

# Mapping at a Local Scale for CWPPs



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# Purpose of the CWPP

- Cooperative planning effort
- describes a community (values at risk, infrastructure, natural resource, watershed/municipal water source)
- relates fire risk to where people live, work and play,
- reflects community values,
- identifies WUI areas at risk,
- describes potential actions to reduce fire risk, and
- describes local coordination that will take place to reduce those risks

# Planning Process

- ◆ Followed goals of Ten-Year Comprehensive Strategy
- ◆ Used Handbook....
- ◆ Followed guidance for local hazard mitigation planning
- ◆ For risk and hazard assessment, will utilize local knowledge and GIS data for fire occurrence, fuels, topography, fire weather, community infrastructure, and values at risk to identify WUI areas at risk.

# Considerations for Mapping

- ◆ Identify “local”; identify “community”
- ◆ Identify land base
- ◆ Identify fire agencies and land managers; who’s responsible for protection of life, natural resources, and property
- ◆ Identify data needs; Local knowledge vs. GIS
- ◆ Identify where data will come from; who will manage data?
- ◆ Identify maintenance issues
- ◆ Careful! Do not use data to inflate the risk...tell the story, though.

# Local

- ◆ Identify issues related to hazards/risk
- ◆ Who is at the table?  
What will they contribute?
- ◆ Identify scope and scale
- ◆ Identify leadership (generally party conducting mapping)

# Community

- ◆ Who is the community?  
Tax base, homeowners association, cabin owners on federal land?
- ◆ Who governs the community?
- ◆ What is the infrastructure of that community?
- ◆ Are there more than one?
- ◆ What values are there?



