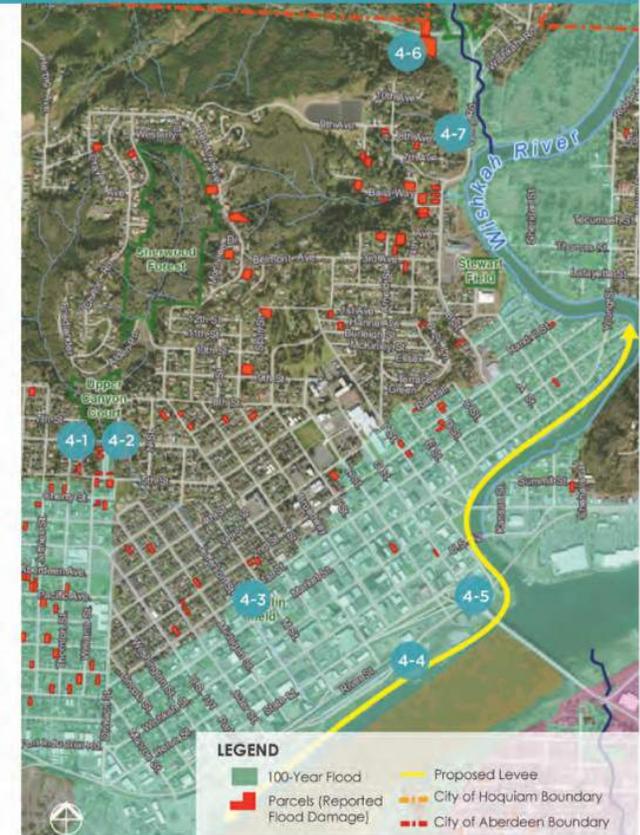
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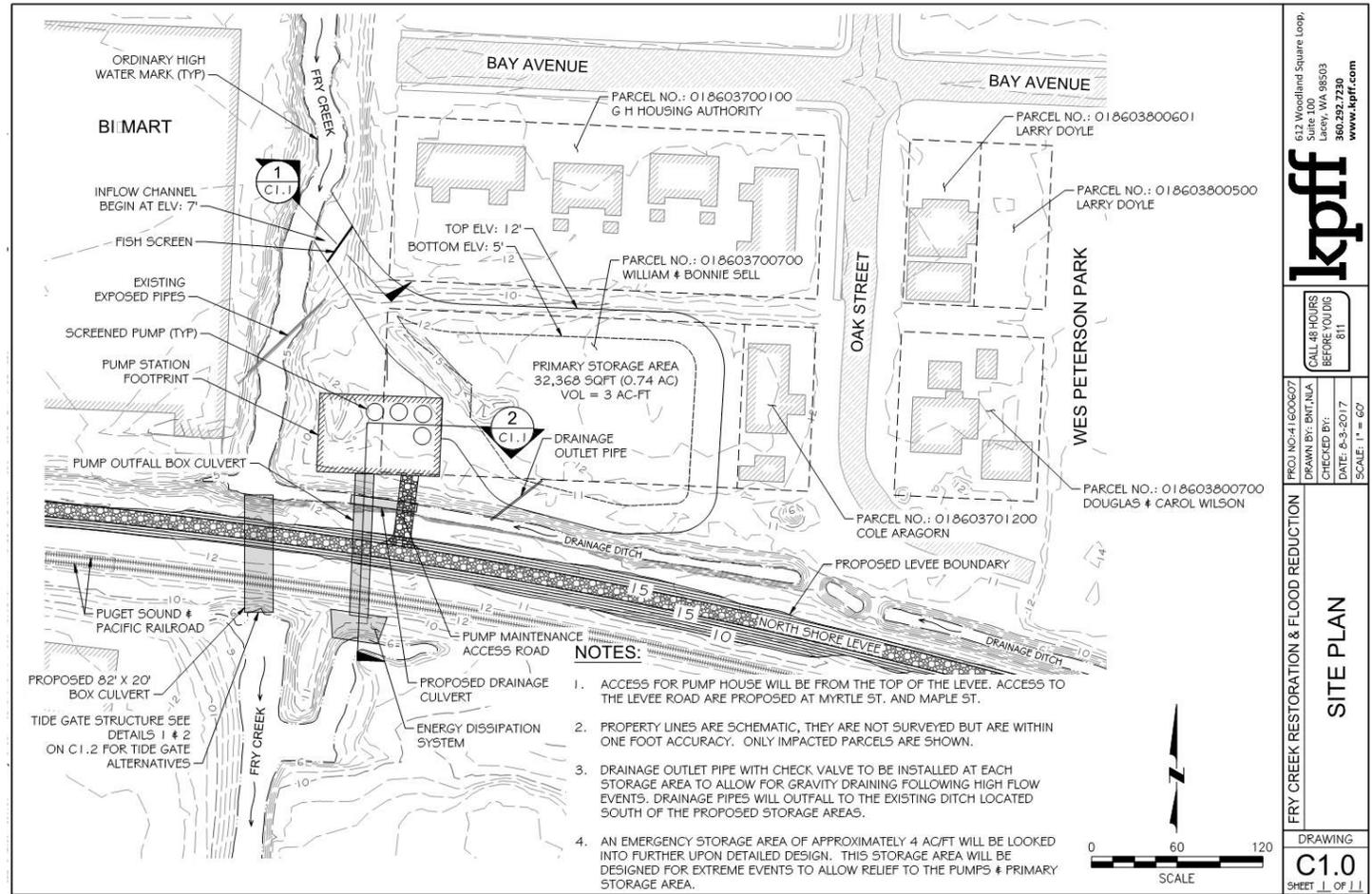
