

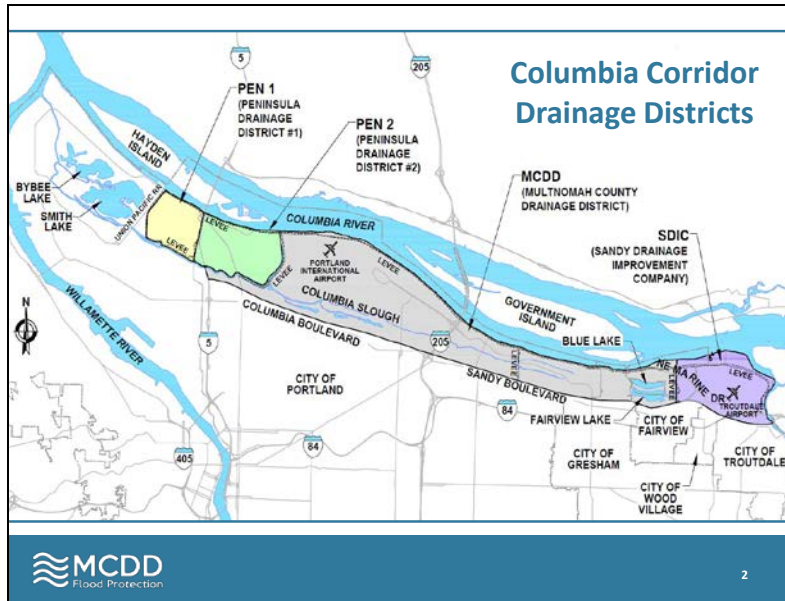
MCDD
Flood Protection

The Columbia Corridor Levee System
Context and Current Challenges

Presented by:
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Oregon Solutions Governance Subcommittee Meeting
February 14, 2014

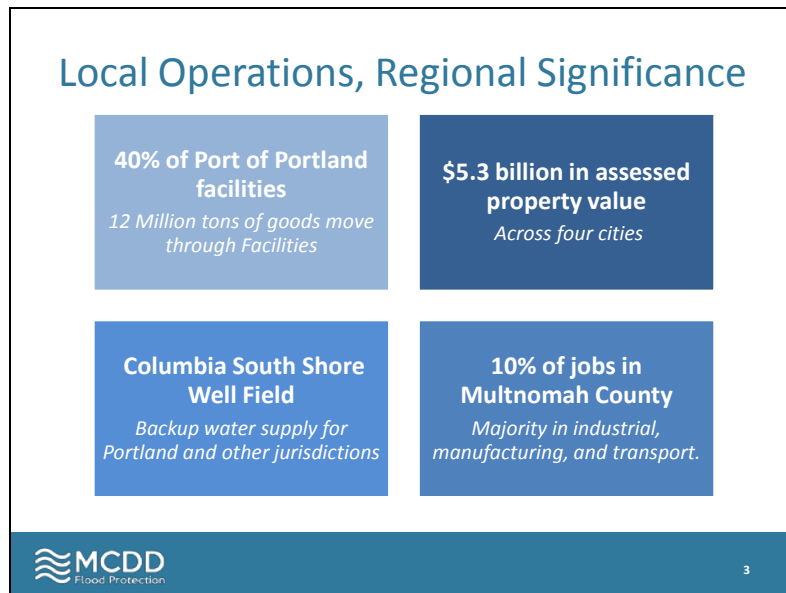
- Oregon Solutions provides a system and process for problem solving. The program pulls together community leaders to define a problem, agree on a solution, and collaborate towards a resolution.
- This resolution often involves the business, nonprofit, and civic sectors making commitments, taking on specific roles and responsibilities, leveraging and pool resources, and ultimately, solving the problem.
- Governor Kitzhaber has asked Portland Mayor Charlie Hales and Multnomah County Chair Marissa Madrigal to convene the appropriate stakeholders to work together to devise and implement a solution.
- The governance subcommittee is tasked with unraveling the governance and authority issues within the levee accreditation process and recommending an efficient and effective management structure for achieving accreditation.
- This presentation is intended to bring everyone on the Oregon Solutions governance subcommittee to a similar understanding of the Levee Accreditation Oregon Solutions project and related policies and authorities of the government entities involved.

