RiskMAP
Increasing Resilience Together

Smart Scoping with Community Engagement and Base Level Engineering

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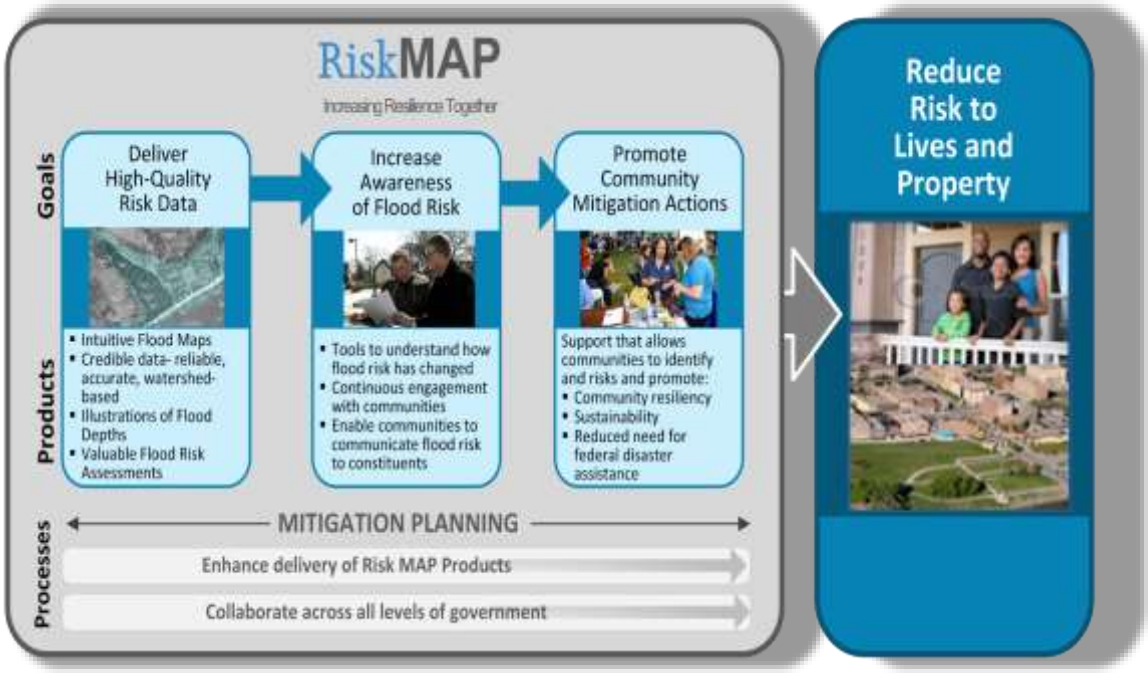
Agenda

- Introduction
- Base Level Engineering (BLE)
- R10 Discovery & Project Planning (Scoping)
- Example - Middle Columbia-Hood Watershed
- Conclusion



Base Level Engineering (BLE)

- **Provide low cost model backed data for:**
  - Discovery Discussions
    - Identify future projects
    - Early look at flood risk
    - Initiate discussions in advance of FIRM
    - Unearth community data
  - Best available data for floodplain management
    - Use where no SFHA or BFE available
    - Elevation Certificates, Floodproofing Certificates, LOMA and LOMR-F
  - Floodplain Inventory Validation for Zone A

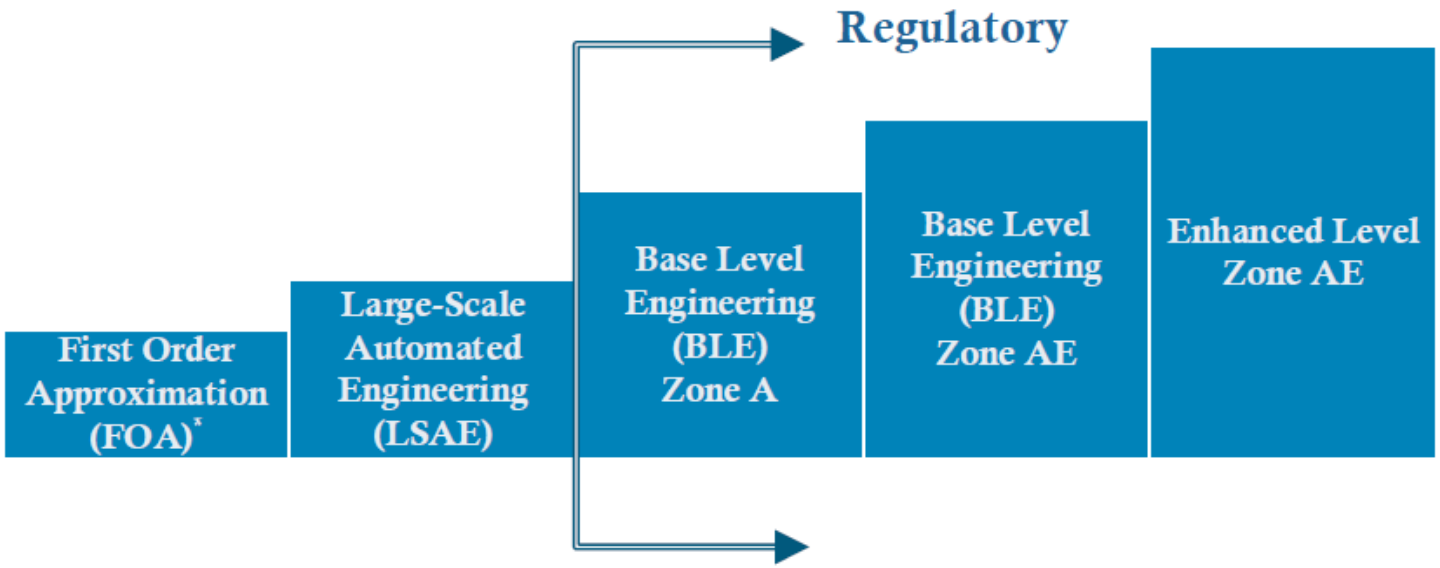
R10 significant mileage of unmodernized Zone A

