



***Planning for a Healthy, Active Oregon***

# Meet Your New Partners

Mark Bosworth – Cartography & GIS

Tom Kloster – Land Use & Transportation

Robert Yakas – Urban Design & Architecture



# **Planning and Public Health:**

*A brief history of  
American milestones and  
the Oregon system*

***Tom Kloster  
Metro***

# *Planning for a Healthy, Active Oregon* **European Legacy**

- ❖ **Colonial settlements built under strict European standards**



METRO

# *Planning for a Healthy, Active Oregon* **Post-Colonial**

- ❖ **American independence brings distrust in government planning**
- ❖ **First elected leaders are farmers who embrace an agrarian morality as “healthy living”**
- ❖ **Cities represent a tiny part of a largely agrarian society**

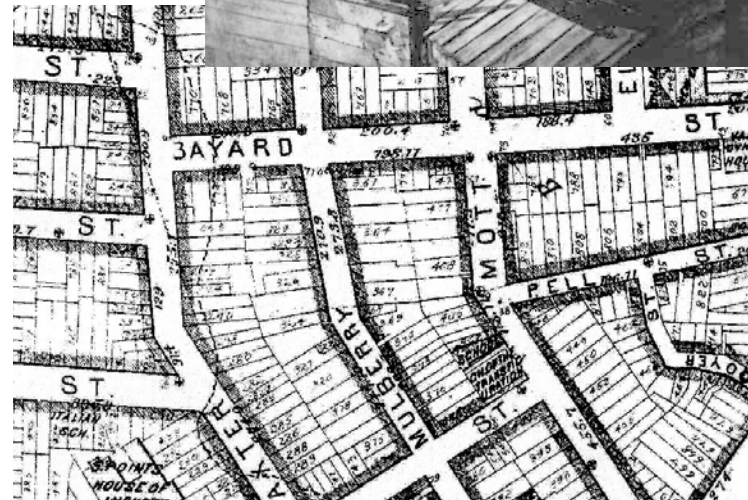




# *Planning for a Healthy, Active Oregon*

# **Industry Rises**

- ❖ **The Industrial Revolution in the mid-1800s gives rise to shoddy tenement housing in crowded cities**
- ❖ **Urban environment becomes increasingly polluted and dangerous**





# *Planning for a Healthy, Active Oregon* **Back to Nature**

- ❖ **In 1873, New York's Central Park marks a movement to bring nature back to the cities, and the notion that cities can be healthy places to live**





# *Planning for a Healthy, Active Oregon* **Columbian Exposition**

- ❖ **In 1893, Chicago's "White City" establishes a utopian vision of clean, healthy cities and launches the "City Beautiful" movement**





# *Planning for a Healthy, Active Oregon* **Lewis & Clark Expo**

- ❖ **Portland follows suit in 1905 with an exposition that builds on the classical themes established in Chicago, and a vision for “City Beautiful” in Portland**

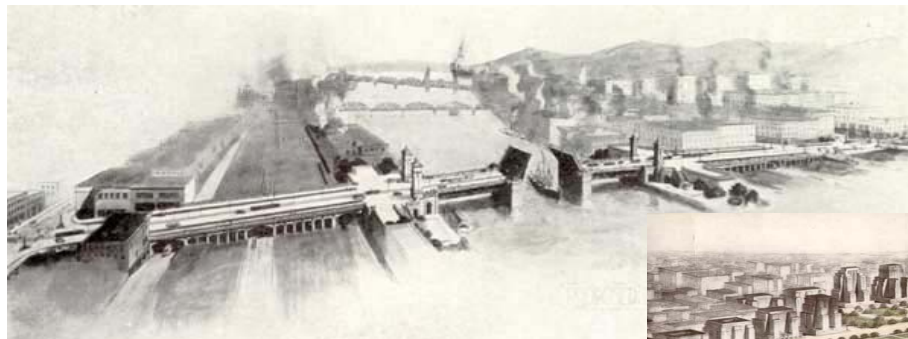




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## **Early Portland Plans**

- ❖ **Olmsted Brothers 1903 Parks Plan and E.H. Bennett's 1912 City Plan establish "City Beautiful" ideals for Portland**
- ❖ **Cheney Plan (1921) and Bartholomew Report (1932) set framework for streets and waterfront**





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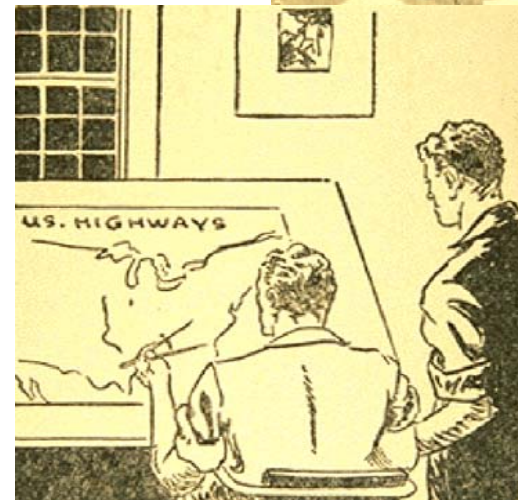
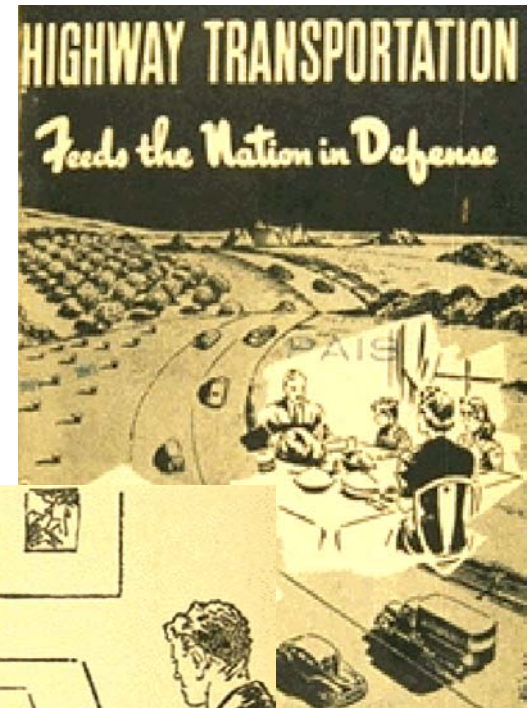
# **Euclid Decision**

- ❖ **U.S. Supreme Court makes landmark decision in Village of Euclid v. Ambler Realty, setting the stage for modern zoning of private land**
- ❖ **Cities across the country rush to adopt zoning -- largely in absence of any guiding plan, and primarily to protect property values**



# *Planning for a Healthy, Active Oregon* **Post-War Highways**

- ❖ **The National Defense Highway System is launched after World War II, and transforms the landscape**
- ❖ **Farm towns across the country suddenly become bedroom communities when new highways link them to nearby cities**





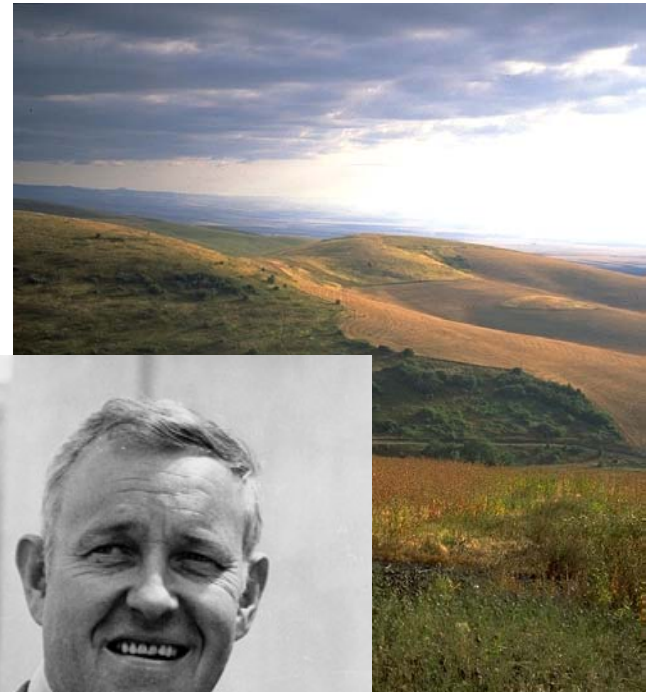
# *Planning for a Healthy, Active Oregon* **70s Quiet Revolution**

