

An aerial photograph showing a wide river flowing through a city. The river is in the center-right, with a road and green fields along its left bank. In the background, there are industrial buildings and a city skyline under a cloudy sky.

# Levee Ready Columbia 2018 Update

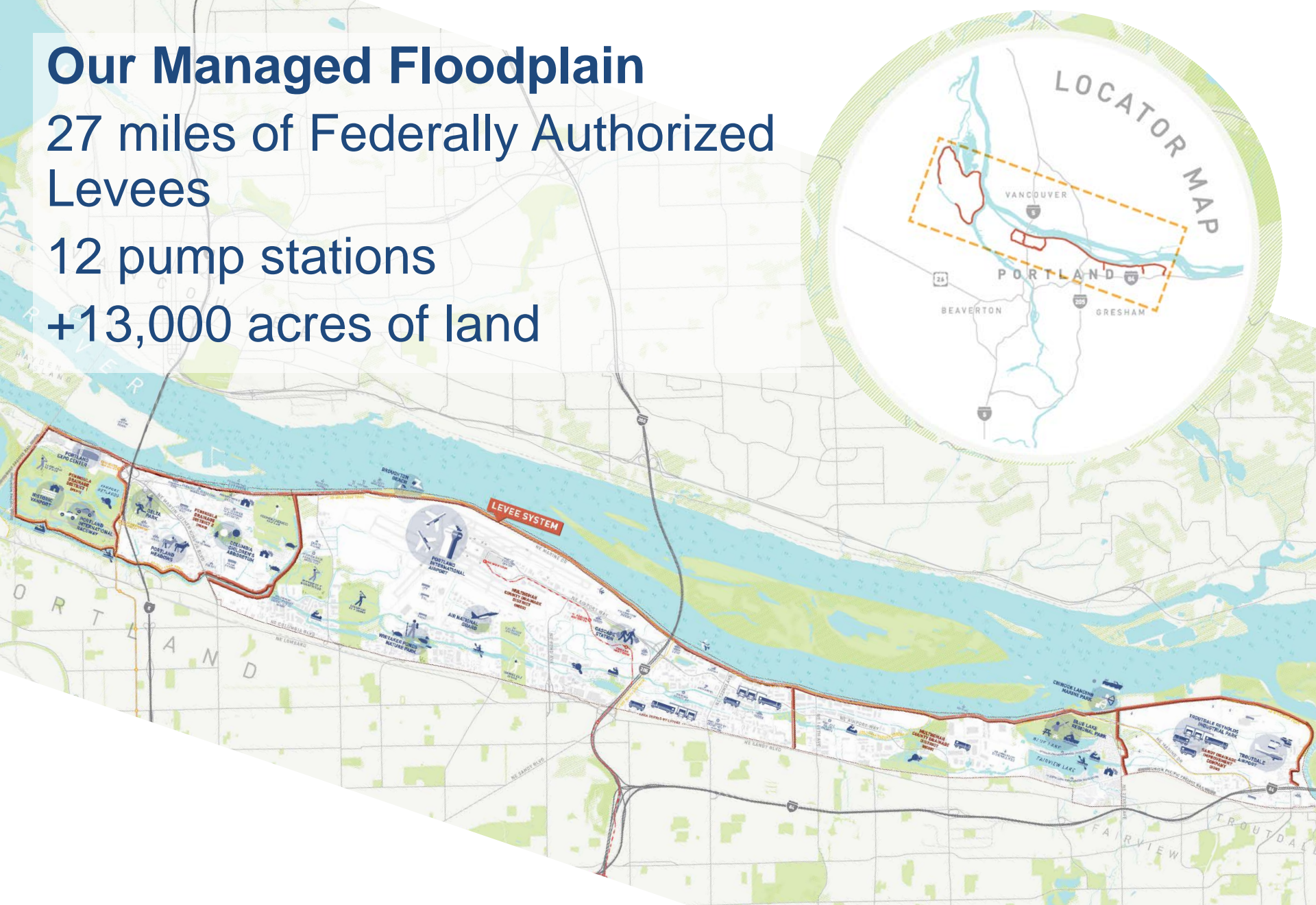
Presentation to the Multnomah County Board of Commissioners  
December 11, 2018