Base Level Engineering (BLE)

<< Less detailed and less accurate

More detailed and more accurate >>

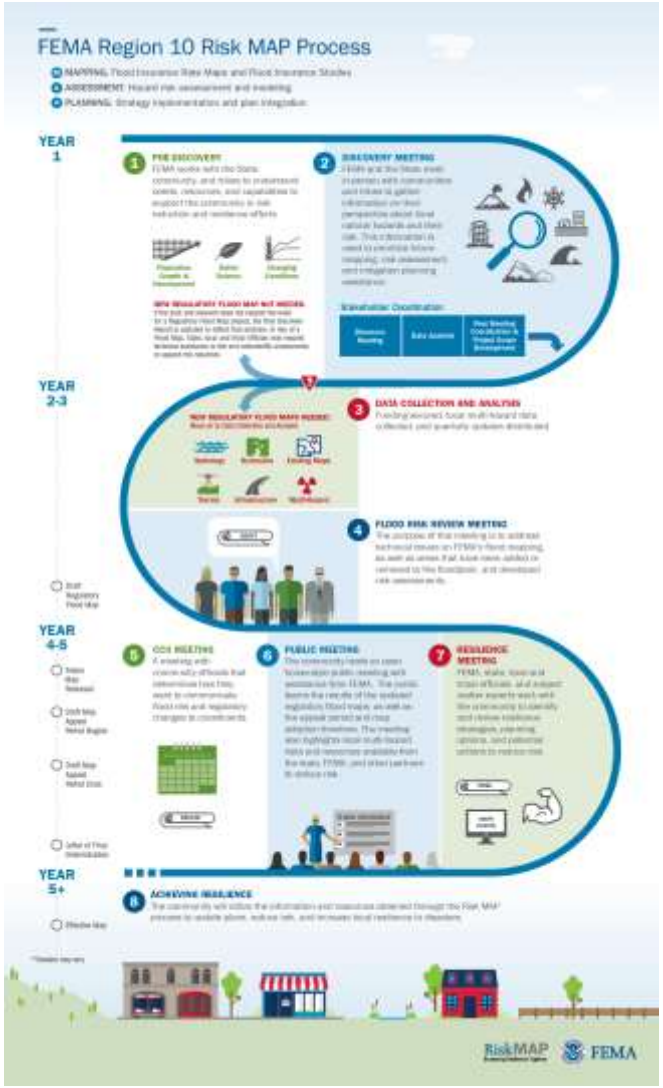
*FOA is no longer used and has been replaced with LSAE



Base Level Engineering (BLE)

Option	Cross section	Flow Paths	Manning's "n"		Structures	
A (Min.)	Auto placed	Equal	Single Value		None	
B (Good)	Auto w/ Adjustments	Auto	Land Cover		None (Prepared) ✓	
C (Better)	Review all ✓	Adjusted ✓	Land Cover ✓		Assumed	
D (Best)	Review all	Adjusted	Land Cover (Calibrate)		Measured	

FEMA Region 10 Risk MAP Process



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Discovery and Project Scoping

YEAR 1

1 PRE-DISCOVERY

FEMA works with the State, community, and tribes to understand needs, resources, and capabilities to support the community in risk reduction and resilience efforts.

Population Growth & Development | Better Science | Changing Conditions

NEW REGULATORY FLOOD MAP NOT NEEDED.
If the data and research does not support the need for a Regulatory Flood Map project, the final Discovery Report is updated to reflect that decision. In lieu of a Flood Map, State, local and tribal officials may request technical assistance or risk and vulnerability assessments to support risk reduction.

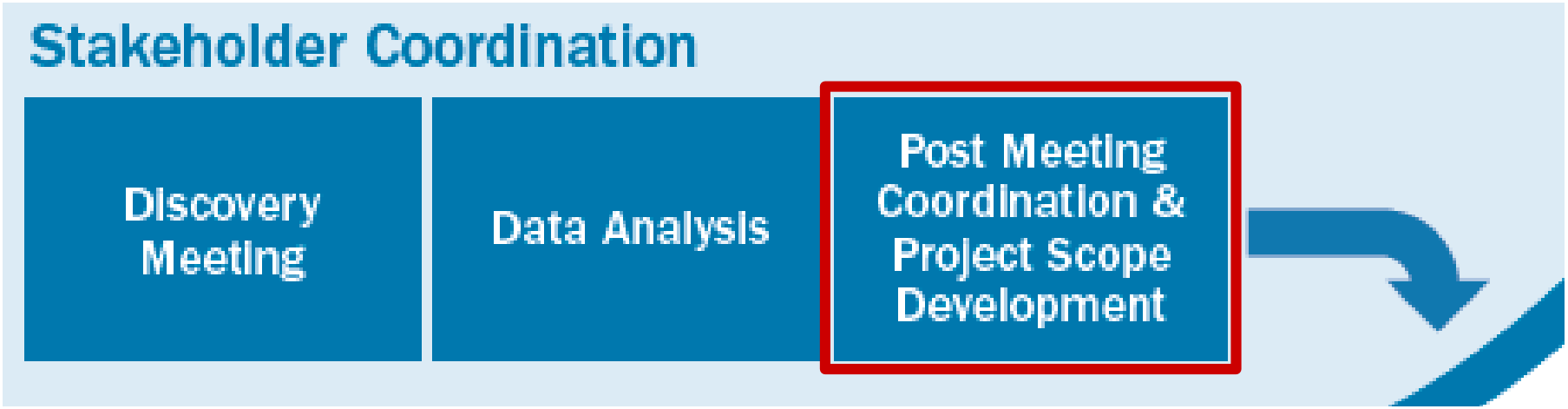
2 DISCOVERY MEETING

FEMA and the State meet in-person with communities and tribes to gather information on their perspective about local natural hazards and their risk. This information is used to prioritize future mapping, risk assessment, and mitigation planning assistance.