- ❖ National environmental policy
- ❖ Urban renewal backlash
- ❖ Highway protests
- ❖ Urban support programs



*Planning for a Healthy, Active Oregon*  
**The Oregon Story**

**"There is a shameless threat to our environment and to the whole quality of life: unfettered despoiling of the land. Sagebrush subdivisions, coastal 'condomania'...**



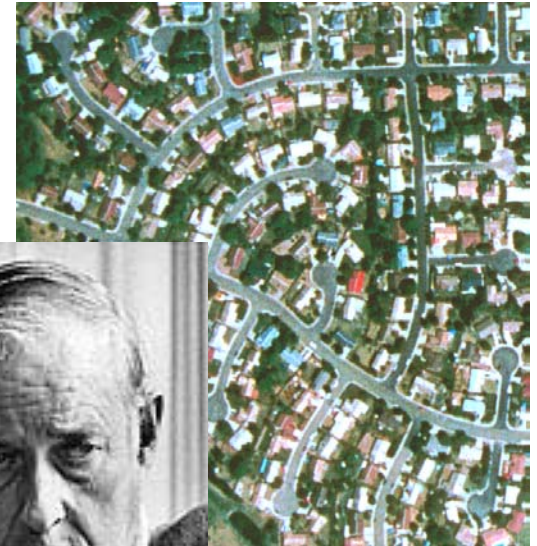
Governor Tom McCall

# *Planning for a Healthy, Active Oregon*

# **The Oregon Story**

**“...and the ravenous  
rampage of suburbia  
in the Willamette  
Valley all threaten  
to mock Oregon's  
status as the  
environmental  
model for the  
nation.”**

Tom McCall's  
address to  
the Legislature,  
January 8, 1973





# *Planning for a Healthy, Active Oregon*

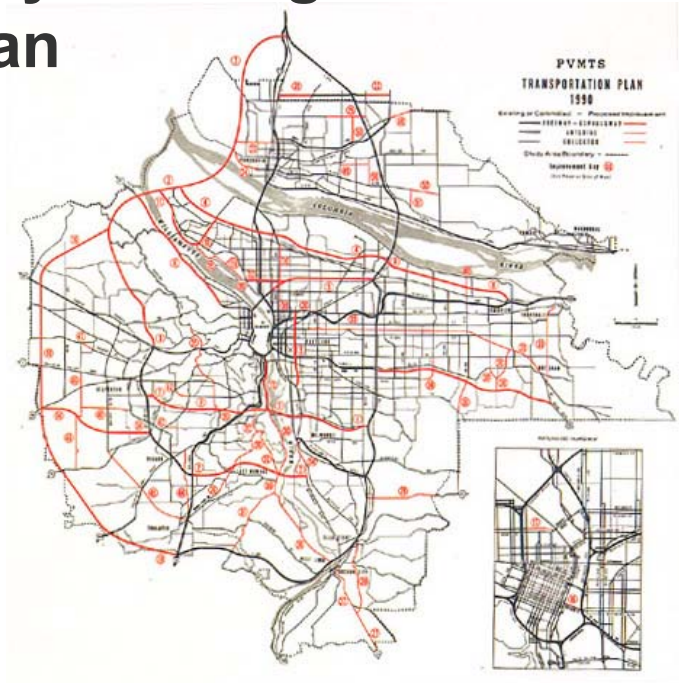
# **Senate Bill 100**

- ❖ **Legislature adopts pioneering 1973 statewide planning program to limit sprawl and protect forest and farms**
- ❖ **Legislation requires local plans to meet statewide goals; creates LCDC**
- ❖ **Urbanization now focused inside urban growth boundaries**



# *Planning for a Healthy, Active Oregon* **Portland's Backlash**

- ❖ In Portland, a backlash forms against a plan for massive freeway building that is already destroying urban neighborhoods



# *Planning for a Healthy, Active Oregon* **Downtown in Decline**

- ❖ **Freeways focusing growth in suburbs**
- ❖ **Downtown buildings razed to construct more parking lots**
- ❖ **Urban renewal replaces vibrant neighborhoods with sterile high-rise apartments**

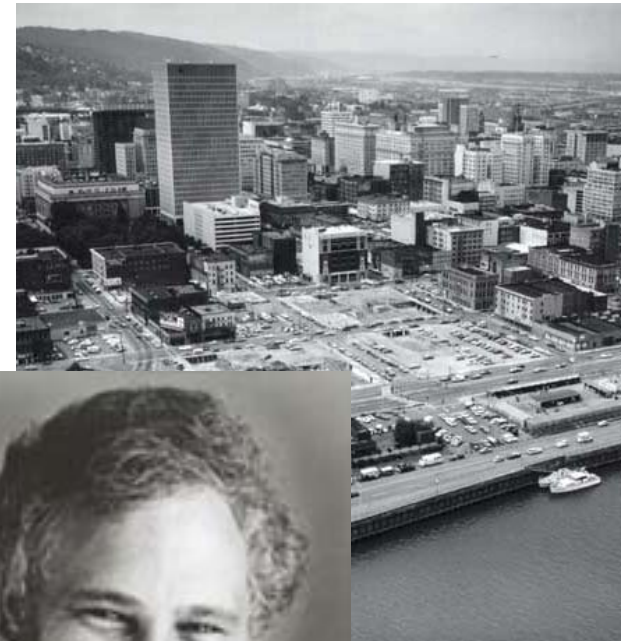




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**1972 Downtown Plan**

**Mayor Neil  
Goldschmidt leads  
reform movement,  
and development of  
Portland's innovative  
downtown plan:**

- ❖ **emphasis on  
transit-oriented  
development**
- ❖ **24-hour  
downtown with  
more housing  
and ground-floor  
retail**

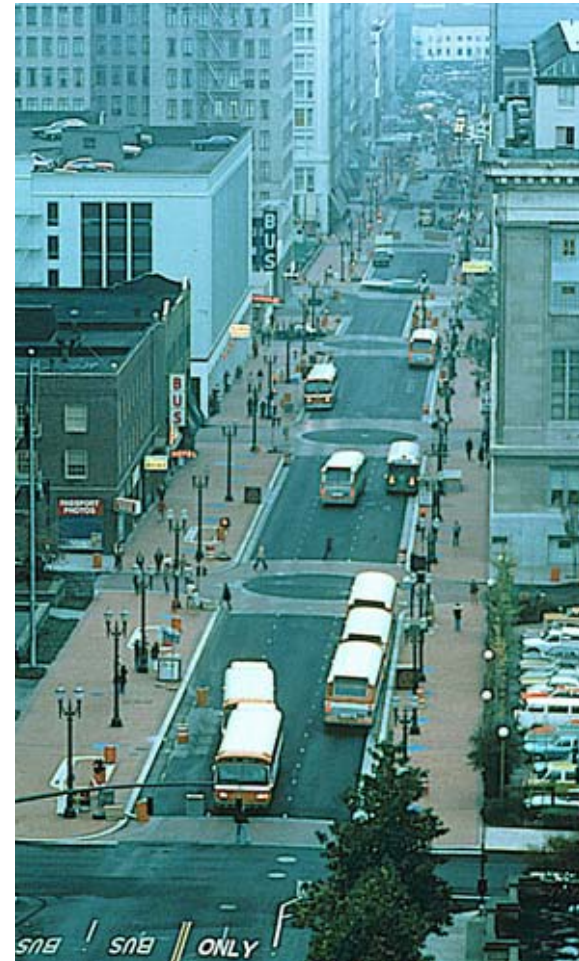


Mayor Neil Goldschmidt

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## **Lid on Parking**

- ❖ **Parking lid in Downtown Plan slowed the loss of historic buildings to surface parking lots**
- ❖ **In 1977, the new transit mall became the new focus of downtown redevelopment, making transit a viable option to driving**