# Our Managed Floodplain

27 miles of Federally Authorized  
Levees

12 pump stations

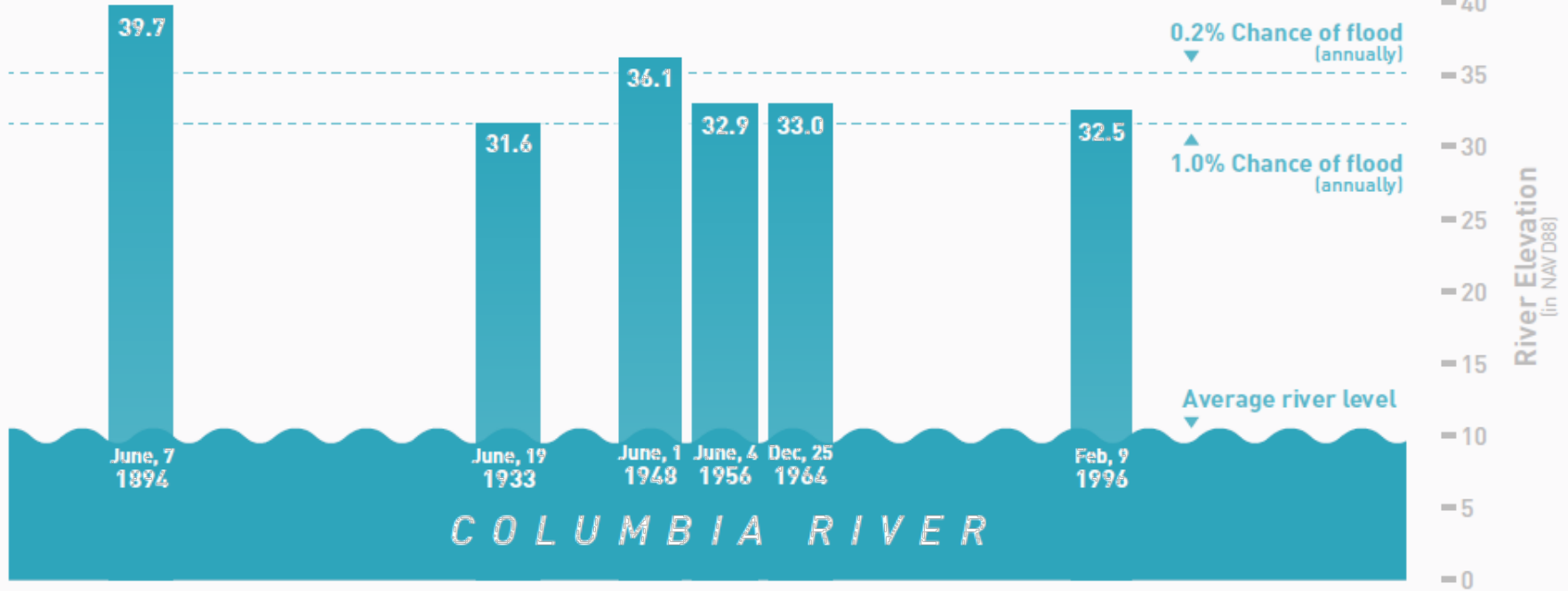
+13,000 acres of land



# A History of Floods



507 COLUMBIA RIVER FLOOD 5/30/48 5:30 P.M.



# Levee Ready Columbia Project Partners

- City of Portland
- City of Gresham
- City of Fairview
- City of Troutdale
- Metro
- Multnomah County
- Port of Portland
- Peninsula Drainage District #1
- Peninsula Drainage District #2
- Multnomah County Drainage District
- Sandy Drainage Improvement Company
- State of Oregon
- Representatives from neighborhood associations, business, environmental, and public interest non-profits



# What's at Risk Behind the Levees?

- 8,000 residents
- +48,000 jobs
- Regional transportation nexus
- Our industrial core
- Parks, open space, and quiet places

