



The Columbia Corridor Levee System

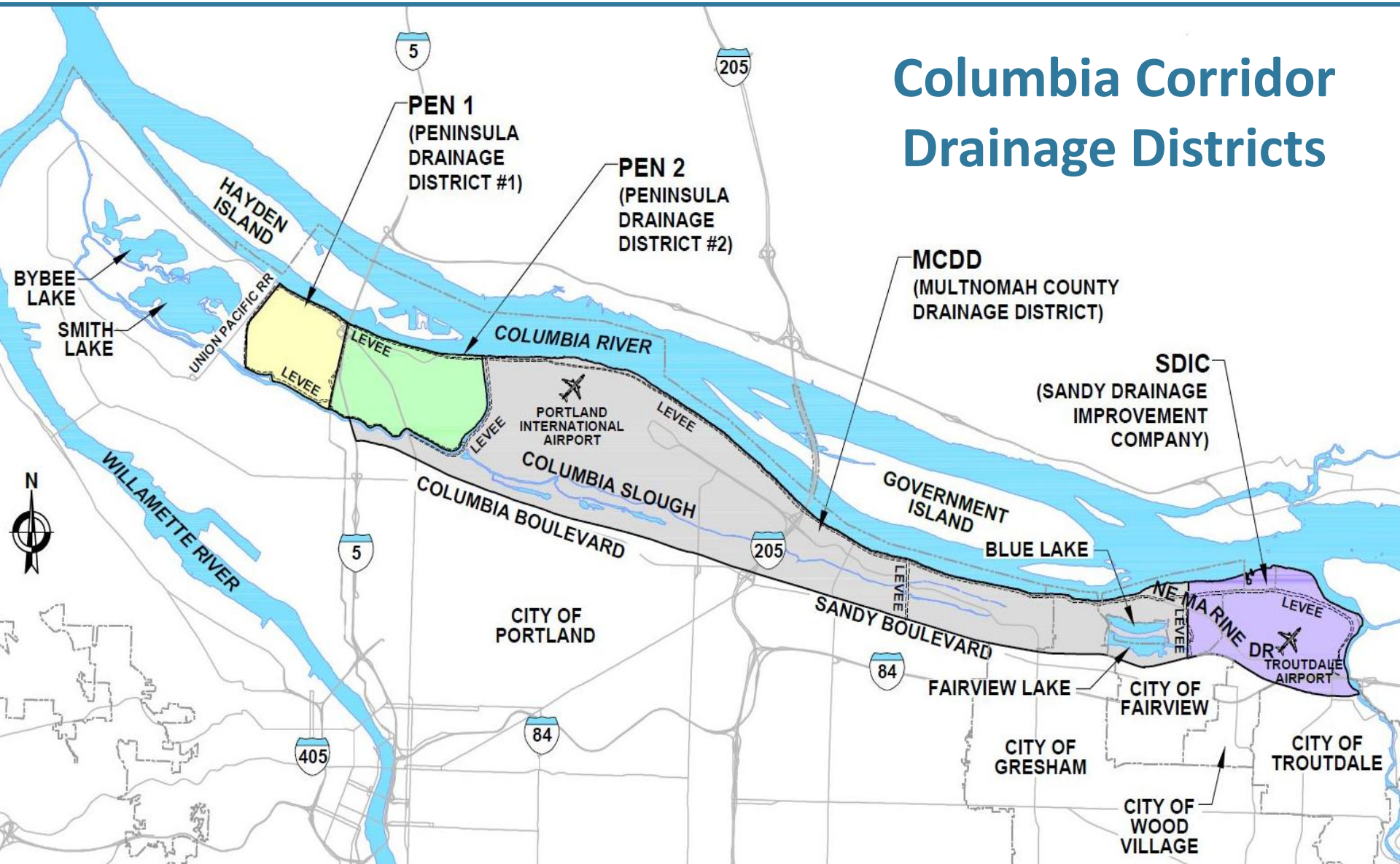
History and Current Challenges

Presented by:

Kayla Mullis, Project Manager

Oregon Solutions Meeting – December 10, 2013

Columbia Corridor Drainage Districts



Local Operations, Regional Significance

**40% of Port of Portland
facilities**

*12 Million tons of goods move
through Facilities*

**\$5.3 billion in assessed
property value**

Across four cities

**Columbia South Shore
Well Field**

*Backup water supply for
Portland and other jurisdictions*

**10% of jobs in
Multnomah County**

*Majority in industrial,
manufacturing, and transport.*

History of Flooding



1948: Vanport Floods expose vulnerabilities

1996: High water tests modern system and shows continued threat of flooding.