# *Planning for a Healthy, Active Oregon* **Highway Revolt**

❖ **Harbor Freeway removed in 1976 to make way for Tom McCall Waterfront Park**

❖ **Mount Hood Freeway withdrawn in favor of light rail transit along the Banfield**



METRO



# *Planning for a Healthy, Active Oregon* **Light Rail Opens**

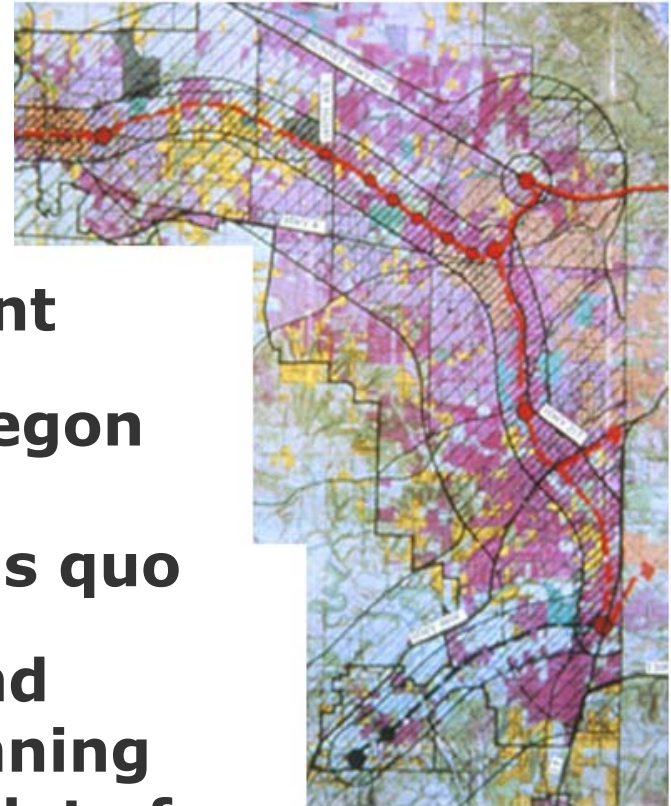
- ❖ **Banfield light rail opens in late 1986, becoming the centerpiece of downtown plans in Portland and Gresham**
- ❖ **Westside light rail to Hillsboro begins in 1998**
- ❖ **Airport service begins in 2001**



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# LUTRAQ

- ❖ **1989 Western Bypass proposal frames a new debate on regional growth management**
- ❖ **1000 Friends of Oregon proposes LUTRAQ alternative to status quo**
- ❖ **Linking land use and transportation planning becomes new mandate for regional plans**





# *Planning for a Healthy, Active Oregon* **2040 Plan Begins**

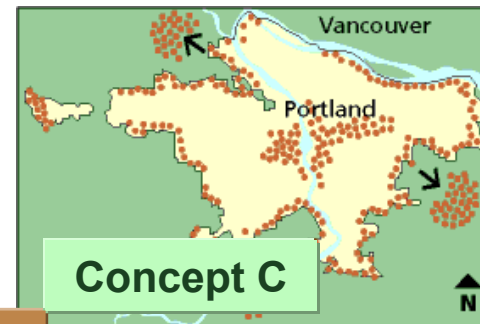
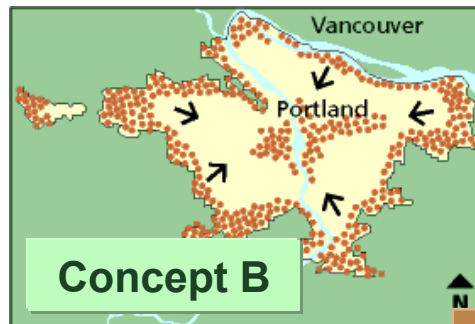
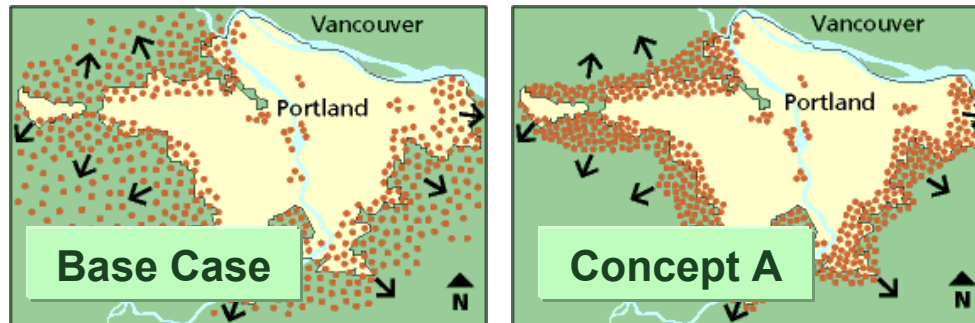
- ❖ **First regional growth goals established in 1990**
- ❖ **Metro Charter expanded by voters in 1992 to focus on managing growth**





# Planning for a Healthy, Active Oregon

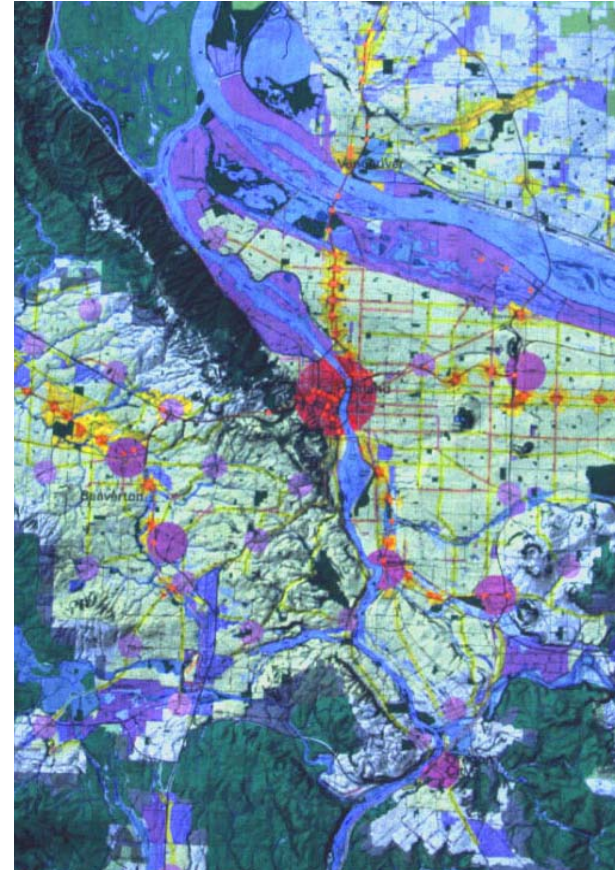
## 2040 Concepts



**2040 Growth  
Concept  
adopted in  
1995**

# *Planning for a Healthy, Active Oregon* **2040 Growth Concept**

- ❖ **50-year vision for managing region's growth**
- ❖ **Incorporates best parts of "Concepts for Growth options"**
- ❖ **Kicks off an major effort to enact the new regional vision through local plans**



