

# New Mexico Statewide Assessment and Strategy for Forest Resources

July 8, 2009

Stakeholder Steering Committee



# Introductions



# Agenda



- **9:00 – 9:23: Introductory Session**
- **9:23 – 10:30: Session 1**
- **10:30 – 10:40: Break**
- **10:40 – 11:45: Session 2**
- **11:45 – 11:55: Next Steps**



# Welcome from the State Forester



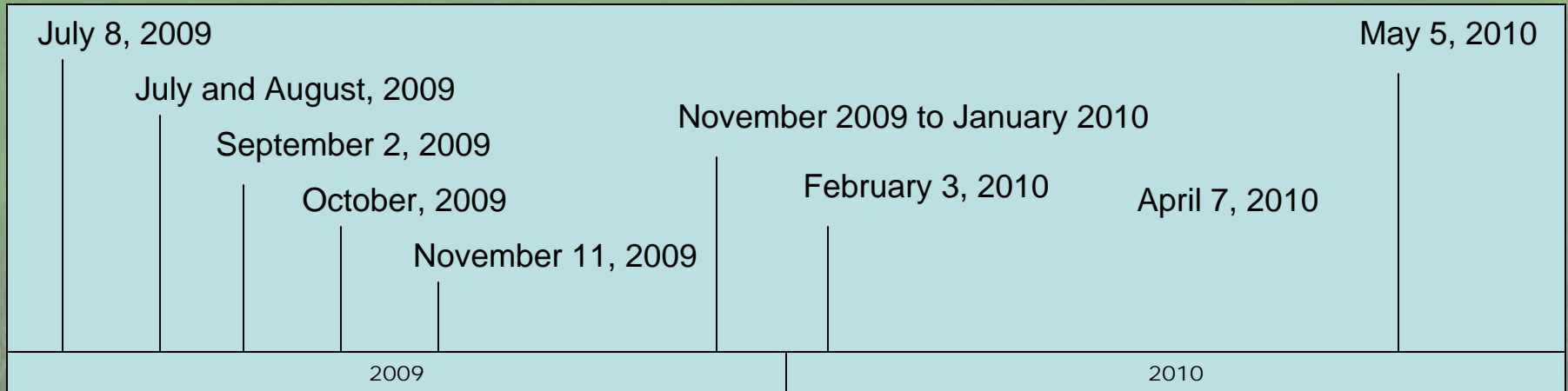
# NM Forest and Watershed Health Plan



- Mary



# National Requirements and the NM Timeline



- July 8, 2009 – First Stakeholder Steering Committee (SSC) meeting
  - Identify members of technical sub-groups
- July and August, 2009 – Garner input from technical sub-groups on thematic models
- September 2, 2009 – Implementation team will work to finalize all thematic models
- October 14, 2009 – Second SSC meeting
  - One full day to *collaboratively prioritize thematic models* using a nominal group technique
- November 11, 2009 – Results of prioritization to be distributed to SSC
- November 2009 to January 2010 – Implementation team to draft the **Statewide Strategy Plan** and the **Statewide Response Plan**
- February 3, 2010 – Third SSC meeting to review draft plans and provide input
- April 7, 2010 – Final SSC meeting to review final plans, maps, and to receive data DVDs
- May 5, 2010 – Plans, maps and data are complete

# National Requirements and the NM Timeline



## *State Forest Resource Assessments:*

- ensure resources are being focused on **high priority areas** with the greatest opportunity to achieve meaningful outcomes
- collaboratively with the U.S. Forest Service and other key partners
- develop a comprehensive state forest resource assessment
- provide a comprehensive analysis of the forest-related **conditions, trends and opportunities** in each state



# National Requirements and the NM Timeline



At a minimum, state forest resource assessments will:

- Describe forest conditions across **all ownerships**
- Identify forest related **benefits and services**
- Highlight issues and **trends of concern** and opportunities for action
- Delineate **high priority forest landscapes**
- Outline broad strategies for addressing the national themes along with critical issues and landscapes identified through the assessment







# National Requirements and the NM Timeline

At a minimum, State Response Plans will:

- Describe how the state proposes to **invest** both competitive and non-competitive federal funding to address **national** and **regional** priorities as well as those identified in this assessment
- Outline a **specific timeline** for project/program implementation
- Provide a **detailed budget** including opportunities to **leverage non-federal resources**
- Identify partner/stakeholder involvement
- Identify strategies for **monitoring outcomes** and revising action as needed



# New Mexico Forest Resource Assessment *Data Atlas Presentation*





# Farm Bill Requirements

State forest resource assessments will be **geospatially based** and make use of the best **existing data**. States are encouraged to identify critical **information gaps** as part of their assessment process so that this information can be acquired as opportunities arise.

