RAPTOR

RAPTOR – What is it?

RAPTOR (Real-time Assessment and Planning Tool for Oregon) is a web mapping application that allows authenticated users within the emergency management community to display GIS data from various resources into a common operating picture.

Supports the Emergency Operations Plan

- **Shares information, before, during, and after an incident**
- **Develop, implement, and operate information-sharing and communication processes with stakeholders**
- **Enhances overall readiness**

RAPTOR – What do we have?

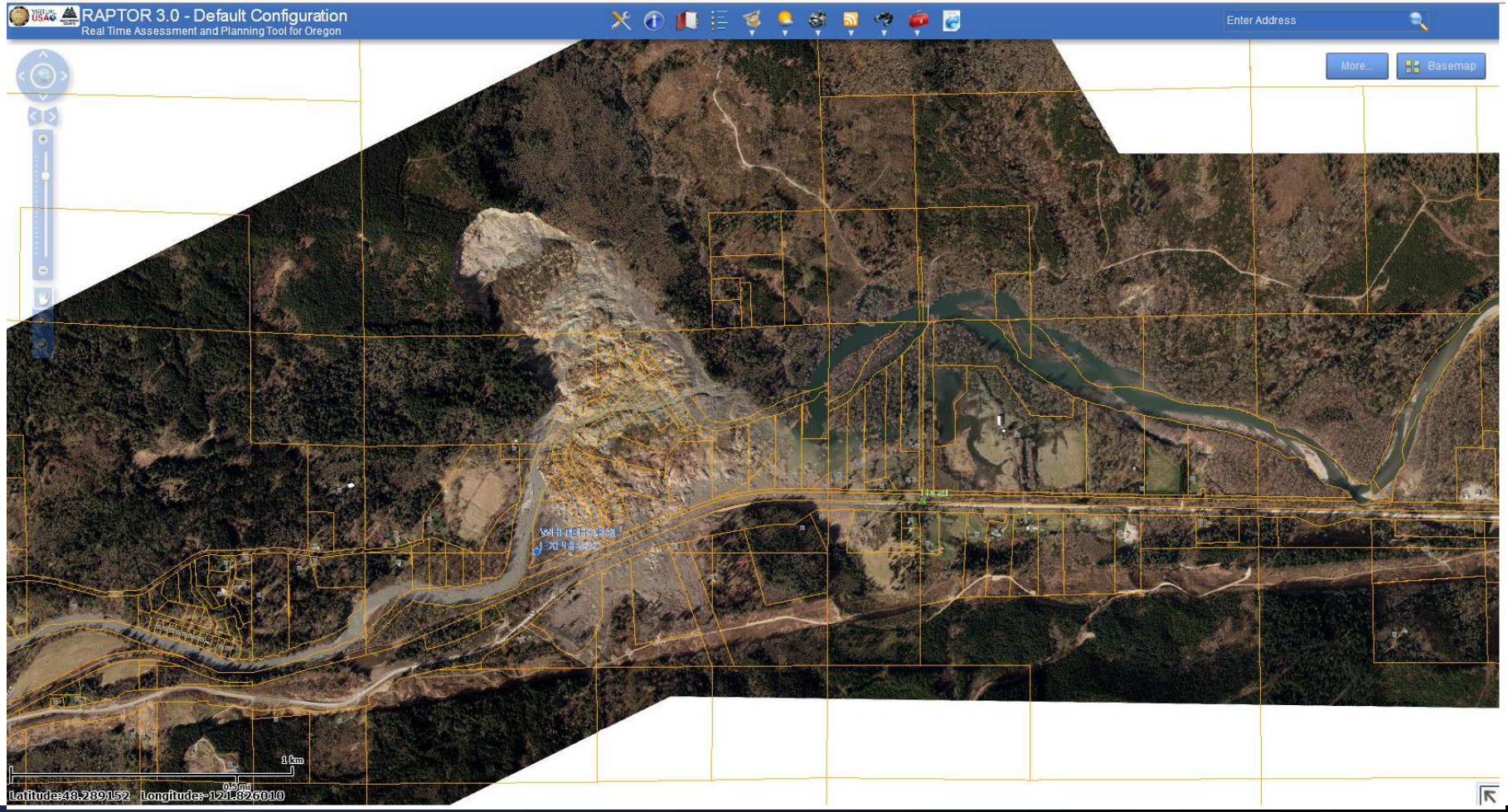
Notable resources include:

- **National Interagency Fire Center (NIFC)**
- **Northwest Interagency Coordination Center (NWCC)**
- **National Oceanic and Atmospheric Admin (NOAA)**
- **Federal Emergency Management Admin (FEMA)**
- **U.S. Geological Survey (USGS)**
- **Oregon Department of Geology and Minerals Industries**
- **Oregon Department of Environmental Quality**
- **Oregon Department of Transportation**
- **US Department of Homeland Security (Homeland Security Infrastructure Protection Program/PCII)**