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# 2040 Theme: Growth in Centers

- ❖ Compact urban centers built to human scale
- ❖ Mixed housing and commerce served with good transit
- ❖ Focus of civic activities and public services
- ❖ Parking ratios established





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# 2040 Theme: Protect Industry

- ❖ **Maintain freight mobility on highways**
- ❖ **Ensure quality freight access to ports and industrial areas from region's highway and rail network**



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# 2040 Theme: Protect Rural Areas

- ❖ **Create Green Corridors along rural state highways**
- ❖ **Mitigate urban overflow on rural routes**
- ❖ **Maintain rural separation between Metro region and neighbor cities**



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# 2040 Theme: Nature in the City

- ❖ **Network of parks, trails and open spaces**
- ❖ **Protections for streams and upland natural areas**
- ❖ **Green Streets - designs that minimize runoff**
- ❖ **Manage hazardous waste to protect streams and groundwater**





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# 2040 Theme: Travel Options

- ❖ **All streets retrofitted to include sidewalks and bikeways**
- ❖ **Better-connected street systems that allow easier walking and access to transit**
- ❖ **Frequent transit service on all major streets**



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# 2040 Themes: Streets for People

- ❖ **Boulevard designs in centers that promote walking, bicycling and transit, while creating civic space and a sense of community**
- ❖ **Street designs with self-enforcing features that calm traffic to posted speeds**



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# 2040 Theme: Ongoing Outreach

- ❖ **Periodic outreach campaigns for major policy updates**
- ❖ **Ongoing web and hotline information with comment options**
- ❖ **Special events and tools on current planning topics**





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## **Emerging Theme: Active Living**

- ❖ **Create an urban form that fosters everyday activity**
- ❖ **Find new strategies for retrofitting existing environment**
- ❖ **Include health benefits in planning decisions**





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# Emerging Theme: Kid's Transportation

- ❖ Reverse trend of large compound-like schools located far away from neighborhoods
- ❖ Improve education on health benefits, safety of walking and biking to school



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## **Next Steps**

- ❖ **Priorities 2004-07**  
**Update currently underway to allocate \$41 million in flexible funds**
- ❖ **Regional Transportation Plan update scheduled for Summer '03; sets 20-year policies and priorities for transportation**





# ***Planning for a Healthy, Active Oregon***



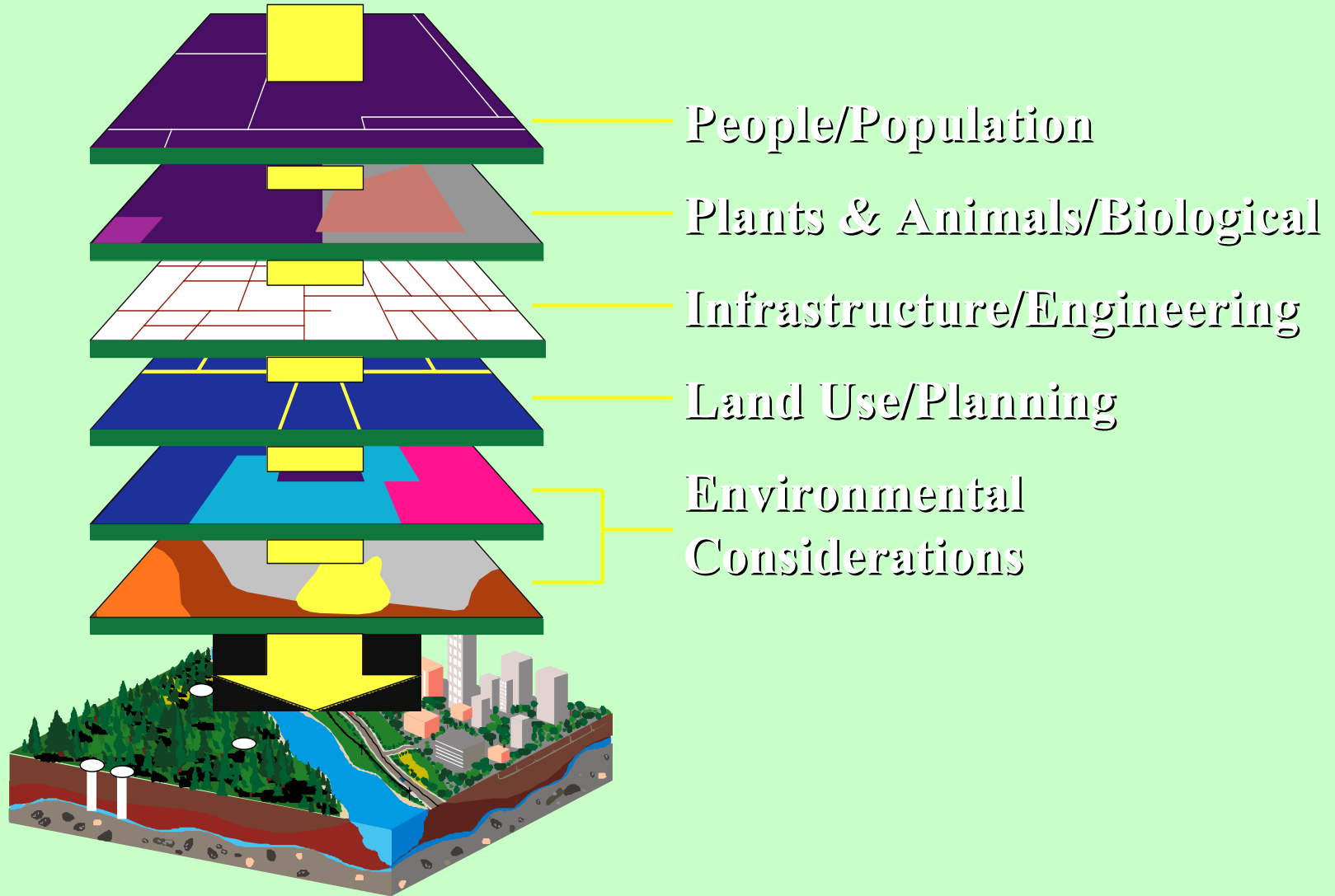
GIS

# Geographic Information Systems

Analytical Cartography...