- 1. Fish & Wildlife Habitat**
- 2. Water Quality & Supply**
- 3. Forest Fragmentation**
- 4. Wildfire Risk**
- 5. Forest Health Risk**
- 6. Development Risk**

- 7. Green Infrastructure**
- 8. Economic Potential**



# State Strategy & Response Plan

Objective – Strategy & Response Plan	Data Layers
<p><i>Conserve Working Forests</i></p> <ul style="list-style-type: none"> <li>• Identify, conserve and manage high priority forest ecosystems</li> <li>• Urbanization, fragmentation, loss of forestland</li> <li>• Enhance forest resource market opportunities</li> </ul>	<p>Fragmentation Development Risk Green Infrastructure Economic Potential</p>
<p><i>Protect Forests from Harm</i></p> <ul style="list-style-type: none"> <li>• Minimize potential and reduce impact of wildfire</li> <li>• Identify and manage threats to forest health</li> </ul>	<p>Forest Health Wildfire Risk</p>
<p><i>Enhance Public Benefits from Tree and Forests</i></p> <ul style="list-style-type: none"> <li>• Protect and enhance water quality and priority watersheds</li> <li>• Conserve fish and wildlife habitat</li> </ul>	<p>Fish &amp; Wildlife Habitat Water Quality &amp; Supply</p>