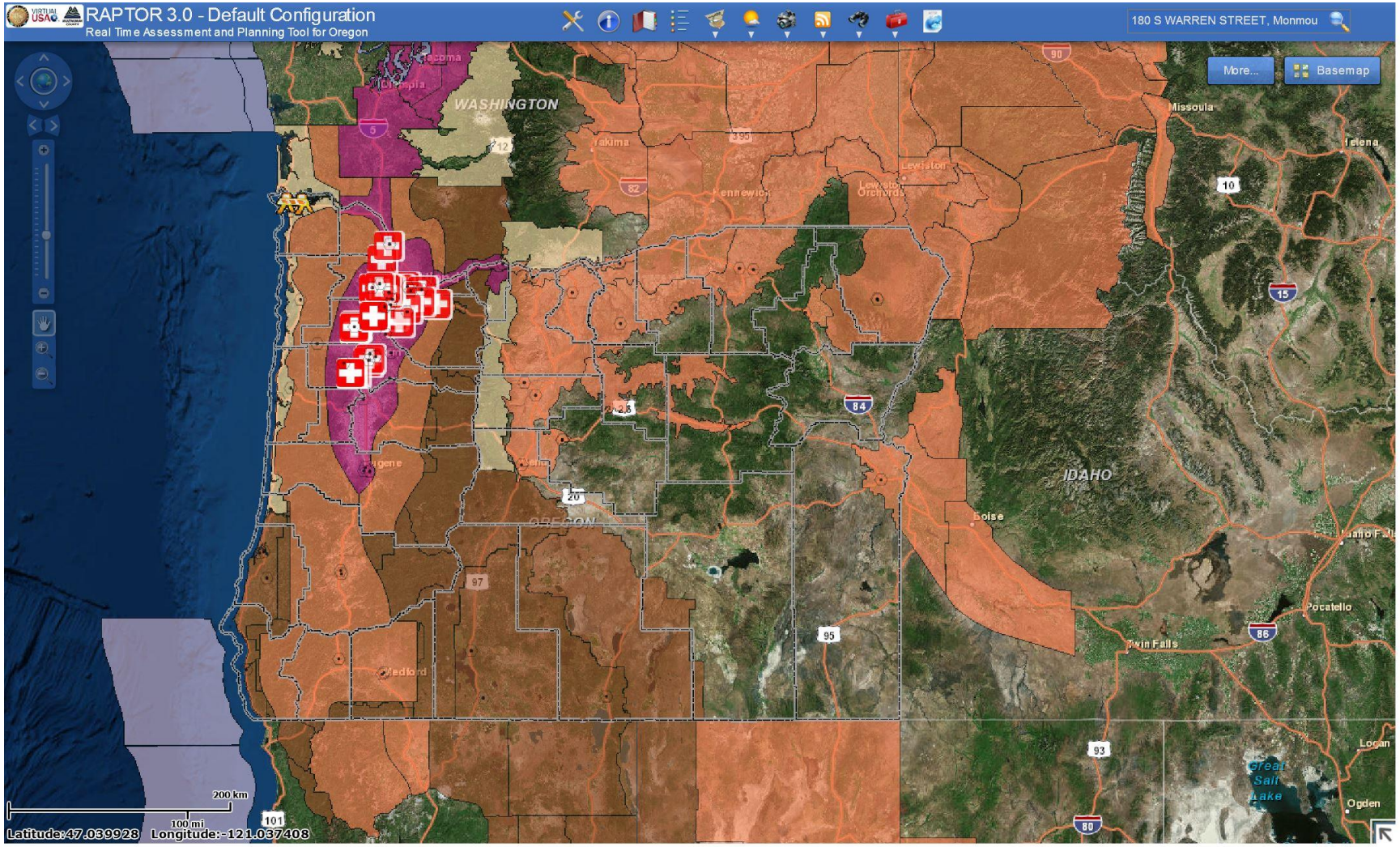
RAPTOR – How do we use it?

- **2014 SR 530 Landslide**
  - **Snohomish County GIS data**
  - **Structure Locations**
  - **Landslide Area**
- **2015 Extreme Heat**
- **2015 Wildfires**
  - **Air Quality**
  - **Evacuation Areas**
  - **Critical Infrastructure & Key Resources**
- **2016 Cascadia Rising**
  - **Impacted Areas**
  - **Evacuation Areas**
  - **Transportation Network Status**

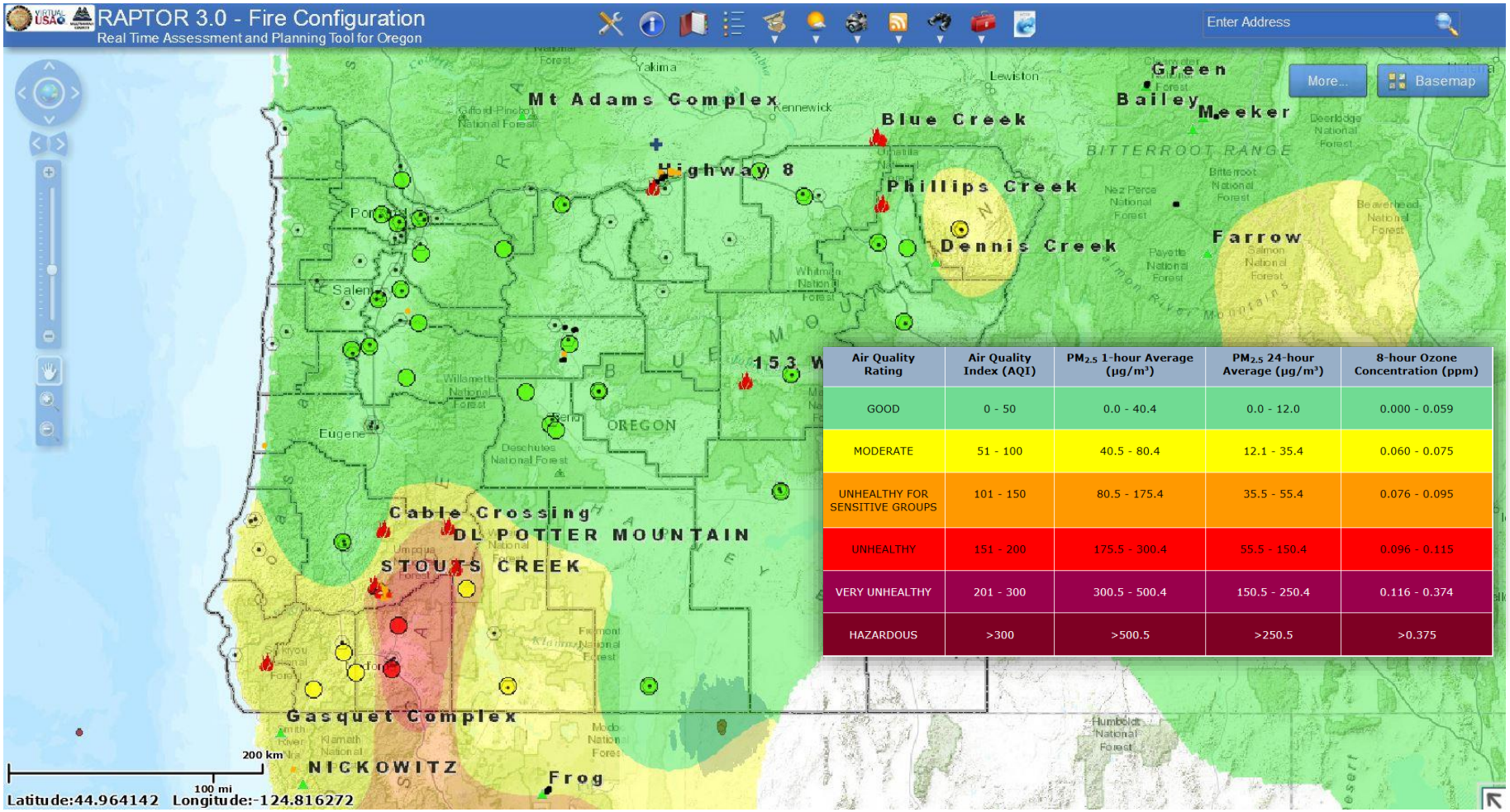
2014 SR 530 Landslide Structure Locations Landslide Area



