Pursuing Rural Disaster Resilience

Upper Sandy River
Clackamas County, Oregon

Jay Wilson
Resilience Coordinator
Clackamas County Emergency Management

History Repeats – Channel Migration Hazard

1964

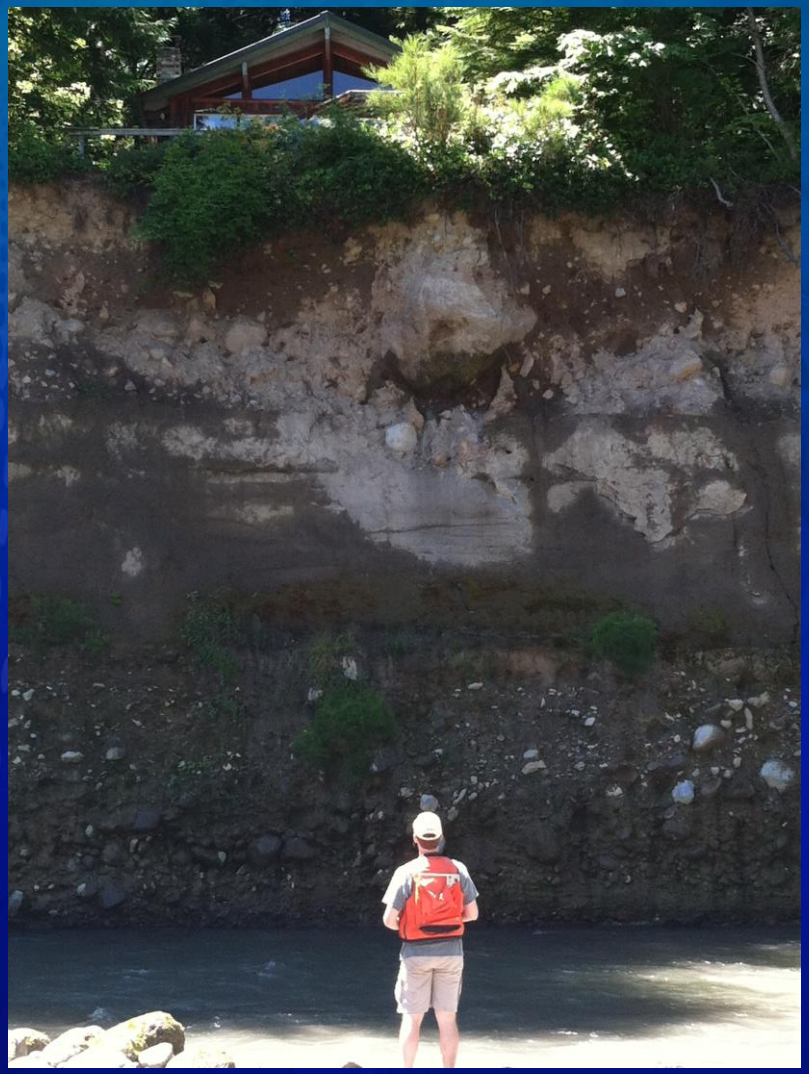
2011

Erosion Hazard – Not Flooding

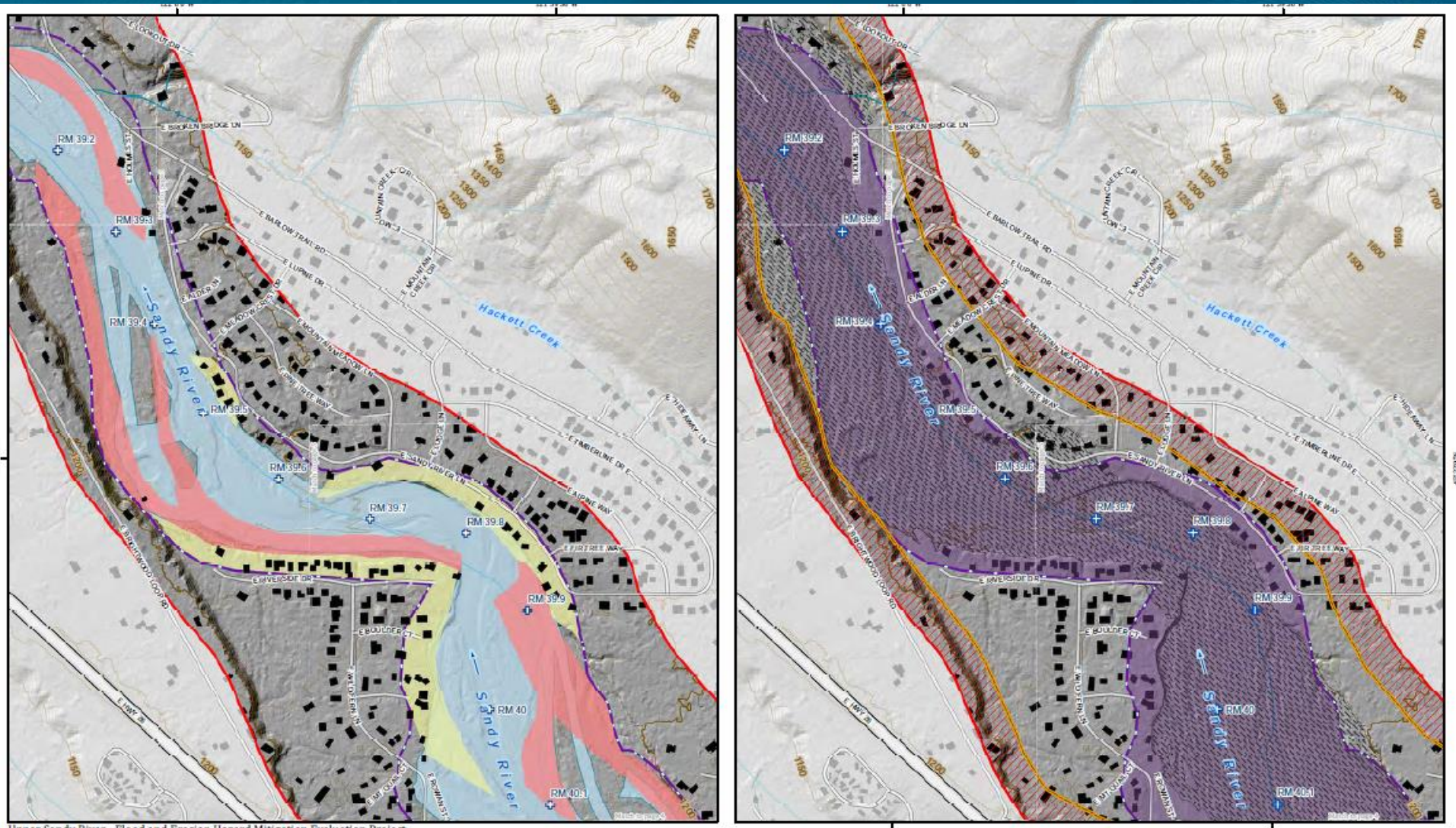
- Flood Maps become obsolete
- No hazard disclosure
- Community need for facts
- Regulatory framework?

Basis of Risk = Volcanic Landscape

- Living inside of an INCISED LAHAR



Channel Migration Zone Mapping



Upper Sandy River - Flood and Erosion Hazard Mitigation Evaluation Project

Hazard and Risk Management Mapbook

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- USGS River Miles
- Streams (USGS NHD 2010)
- Roads (Clackamas Co.)
- CMZ
- EPAL
- HMZ + 100ft Buffer
- HMZ
- Actively Eroding Trends
- AHZ
- Minimum CMZ Management Zone
- Area within 100 ft buffer
- FEMA 100 yr Flood Zone

0 500 1,000 Feet

Lambert conformal conic projection, NAD 1983
State Plane Coordinate System (OR North Zone)