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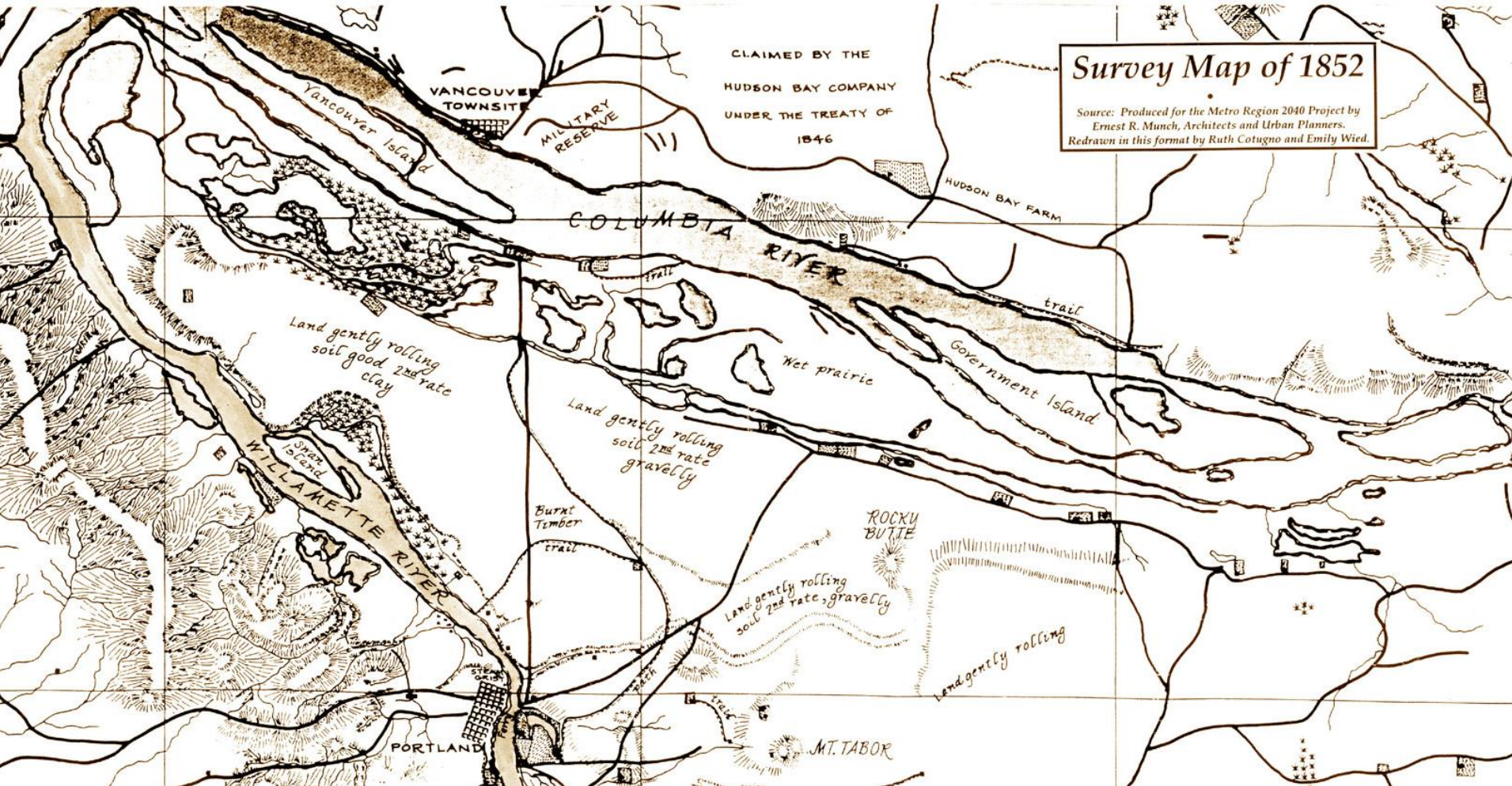