2015 Extreme Heat

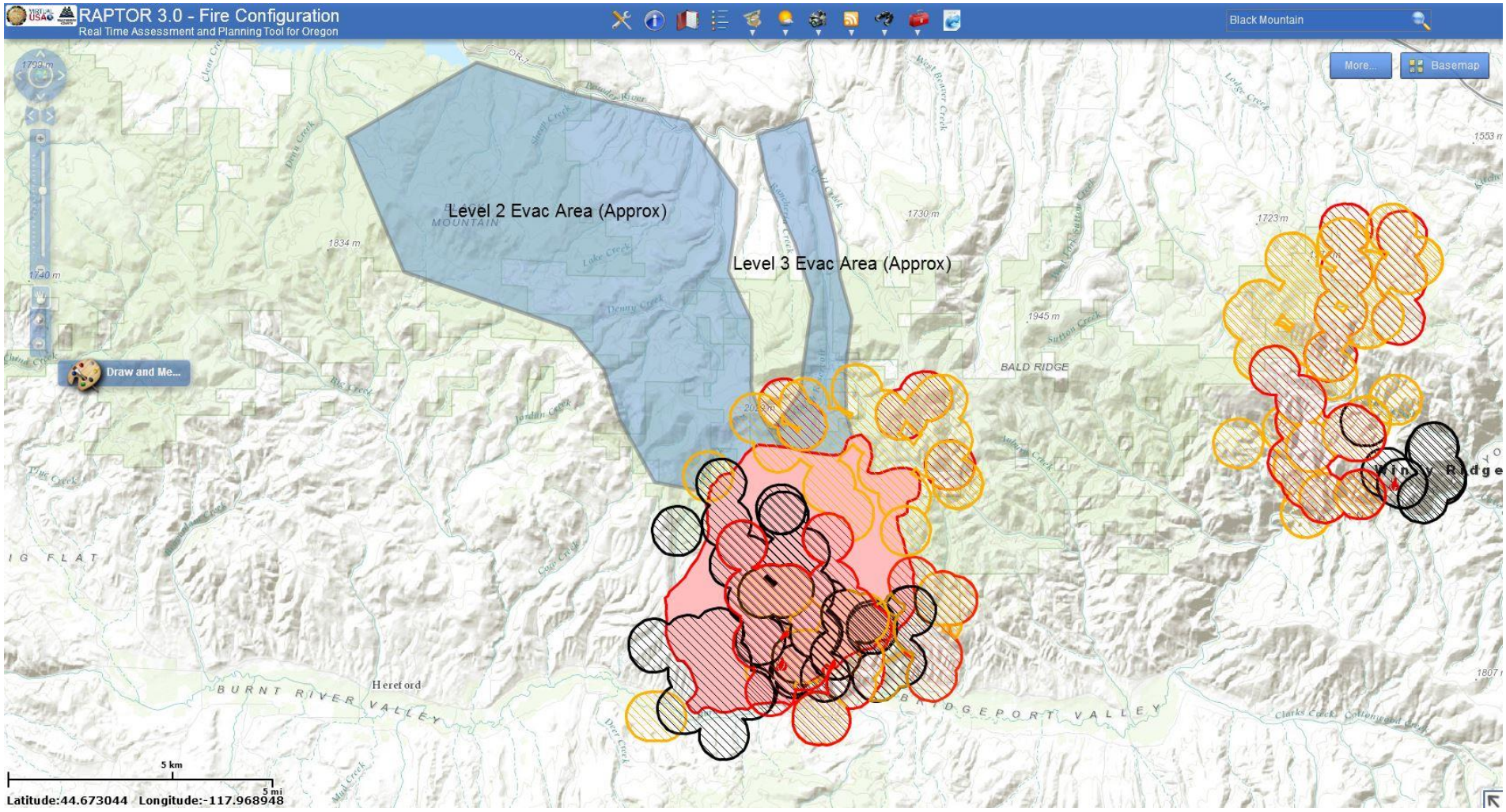


2015 Wildfires
Air Quality

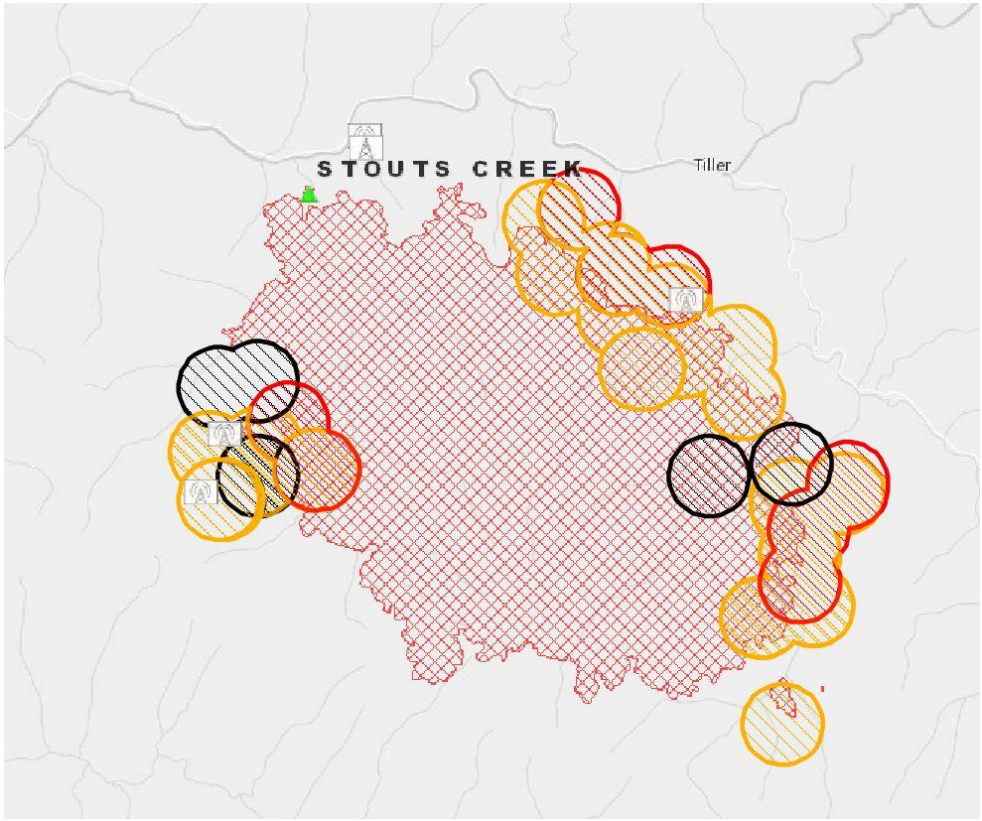


Air Quality Rating	Air Quality Index (AQI)	$PM_{2.5}$ 1-hour Average (µg/m³)	$PM_{2.5}$ 24-hour Average (µg/m³)	8-hour Ozone Concentration (ppm)
GOOD	0 - 50	0.0 - 40.4	0.0 - 12.0	0.000 - 0.059
MODERATE	51 - 100	40.5 - 80.4	12.1 - 35.4	0.060 - 0.075
UNHEALTHY FOR SENSITIVE GROUPS	101 - 150	80.5 - 175.4	35.5 - 55.4	0.076 - 0.095
UNHEALTHY	151 - 200	175.5 - 300.4	55.5 - 150.4	0.096 - 0.115
VERY UNHEALTHY	201 - 300	300.5 - 500.4	150.5 - 250.4	0.116 - 0.374
HAZARDOUS	>300	>500.5	>250.5	>0.375

