

Risk MAP Discovery Meeting

Idaho Falls & American Falls Watershed



January 27-29, 2015



FEMA



Meeting Purpose

- Identify various risk assessment tools available through FEMA's Risk MAP program that can enhance current community resilience efforts
- Capture any additional resilience and mitigation needs FEMA or the State can assist with that were not previously captured during recent interviews
- Prioritize areas of future study and mitigation needs
- Strategize on mitigation opportunities, projects, educational needs, and other ways FEMA and the State can help your community to become more disaster resilient.

Agenda

- Introductions
- Overview of Risk MAP
- Community Discussion
- Community Report Out
- Wrap up

Why is FEMA in your community?

Cost of disasters nationwide - \$136 billion in 3 years

Federal spending on disaster relief and recovery, 2011–2013

Fiscal year appropriations or supplemental bill spending	Estimated disaster-relief spending (in millions of \$)
FY 2011	\$21,376
FY 2012	\$32,412
FY 2012 supplemental appropriations	\$8,174
FY 2013	\$14,321
FY 2013 Superstorm Sandy supplemental appropriations	\$60,210
Total	\$136,493

Why is FEMA in your community?

- **Watersheds selected based on State Priority**

- **Wildfire:**

- American Falls: High
 - Idaho Falls: High

- **Flood:**

- American Falls: High
 - Idaho Falls: High

- **Seismic:**

- American Falls: Medium
 - Idaho Falls: Medium



Why is FEMA in your community?

“Disasters” aren’t necessarily doomsday scenarios.

- In 2011 and 2012 alone, the US experienced 25 floods, storms, droughts, heat waves, and wildfires that each caused at least \$1 billion in damages.



Why is FEMA in your community?

Mitigation Saves Money

- Studies have shown that **\$1** spent on mitigation leads to an average savings of **\$4**.
- For every **\$1** spent on mitigation, an average of **\$3.65** of federal dollars can be redirected from disaster relief costs and tax losses avoided.

Link to Study:

<http://www.dhSES.ny.gov/oem/mitigation/documents/mitigations-value-to-society.pdf>



Resilience

One (of many) definitions of resilience*:

“Is the capacity of individuals, communities, institutions, businesses, and systems within a [community] to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.”