27 miles of levee



Typical Cross Section

Stormwater Management



Current Challenges

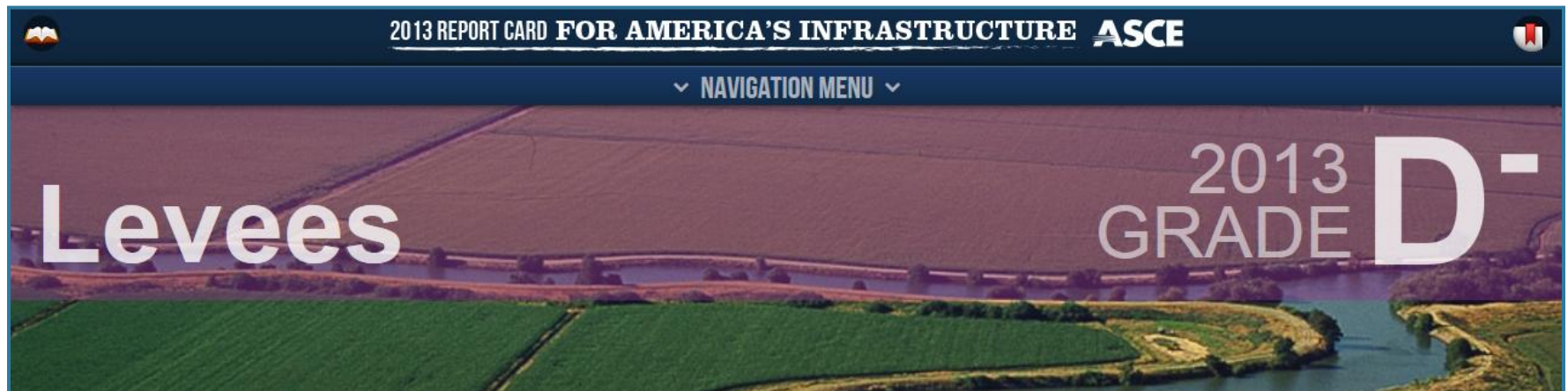
Preserving public safety

Funding and governance

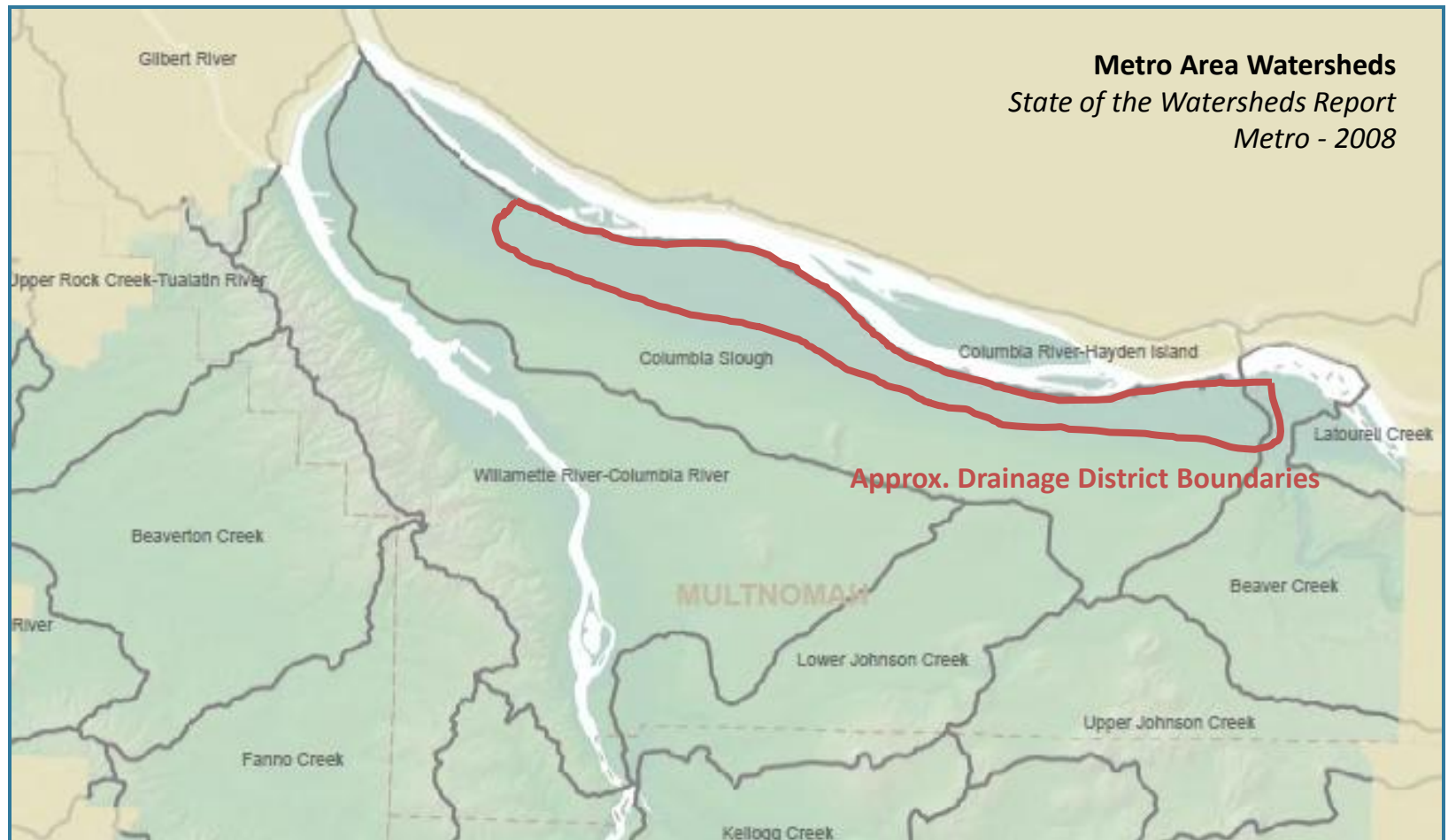
Maintaining status in federal programs

Flood Protection Infrastructure

- ASCE Report Card gives levees D- nationally
- Historically, improvements have been reactionary
- Cities are learning that investment pays dividends



Funding & Governance



Funding & Governance

**Table 1: Comparison of flood control organization, jurisdictional boundaries, and funding in western US Metropolitan Cities
(Environmental Scan of Flood Control Funding in the Western US, J. Jubera, 2013)**

Name	Organization	Jurisdictional Boundary	Funding Source
Multnomah County Drainage District, Portland, OR	Special District	Drainage District	Property Assessment
Regional Flood Control District, Clark County, NV	Special District	County	Sales tax
Urban Drainage and Flood Control, Denver, CO	Special District	Seven Counties	Property tax
West Sacramento Flood Control Agency, West Sacramento, CA	Joint Powers Authority	City	Sales tax, property tax, in-lieu fee on new development
Sacramento Area Flood Control District, Sacramento, CA	Joint Powers Authority	City / Counties	Sales tax, property tax, in-lieu fee on new development
Trinity River Watershed, Dallas, TX	City Agency	City	Utility fee
King County Flood Control District, Seattle, WA	Special District	County	Property tax
Salt Lake City and County, UT	City / County Agency	City / County	Utility fee/Property tax
Flood Control District of Maricopa County, Phoenix, AZ	Special District	County	Property tax
Bexar Regional Watershed Management San Antonio, TX	Special District	City / Four Counties	Utility fee/Property tax
Watershed Protection Department, Austin, TX	City Agency	City	Utility fee

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)