# Weighted Overlay Analysis

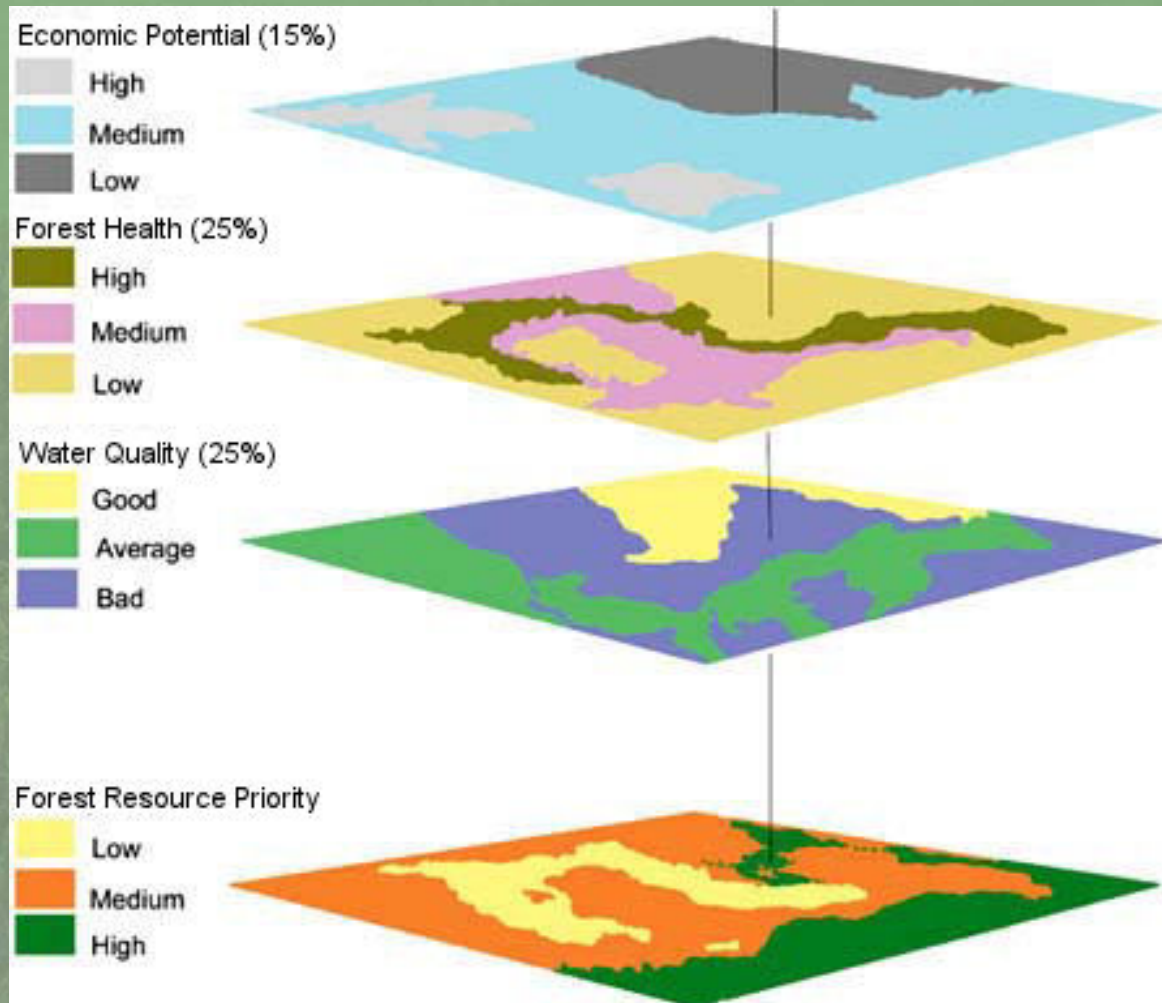
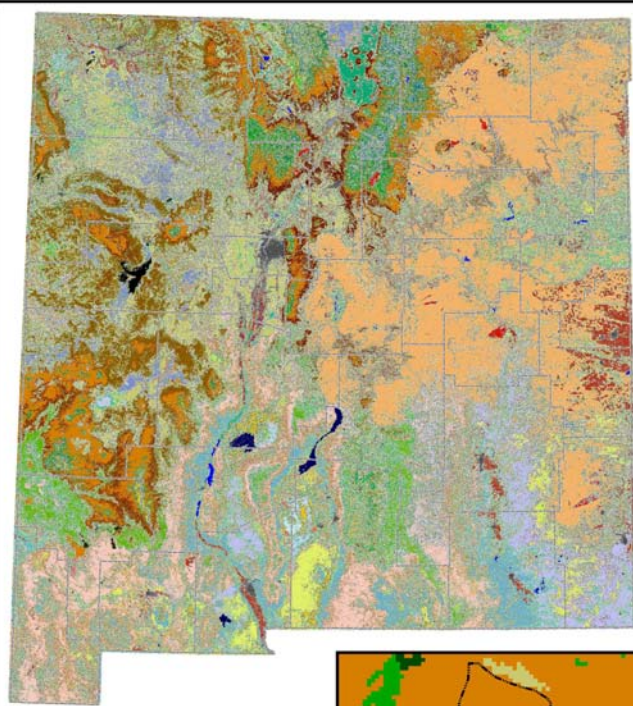


Image source: UN Food and Agriculture Organization [www.fao.org/docrep/006/y4816e/y4816e0g.htm](http://www.fao.org/docrep/006/y4816e/y4816e0g.htm)

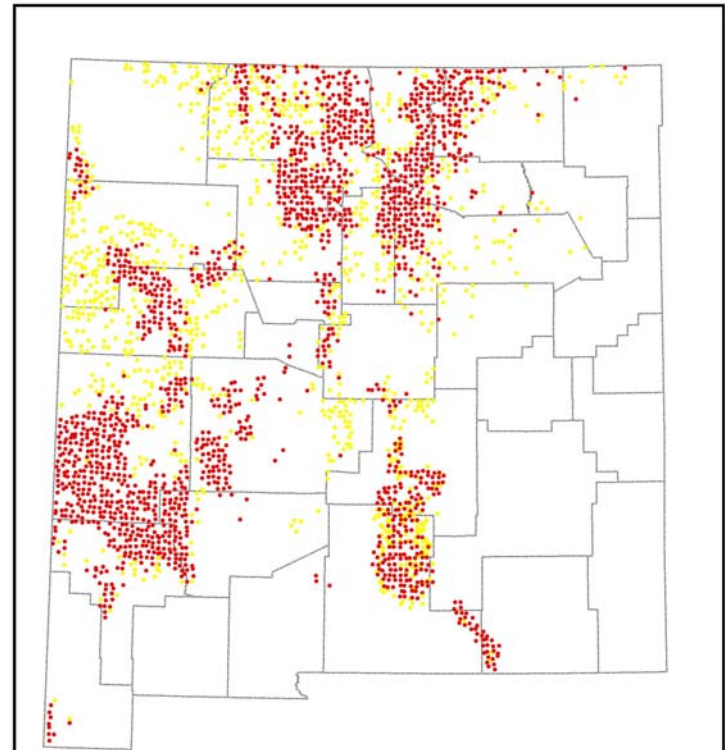
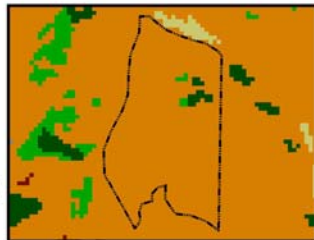
# Geospatial Analysis Issues