**The Rockefeller Foundation*

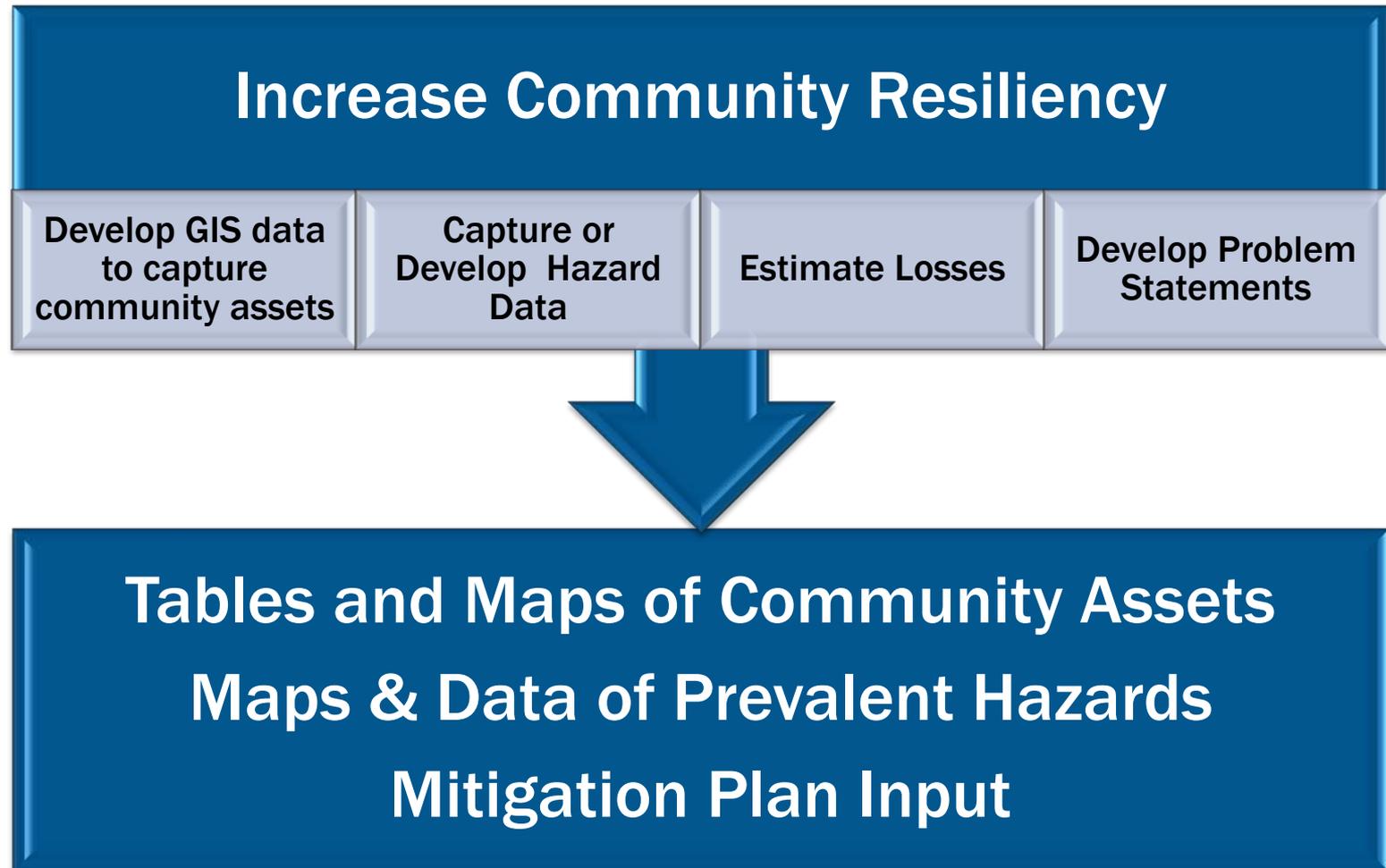
How to Strengthen Resilience

- **Identify, develop, enhance plans and resources**
- **Reduce negative health consequences**
- **Maintain the capacity to rapidly restore community functioning**
- **Strengthen social and cultural networks**
- **Robust communication tools and networks**

Introductions

- **Name**
 - **Agency/Jurisdiction**
 - **How do you contribute to the resilience of your community?**
- OR**
- **How would you like to see resilience increased in your community?**
- 
- A photograph of two hands shaking, symbolizing agreement or partnership. The hand on the left is a light-skinned woman's hand, and the hand on the right is a darker-skinned man's hand. They are both wearing long-sleeved shirts. The background is a plain, light color.

How Risk MAP can inform your decision making.....