Stakeholder Coordination

Discovery Meeting	Data Analysis	Post Meeting Coordination & Project Scope Development

Discovery and Project Scoping



Goal is to refine scope using community input

Project Scoping Issues

- **Timing**

Project Scoping Issues

- **Timing**

Project Scoping Issues

- **Timing**

Project Scoping Issues

- **Community Engagement**
  - Significant time lapse since Discovery
  - Communities don't know where to start
  - Outdated mapping inhibits informed discussions
  - General request for "data" is rarely fruitful

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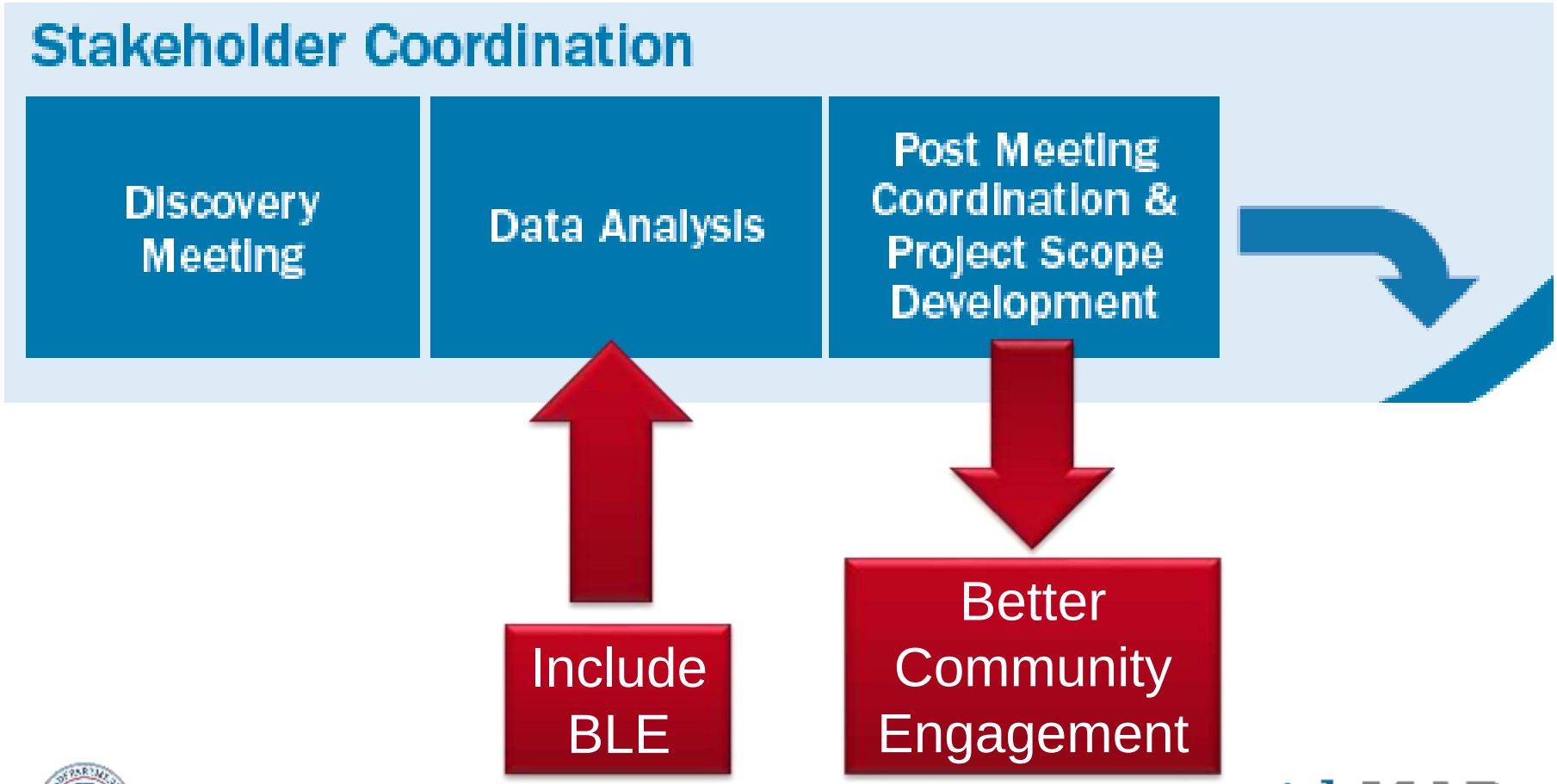
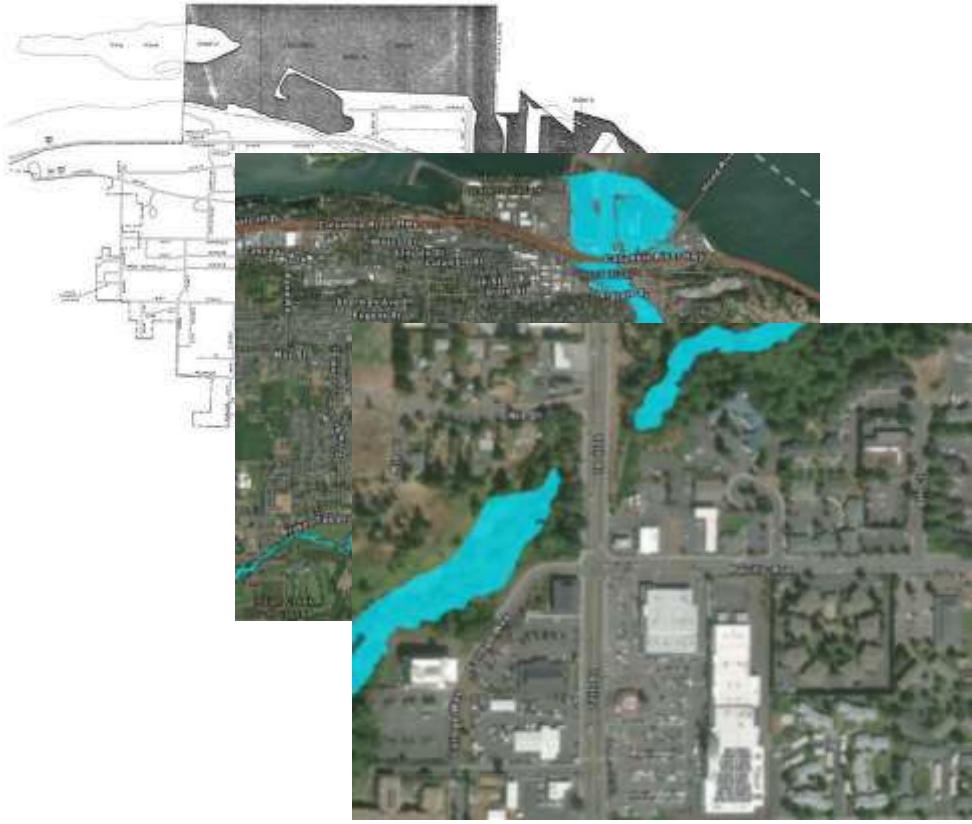
Enhance the Process with BLE