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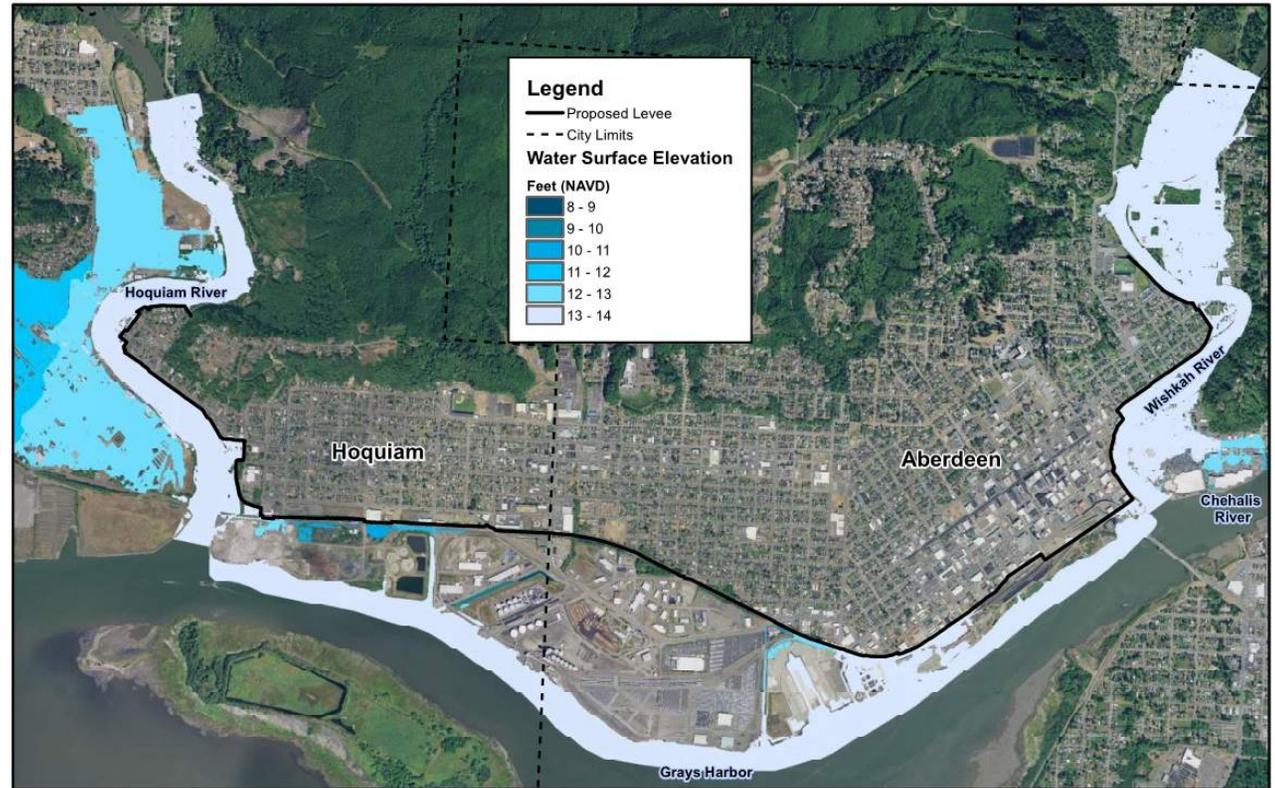