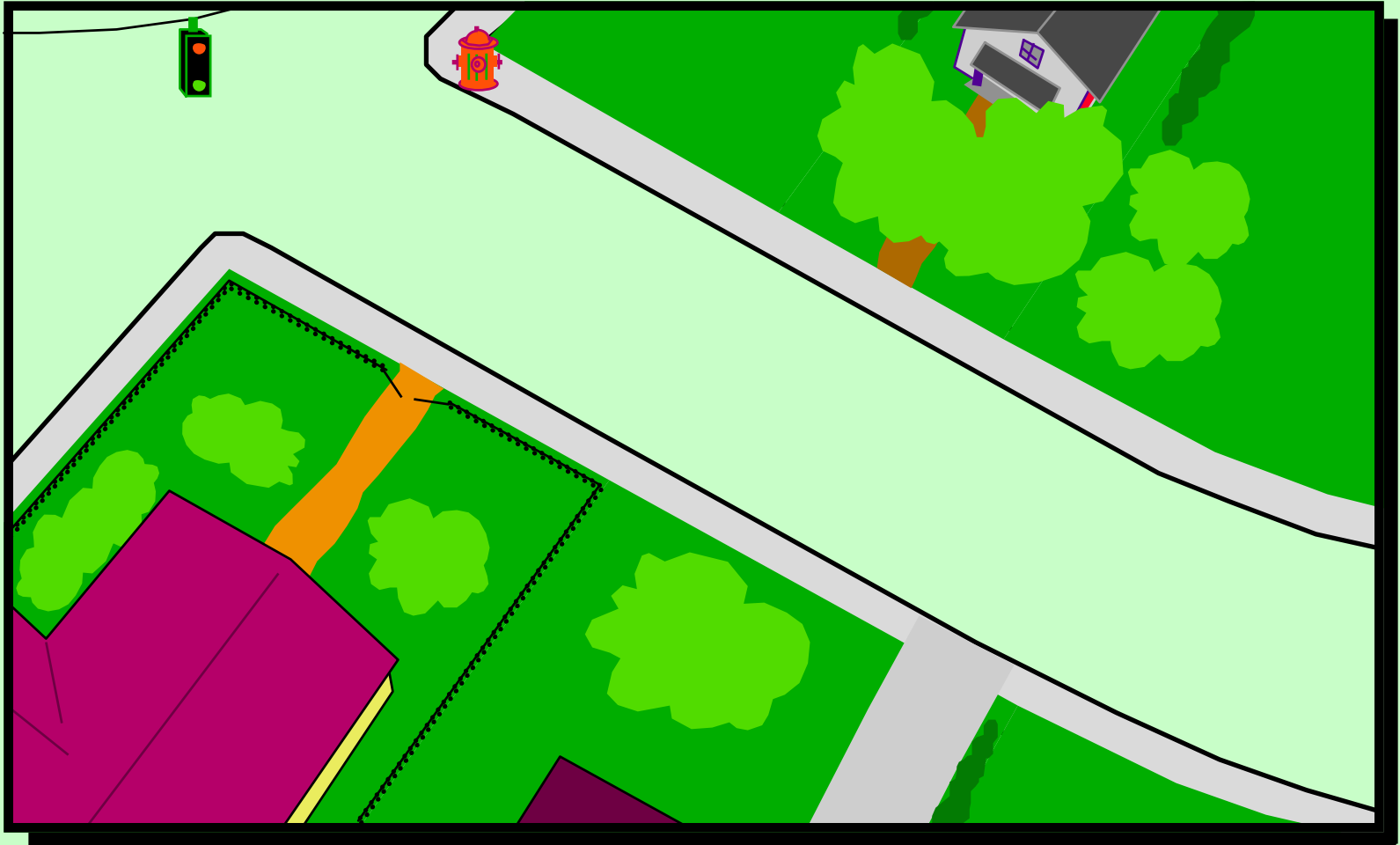
Modeling the real world

# Geographic Information System





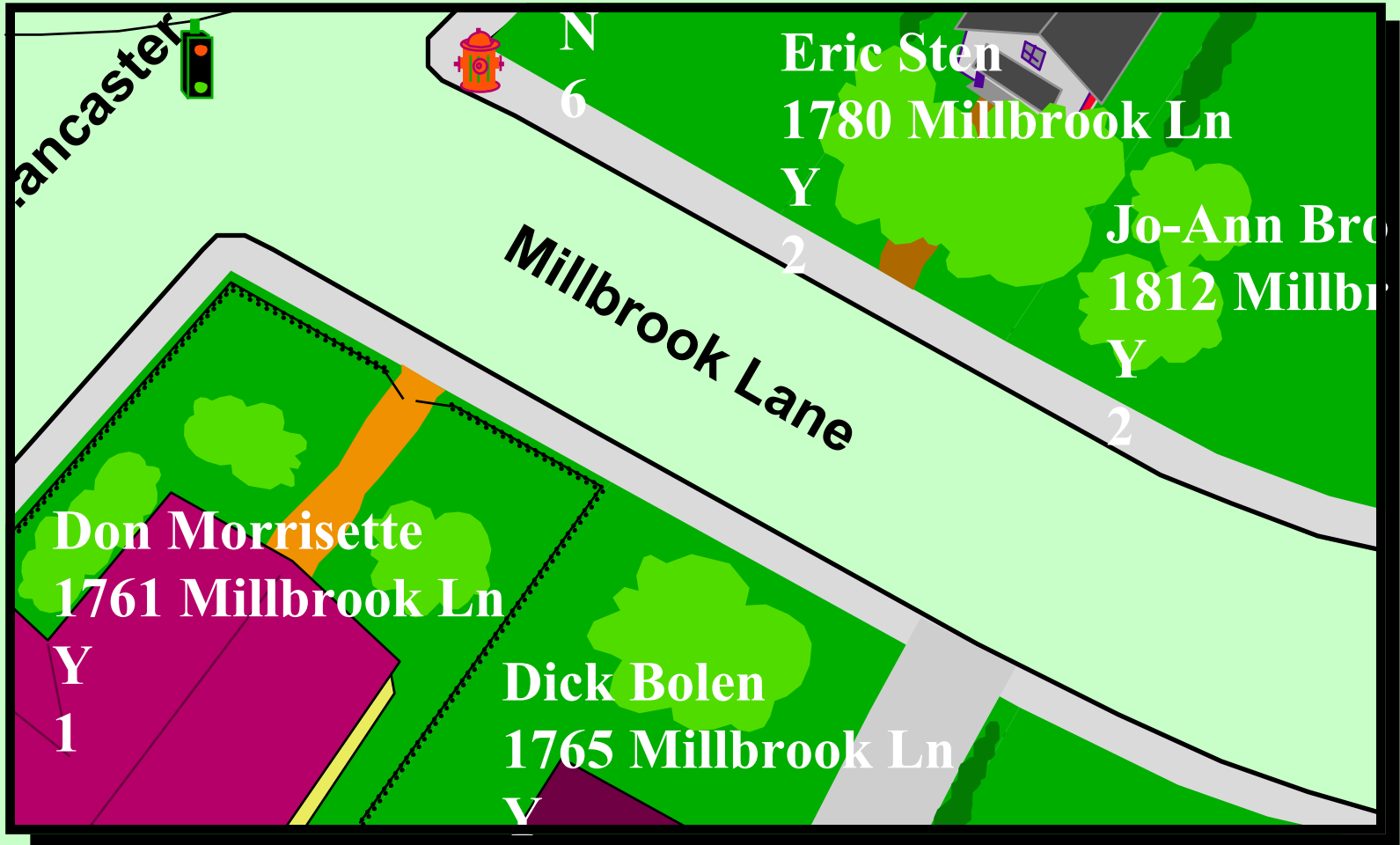
# Geographic Data



# Descriptive Data

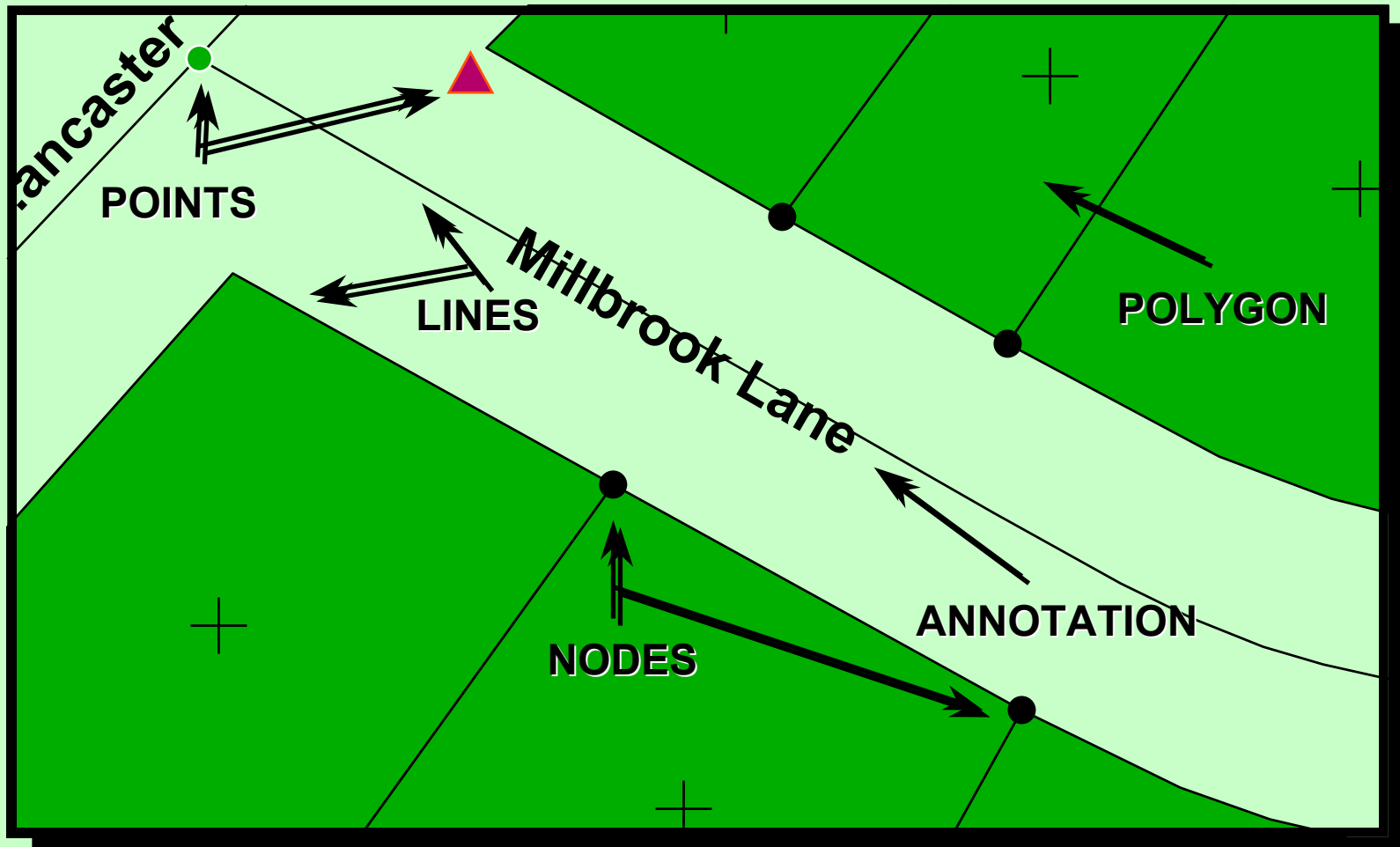
Mike Burton	1757 Millbrook Ln	28226	Y	2
Don Morrisette	1761 Millbrook Ln	28226	Y	1
Arvydas Sabonis	1765 Millbrook Ln	28226	Y	2
Tonya Harding	1776 Millbrook Ln	28226	N	6
Eric Sten	1780 Millbrook Ln	28226	Y	2
Grace Hague	1537 Sandberry Dr	28226	Y	1
Gary Waters	1541 Sandberry Dr	28226	Y	3
Holly Williams	1200 Yamasee Dr	28210	Y	4
Britney Spears	980 Harrowfield Rd	28226	N	1
Art Alexis	1812 Millbrook Ln	28226	N	2
Jane Moore	1090 Overhill Dr	28112	Y	4
Mike McGuire	1108 Kings Canyon Dr	28226	Y	3
Lee Ross	1605 Bosham Ln	28226	Y	2
Lucia Barbados	1429 Quail Wood Dr	28226	Y	2
Mary Jo Fraley	1432 Quail Wood Dr	28226	Y	1
Mike Dyer	1430 Quail Wood Dr	28226	Y	3
Scott Royer	1332 Cameron Forest Dr	28173	Y	3
Jack Dangermond	1327 Redlands Ln	28173	Y	2
Paul Callaway	1420 Redlands Ln	28173	Y	2