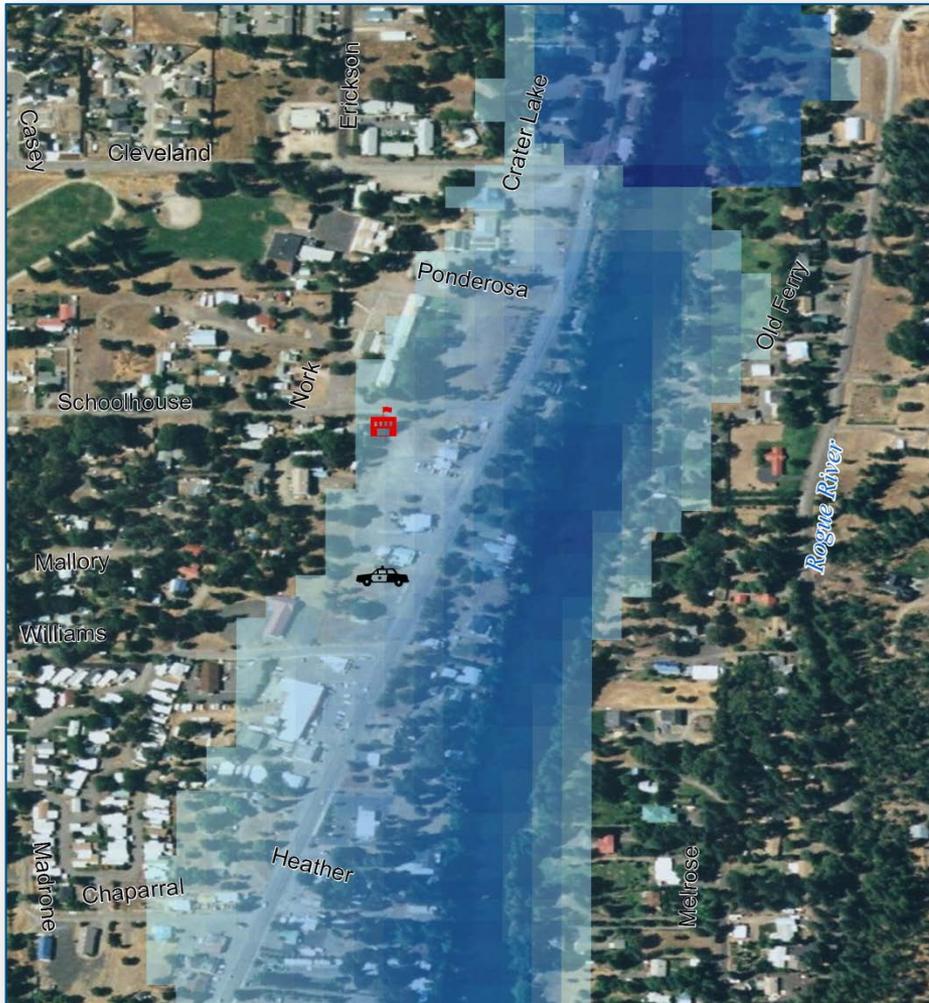


Develop GIS data
to capture
community assets

Capture or Develop
Hazard Data

Estimate Losses

Develop Problem
Statements



Potential Community Assets

- Agriculture and Food
- Banking and Finance
- Chemical
- Commercial Facilities
- Communications
- Critical Manufacturing
- Dams
- Defense Industrial Base
- Emergency Services
- Energy
- Government Facilities
- Healthcare
- Information Technology
- Nuclear Reactors, Materials and Waste
- Postal and Shipping
- Transportation Systems
- Water

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Flood

- Existing Studies
- USACE Studies
- New FEMA Studies

Wildfire

- Bureau of Land Management (BLM)