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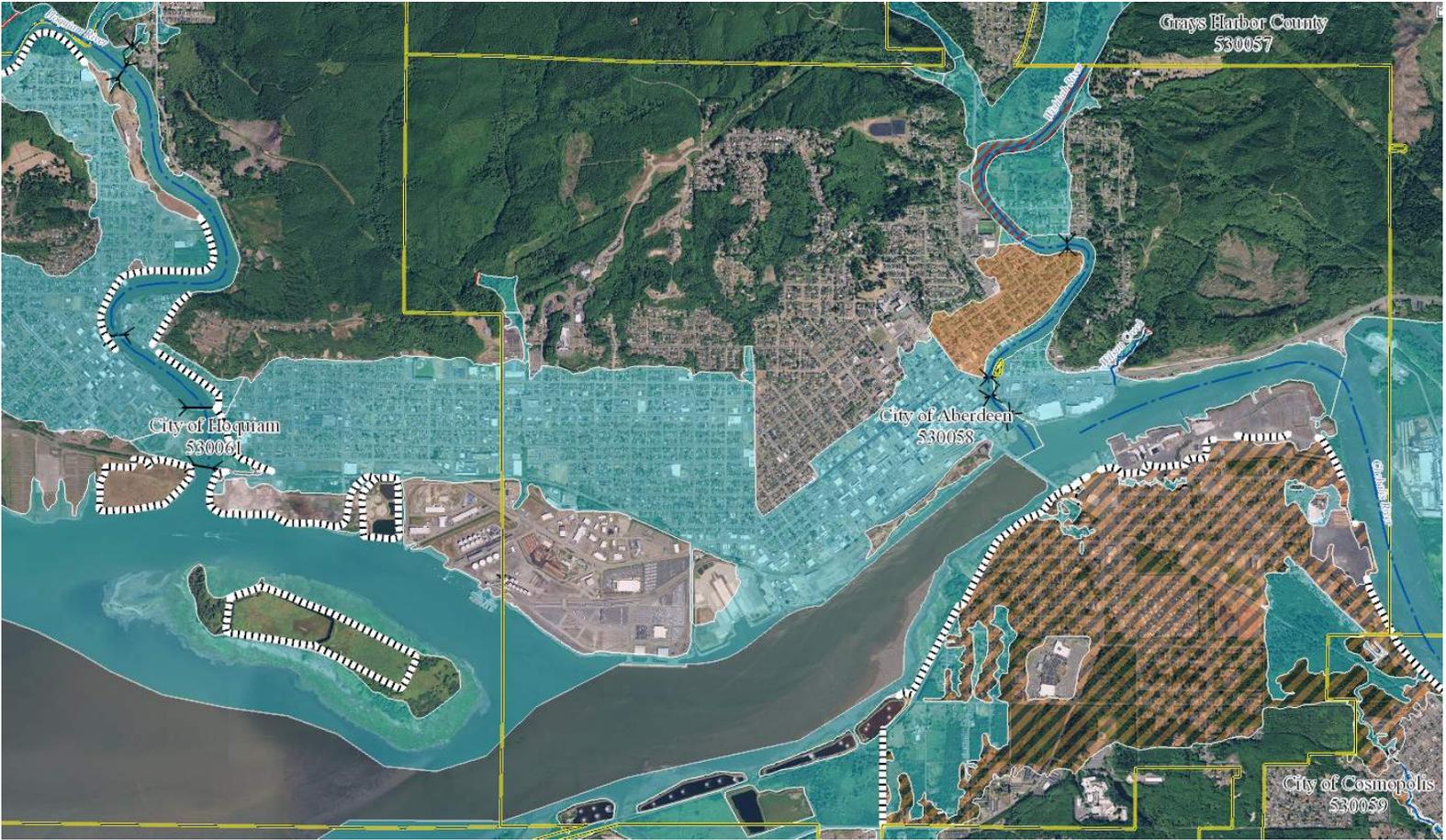


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