**Photo by Jim Stearns, Hermiston Fire Chief - Retired**



**Photo by Larry Aragon, USFS**





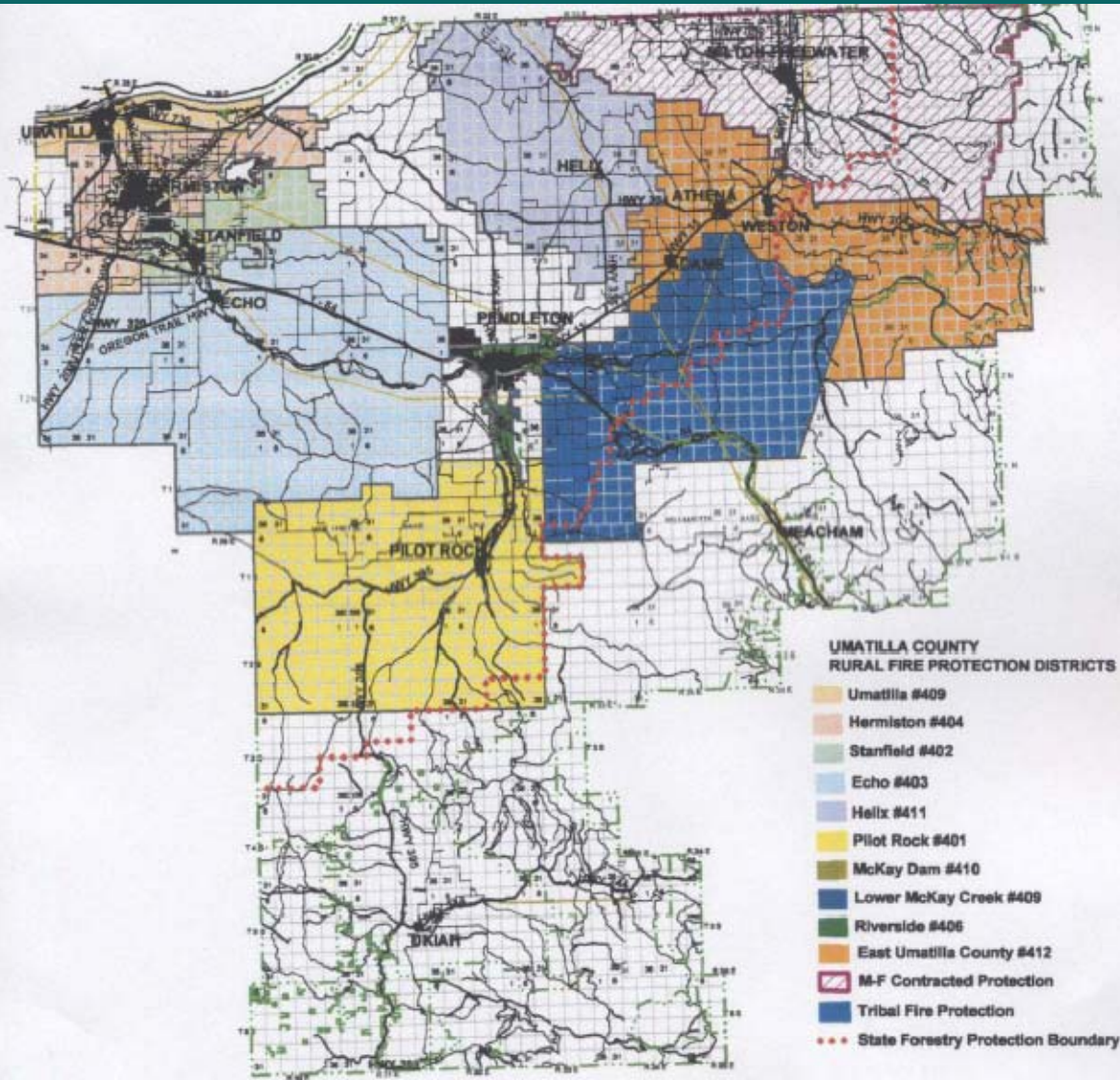
# Identify Land Base

- ◆ Ownership/Tribal
- ◆ Government/City Limits/UGB
- ◆ Land Use
- ◆ Water
- ◆ Etc. - All of these will guide how identification and prioritization of fuels treatment is conducted; Also contributors of data



# Protection of Life, Resources, Property

- ◆ Fire Agencies - Roles and Capacities
- ◆ Resource Managers/Land Managers
- ◆ Emergency Services, Capabilities, and Responsibility
- ◆ Tribal
- ◆ Data available/data creation/data maintenance
- ◆ Generally one of these entities have experience in GIS and are willing to help



This map was created for planning and research purposes only.  
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June 14, 2005



# Data Needs for Risk/Hazard

- ◆ What will you need? Occurrence, fuels, topography, etc.
- ◆ Where are you going to get the data?
- ◆ How are you going to lay out the information?
- ◆ Who will be in charge in running the assessment?
- ◆ What results are you going to be looking for?
- ◆ Does your community have the capability?
- ◆ If not, who is willing to do it for you?

# Limited Capacity Communities

- ◆ Find web sources for data at universities, state geospatial clearinghouses
- ◆ Find mapping tools on line; “crayons”
- ◆ Utilize a land management agency, county, or fire protection agency with tools available (County = NHMP; Land/Fire Managers - Fuels, topo, soils, boundaries, etc.
- ◆ OSU Wildfire Risk Portal
- ◆ Oregon Geospatial Data Clearinghouse
- ◆ ORMAP