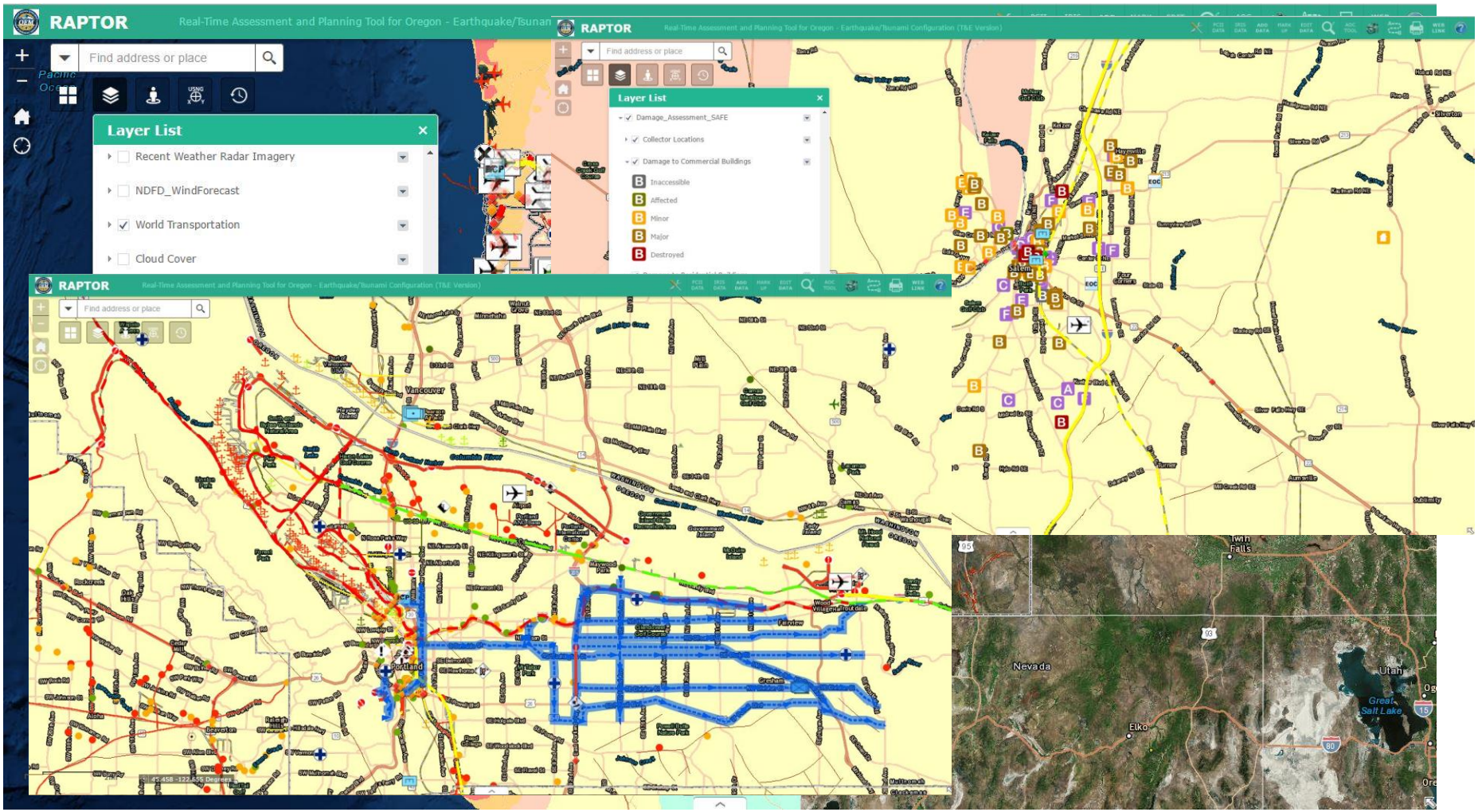
2015 Wildfires Evacuation Areas



2015 Wildfires Critical Infrastructure/Key Resources



2016 Cascadia Rising

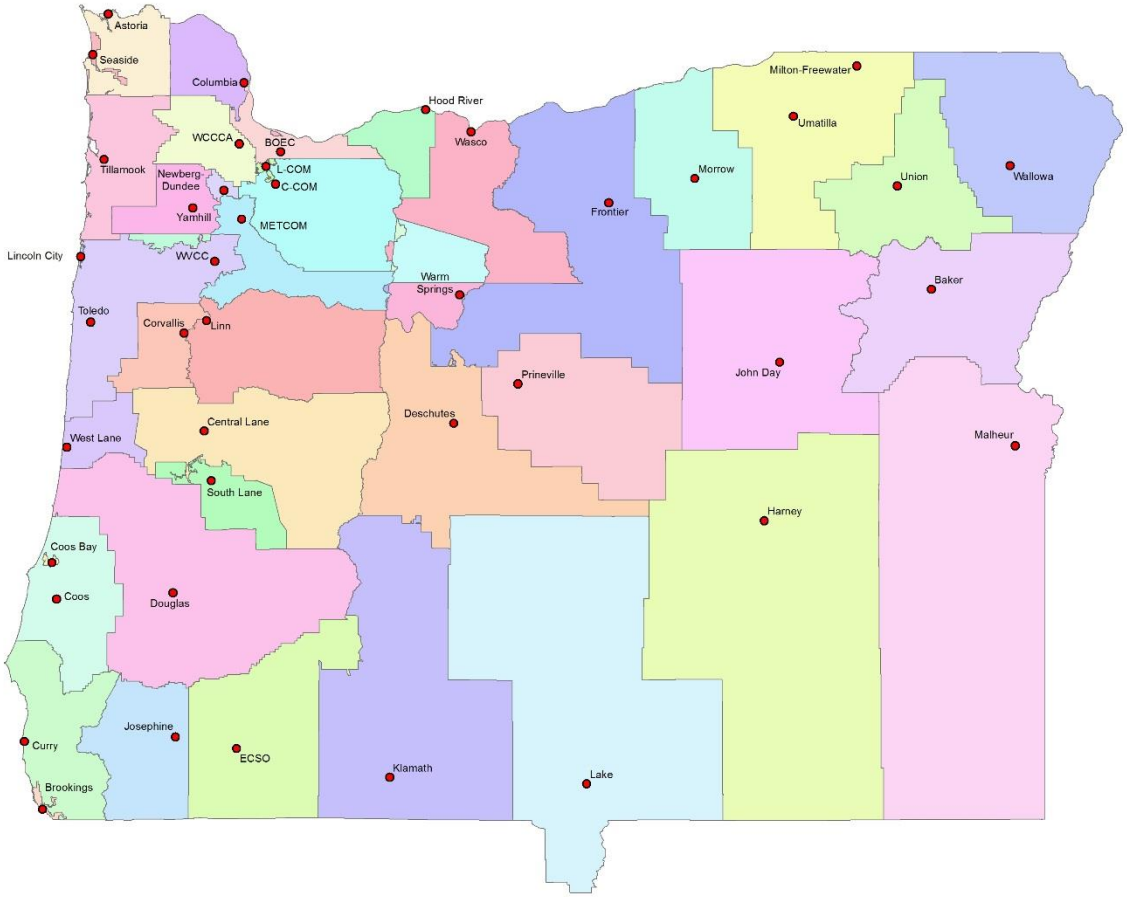


Why does data sharing matter?

- Allows government at all levels to be able to see what is going on in their area and around them.
- Supplies critical infrastructure information to decision makers within emergency management structures.