# Geographic Information

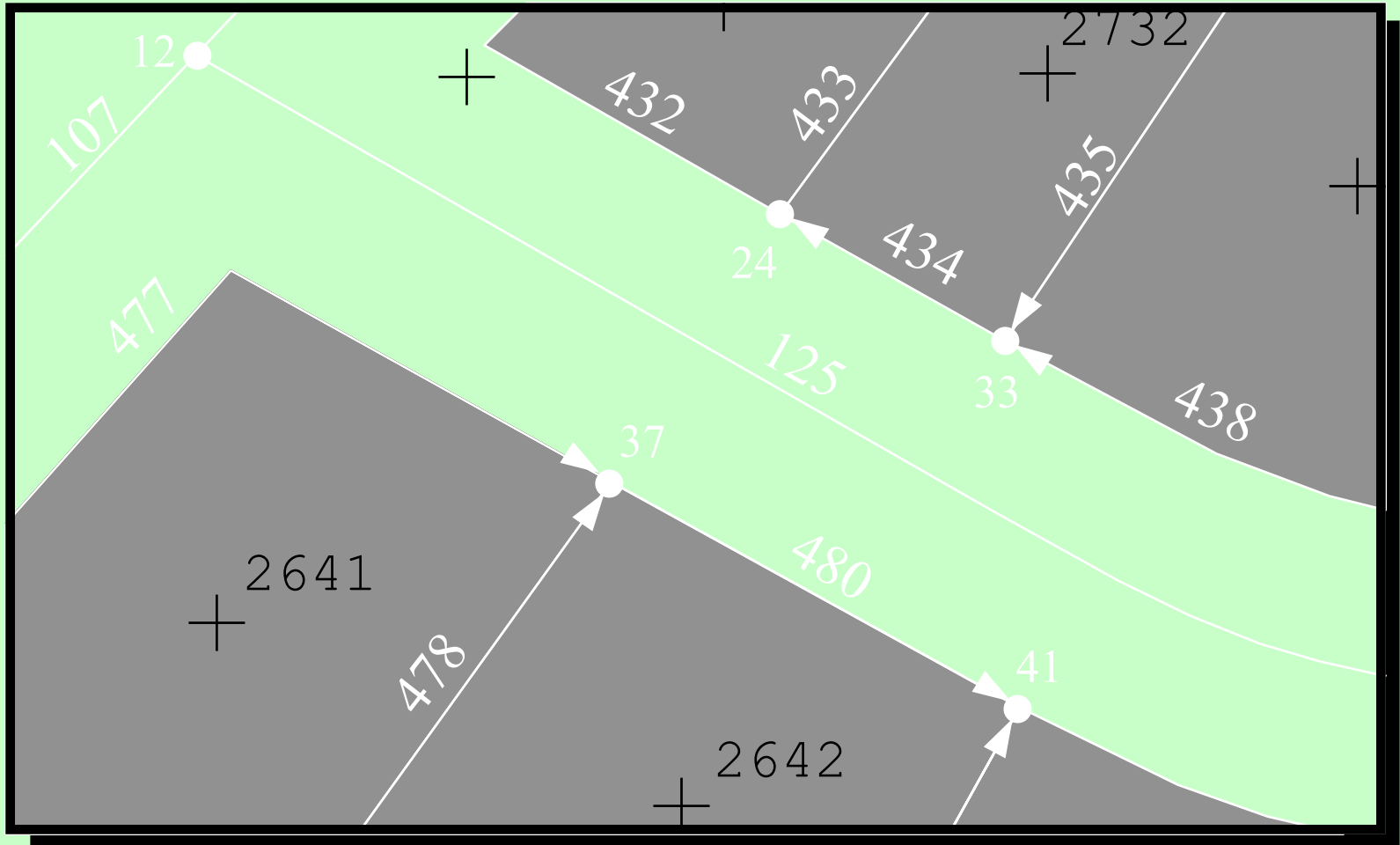




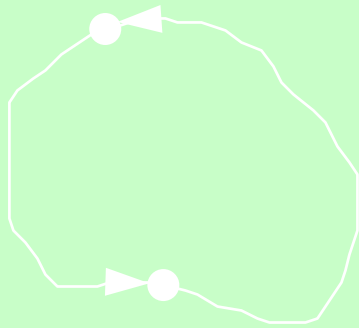
# Spatial Representations



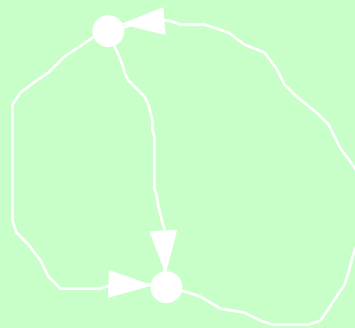
# Arc-Node Topology



# Spatial Relationships *(Topology)*



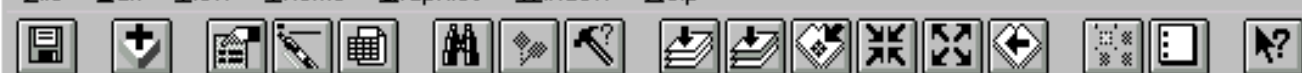
Area Definition



Adjacency



Connectivity



Scale 1:  7,679,380.06  
654,456.70

Untitled

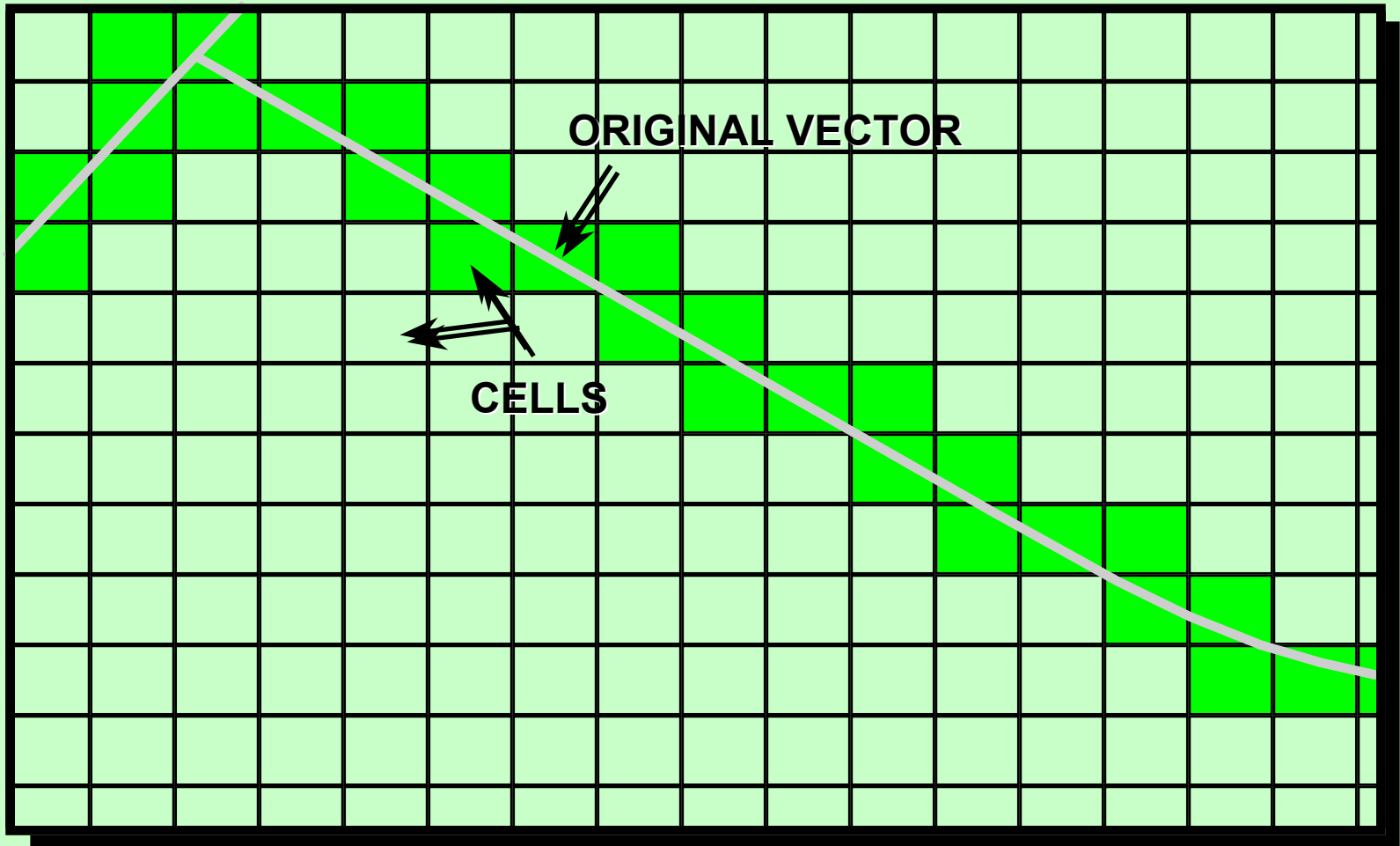
- New
- Views
- Tables
- Charts
- Layouts
- Scripts