## Recreation & Culture

OVER  
**2,000**   
Acres of parks, open spaces, and recreational areas

 **17**  
MILES  
Marine Drive multi-use path

 Ikea  
Walmart  
Target  
Lowes  
HomeDepot

**15**   
Miles of water trails  
FOR CANOES AND KAYAKS

**8,000**   
Residents served

## Nature & Habitat

 Western Painted Turtle  
Western Pond Turtle  
Beaver

**175**   
Species of birds  
IN THE WATERSHED

**1.4** million  
native trees and shrubs  
PLANTED ALONG ENTIRE SLOUGH BY  
CITY OF PORTLAND AND PARTNERS

## Drinking Water

**#2** Largest source of drinking water in Oregon   
#1 = BULL RUN RESERVOIR

## Jobs & Economy

 **50%**  
of region's manufacturing & warehouse jobs

**\$16** billion  
in annual economic activity

**\$5.5** billion  
in property value

 **20 million**  
passengers annually at PDX

 **3** interstates  
 **2** MAX lines  
 **2** railroads  
 **2** airports

## Levee Ready Columbia Accomplishments

- Completed first-ever geotechnical evaluations
- Advocated for—and landed—the \$3M Feasibility Study
- Completed a series of investigations:
  - Risk Assessment
  - Climate Change Study
  - Environmental Conditions Assessment
  - Economic inventory
  - Encroachment study; securing legacy encroachment status
  - Supports inspection program compliance

## ...and Continued Conversations

- Long-term governance
- Feasibility study and certification project costs
- Participation in the Feasibility Study

## Columbia Corridor Levee & Governance Modernization Timeline

### 2014-2018 Discovery Phase

- Facilitation
- Technical Investigation
- System Inventories
- Public Outreach and Education
- Governance research and analysis

### 2019-2024 Project Planning

- Feasibility Study Coordination
- Certification Projects & Levee Modernization
- Communication & Public Outreach
- Governance work

### Modernized Governance Structure

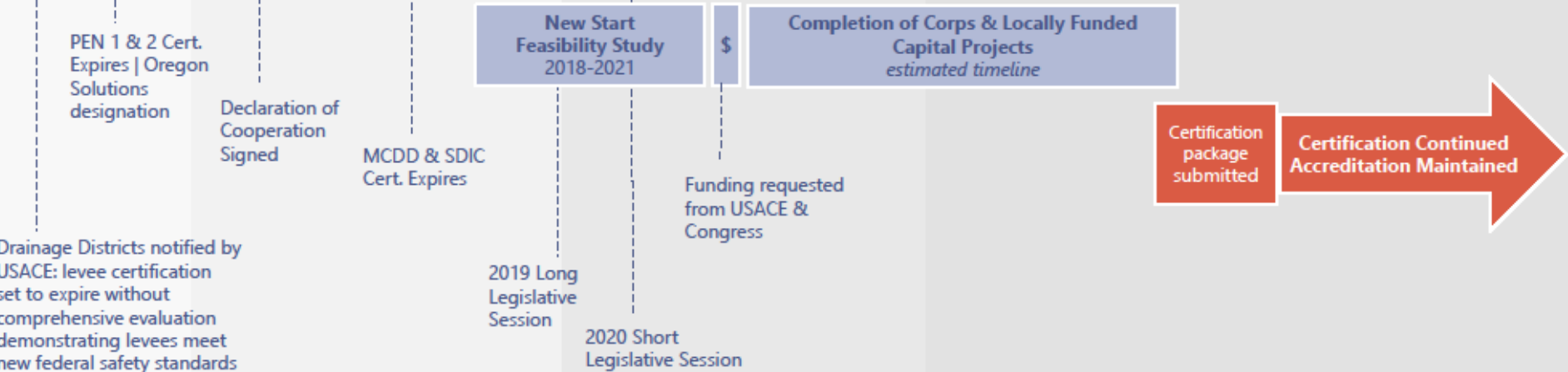
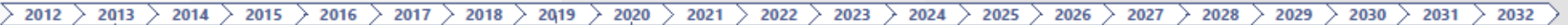
New district established by the state legislature based on the legislative proposal developed by LRC partners