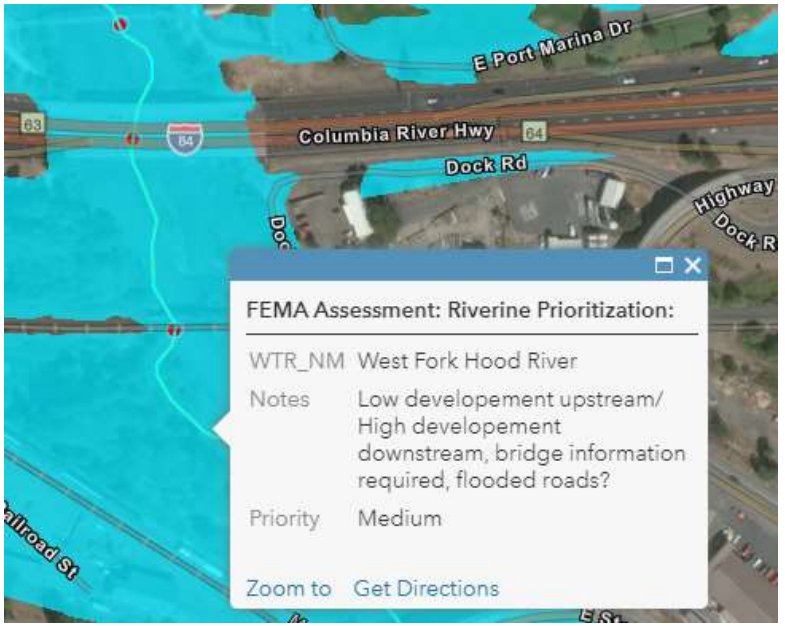
What BLE Adds to the Conversation

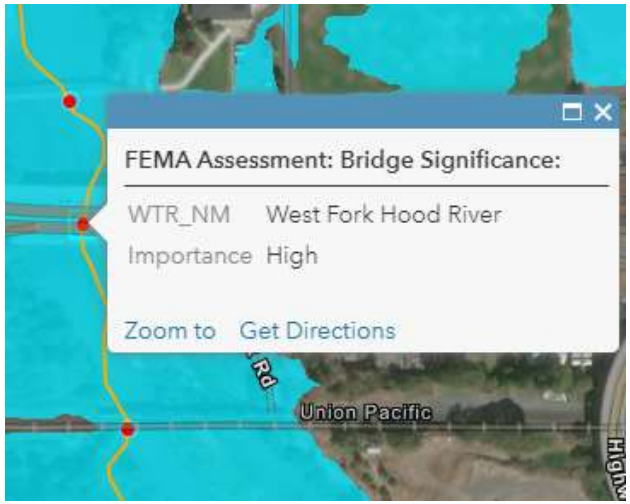
- **Model backed floodplains**
  - Old vs New comparison
  - More detail (based on LiDAR)
  - Dynamic digital data
  - Prompts Mitigation Discussions



What BLE Adds to the Conversation

- **Other BLE enhancements**
  - Study priorities
  - Bridge pinch points
  - Levee significance





Presenting BLE results to Communities

Method	Description	Effectiveness
Hard copy maps	Deliver a book of PDF or Printed maps	Moderate/Low
In-person meeting	Shorter meeting with all stakeholders together	Moderate/Low
Geo-platform	Share link to data housed on web	High
Web meeting	Multiple meetings targeted to stakeholders	High