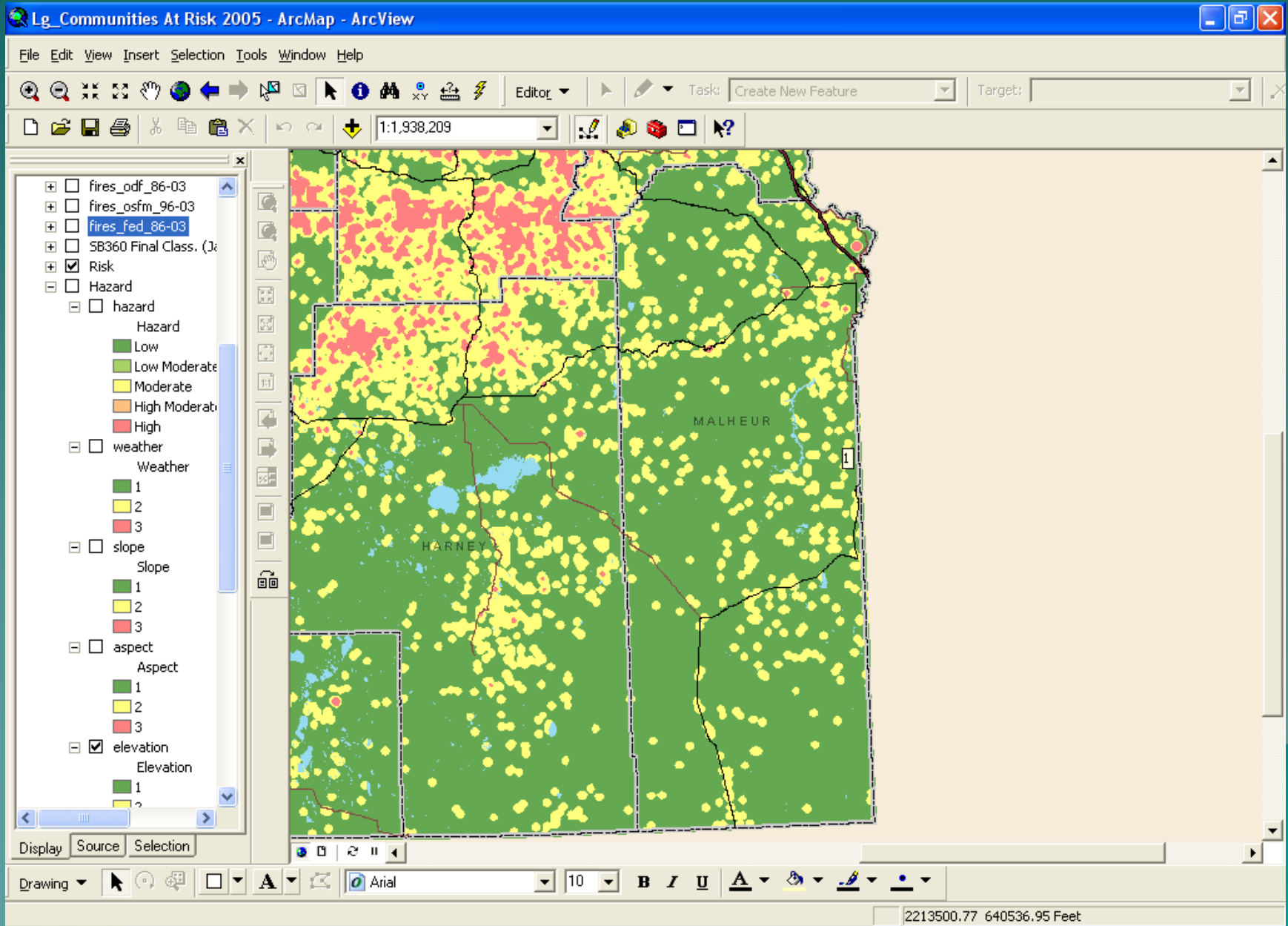




# Hazard Assessment

- ◆ Category 1 = Fire Occurrence
- ◆ Category 2 = Topographic Hazard
- ◆ Category 3 = Total Fuel Hazard
- ◆ Category 4 = Weather Hazard
- ◆ Category 5 = Overall Fire Protection Capability
- ◆ Category 6 = Values at-risk