IGA #1  
2014-2015

IGA #2  
2015-2017

Amendment  
2017-2019



IGA #3  
2019-2024



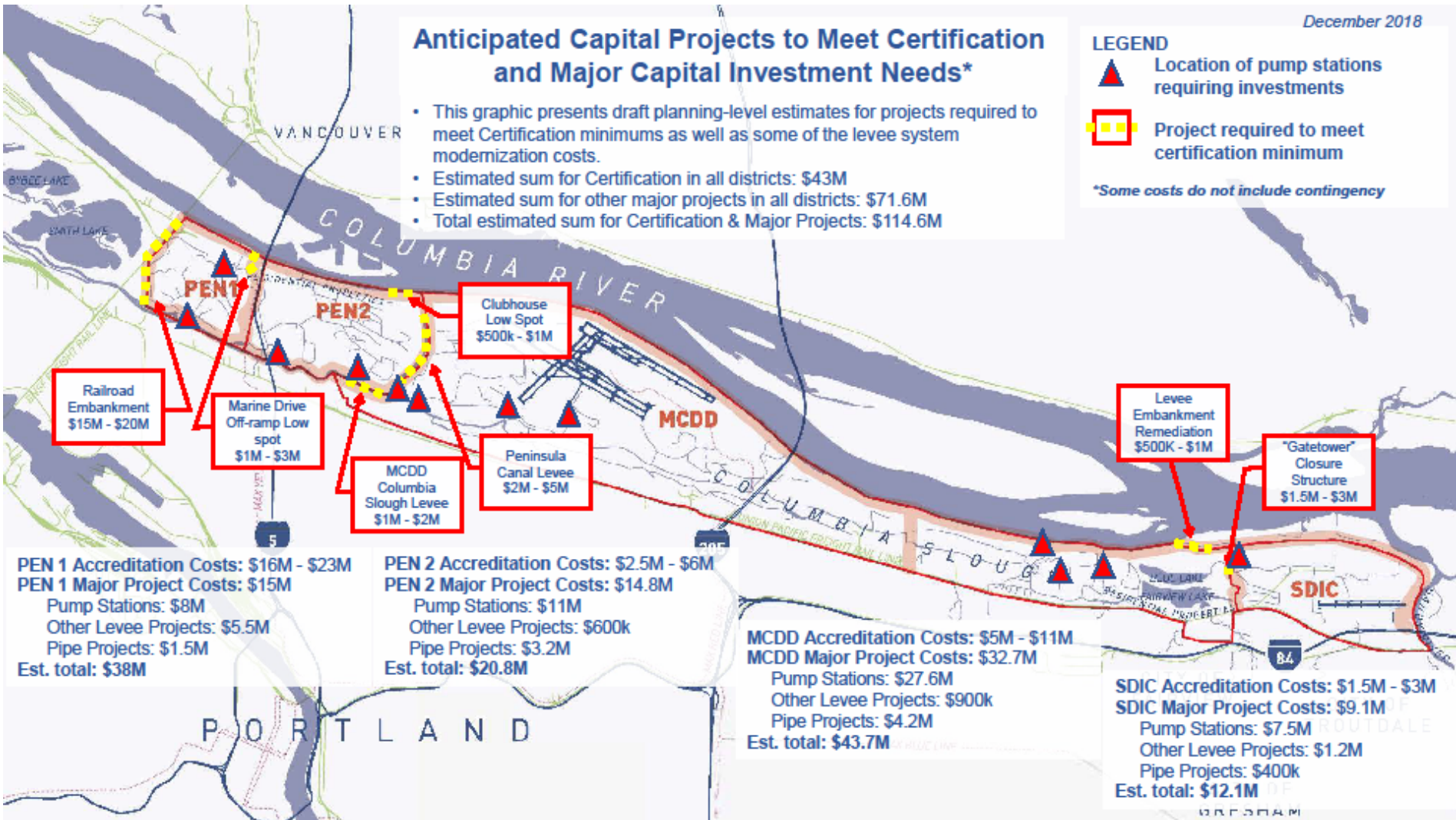
## Anticipated Capital Projects to Meet Certification and Major Capital Investment Needs\*

- This graphic presents draft planning-level estimates for projects required to meet Certification minimums as well as some of the levee system modernization costs.
- Estimated sum for Certification in all districts: \$43M
- Estimated sum for other major projects in all districts: \$71.6M
- Total estimated sum for Certification & Major Projects: \$114.6M

### LEGEND

-  Location of pump stations requiring investments
-  Project required to meet certification minimum