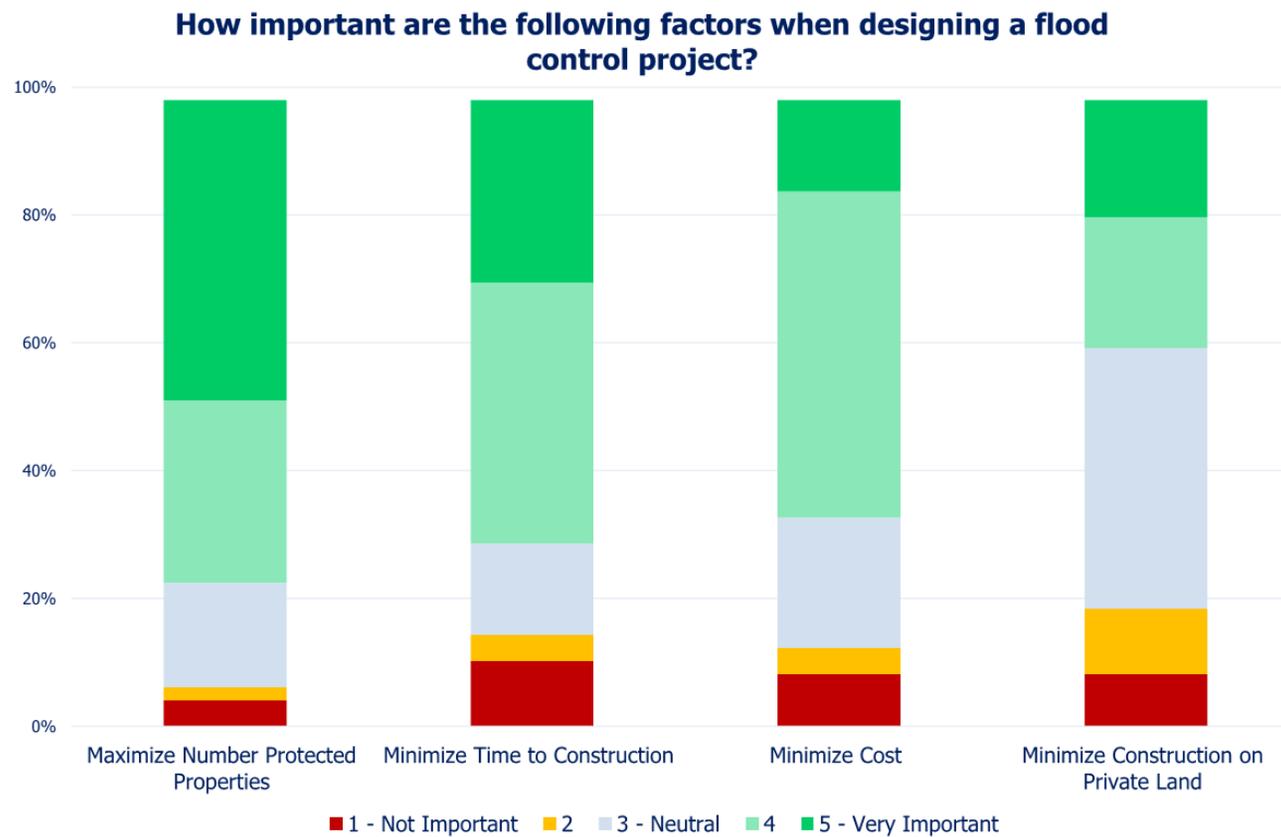
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