Landslide

- University of Idaho Geology Department

Earthquake

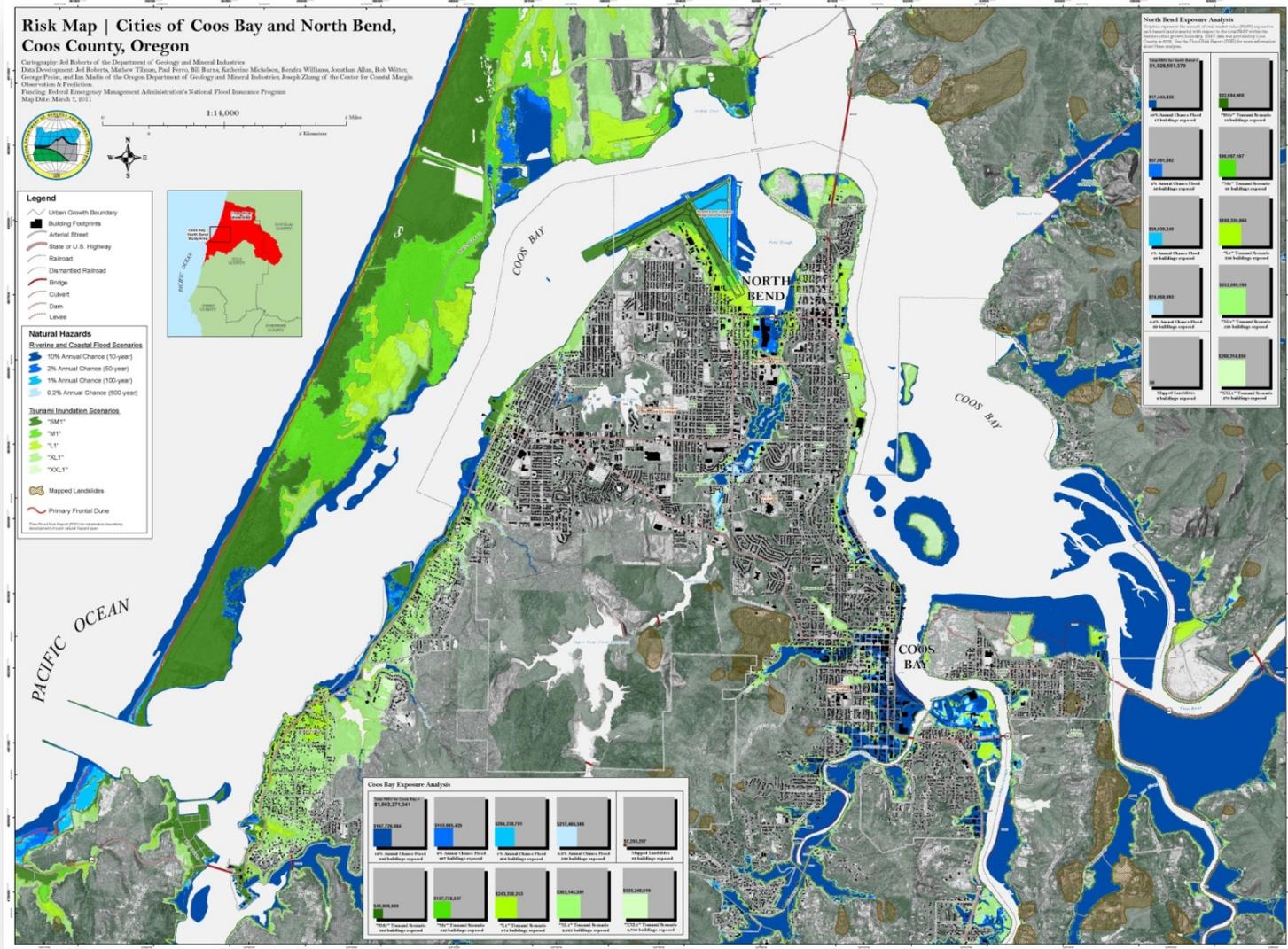
- University of Idaho Geology Department
- USGS

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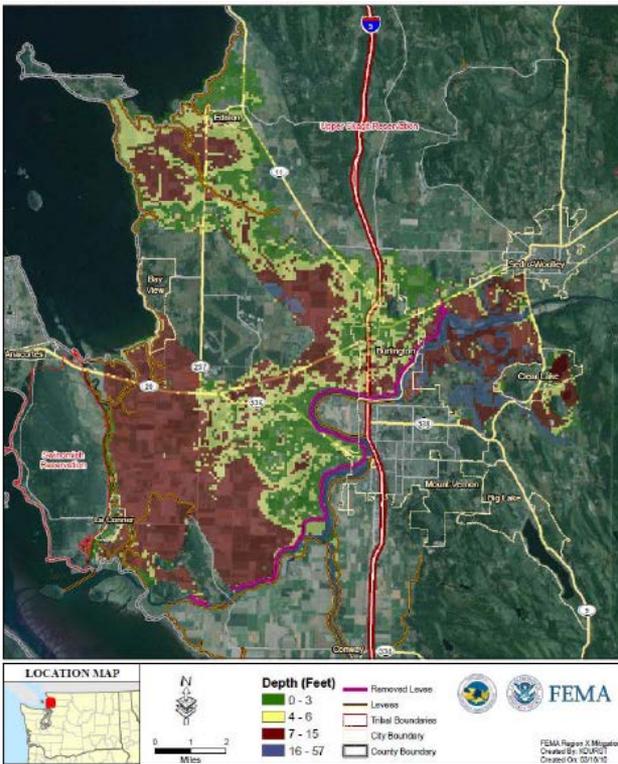
Develop GIS data to capture community assets