  - Bridges down
  - Railways unavailable
  - Airport status
- Enables planning structures to analyze what areas are at risk.
  - Critical lifelines that may be impacted
  - Key resources within a hazard area
- Everyone is able to “sing off the same sheet of music”.

9-1-1 Program

The 9-1-1 Landscape



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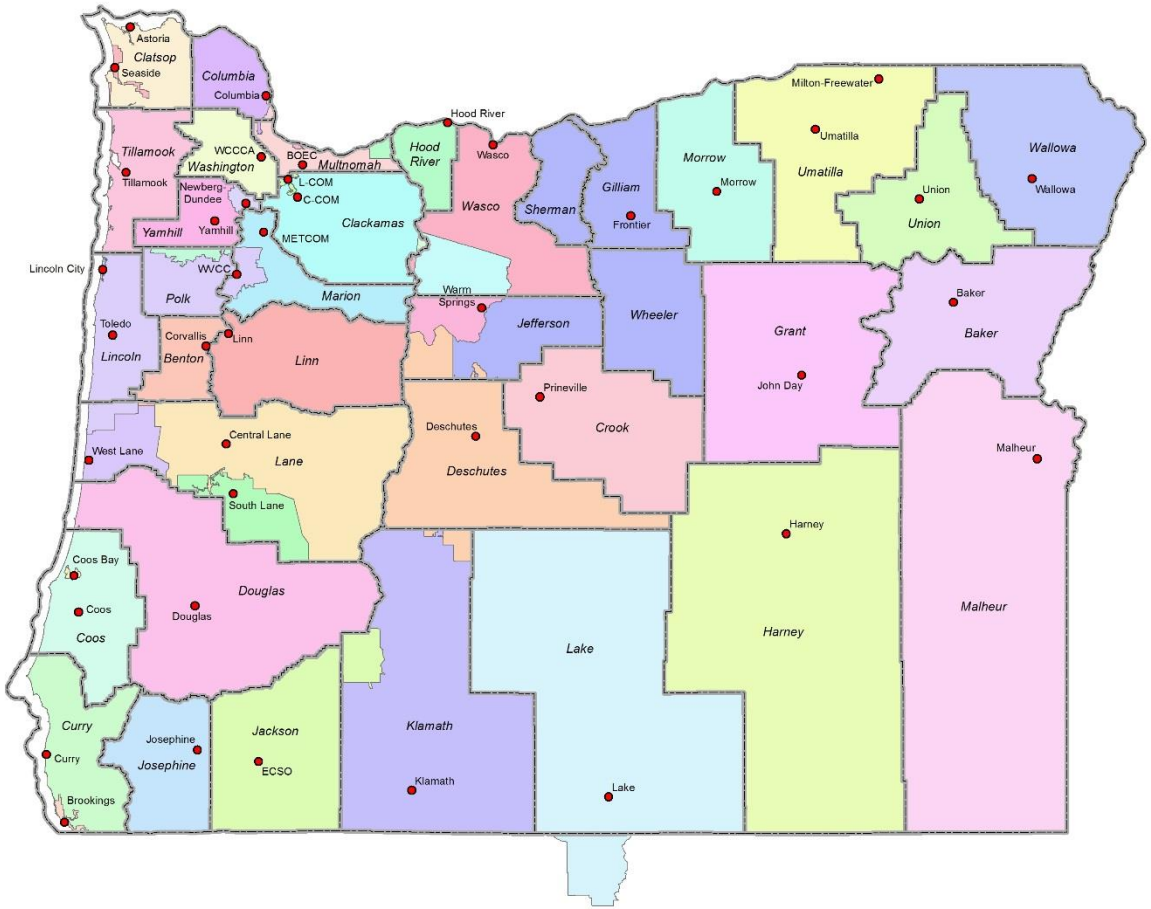