## Scale

## Data Availability



New Mexico Landcover  
Southwest ReGAP  
30 meter pixel resolution



Forest Inventory Analysis Data



# Data Atlas Format

- Description of Thematic Layer
- Description of Model
- Description of Model Factors
  - Function, Criteria, Justification, Data Description, Data Source
- Model Result
- Data Considered but Not Used
- Technical Team
- Citations

# Fish & Wildlife Habitat



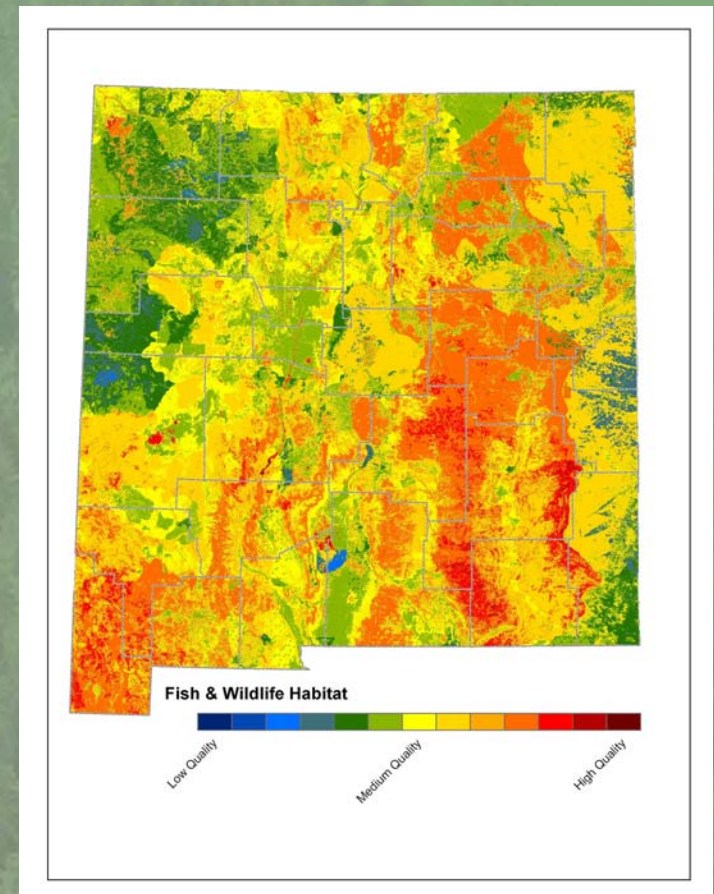
***Fish & Wildlife Habitat:*** This data layer identifies areas that provide habitat for fish and wildlife species, including, but not limited to, threatened and endangered species.

## Model Factors

1. T&E Species Habitat
2. Forested Species Habitat
3. TNC Fish Atlas
4. Forest Patch Size
5. TNC Conservation Areas
6. CWCS Key Areas

## Result

Statewide data layer where higher values indicate priority fish & wildlife habitat