# Fire Occurrence (cont.)



# Category 2: Topographic Hazard

## ◆ Slope:

0-25% Low Hazard

25-40% Moderate Hazard

41% + High Hazard

## ◆ Aspect:

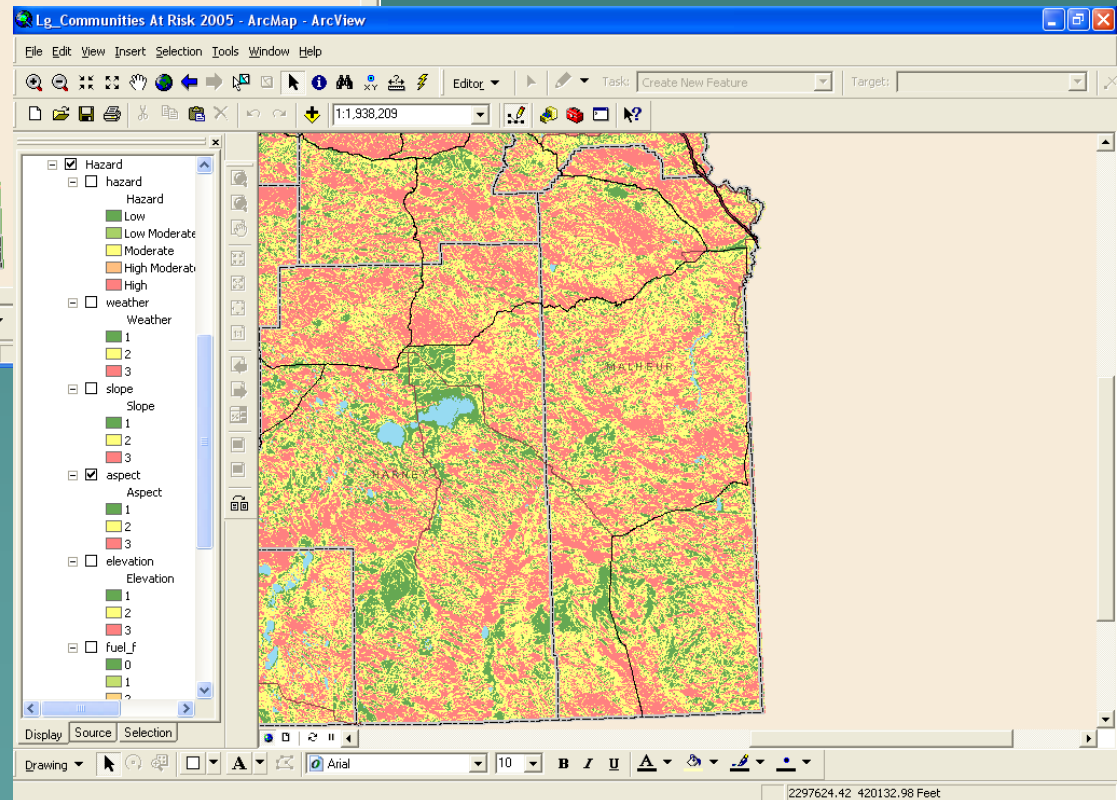
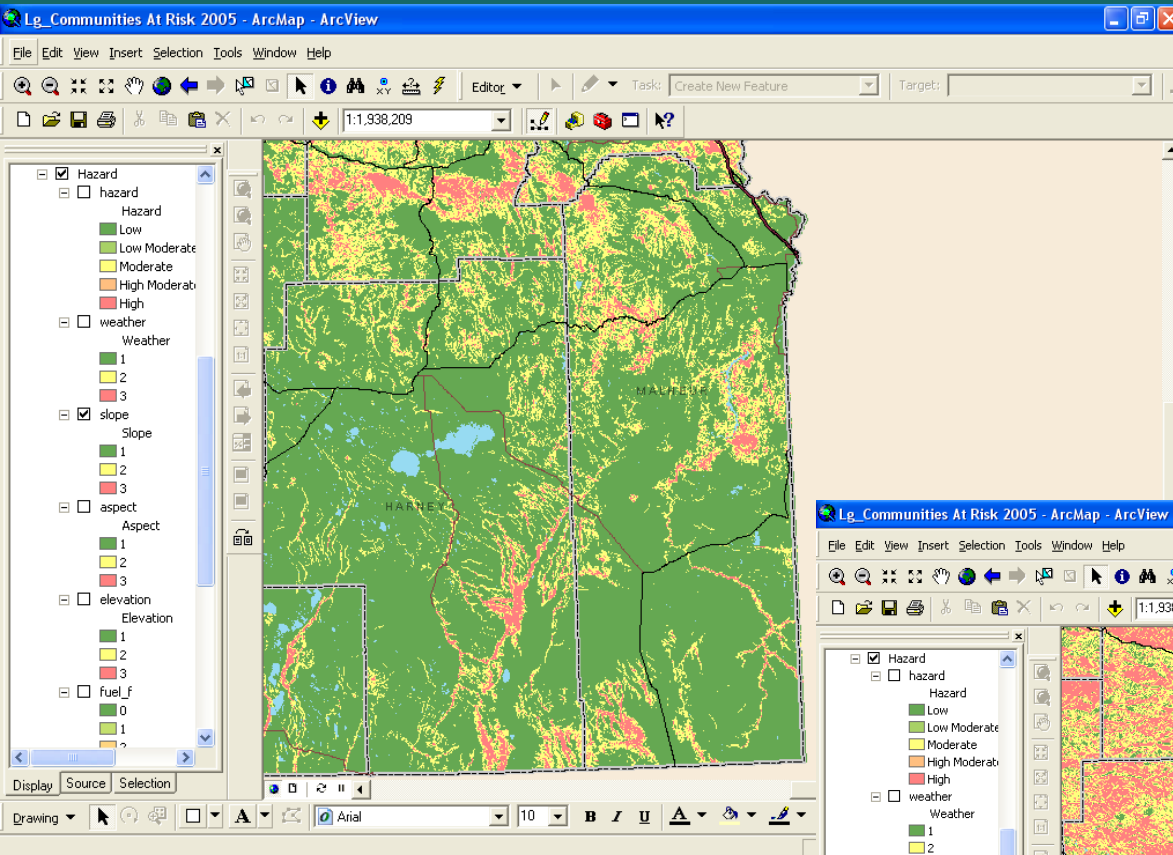
N,NE Low Hazard