Personalized approach

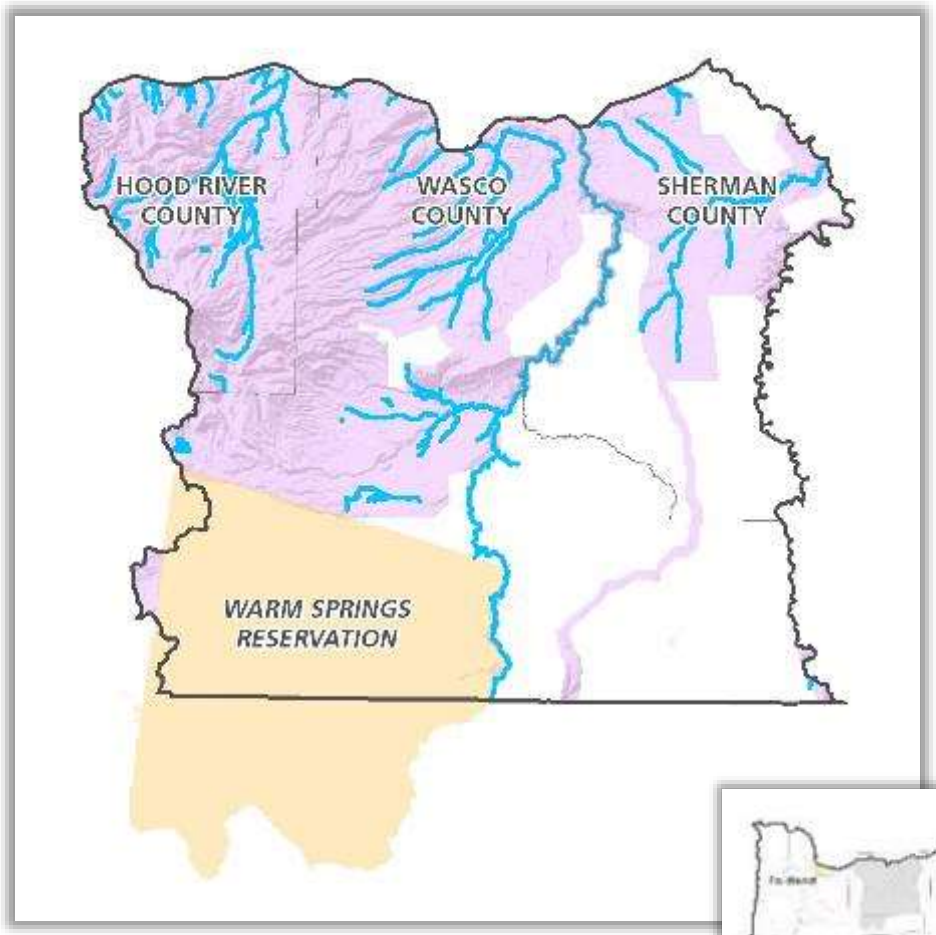
Impact on Community Engagement

- **Captures their attention**
  - Preview SFHA and risk
  - Empower FPA
- **Enables feedback**
  - Identify issues & concerns
  - Focus priorities
- **Encourages contribution**
  - Collect or provide data

Community Buy-in

Example – Middle Columbia-Hood (MCH)

- **July 2015 - Discovery**
  - 3 Counties
  - 700 miles identified
  - LiDAR
    - Available
    - In process
    - Not available



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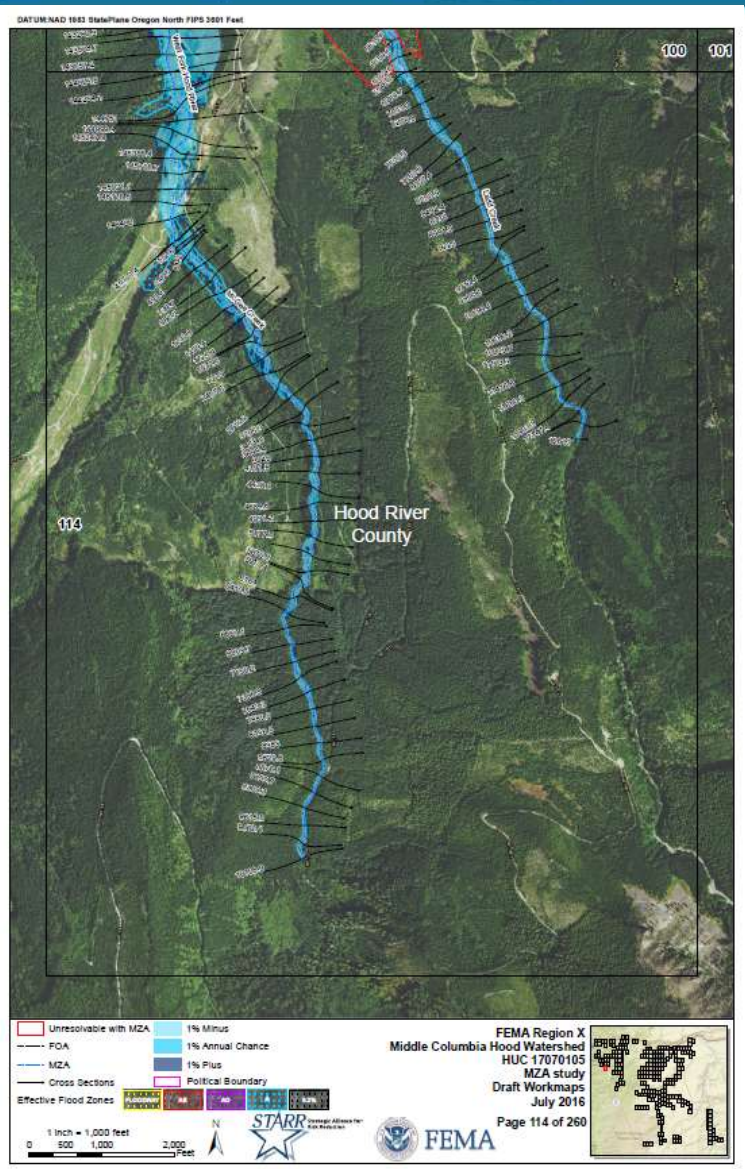
MCH – Summer 2016 Meet in Person

- **Share BLE results**
  - Presentation of approach
  - Hard copy maps
  - Verified interest
- **Requested communities to:**
  - Review data
  - Give feedback
  - Identify priorities
  - Share data