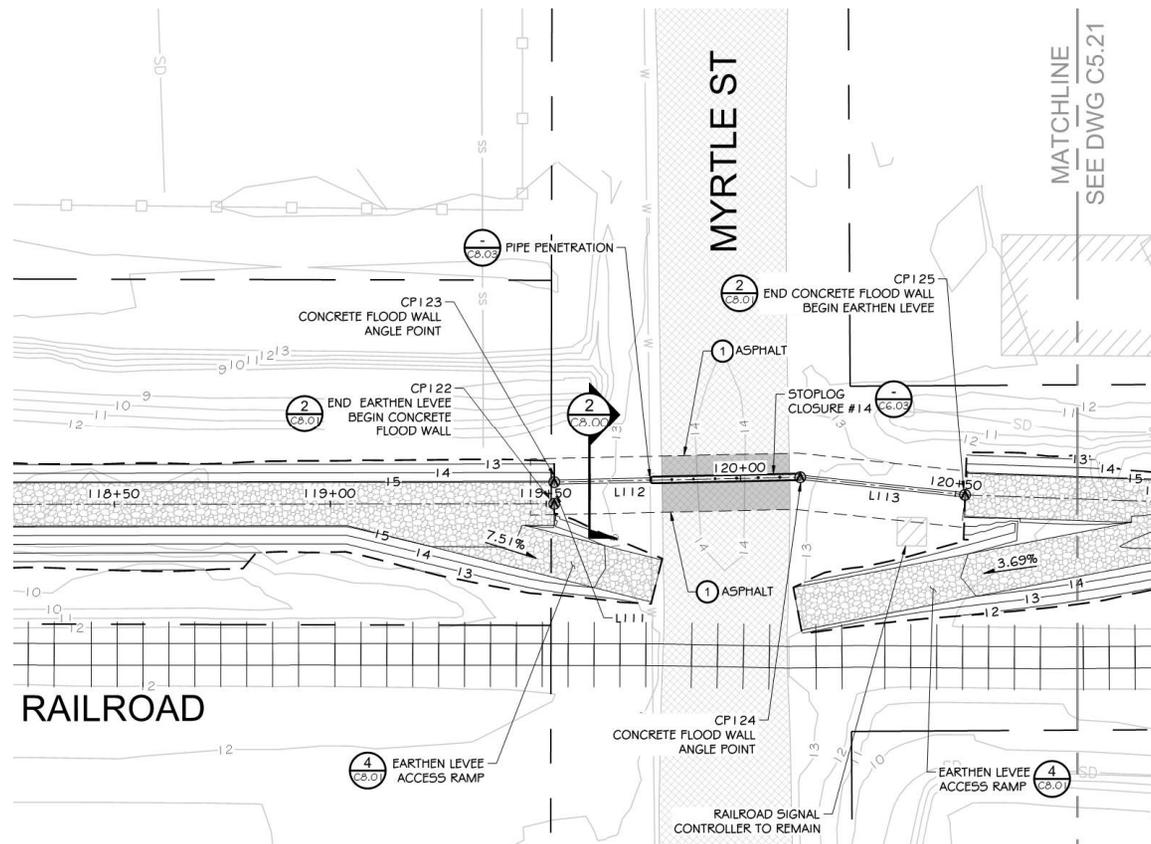
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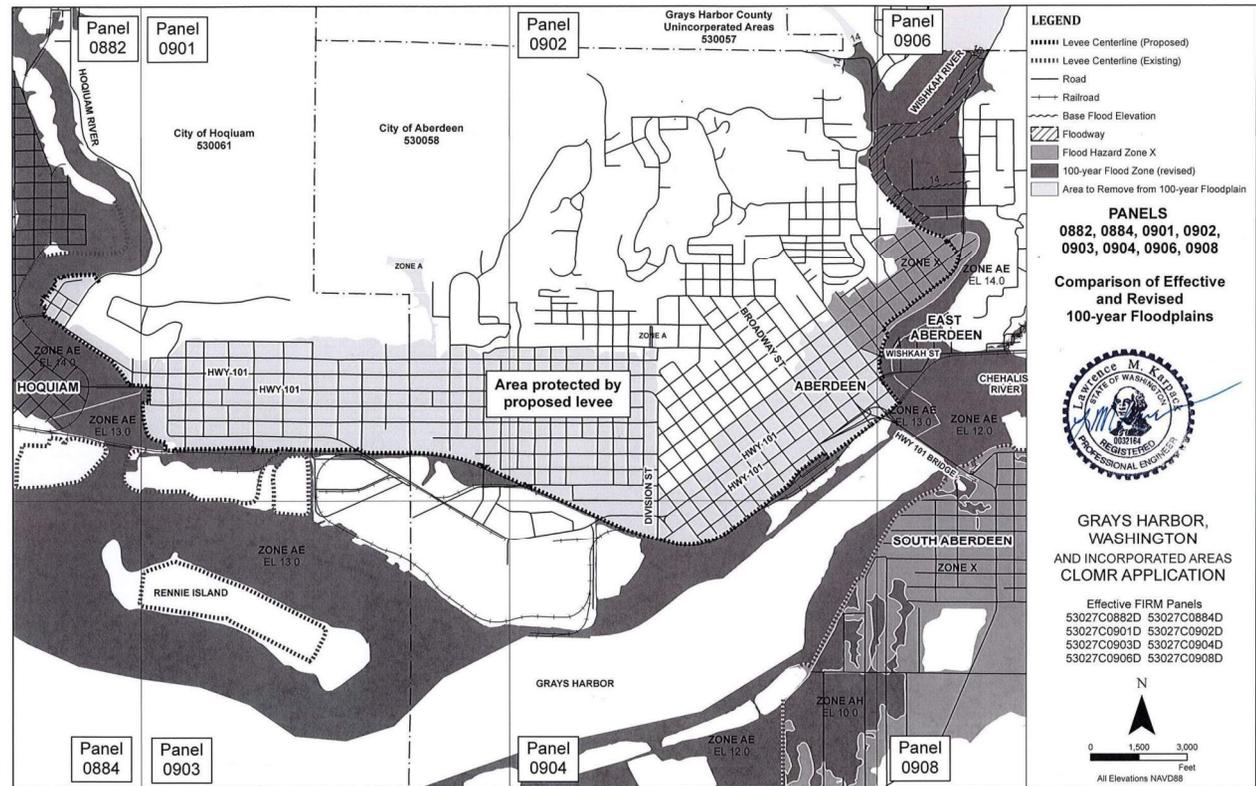