NW, E Low/Mod. Hazard

W,SE Mod/High Hazard

S, SW, Flat High Hazard

# Category 2: Topographic Hazard



# Category 3: Fuel Hazard

- ◆ The higher the value, the greater it's influence on fire behavior, specifically rate of spread and flame length.

- ◆ **Fuel Model: Value**

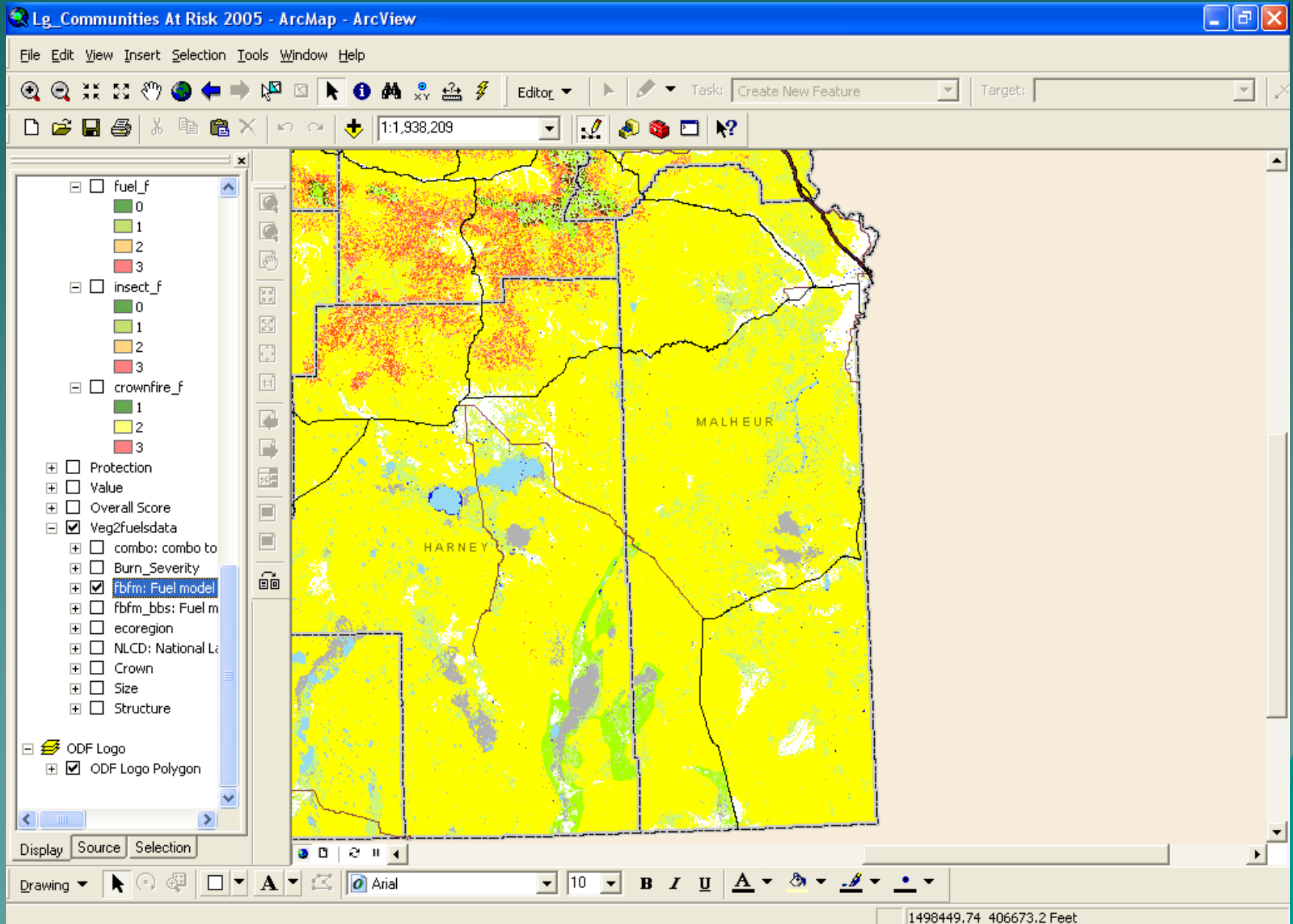
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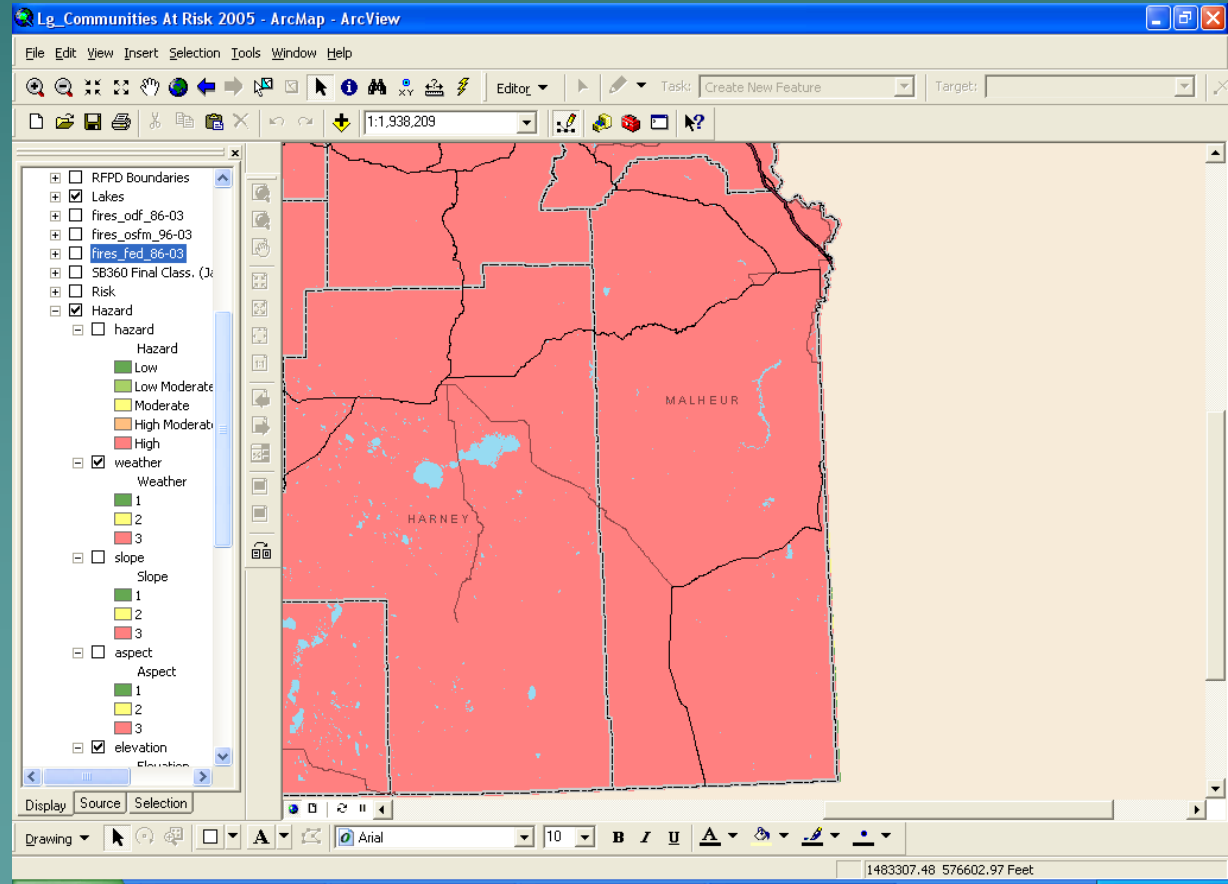
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# Category 3: Fuel Hazard