MCH – Summer 2016 Meet in Person

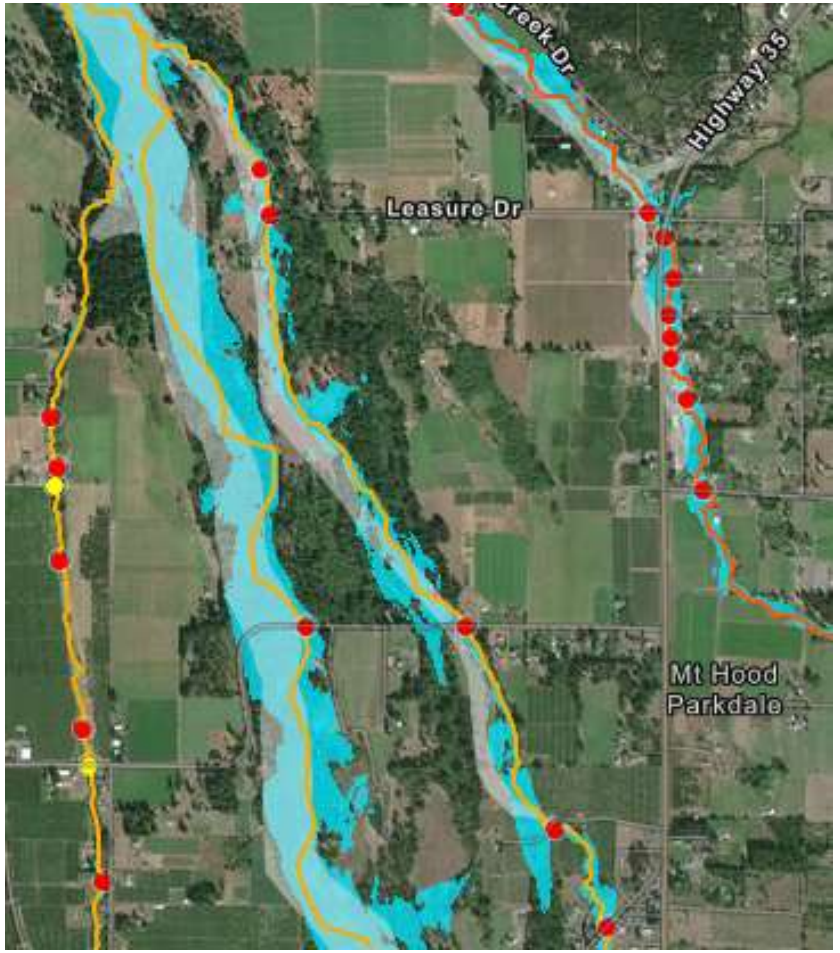
- **Feedback during the meeting**
  - Draft flooding is significantly impacts our airstrip?!?

MCH – Fall 2016 Post Meeting

- **Waited for more feedback…we didn't get much**
  - Review data
  - Give feedback
  - Identify priorities
  - Share data

MCH – Summer 2017 Web Meetings

- **Targeted meetings**
- **Provide on GeoPlatform**
  - Old vs New floodplains
  - Recommended priorities
- **During the meetings**
  - Confirm/Changed priorities
  - Listen to concerns
  - Discuss specific data needs
  - Planned field visits