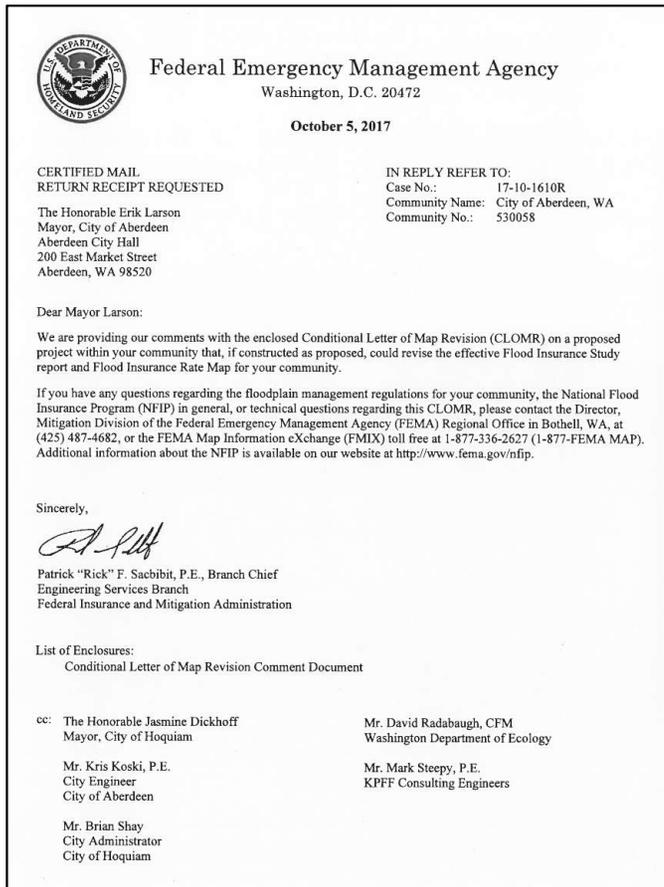


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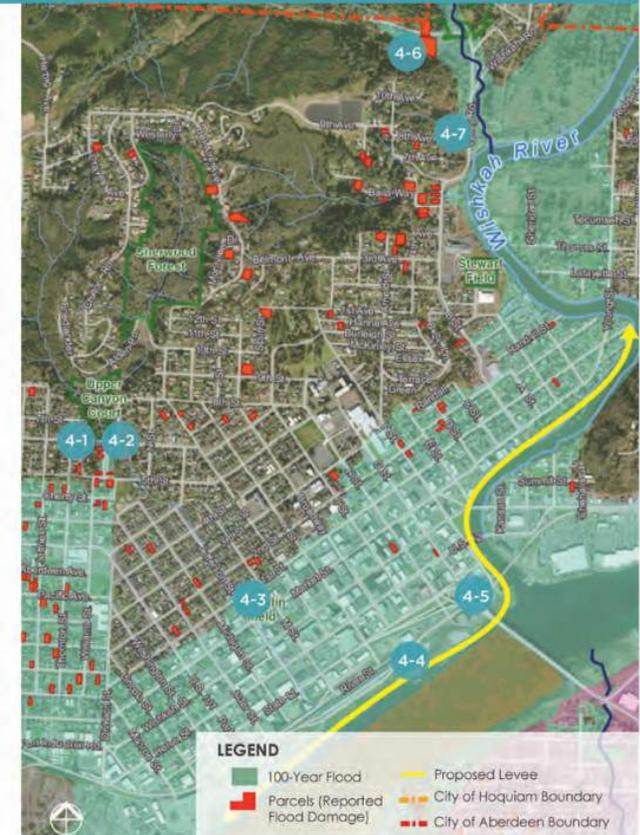