# Water Quality & Supply



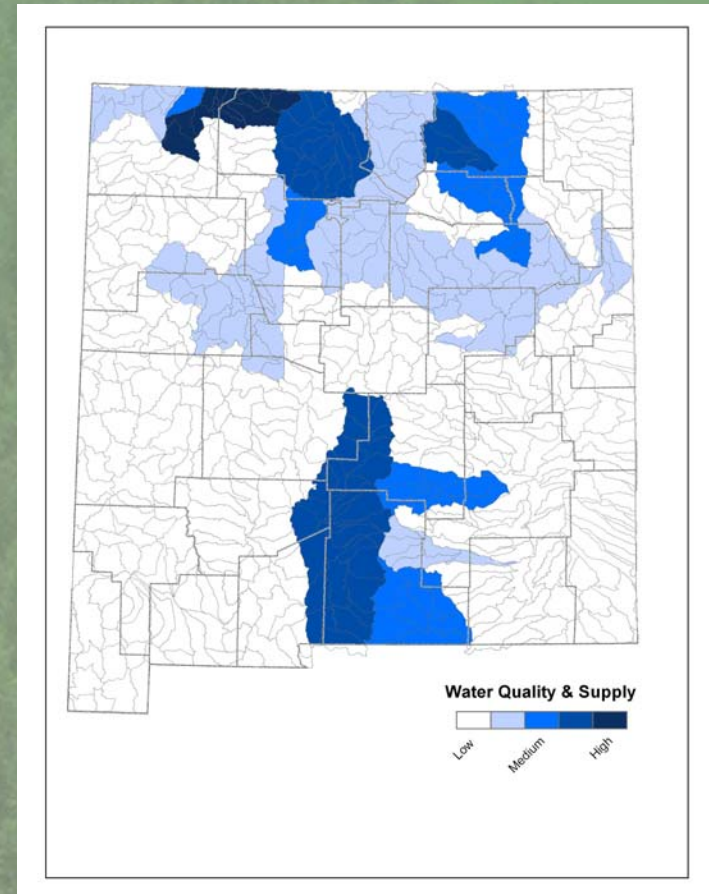
***Water Quality & Supply:*** This data layer identifies watersheds important for supplying clean and adequate water supply along with potential risks to supplying clean water.

## Model Factors

1. Public Drinking Supply
2. Impaired Waters
3. Impervious Surfaces
4. Erosion Risk

## Result

Statewide data layer where higher values indicate areas with public drinking supply sources along with higher risk.



# Forest Fragmentation



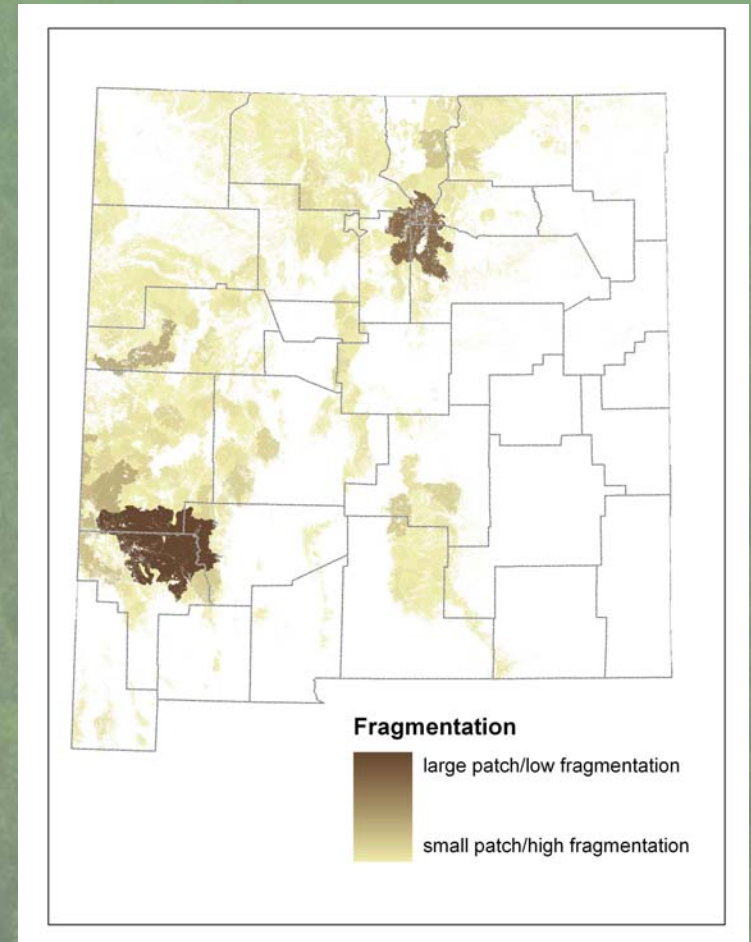
***Forest Fragmentation:*** This data layer identifies extent of fragmentation of forest and woodlands.