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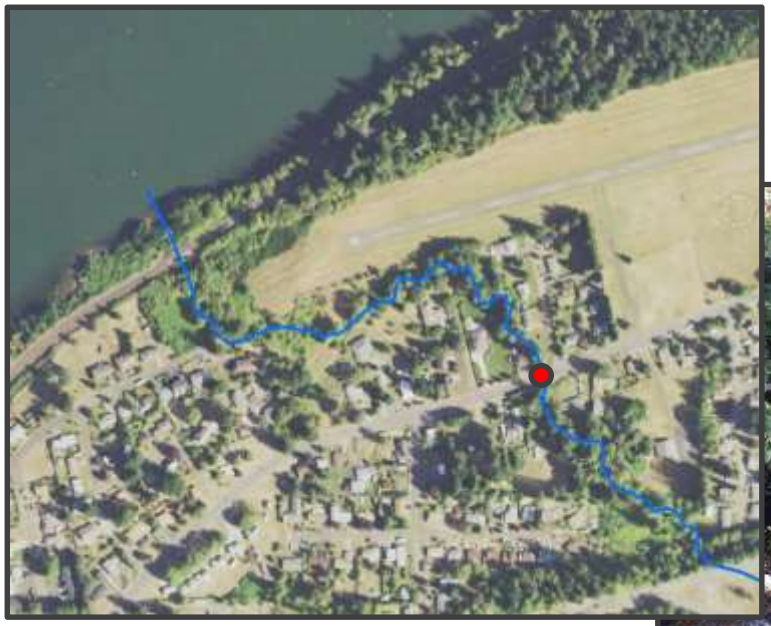
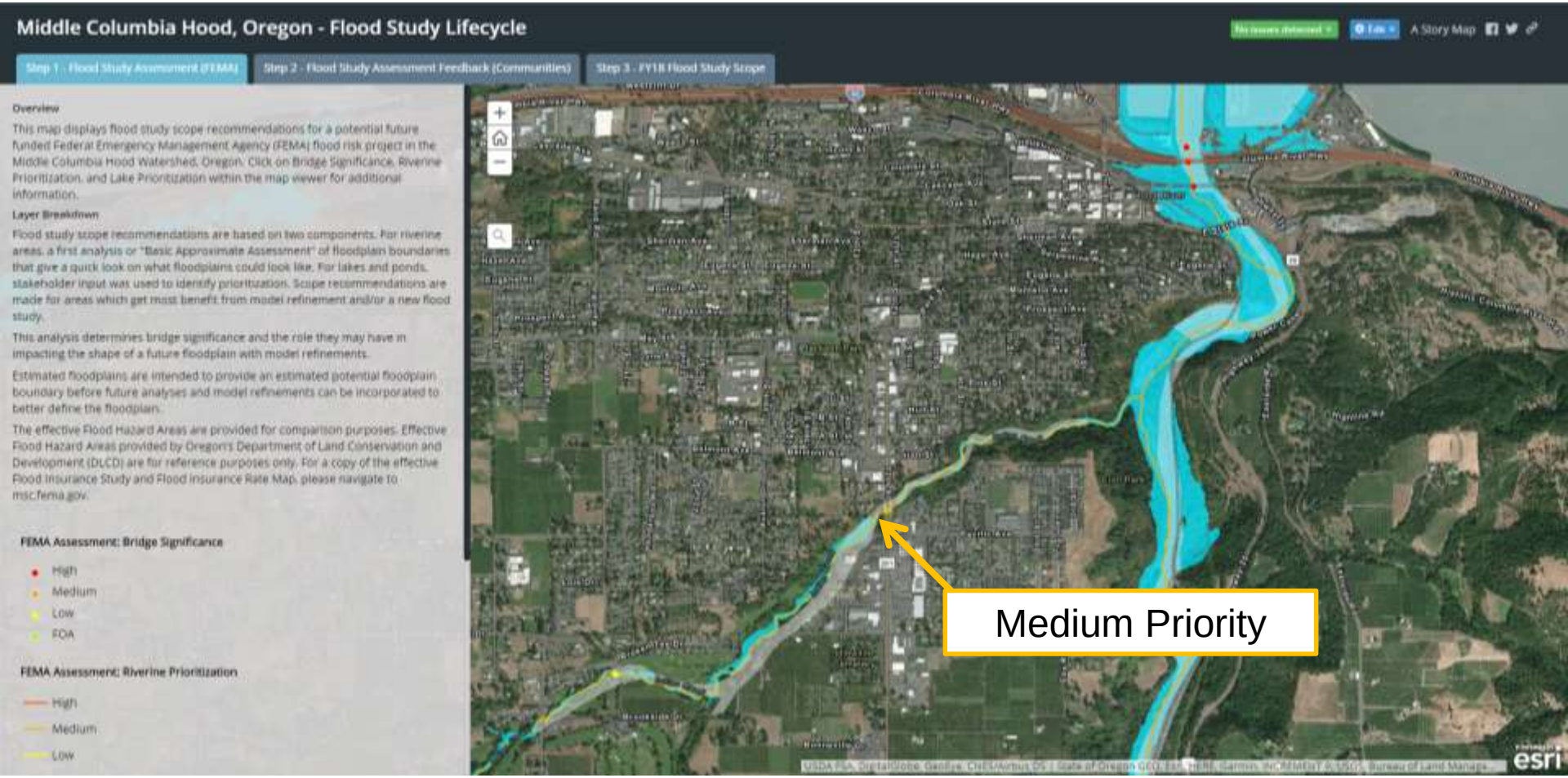
MCH – Post Web Meetings

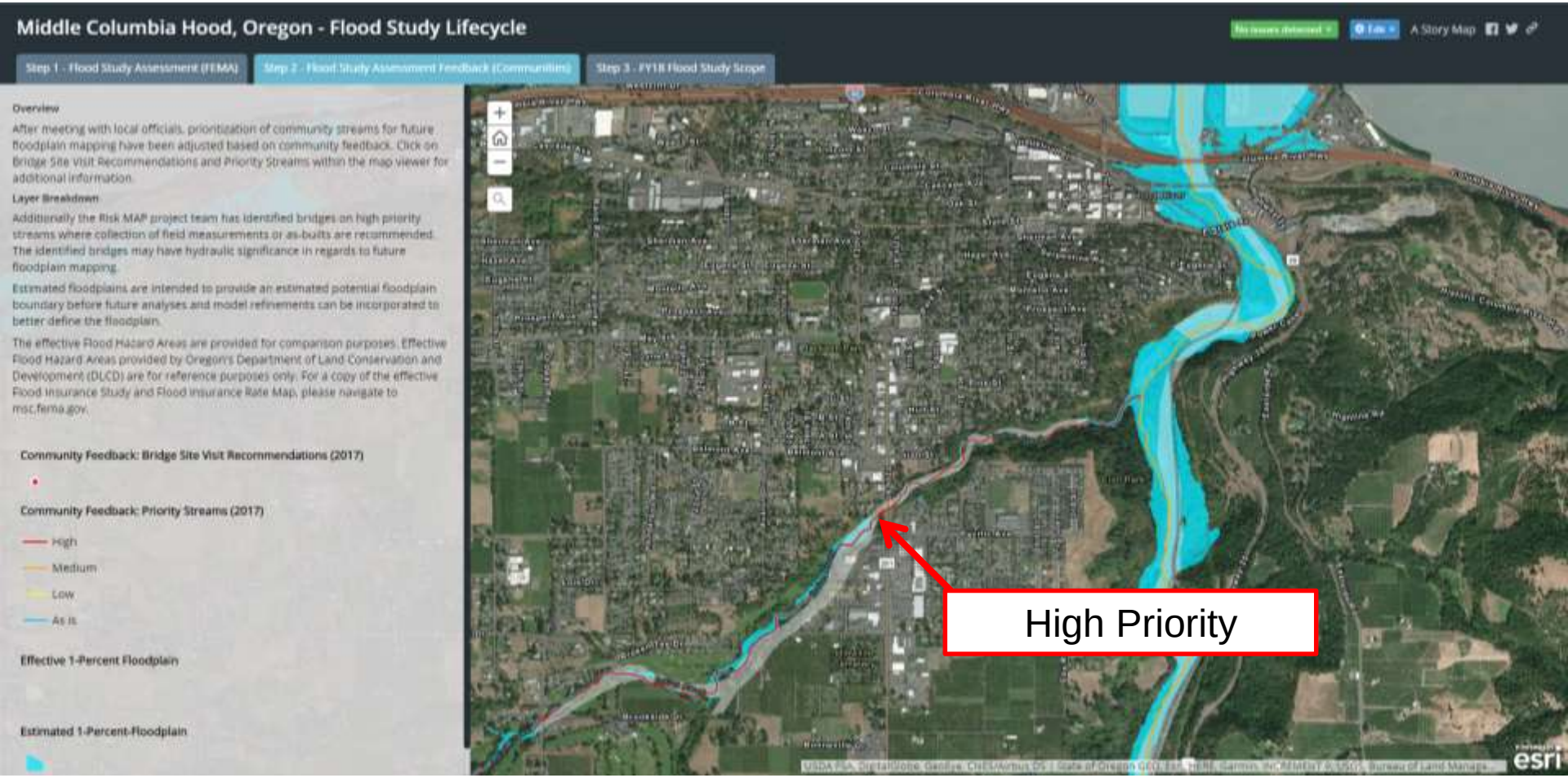
- As-builts provided
- Fieldwork with county