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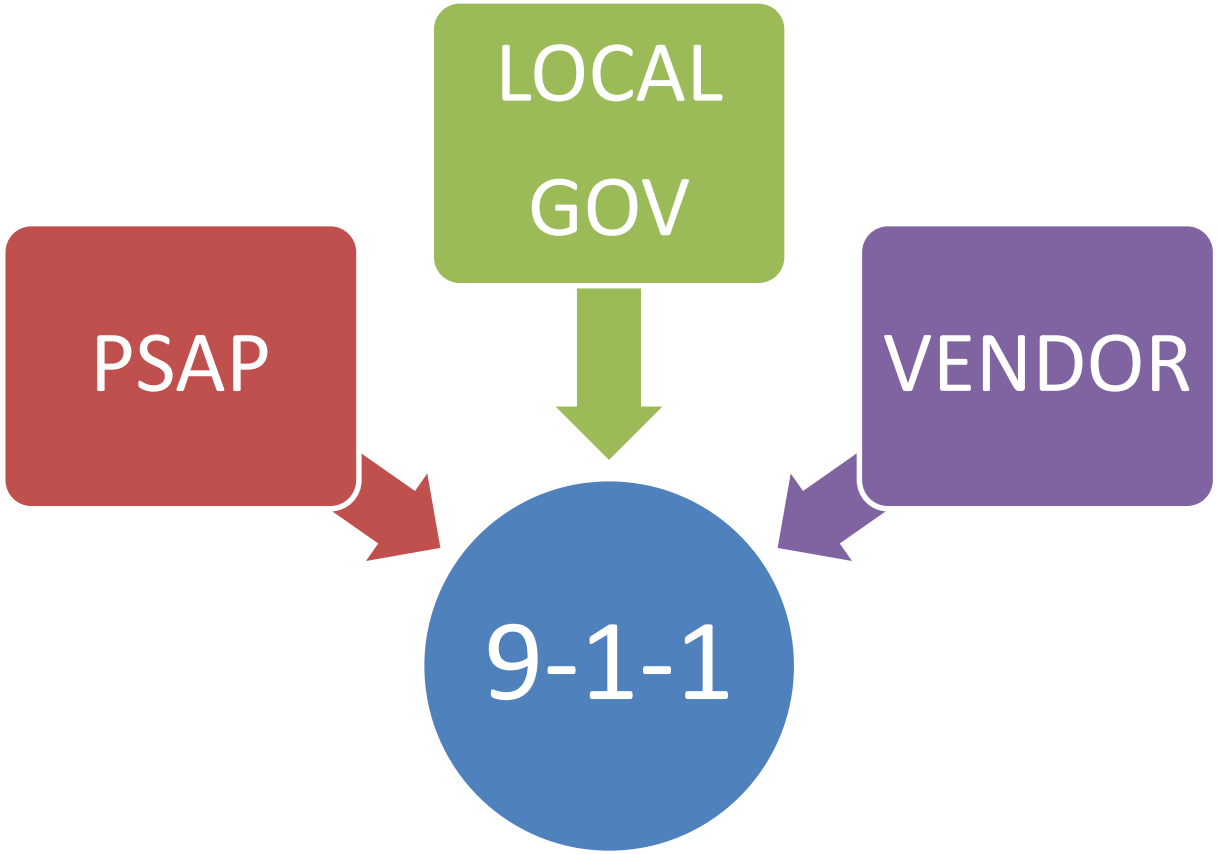
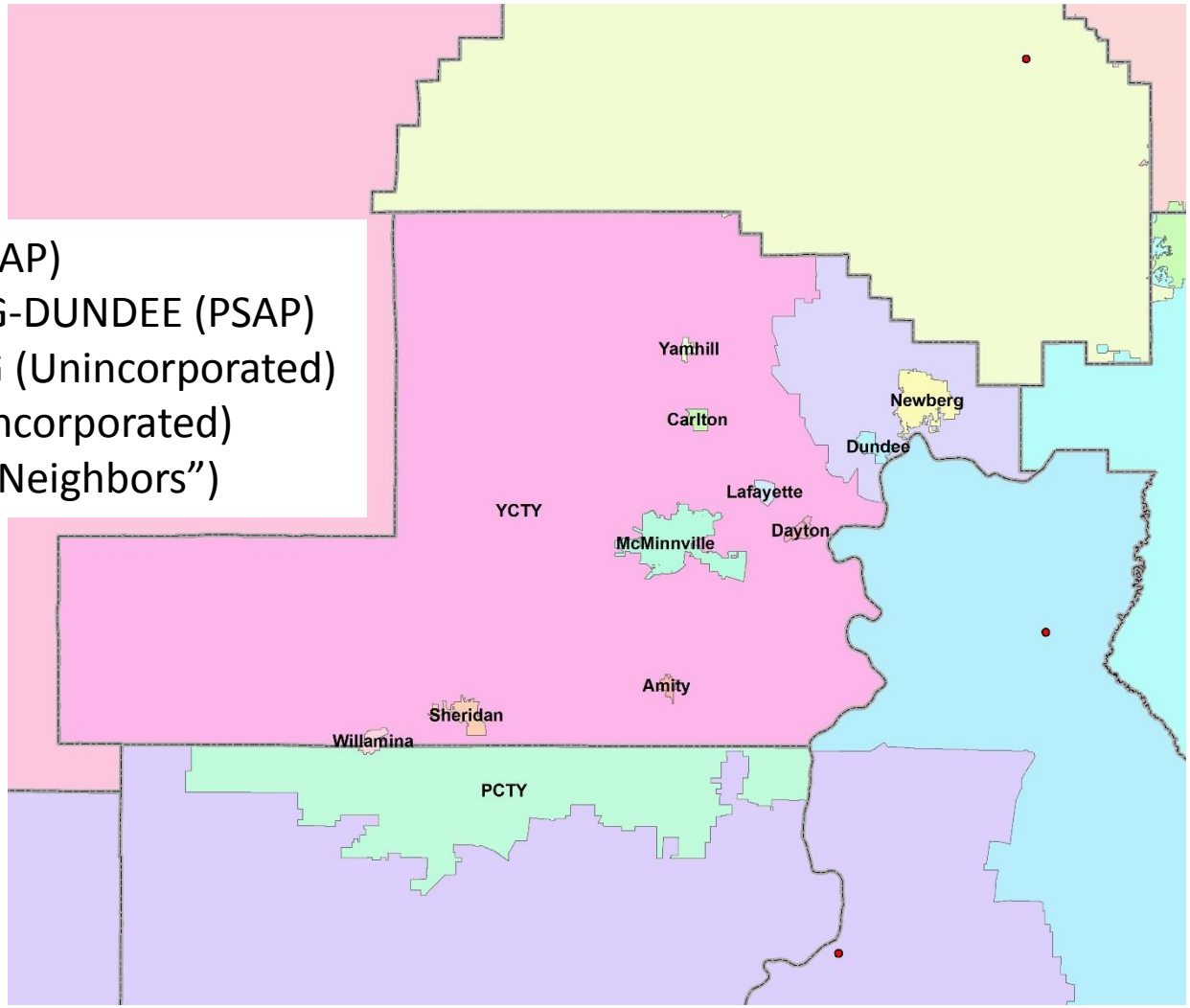