## Model Factors

1. Patch Size
2. Distance to Roads

## Result

Statewide data layer where higher values indicate larger more ecologically and economically viable patches



# Wildfire Risk



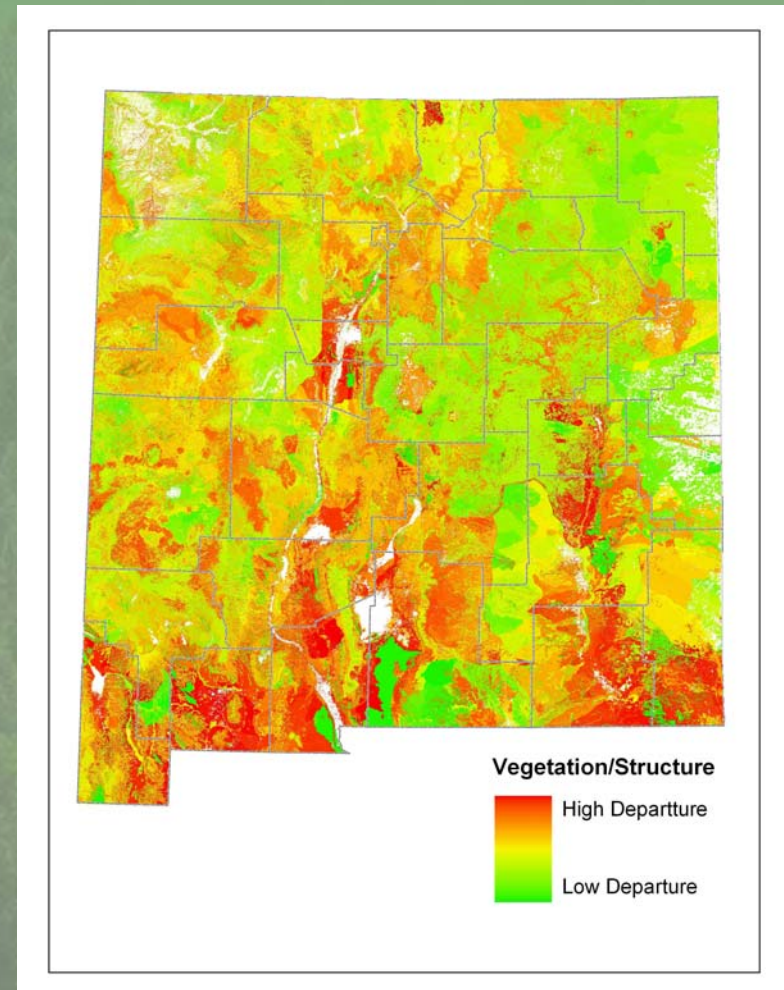
**Wildfire Risk:** This data layer identifies areas with a relatively high risk of wildfire.

## Model Factors

1. Rate of Spread
2. Flame Length
3. Crown Fire Potential
4. Fire Occurrence
5. Community Capacity
6. Wildland Urban Interface
7. Fire Regime Condition Class

## Result

Statewide data layer where higher values indicate areas with greatest wildfire risk.