\*Some costs do not include contingency

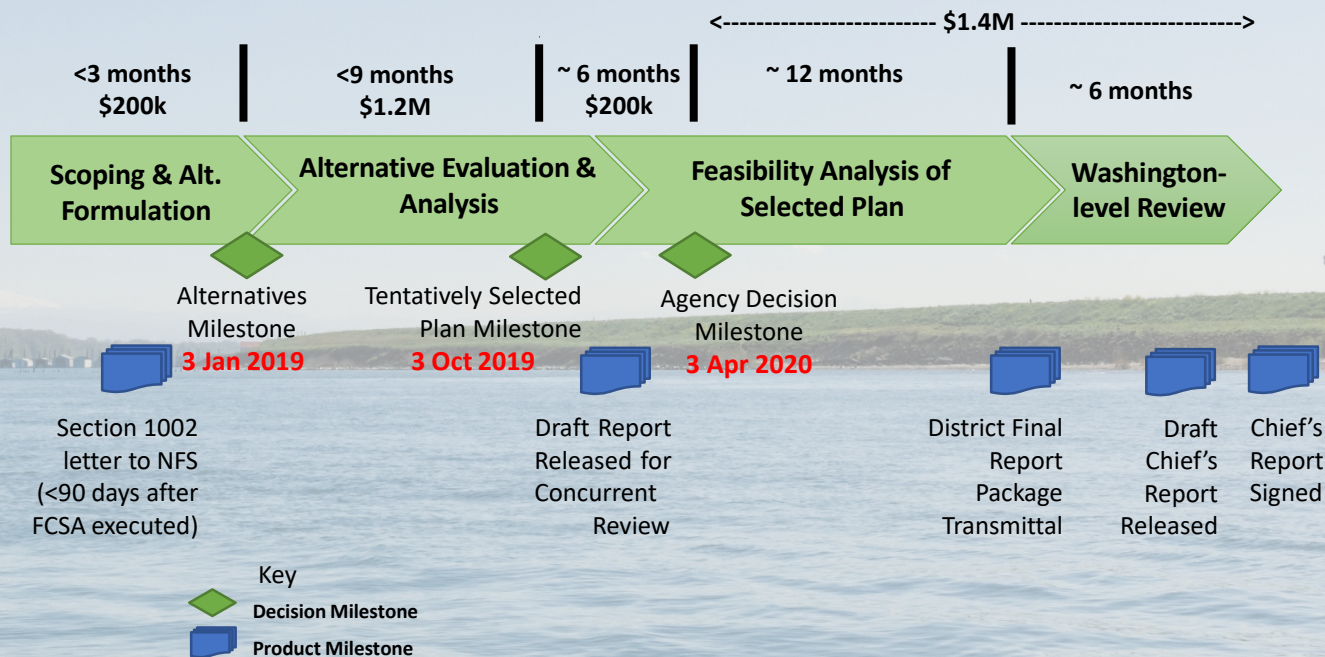


## Portland Metro Levee System, GI Study

### THE FEASIBILITY STUDY PROCESS:

#### KEY DECISION & PRODUCT MILESTONES IN A 3-YEAR, \$3M STUDY (3X3)

FY	2019	2020	2021
NWP Request	\$2.0M	\$0.8M	\$0.2M



## 2019-2024 LRC IGA's Purpose

1. Continues LRC Partners' work toward recertification
2. Establishes *temporary* decision-making and staffing structure
3. Continues public outreach and public information efforts
4. Funds coordination of the US Army Corps of Engineers' New Start Feasibility Study
  - Development of Locally Preferred Plan and Alternatives
  - Project management and coordination; communication and public outreach related to the Feasibility Study
5. Continues long-term governance work



# Long-term governance challenge

- **Benefits and burdens:** The status quo does not equitably allocate costs of flood risk management in the Columbia Corridor to the many beneficiaries of the system.
- **Fragmented responsibility:** Responsibility and authority for vital functions are fragmented across several jurisdictions. No single entity is responsible for reducing flood risks.
- **Insufficient revenue:** The existing four drainage districts assessments are limited. Revenues will need to approximately triple to support the system.

# Levee Ready Columbia Next Steps

- Parties to sign IGA to continue program
- New governance conversation continues
  - 2019 Legislative session update
- USACE New Start Feasibility Study timeline





# **Sauvie Island Levee System 2018 Project Update**

Board Briefing  
December 11, 2018  
Department of Community Services

## Sauvie Island Levee System

Completed in 1942

Local Sponsor: Sauvie Island Drainage Improvement Company (SIDIC)