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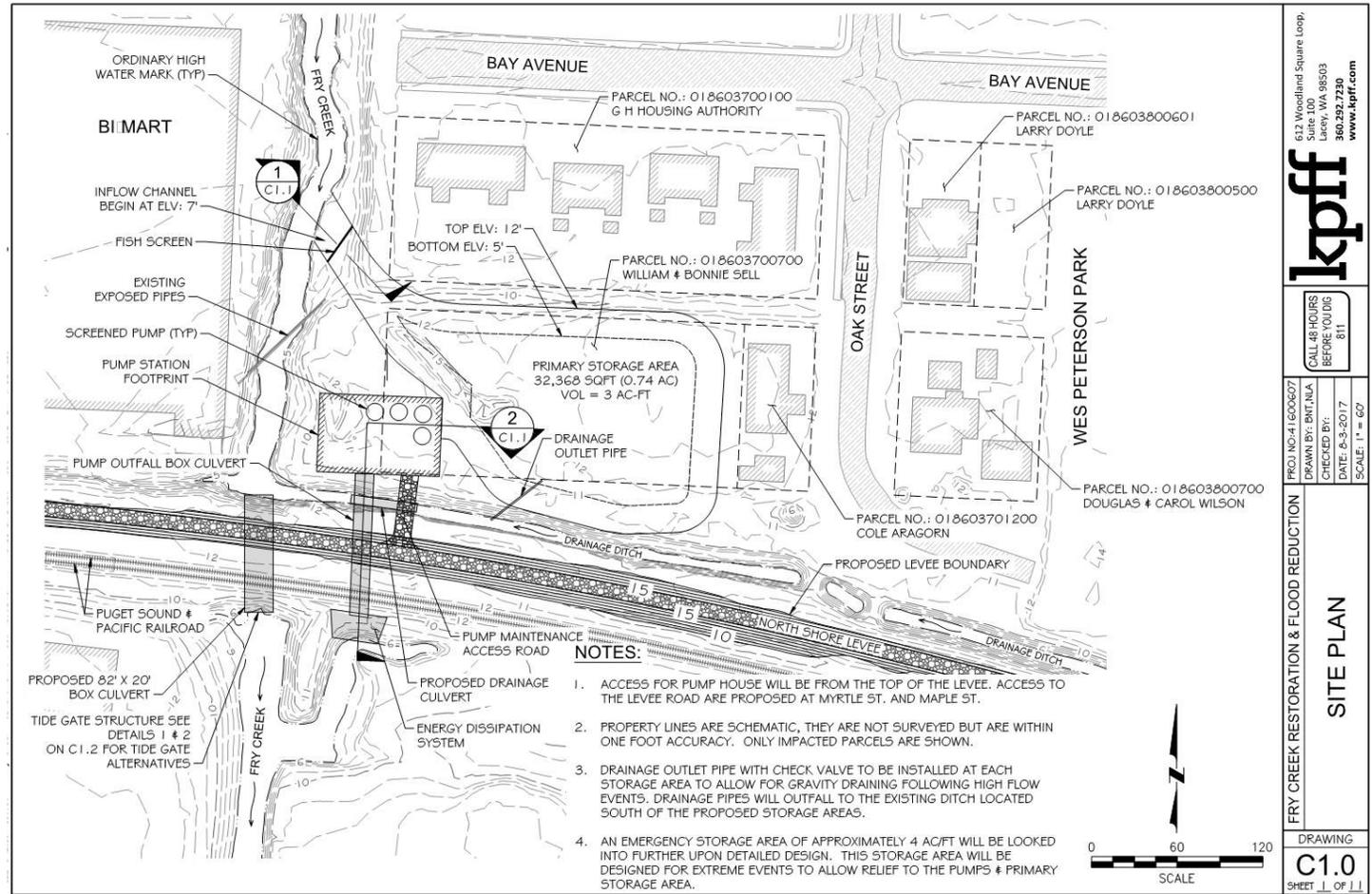