# Forest Health



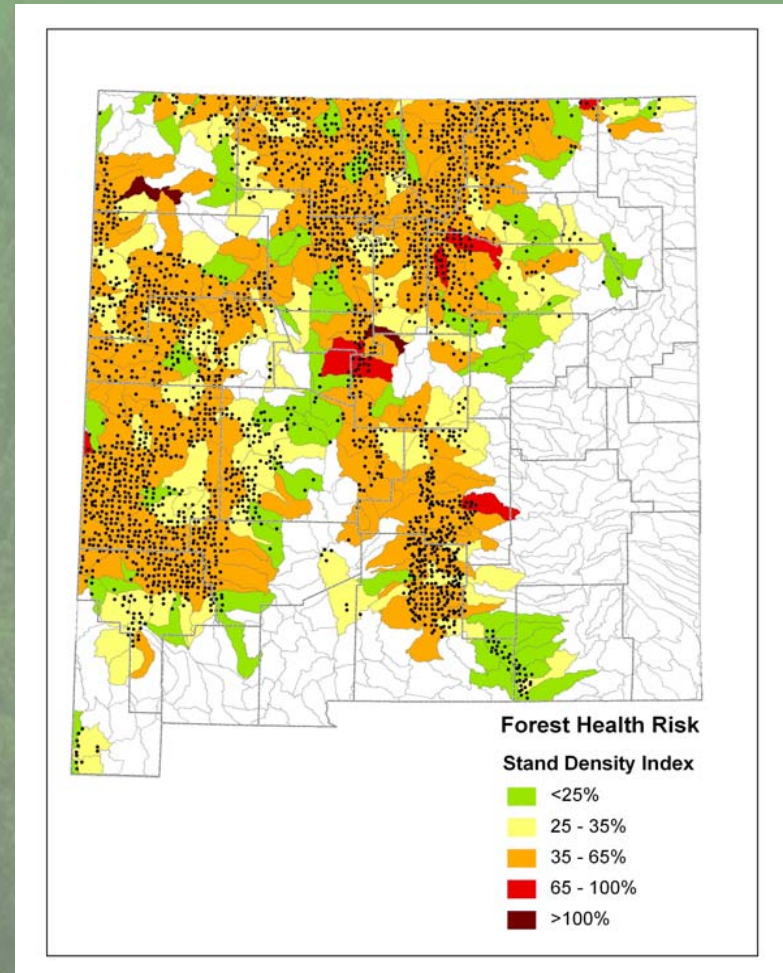
**Forest Health:** This data layer identifies areas that make a forest area more susceptible to insect and disease outbreaks.

## Model Factors

1. Stand Density
2. Drought Stress
3. Insect & Disease (98-08)

## Result

Statewide data layer where higher values indicate areas most susceptible to insect and disease.



# Development Risk



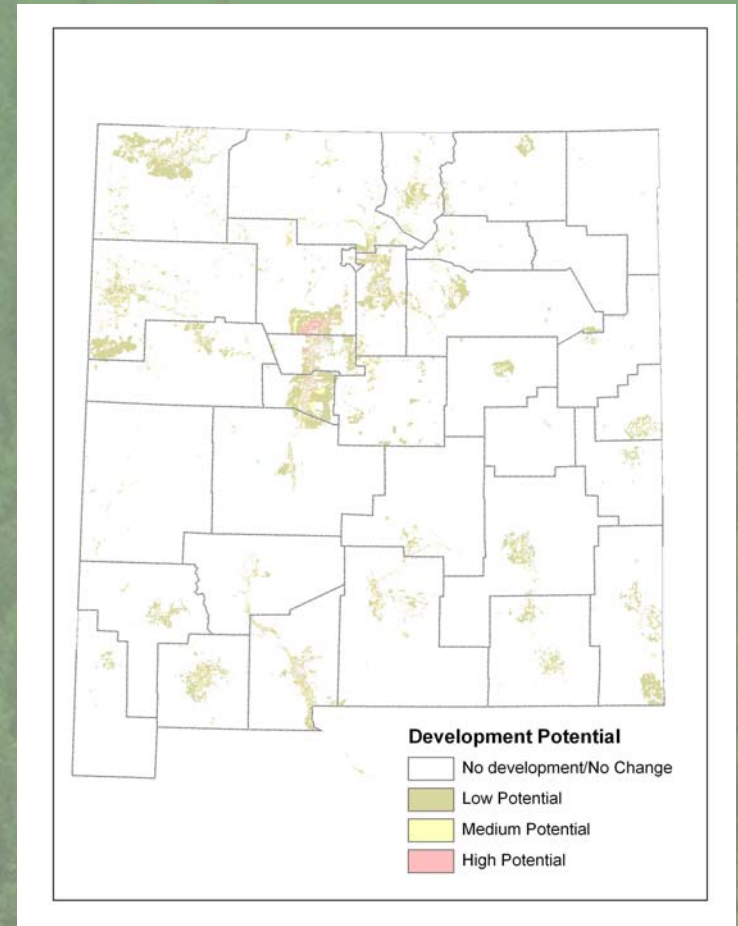
***Development Risk:*** This data layer emphasizes areas that are projected to experience increased housing development in the next 30 years.

## Model Factors

1. Forest on the Edge 2000 and 2030 development data

## Result

Statewide data layer where values are categorized into classes representing type of anticipated development change.