Natural Systems Design

CLACKAMAS COUNTY

Data sources: 2013 LiDAR DEM (DOGAMI), Clackamas County, USGS, NSD

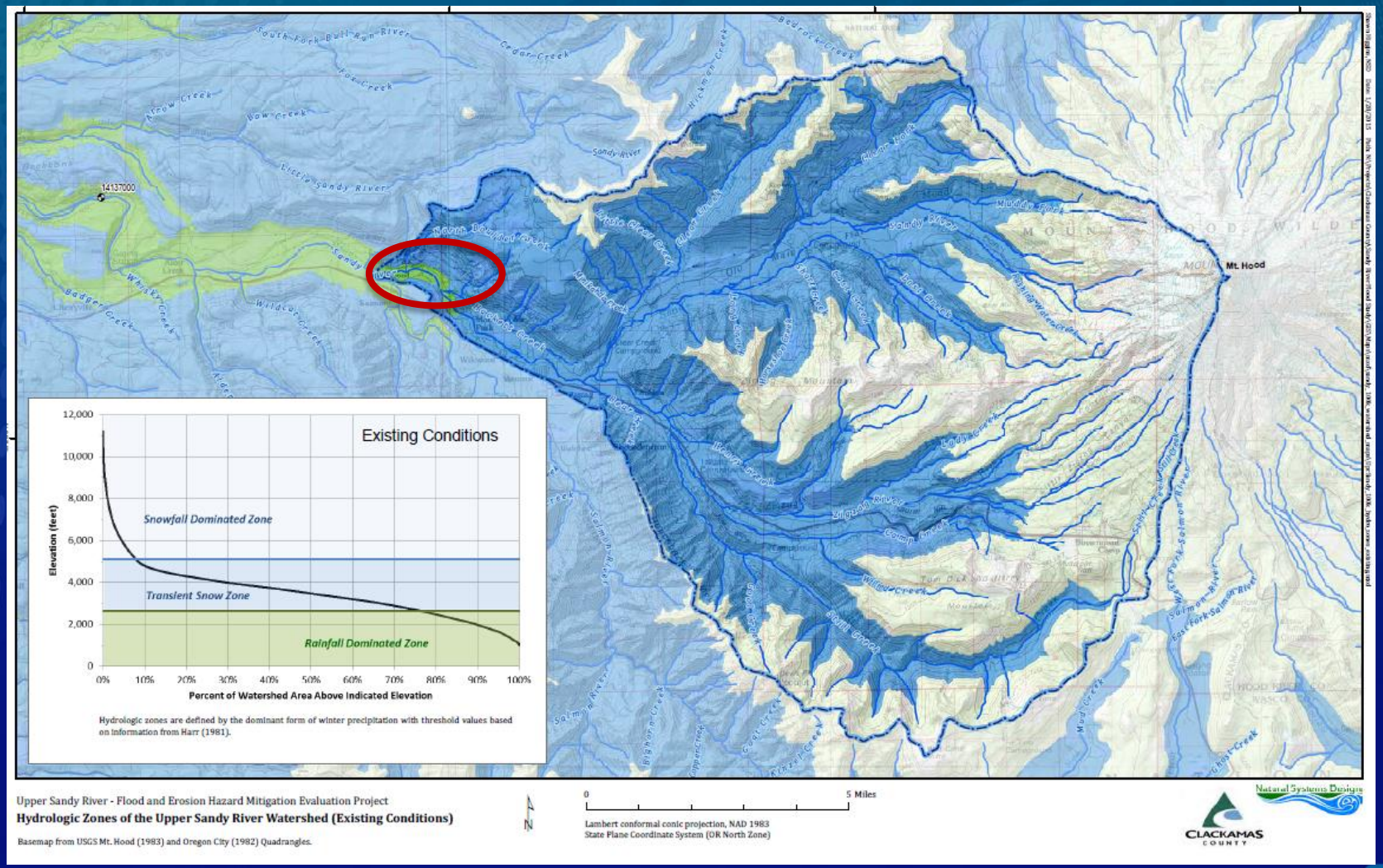
Public Involvement Project

Flood Risk Management Committee
Need for stakeholder and community engagement

January 22, 2011, Town Hall Meeting - Welches Middle School

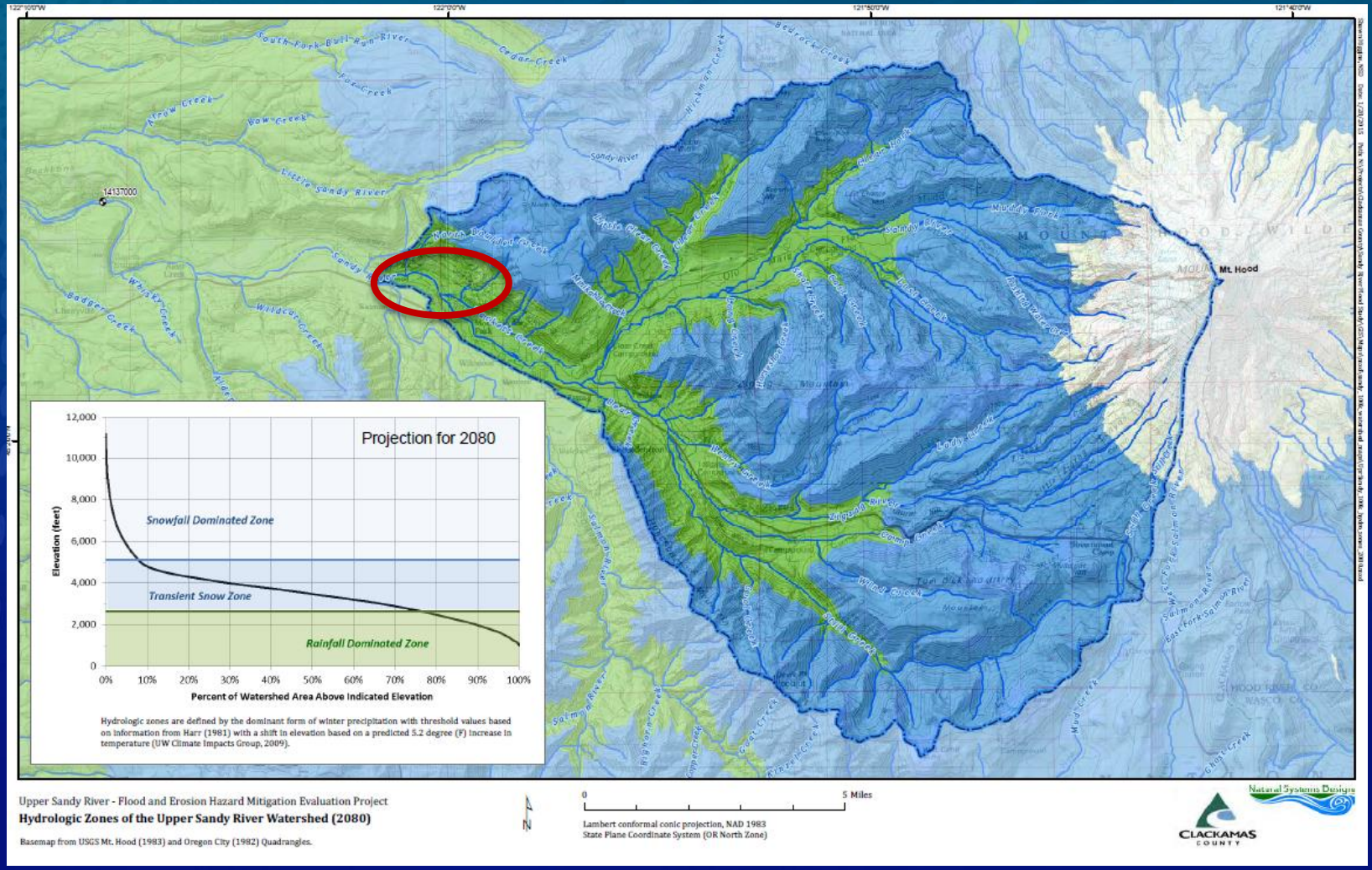
Currently – Snow Dominated Zone

Capacity for Storage of Precipation



Future Conditions - More Rain, Less Snow

Climate Projection for 2080



Pursuit of Disaster Resilience

- Planning and Policies for Future Recovery

Current Mitigation

- Hazard ID and Risk Assessment - Mapping
- No Adverse Impacts
- Limited Growth – Moratorium
- Emphasis on Flood Insurance
- Willing Sellers
- Acquisitions, Land Swaps, Conservation Easements
- Relocation of Infrastructure – Roads, Bridges, Sewer
- Watershed wide approach
- USACE Pilot Public Involvement