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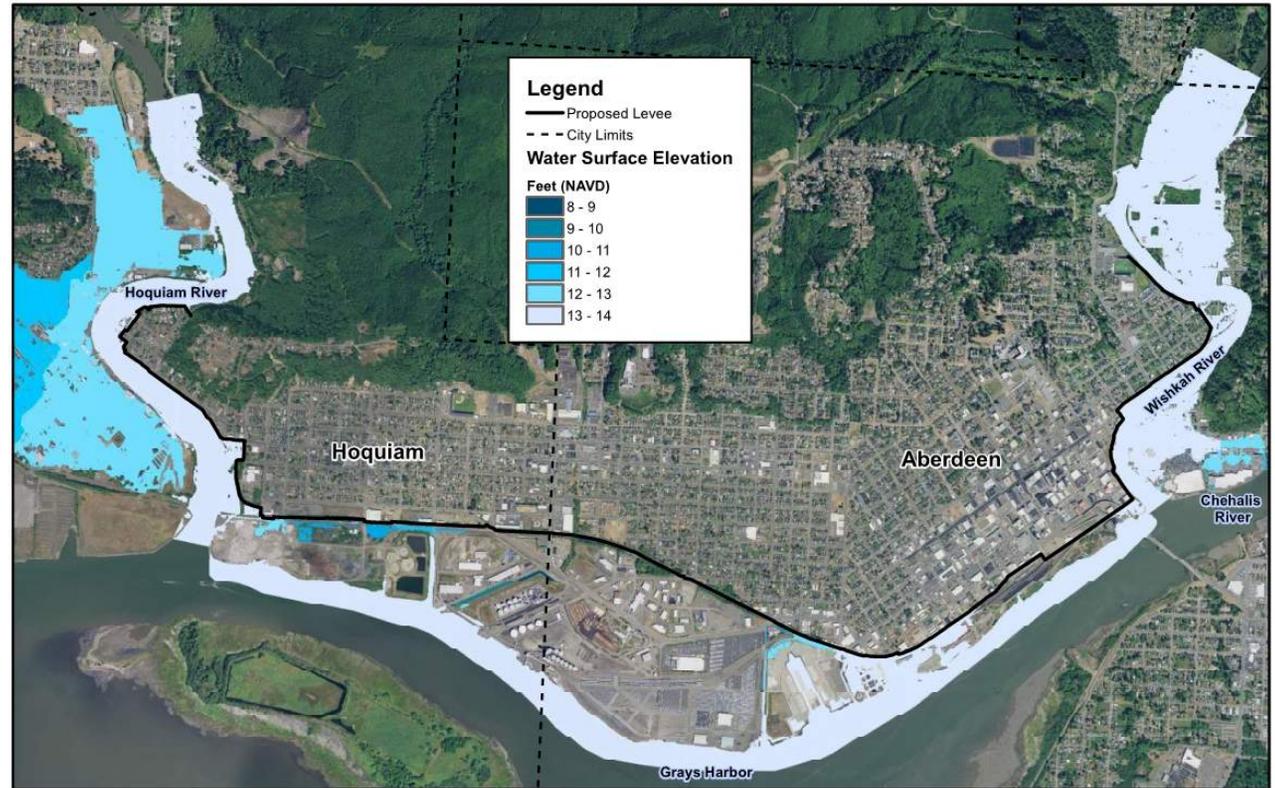


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