The 9-1-1 Landscape

PSAP (14)	• Single Jurisdictions • Multi-PSAP Jurisdictions
LOCAL GOV (9)	• County/City GIS • LCOG, Metro
VENDOR (16)	• GeoSolve • AspenGIS

The 9-1-1 Landscape

- YCOM (PSAP)
- NEWBERG-DUNDEE (PSAP)
- MWVCOG (Unincorporated)
- Various (Incorporated)
- Various (“Neighbors”)



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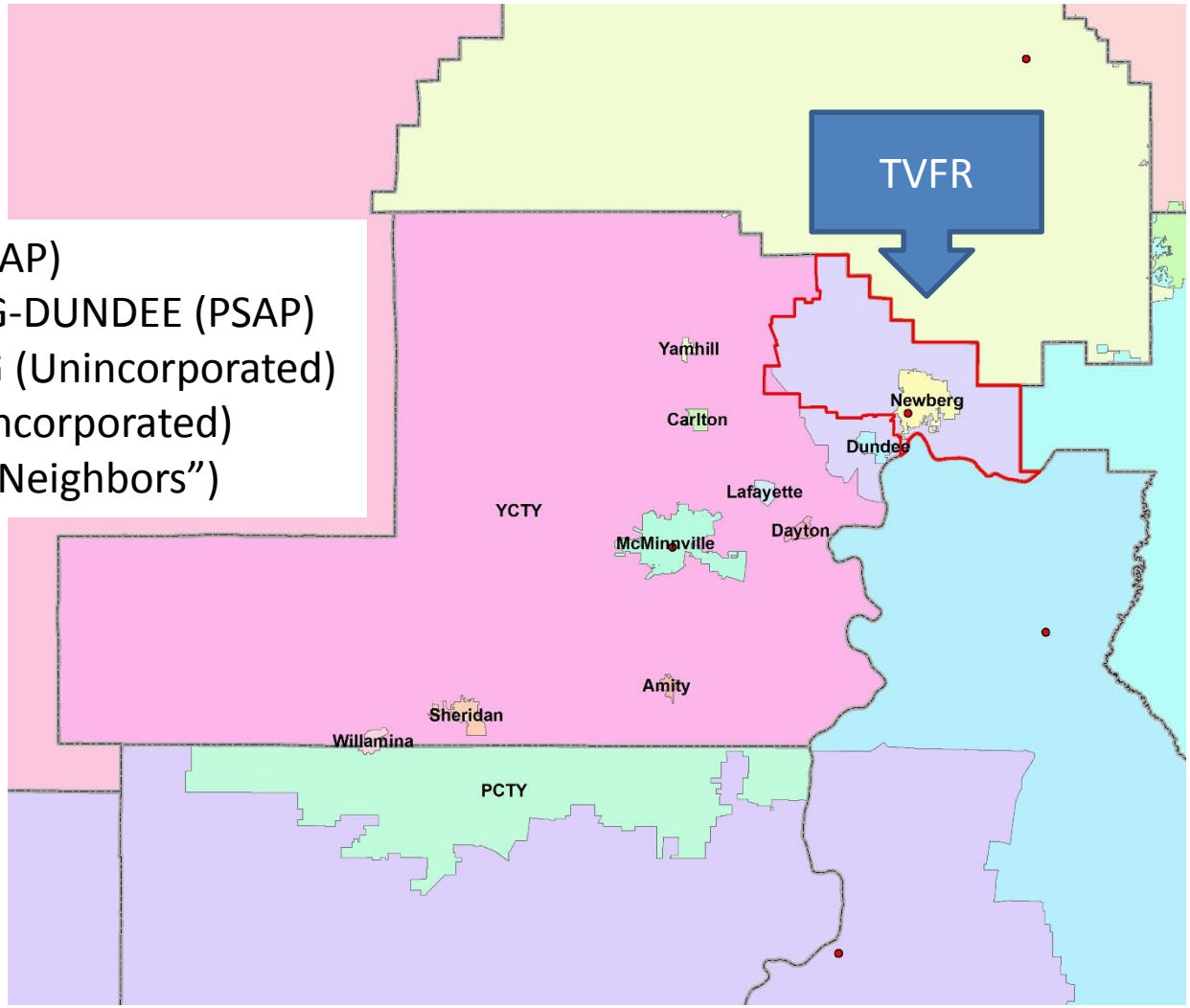


Data Sharing Agreements

2010 Effort

- 50+ agencies that provided data for various 9-1-1 jurisdictions/systems
- Initial effort placed ALL data into public domain
- Revised to only include optional Addendum for street centerlines

Data Sharing Agreements

DSA Limitations

- Redistribution within the PSAP community
- Use in the state's ECC during activation

Data Sharing Agreements

Current Status

- 32 PSAPs (or PSAP Partners) covered under an agreement with OEM
- 7 PSAPs have no formal agreement with OEM
- 4 PSAPs utilize their own version of a DSA

Data Sharing Agreements

The Future

- Do away with individual DSAs
- Comprehensive data sharing approach

Why does data sharing matter?