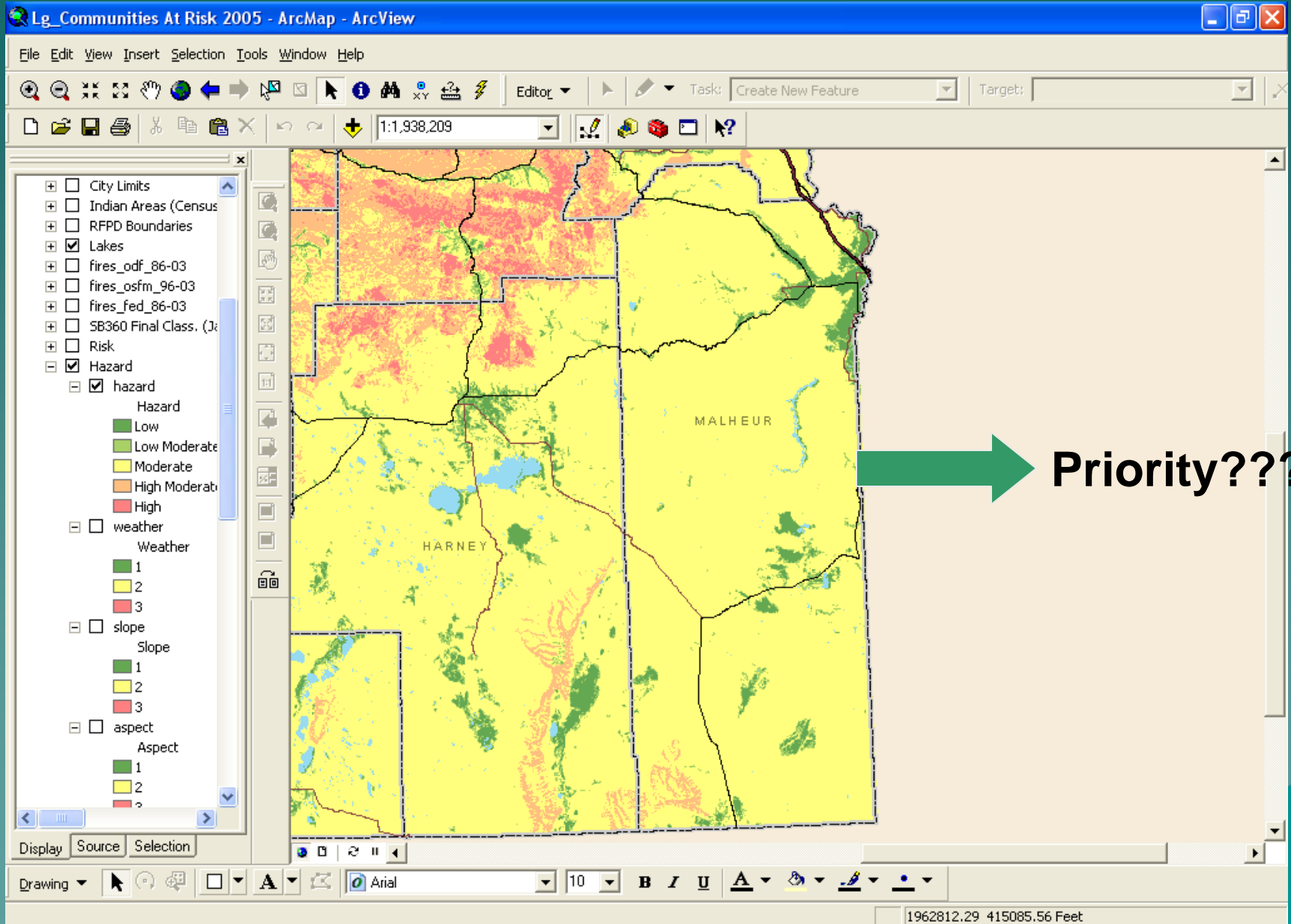


# Category 4: Weather Hazard

- ◆ All of Central, Eastern, and Southwestern Oregon receive a high hazard rating (state assessment)



# Overall Hazard





# Category 5: Overall Fire Protection Capability

- ◆ Homesite Density (# of homes/10 acres)
- ◆ Other Risk Factors Present
- ◆ Organized Fire Response
- ◆ Fire Response Time
- ◆ Community Preparedness
- ◆ Structural Vulnerability

# Category 6: Values At-Risk

- ◆ Input from public meetings and from questionnaire
- ◆ Community values like wildlife, recreation, viewshed, hunting/fishing, municipal watershed, power substations and corridors, communication sites and facilities, transportation corridors (major), homes, life, etc.

# Management

- ◆ Who?
- ◆ What?
- ◆ Metadata?
- ◆ Source?
- ◆ Structure?
- ◆ Availability?
- ◆ Cost?

# Maintenance

- ◆ Who?
- ◆ Cost?
- ◆ How often?
- ◆ Which sets?
- ◆ Include  
accomplishments?  
How do they affect  
hazard rating?

Questions?

The image features a solid teal background. In the bottom right corner, there is a stylized, dark teal silhouette of a mountain range with jagged peaks. The word "Questions?" is centered in the upper half of the image in a white, sans-serif font with a thin black outline.