Capture or Develop Hazard Data

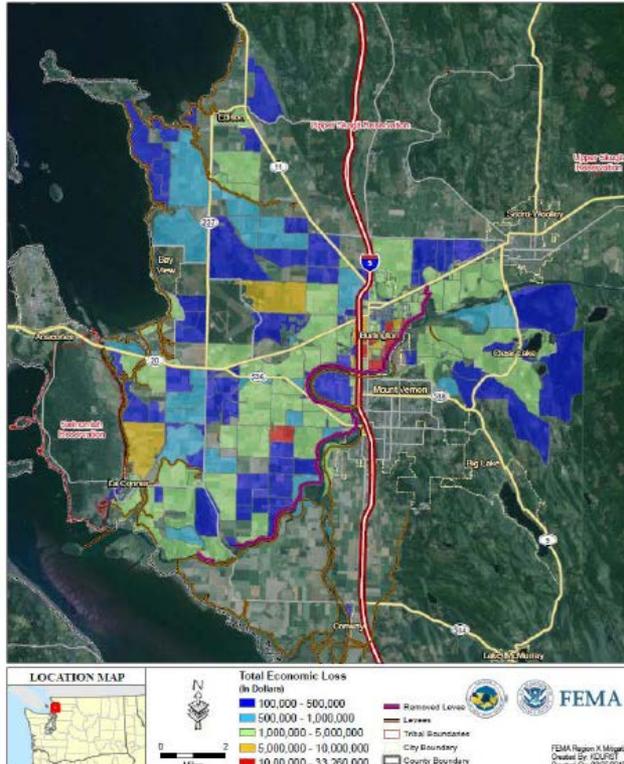
Estimate Losses

Develop Problem Statements

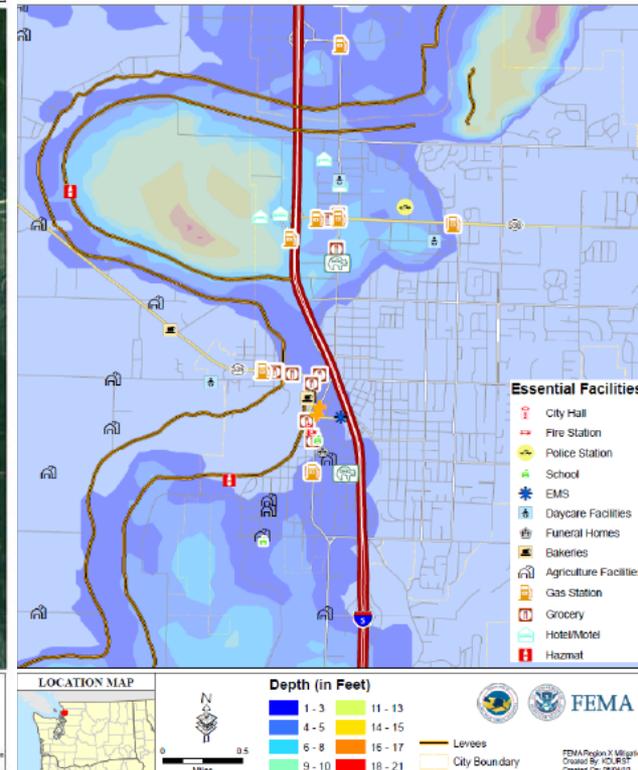
1% Annual Chance Flood Depth for Skagit River, Skagit County, WA
Derived from Right Bank Levees Removed (Except South Fork) - Burlington



Total Economic Loss for 1% Annual Chance Flood Depth of Skagit River, Skagit County, WA
Right Bank Levees Removed in Burlington (except South Fork)



Essential Facilities located in the City of Burlington with Flood Depth
Derived from Combined Levee Removal - Scenario 3