- Efficiency
- Manageability
- Standardization
- Next Generation 9-1-1

NG9-1-1

Next Generation 9-1-1 (abbreviated **NG9-1-1**) refers to an initiative aimed at updating the 9-1-1 service infrastructure in the United States and Canada to improve public emergency communications services in a growingly wireless mobile society. In addition to calling 9-1-1 from a phone, it intends to enable the public to transmit text, images, video and data to the 9-1-1 center (referred to as a Public Safety Answering Point, or PSAP). The initiative also envisions additional types of emergency communications and data transfer. This NG9-1-1 infrastructure is intended to replace the current services over time.

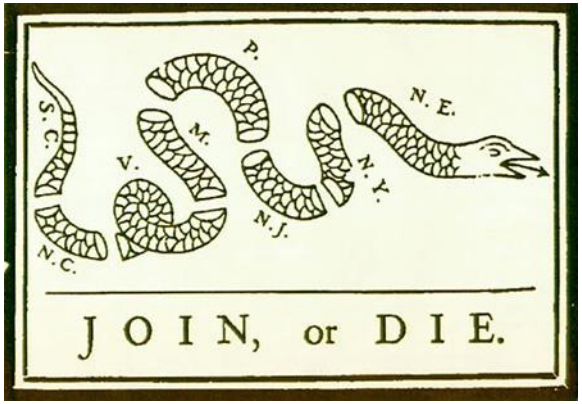
NG9-1-1

GIS and Geospatial Technologies Key to Next Generation 9-1-1

"Most jurisdictions have adopted GIS data into their operations over recent years. But, the role of GIS has been as a supporting piece, not as a key component of the system. This change will require major rethinking of how GIS data is collected and managed for most 9-1-1 agencies."

(Thursday, September 29th 2011)

NG9-1-1



NG911 Study - Kentucky

"The PSAPs will continue to have a central focus on the geographical features with their jurisdiction…Their critical responsibility however, is to recognize that their datasets are no longer standalone – they are part of a much larger mosaic that collectively represents their state and/or region."

(The Commonwealth of Kentucky, August 1, 2009, NG9-1-1 Standards Report)

NG9-1-1

NG911 Study - Kentucky

"Unlike the previous stages of 9-1-1 services that were centrally focused on the geography and operations of a single PSAP, NG9-1-1 necessitates the development and implementation of a seamless set of lines and polygons that span entire states and regions."

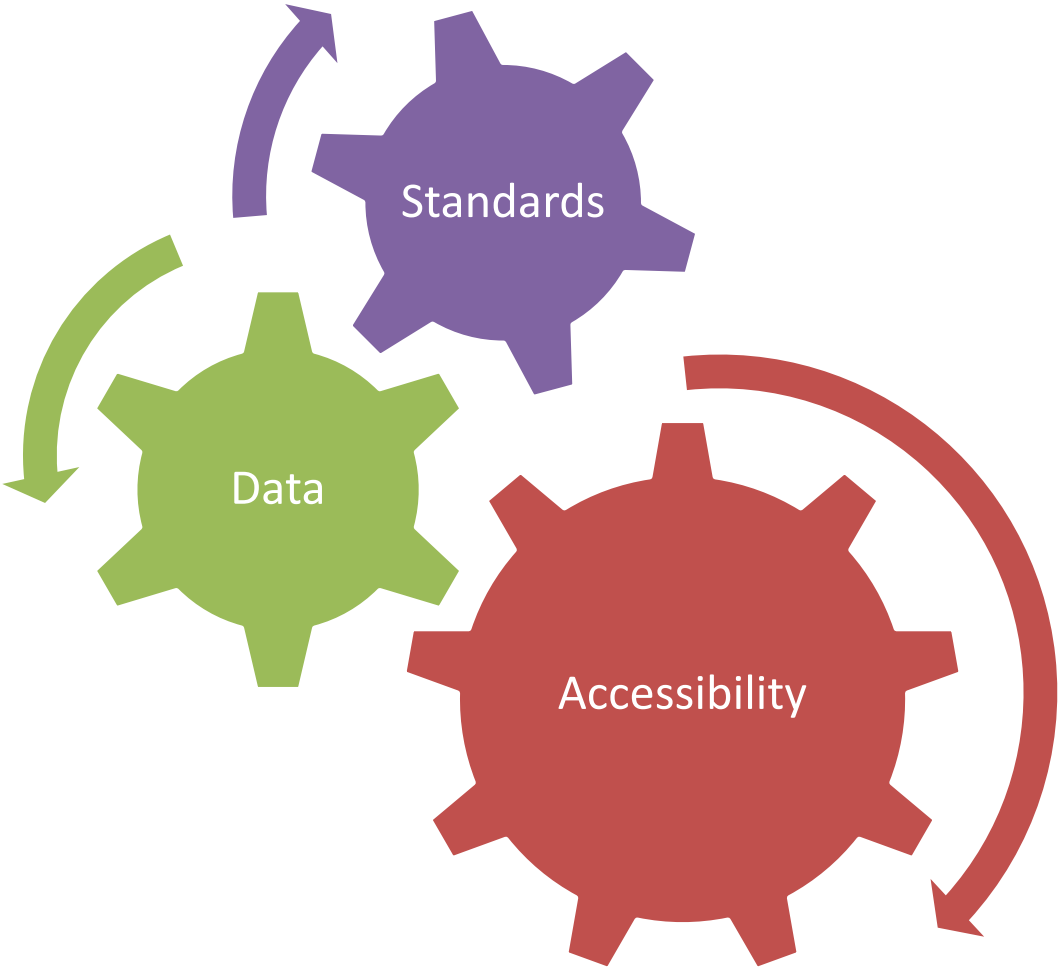
(The Commonwealth of Kentucky, August 1, 2009, NG9-1-1 Standards Report)

NG9-1-1

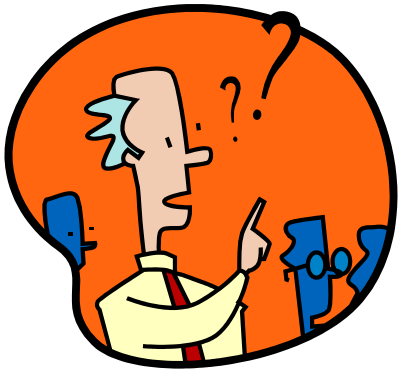
NG9-1-1

- PSAP Boundaries
- Emergency Service Zone Boundaries
- Road Alias Table
- Road/Street Centerlines
- Address Points

NG9-1-1



QUESTIONS



Michael Gurley
9-1-1 GIS Coordinator
michael.gurley@state.or.us