**View1**

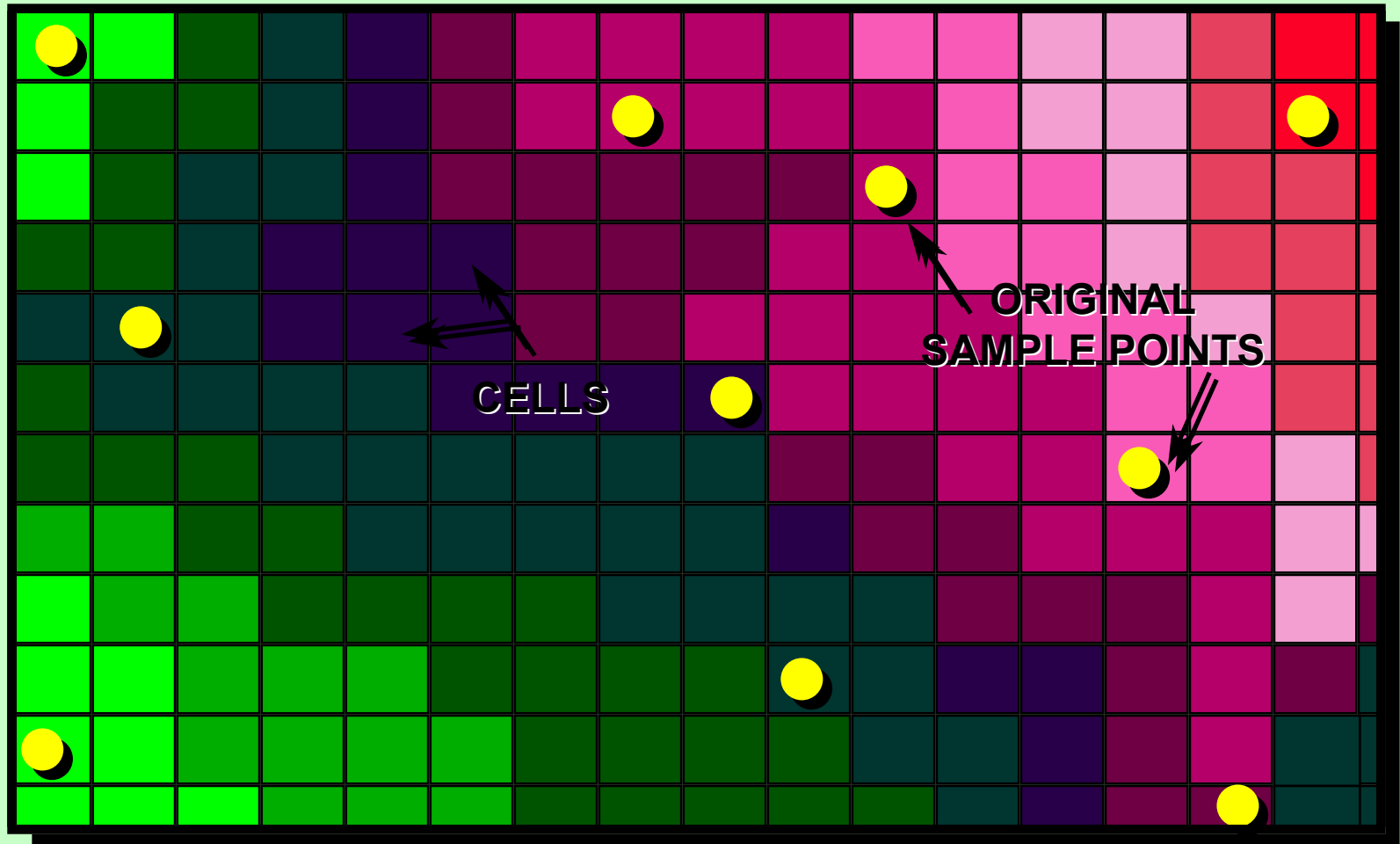
- Fldpln.shp
- Taxlots.shp
- Maj\_cont.shp
- Cty\_fill.shp
  - Banks
  - Barlow
  - Battleground
  - Beaverton
  - Camas
  - Canby
  - Cornelius
  - Durham
  - Estacada
  - Fairview
  - Forest Grove
  - Gaston
  - Gladstone
  - Gresham
  - Happy Valley
  - Hillsboro



# Discrete Raster Representations



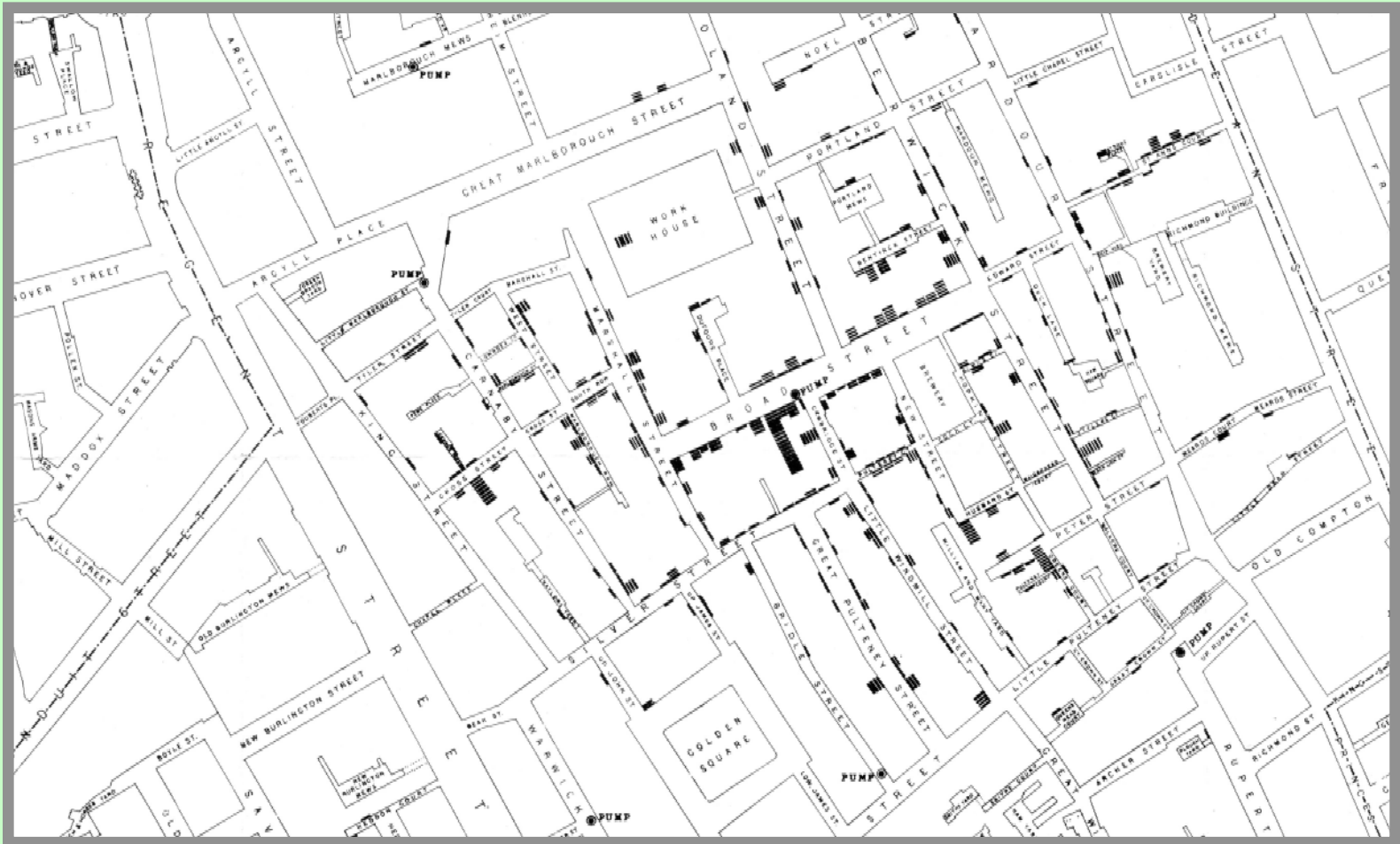
# Continuous Raster Representations



# Modeling...

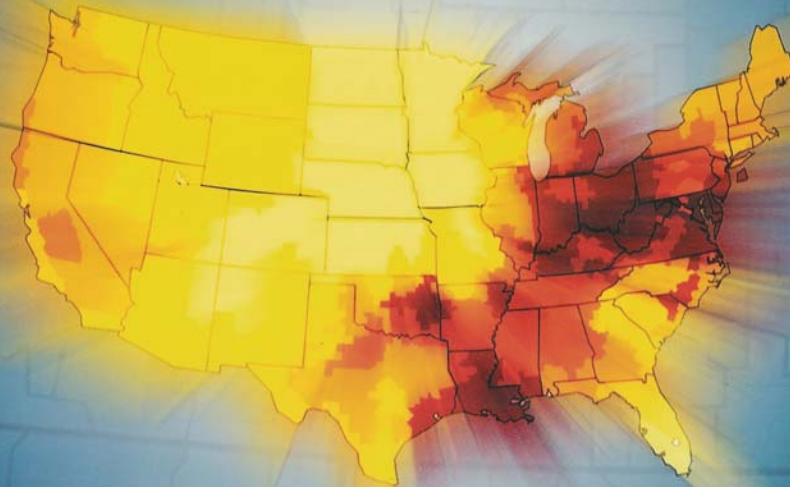


# Modeling...





# INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS IN PUBLIC HEALTH



ALAN L. MELNICK



AN ASPEN PUBLICATION

# *Planning for a Healthy, Active Oregon*

## GIS Demonstration