Loss Category	Residential	Commercial	Industrial	Others	TOTAL
Building Loss					
Building	\$135.7M	\$44.3M	\$11.7M	\$14.8M	\$206.5M
Content	\$86.2M	\$113.5M	\$24.5M	\$45.2M	\$269.4M
Inventory	\$0	\$4.7M	\$4.8M	\$5.5M	\$15.0M
Subtotal	\$221.9M	\$162.4M	\$41.1M	\$65.5M	\$491.0M
Business Interruption					
Income	\$40K	\$710K	\$10K	\$390K	\$1.2M
Relocation	\$440K	\$280K	\$0	\$0	\$720K
Rental Income	\$190K	\$190K	\$0	\$0	\$380K
Wage	\$110K	\$850K	\$0	\$2.1M	\$3.0M
Subtotal	\$780K	\$2.0M	\$10K	\$2.4M	\$5.3M
TOTAL	\$222.7M	\$164.5M	\$41.1M	\$67.9M	\$496.2M

Table 12. Scenario Comparison of HAZUS Results for 2% annual chance flood

50 year Scenario	Total Economic Loss	Economic Loss Ratio	Substantially Damage Buildings	Displaced Population	Debris (Tons)
183,780cfs Discharge near Sedro-Woolley					
Scenario A (Burlington Levee)	\$411.5 M	17.0%	144	13,820	76,645
Scenario B (Mount Vernon Levee)	\$478.8M	19.8%	135	10,368	79,697
Scenario D (Combined Levees)	\$720.5 M	29.8%	143	19,363	117,875

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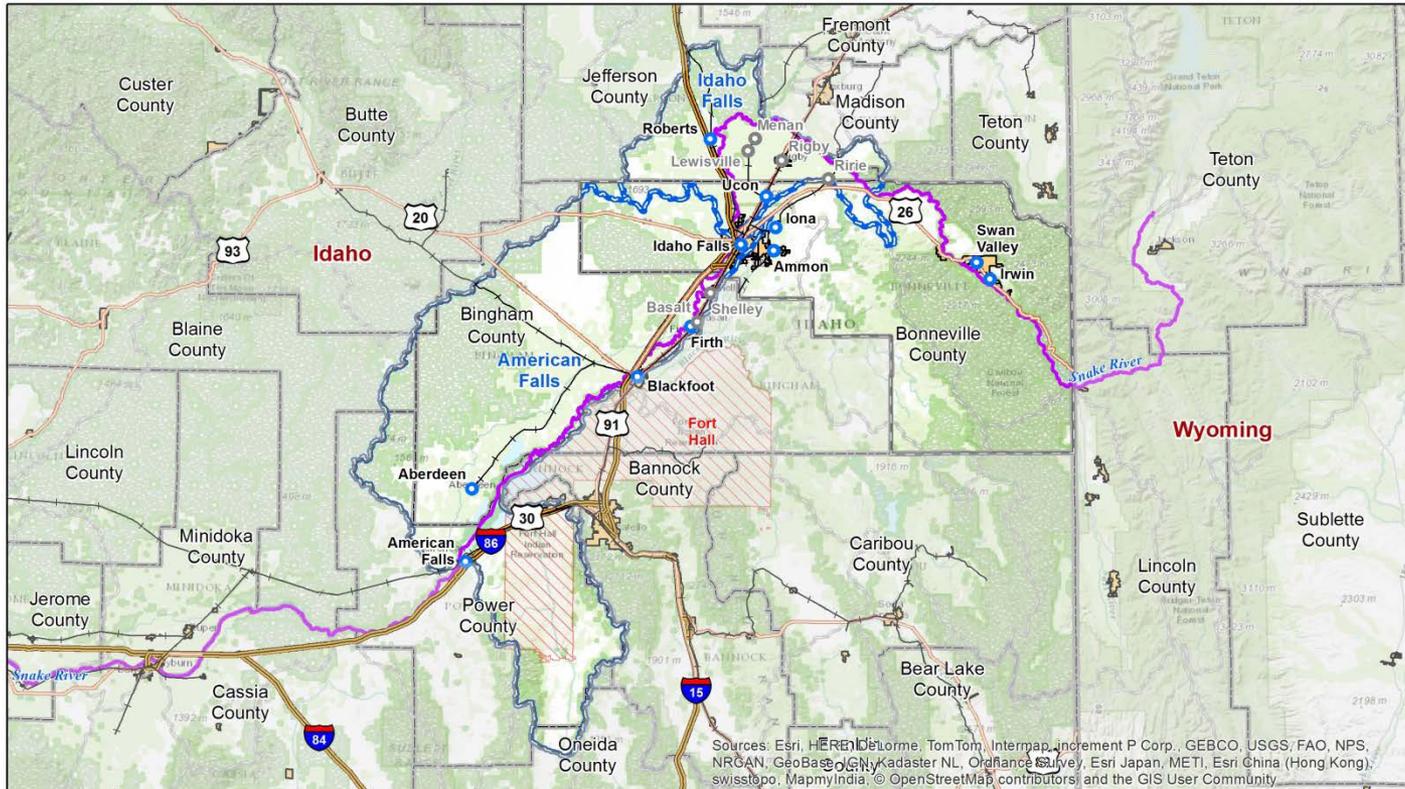
Review and analyze the results of the hazard loss estimations