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- There are four drainage districts along the south shore of the Columbia River, with boundaries that stretch between Smith and Bybee Lakes and the Sandy River.
- All four districts were originally formed around 1917 to reclaim land for year round farming. Prior to the formation and the construction of levees along the Columbia River and the Columbia Slough, the area was predominately wetland and flooded at least twice a year.
- The Multnomah County Drainage District manages the operations of the other three drainage districts (Peninsula Drainage District #1, Peninsula Drainage District #2, and the Sandy Drainage Improvement Company) via an Intergovernmental Agreement with each entity.
- There are over 12,000 acres and 2,700 property owners in all four districts
- In Peninsula Drainage District #1 & #2, the districts that are the primary focus of the Oregon Solutions process, there are 2,488 acres and 928 property owners.

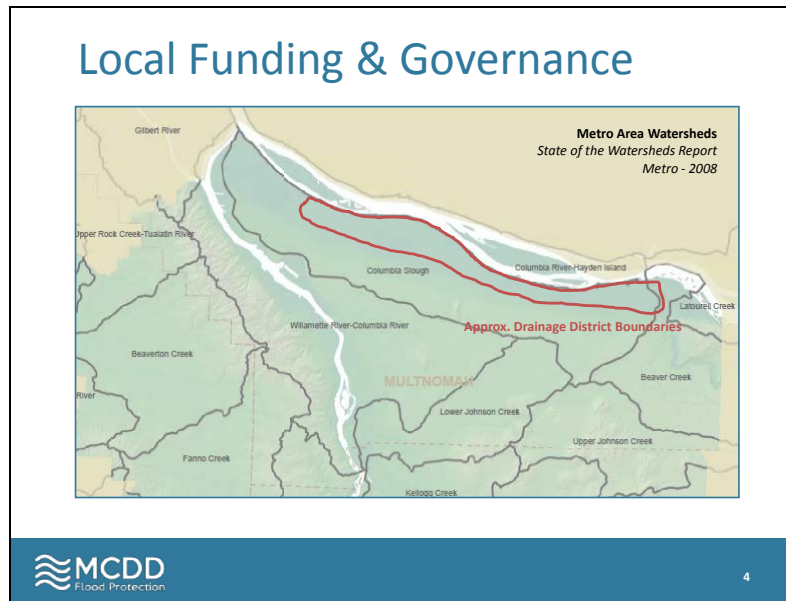
Slide 3



- Today, the area is home to an industrial sanctuary, public assets, neighborhoods and natural areas.
- The Port of Portland has a significant presence in the area, with 40% of Port facilities falling within the drainage district boundaries, including the Portland International Airport and the Troutdale airport. Port facilities move 12 million tons of goods per year, many of which are overseas exports of agricultural goods from throughout Oregon.
- There is currently around \$5.3 billion in assessed property value and about 10% of Multnomah County's jobs within the drainage districts' boundaries.
- Public assets in the area include back-up water wells, Metro's Expo Center, and public-owned open spaces.
- Residential neighborhoods include Bridgeton, East Columbia, and Fairview Lake; several moorages connect to land in the Districts.
- The drainage districts work to keep these important aspects of Portland's community and economy dry year round.

Sources, clockwise from top left:

- Port of Portland: POP staff and publications
- Property Values: 2013-14 RLIS Tax Data
- Jobs: <43,032 out of 442,730> 2011 U.S. Census Bureau, On the Map Application, in coordination with Oregon Employment Dept.
- Well Field: City of Portland Staff and Publications





- The drainage districts are a limited purpose form of government and have a unique organizational structure relative to other flood control organizations around the country.
- The watersheds in the region are an indicator of hydrological systems. You can see that the Columbia Slough watershed makes up a good portion of north and northeast Portland.
- If you overlay the drainage district boundaries, you see there is only a small degree of commonality.
- The drainage district boundaries also do not align with a city, county, or any other political boundary.
- This somewhat arbitrary boundary poses challenges from a funding and governance perspective.
 - Drainage District funding comes from property assessments based a variety of factors, including acreage and impervious area. The assessment is not based on the value of property, but is subject to compression in all districts except the Sandy Drainage Improvement Company.
 - Each district must have an elected board, and elections must be conducted in person at an annual landowner meeting. Voting weight is determined by the number of acres owned. For example, the Port of Portland owns 3,300 acres of land in MCDD, and has one vote for each acre owned. Smaller property owners continue to express concern about the equity of this structure.