18 miles of levee

35 miles of drainage canals

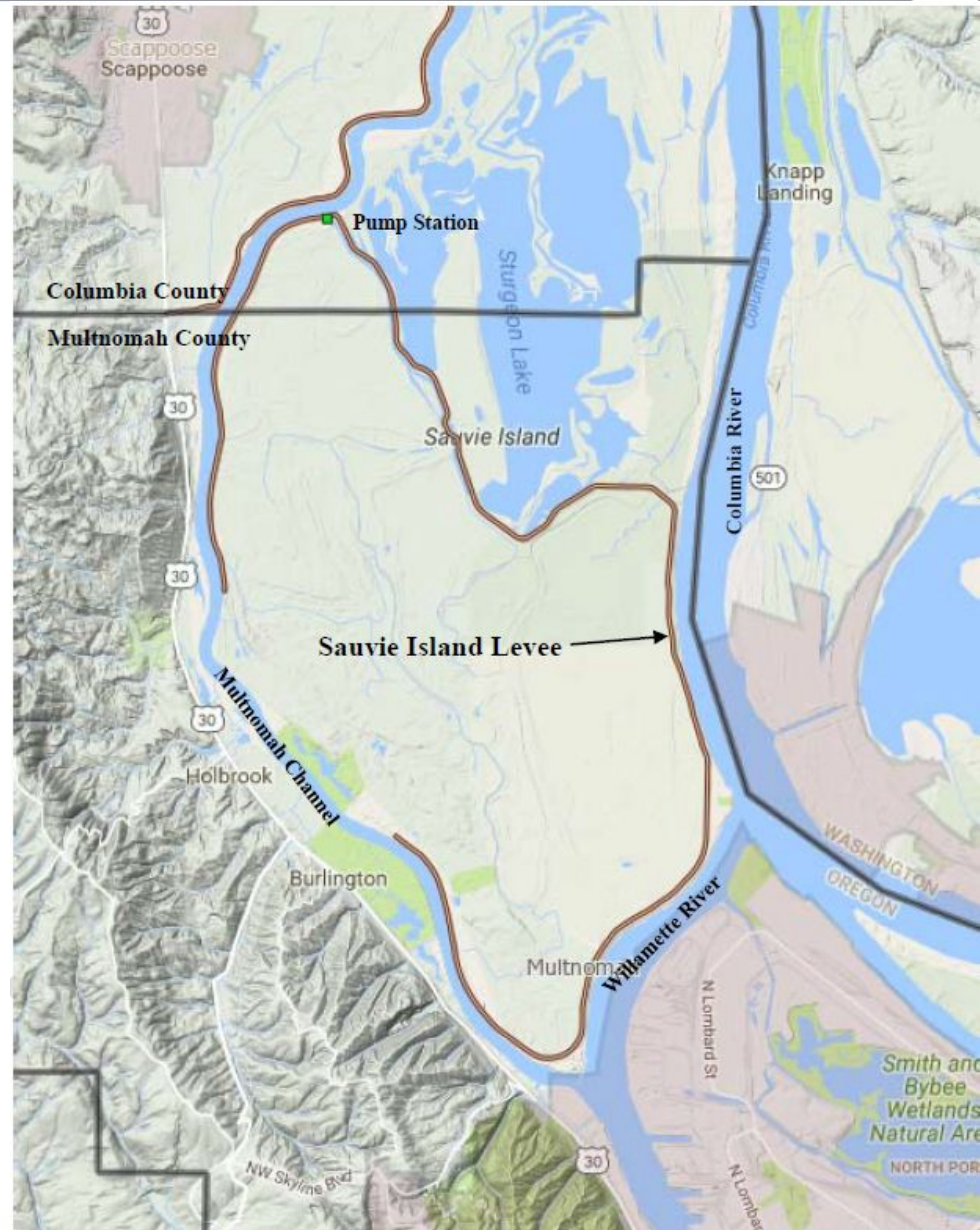
1 main pump station

3 internal drainage pump stations

Protects 640 residents

If a levee breach occurred during a 100-year flood, it is estimated that

- 60% of residents would be displaced
- 70% of buildings would be exposed to flood waters
  - Agricultural buildings flooded up to 8 feet
  - Residences flooded up to 5 feet



# Levee Ready Columbia // 2018 Update

U.S. Army Corps of Engineers certification expired in 2017

- County and SIDIC joined Levee Ready Columbia in 2015
- Corps began levee system evaluation in 2016
- Final Step - Agency Technical Review currently underway



## Funding:

- State grants
- Contributions from Multnomah County, Port of Portland, and Natural Resources Conservation Service
- 0% interest loan from State



As part of the evaluation:

- Raised levee in two locations
- Rebuilt two pump motors
- Inspected inlets
- Inventoried and inspected culverts
- Tested interior pumps
- Modeled all culverts for flow and restrictions
- Updated Operations Manual and Emergency Response Plan



## Next Steps:

- Corps finalizes certification package
- SIDIC and County submit to FEMA for review
- FEMA determines if meets accreditation standards