- Identify areas with highest vulnerabilities on a map

Develop list of problem statements based on findings

- The manufactured home park is the most vulnerable area to flooding. This area floods each year. Flooding is caused by excessive rains
- The sewage treatment plant is located in the 100-year floodplain

How we can help..... Mapping Needs



Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBC, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

MAP SYMBOLOLOGY

Snake River	Participating Community
Project Area	Non-Participating Community
Project Area Watersheds	States
Watershed Boundary	County Boundary
Interstate	Political Areas
Highway	Tribal Lands
Railroad	Federal Lands

PROJECT LOCATOR

NATIONAL FLOOD INSURANCE PROGRAM
Discovery Map
 AMERICAN FALLS WATERSHED
 IDAHO FALLS WATERSHED
 HUC-8 Code
 17040201 | 17040206

RiskMAP
 Increasing Resilience Together

How we can help.....

Technical Support & Training

- **NFIP Training and Technical Support**
- **Outreach Support**
- **Hazus Training and Technical Support**
- **Hazard Mitigation Planning Support**

- **...other training needs?**

Community Breakouts: 45 minutes

- **What (infrastructure, social/cultural groups) makes your community resilient?**
- **How can your community increase its resilience?**
- **Revisit identified Action Items from interview**
- **Capture additional action items or educational needs**
- **Demo Pacific County Risk Report**
- **What are the community's "Top 3 priorities for resilience?"**
- **What are the community's "Top 3 flood study priorities?"**
- **What is the community's "Overall number 1 priority?"**

Report Out

- **What contributes to the resilience of your community?**
- **What is the top priority for increasing resilience?**
- **What is the top flood study priority?**
- **Any identified training needs?**
- **What is the overall top priority for the community?**

Next Steps

- **Draft discovery report within 2 months for your review**
- **FEMA will review and prioritize potential projects internally based on need and funding availability**
- **Notify Community of potential projects**
- **Draft Partnership Agreements with Communities**
- **Finalize Scopes of Work**
- **Share Scopes with impacted communities and Finalize Partnership Agreements**



IBHS TRAINING & EXERCISE

2015: AMERICAN FALLS DAM EX SERIES

USBR
USFWS
USACE
EPA
NWS

BHS
DEQ
RRT4 & RRT 6
StateComm
ISP
ITD
South Central Public Health
IDFG

*Irrigation Districts (3)

**Bingham
Power
Shoshone-Bannock
Tribe**

Cassia, Minidoka,
Twin Falls, Jerome,
Gooding



Idaho Falls/American Falls Risk MAP Study Team

- Ryan McDaniel, BHS, State RiskMAP Coordinator
- Keri Sigman, IDWR, State NFIP Coordinator
- Mark Stephensen, BHS, State Hazard Mitigation Officer
- Susan Cleverly, BHS, State Hazard Mitigation Planner
- Amanda Siok, FEMA Risk Analyst
- David Ratte, FEMA Engineer Lead
- Brett Holt, FEMA Mitigation Planner
- Mike Riedy, FEMA NFIP Coordinator
- Kelly Cox, FEMA HMA POC
- Jon Johnson, Project Manager (STARR)
- Josha Crowley, Regional Service Center (RSC) Lead (STARR)
- Becca Croft, RSC Outreach/Training Coordinator (STARR)
- **You!**