US government Role

We are the local sponsor for the Columbia River levees, which were built and are maintained according to national standards.

Flood Control Act of 1936	First general flood control bill. Establishes cost sharing between federal and local governments and gives USACE clear role in flood control.
Flood Control Act of 1950	Authorizes improvements to existing projects across the nation, including Columbia Corridor.
National Flood Insurance Act of 1968	Creates the National Flood Insurance Program (NFIP). NFIP levee standards created in 1986.

 **US Army Corps of Engineers**

 **FEMA**

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- The federal government’s role in local flood protection is a product of policies enacted over the past 75 years.
 - The Flood Control Act of 1936 established the U.S. Army Corp of Engineer’s role in flood risk mitigation.
 - The Flood Control Act of 1950 was in response to widespread flooding in the Columbia River basin, and directed funding to the Columbia Corridor for repair of levees that breached during the Vanport Flood. Upon completion of repairs the federal project was transferred to the drainage districts as the ‘local sponsor’.
 - Finally, The National Food Insurance Act of 1968 created a government backed flood insurance program, primarily because flood insurance was not available in the private market. Standards for recognizing levees within the NFIP came about in 1986.
- New policies and standards related to flood insurance are often in reaction to flooding events around the country, like the 1950 Flood Act. More recent changes to the National Flood Insurance Program are in reaction to damaging storm events that are now compromising the solvency of the program.
- Overall, as more is learned about the performance of flood control systems, the federal standards we manage too will continue to change over time.
- Since our primary focus in the Oregon Solutions process is FEMA’s National Flood Insurance Program, I am going to share some more information about that program and the status of the levee systems within it.

Federal Emergency Management Agency National Flood Insurance Program		
Cities voluntarily participate in the program.	<i>P1 & P2 Status:</i> Accredited, not certified <i>MCDD & SDIC Status:</i> Accredited, Certification expires in 2017	USACE plays a limited and defined role.

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The NFIP and Levees

- The drainage districts are indirect participants in FEMA’s National Flood Insurance Program. All of the cities the drainage districts fall within are voluntary participants in the NFIP, which subsequently creates requirements for levees.
- The benefits of the program, for the cities and county as a whole, are low-cost flood insurance available to property owners outside of the floodplain. It also qualifies the community for federal emergency preparedness and mitigation grants offered by FEMA.
- The requirements of the program are enforcement of development restrictions (also called floodplain ordinances) and mandatory flood insurance purchase requirements in areas identified as having a high-risk of flooding on Flood Insurance Rate Maps (called Special Flood Hazard Areas).
- In NFIP communities, levees must be ‘accredited’ to be recognized on Flood Insurance Rate Maps as providing protection to a particular area.
- Accredited levees have proven they were constructed and are maintained to provide protection against the 1% annual chance flood (sometimes referred to as the 100-year flood). The process of ‘proving’ is often called ‘certification,’ because it requires a registered engineer certify that the levees meet the standards defined in the federal statute.

Status:

- The levees in all the Columbia Corridor drainage districts are currently accredited; however the certifications for PEN 1 & 2 expired as of August 2013. This expiration is related to the limited and defined role USACE plays in the National Flood Insurance Program.
- USACE can certify levees in specific situations– an independent private engineer can also certify levee systems. The last time the levees were certified was 2007, and at that time USACE was the certifying entity.

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Slide 6 Continued

Federal Levee Oversight FEMA

Federal Emergency Management Agency
National Flood Insurance Program

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Status continued:

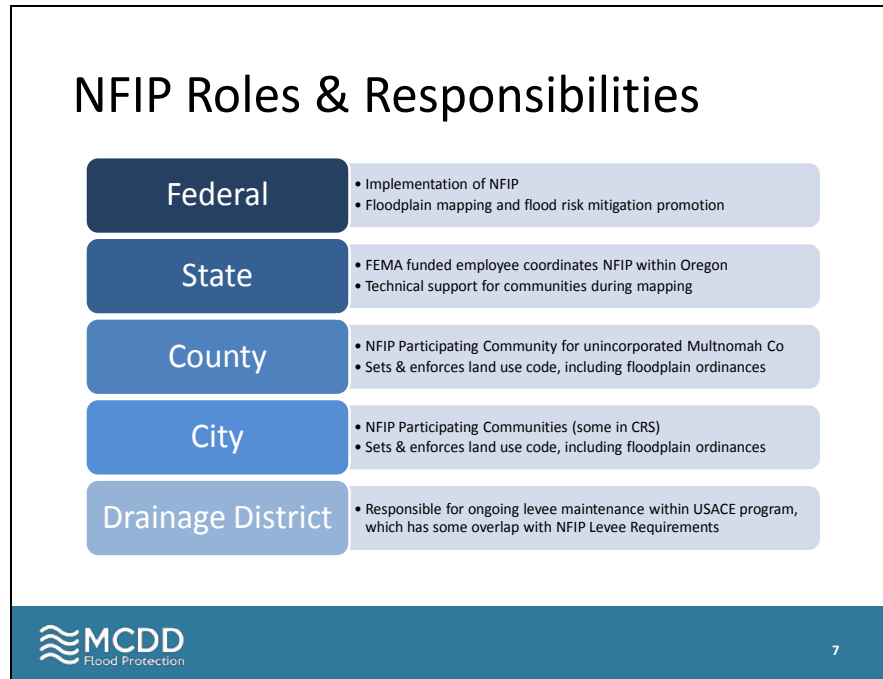
- In 2010 USACE adopted new standards for reviewing levees against NFIP standards to ensure consistency in NFIP determinations across the country. The revised policy required a review of all existing certifications to determine whether they met the intent of the new policy. Review of the certifications for the levees in PEN 1 & 2 found they *did not* meet new standards. Review of the certifications for the levees in MCDD and SDIC found they *did* meet standards, and a maximum validity period of 10 years was applied.
- The implications of an invalid certification are nebulous. If FEMA revises Flood Insurance Rate Maps in our area, certification documentation would be required within 90 days (or 2 years if an extension is granted). Currently, the drainage districts would be unable to provide that documentation due to the lack of analysis on current levee condition and possible deficiencies in the system.
- The certification process to ensure the levee system is re-accredited will be rigorous and will take time and investment to ensure the system meets standards.

Current Action:

- A detailed plan for certifying the levee system is crucial to minimizing the risk of de-accreditation for the landowners in the drainage districts.
- That risk is very real for property owners. If the levees were to be de-accredited, property owners would be subject to mandatory flood insurance requirements and development in the area would be limited. This would have a significant economic impact on property owners and the region as a whole.
- The Drainage Districts have started down a path to re-certify the system, beginning with an investigation of the current condition of the levee system relative to requirements. This is the first phase of what will ultimately be a longer-term project.

- There are and will continue to be numerous obstacles in this process, many of which relate to the limited funding and governance authority available to the drainage districts.

Slide 7



- This slide illustrates the role different levels of government play with the National Flood Insurance Program.
- Roles associated with the levee accreditation process are similarly structured, mainly due to the programmatic alignment between entities, limitations and resources available to each entity involved.
- Currently there is no identified governance form to tackle accreditation.
 - The Cities are the participating community in NFIP. Cities set and enforce land use code and floodplain ordinances. The County handles this role for unincorporated parts of Multnomah County.
 - The Drainage Districts maintain the levees and are responsible for meeting USACE standards. The Drainage Districts lack the regulatory authority and financial capabilities to pursue accreditation solely.
- Based on examples from around the county, alignment between beneficiaries and financial contributors across multiple jurisdictions need to be attained to successfully achieve accreditation. The purpose of the governance subcommittee is to identify approaches for managing into this situation while ensuring the economic vitality of the Columbia Corridor is protected.
- Future governance subcommittee meetings will focus on this topic.



Additional Resources:
www.floodsmart.gov
<http://www.mcdd.org/levee-accreditation/>

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Other Helpful Resources:

- Accreditation Requirements: http://www.fema.gov/media-library-data/20130726-1600-20490-4180/lv_accredit_checklist_nov08.pdf
- Accreditation vs Certification Factsheet: <https://www.fema.gov/media-library/assets/documents/22957?id=4828>