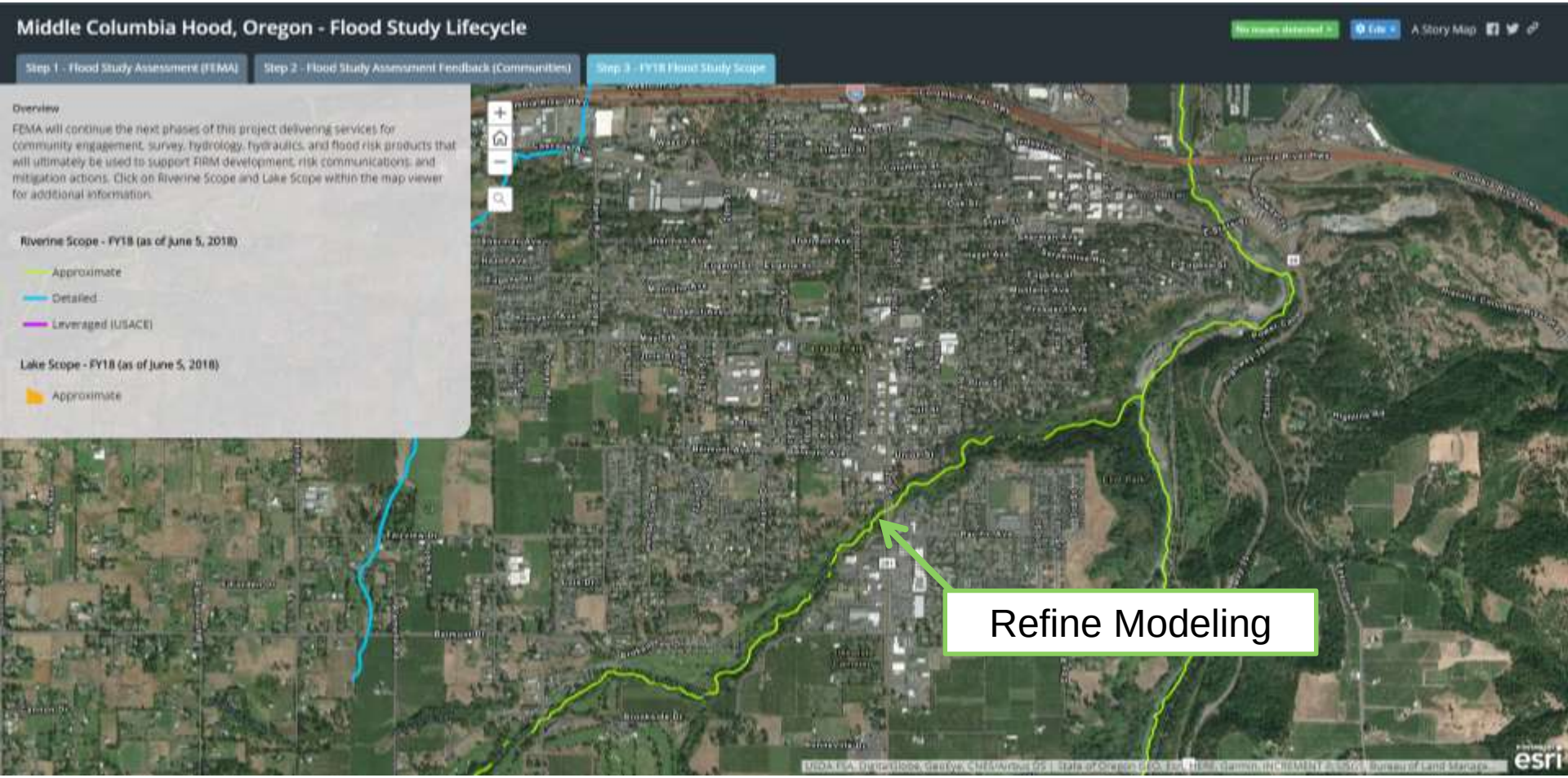
FEMA GeoPlatform – Pre Meeting



FEMA GeoPlatform – With Feedback



FEMA GeoPlatform – Updated Scope



Summary

- **BLE is a first cut floodplain that can inform many situations**
- **Unique issues in Region 10 give cause for added coordination during project planning (Post Discovery)**
- **Smart use of BLE in project planning**
  - Helps the Region make informed decisions
  - Encourages community engagement
  - Ultimately yields a better product
  - Early discussions on contributing factors, areas of mitigation interest and project ideas

Questions?

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