**US Army Corps
of Engineers®**



FEMA

Federal Levee Oversight



US Army Corps
of Engineers®

U.S. Army Corp of Engineers Levee Safety Program

Rehabilitation &
Inspection
Program

Current Status:
Minimally
Acceptable

Challenges:
Encroachments
Process Changes
Vegetation

Federal Levee Oversight



FEMA

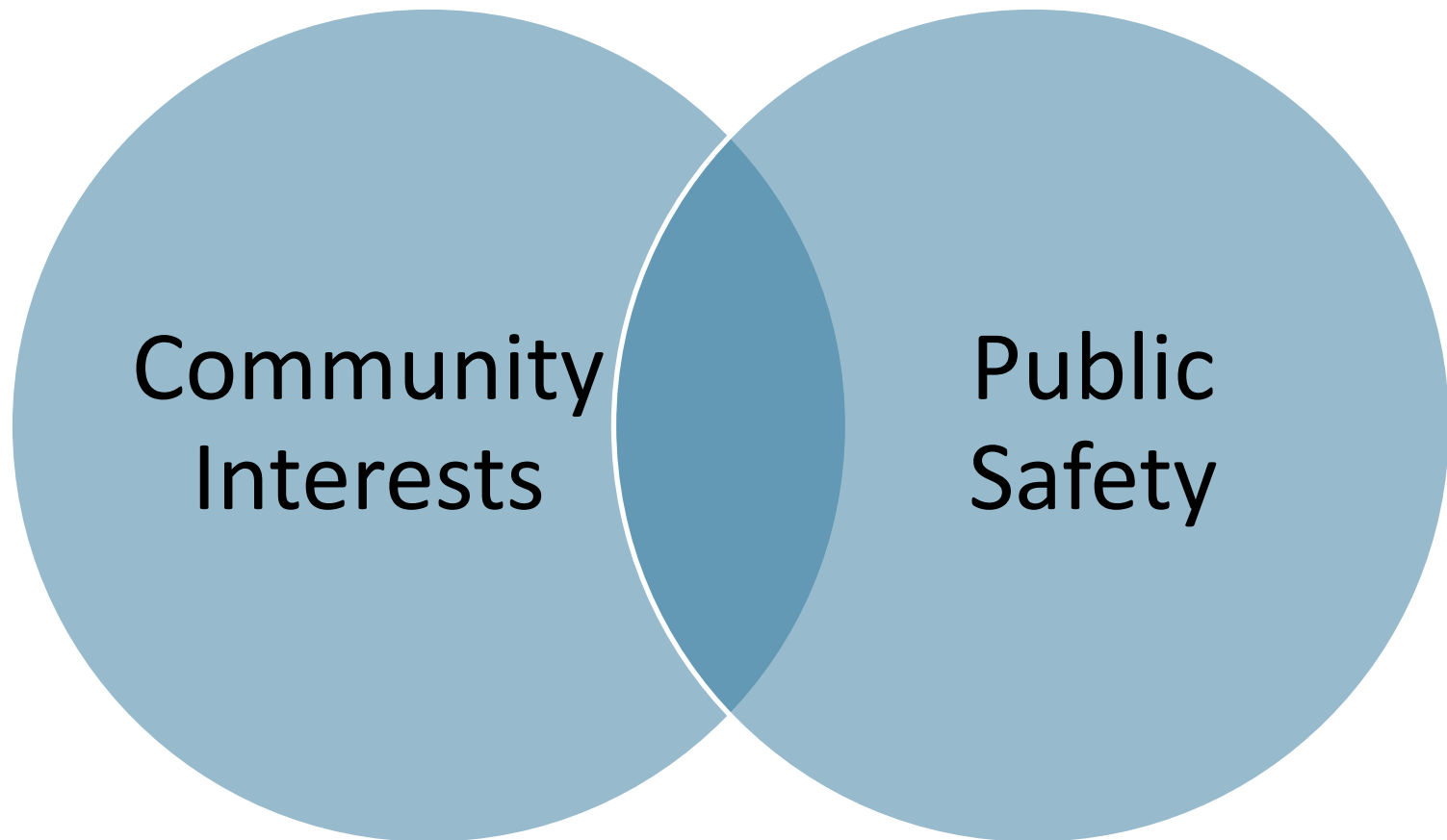
Federal Emergency Management Agency National Flood Insurance Program

City & County
voluntarily
participate in the
program.

Current Levee
Status:
Accredited but
not certified

USACE plays a
limited and
defined role.

Balancing Priorities





Questions?

Contact me directly at:

Kayla Mullis

503-281-5675

kmullis@mcdd.org