# Data Atlas Presentation

## ***Green Infrastructure***

***“Helps identify and prioritize conservation opportunities and plan development in ways that optimize the use of land to meet the needs of people and nature”***

***Green Infrastructure: Linking landscapes and communities.  
Island Press. 2006***



# Economic Potential



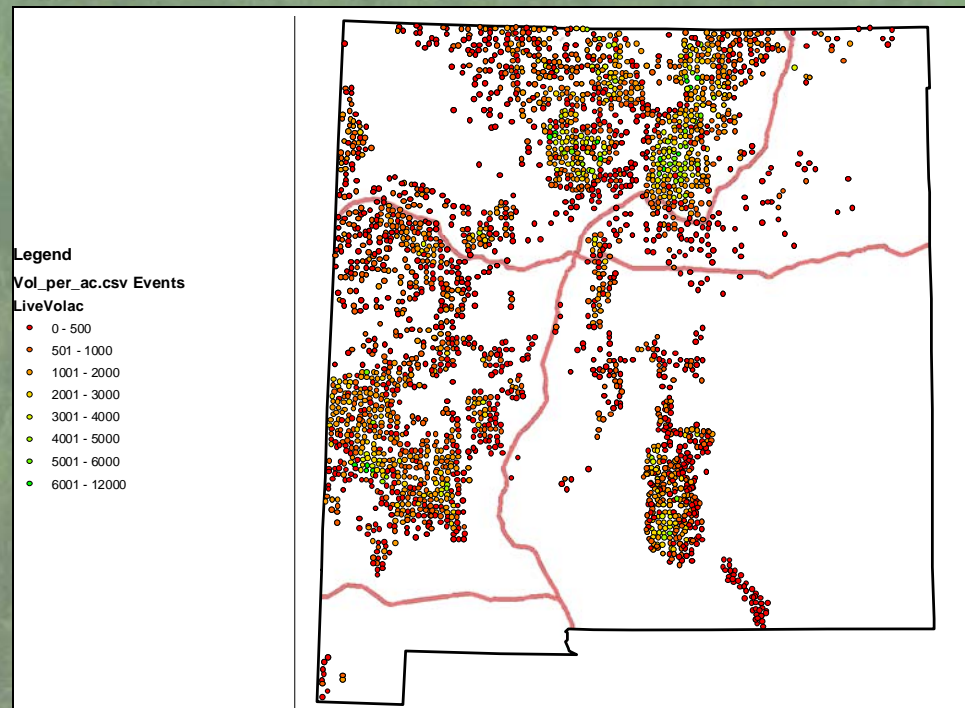
***Economic Potential from Forests:*** This data layer assesses the potential for wood products across two general categories; sawtimber and smaller products (biomass, poles, fuelwood, latillas).

## Model Factors

1. Standing live volume by size class (Forest Inventory Analysis, FIA)
2. Distance to use - forest operators and wood processors (NMFWR) and transportation geodatabase (RGIS)
3. Slope (NED)

## Result

Statewide data layer with values categorized into two wood product classes representing economic potential in each category.





# Technical Teams & Timeline

1 <sup>st</sup> SSC mtg: Overview & Identification of Technical Teams			2 <sup>nd</sup> SSC mtg: Prioritization	
<i>Finalize technical teams &amp; begin tech. team mtgs via web presentations and email</i>	<i>Review of draft models via email</i>	<i>Finalize models via web presentations</i>		<i>Results of prioritization distributed</i>
July 2009	August 2009	September 2009	October 2009	November 2009

2 web presentations (initial & final review)

2 – 4 data atlas review via email

15 – 20 hours total





# Break – 10 Minutes





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# Discussion of Data Atlas

- Are we using the best available data sources?
  - If not, what are some other data sources to consider?
- What are the data gaps?
  - How can they be addressed?
- Are the models, and their proposed inputs, appropriate?
- Will this suite of statewide models, and their collaborative prioritization, be useful to you as a land manager when complete in 2010?

# Preparation for October Prioritization



Sign up for a Technical Sub-Group  
See charts around the room

# Questionnaire



- Please fill out the questionnaire in your folder
  - Extra questionnaires are available
  - Questionnaires will be posted on the portal



# Next Steps

## Review:

- Goals
- Timeline
  - What is happening between now and the October meeting?