Levee Ready
COLUMBIA
FLOOD PROTECTION FOR THE PORTLAND COMMUNITY

Sara Morrissey, Program Manager
FMA Annual Conference
September 7, 2016
- Local Challenges
- Levee Ready Columbia
- Collaboration Successes
• Drainage and flood-control system with 45-miles of federally authorized levees
• Drainage Districts operate and manage levees
• Jurisdictions participate in FEMA NFIP
Challenges include:
• Financial
• Authority
• Regulatory
What’s behind the levees?

- 40% of Port of Portland facilities; 12+ million tons of goods per year
- 17% of region’s future buildable industrial land
- $5+ billion in assessed property value
- ~7,500 residents
- 10% of the jobs in Multnomah County
1948 Flood – Railroad Embankment Breach at Vanport

1948 Flood – Columbia Slough breach

1996 Chinook Landing Marine Park: North of the MCDD Marine Drive Levee

2005: Chinook Landing Marine Park
same structure as pictured above in non-flood conditions

Background - History of High Water Events
High Water Event Timeline
Columbia River at Vancouver Gage

Background - History of High Water Events
• Change in system risk profiles
• Development challenges
• Climate change
• Natural resources protection

Project Need - New Era of Challenges
• In 2013, USACE determined that two (out of four) systems no longer provided protection required by FEMA.

• Certification for 2 systems ends in 2013.

• Districts continue to be inspected within PL84-99

• Re-certification process begins
FEMA Biological Opinion

- Highly impacts future floodplain development
- Strengthens the case for accreditation
- Local jurisdictions highly involved

Project Need – Changing Federal Requirements
These large potential costs are beyond any individual jurisdiction or agency’s ability to pay.

The Solution? Levee Ready Columbia
• More than 20 partner organizations
• Collaboratively funded
• Project Team structure
• Focus is accreditation and remaining active in PL84-99.
  • Provide level of protection appropriate to the assets in the districts and the costs of repairs or improvements.

Levee Ready Columbia – Formation

Program Partners
Audubon Society
Bridgeton Neighborhood Association
City of Fairview
City of Gresham
City of Portland
  – Bureau of Environmental Services
  – Bureau of Parks and Recreation
  – Bureau of Development Services
  – Bureau of Transportation
  – Water Bureau
City of Troutdale
Columbia Corridor Association
Columbia Slough Watershed Council
East Columbia Neighborhood Association
Federal Emergency Management Agency
Jubitz Corporation
Metro
Multnomah County
Multnomah County Drainage District #1
Peninsula Drainage District #1
Peninsula Drainage District #2
Port of Portland
Sandy Drainage Improvement Company
Sauvie Island Drainage Improvement Company
State of Oregon
  – Department of Environmental Quality
  – Department of Land Conservation and Development
  – Governor’s Regional Solutions Team
US Army Corps of Engineers
Levee Ready Columbia – Where are we now

**DISCOVERY PHASE 1**
$3.5 MILLION

Levee Engineering Assessments for first two districts

2013

**DISCOVERY PHASE 2**
$5.0 MILLION

Levee Engineering Assessments for final three districts, Inventories and studies

2014

**ANALYSIS & PLANNING**
$TBD

Risk based decision model: Alternatives analysis, System wide design and finance repairs

2015

**IMPLEMENTATION**
$TBD

Implement repairs system wide

2016

**CERTIFICATION & ACCREDITATION**
$TBD

Certify and submit documentation for system wide accreditation

2017

2018
Engineering Analysis

Levee Ready Columbia – Where are we now
PL 84-99 – Rehabilitation and Inspection Program

Pump Station Inspections

Outfall Video Scoping

Relief Well Inspection

Toe Drain Investigation

Levee Ready Columbia — Where we are now
Inventories and Studies for Risk-informed Decision-making

- Climate Change
- Economic Inventory
- Environmental Inventory
- Community Asset Mapping

Levee Ready Columbia – Where are we now
Community Outreach – Events and Information

Levee Ready Columbia – Where are we now
Identify Mutual Responsibility

Shared Risk

Shared Benefits

Shared Responsibility

Lessons Learned
Lessons Learned

Meaningful Engagement w/ Stakeholders

Engage Project Partners – mutual decision-making and results

Engage the Community – digestible information
# Lessons Learned

## Pursue multiple avenues of funding

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<th>Jurisdiction</th>
<th>IFA Loan Contribution</th>
<th>FY 16 Cash Contributions</th>
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Roll on Columbia, roll on

Continued Partnerships

Long-term funding for levee programs

Mutual decision-making for alternatives

Certify levee system

Remain in good standing in federal programs: accredited and active in PL84-99

Next Steps
Questions?
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