Modeling Land Use Change in the CLAMS Region

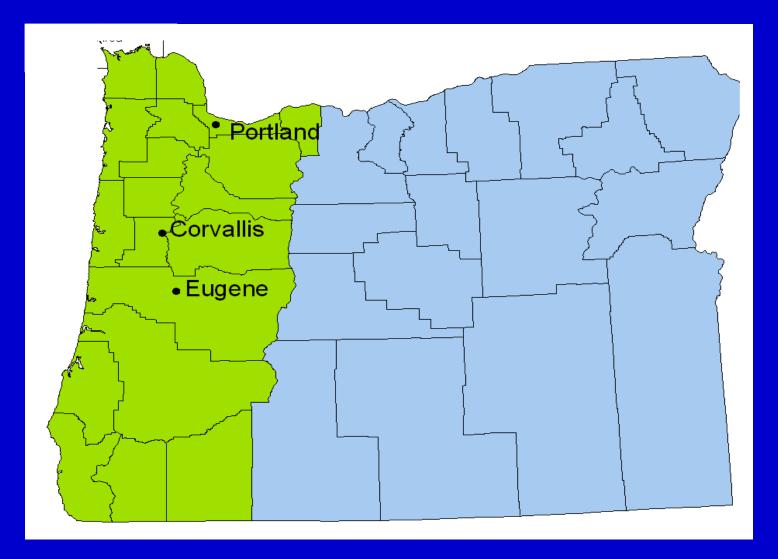


Jeff Kline Pacific Northwest Research Station USDA Forest Service

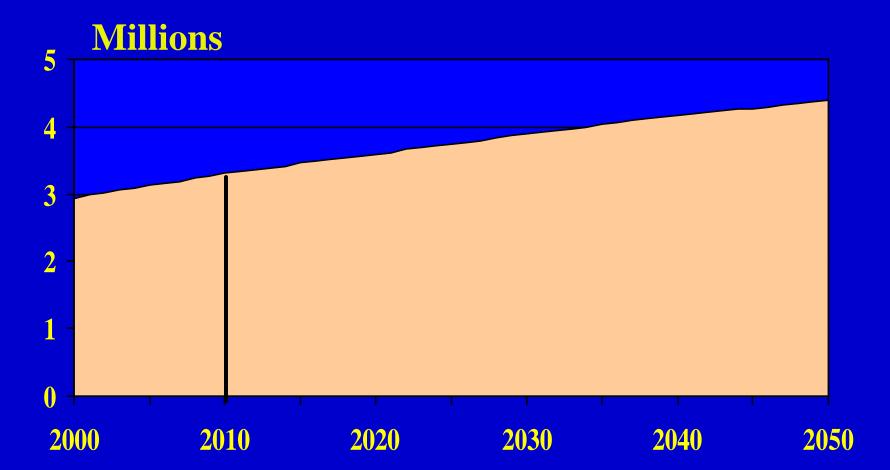


Alissa Moses Oregon State University Corvallis, Oregon

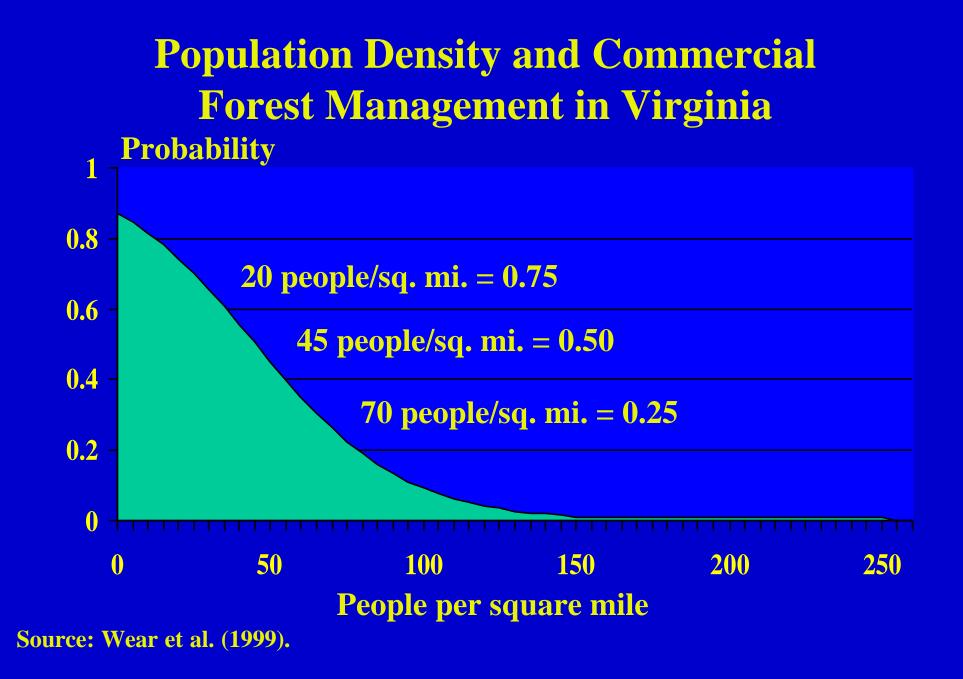
Land Use Modeling Region



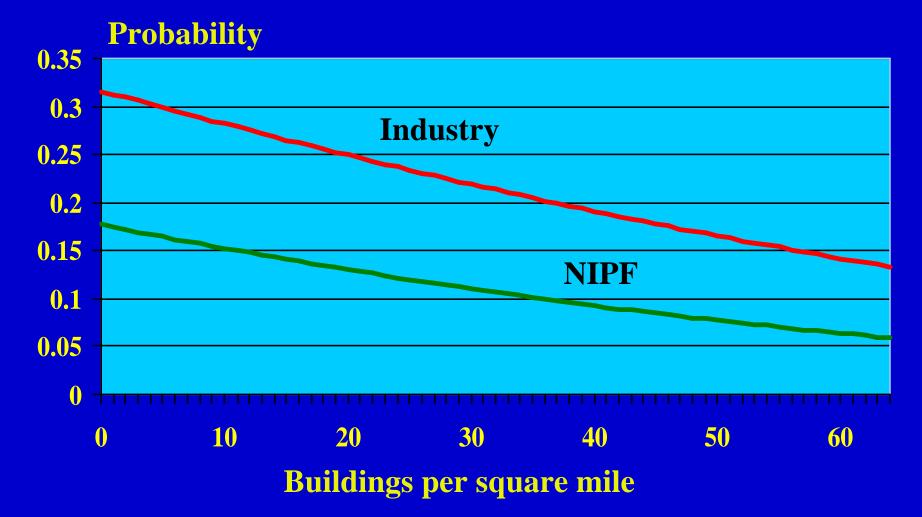
Projected Population in Western Oregon



Source: Center for Population and Research (1995 to 2010) and Resources Planning Act (RPA) Assessment (2010-2050).



Building Density and Planting Following Harvest in Western Oregon



Hypothetical Impacts of Humans in Forests

- Direct loss of forestland
- Changes in forest management
- Impacts on wildlife habitat

Research Objectives

• How will humans be distributed across the landscape in the future?

 Account for potential impacts of humans on:

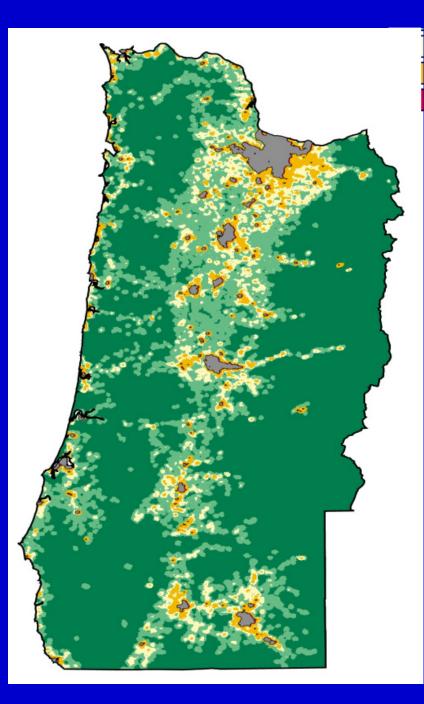
 Timber production
 Habitat viability

Building Densities in Western Oregon, 1995

Buildings per square mile

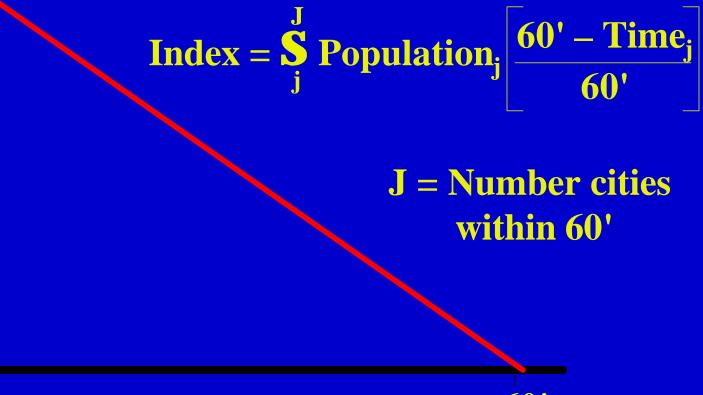
0
 1-20
 20 - 64
 64 - 640 (Low Density)
 > 640 (Urban)

Source: OR Dept. of Forestry.



Gravity Index of Development Pressure

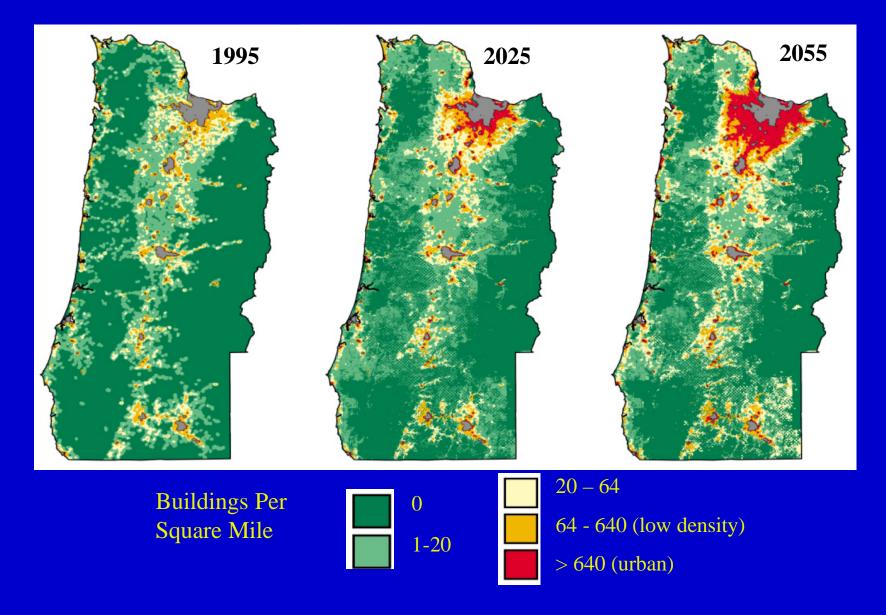
City_j Population



Travel Time to City_i



Projected Building Density Classes



Precision Verses Accuracy

Ending building density per 80 acres	% in class	% correctly projected	% correctly projected within one building
1	25	51	99
2	17	52	99
3	13	44	92
4	9	37	83
5	6	24	71
6	5	22	67
7	4	19	64
8	3	15	75
>8	18	87	90
£ 8	82	97	
>8	18	87	

Contact Information:

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