The 21st Century Manager:
What Does It Take to Have a Smart Community
From the Emerald City to Your City
GIS for Effective Service and ROI

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ICMA ANNUAL CONFERENCE KING COUNTY

Who am I?

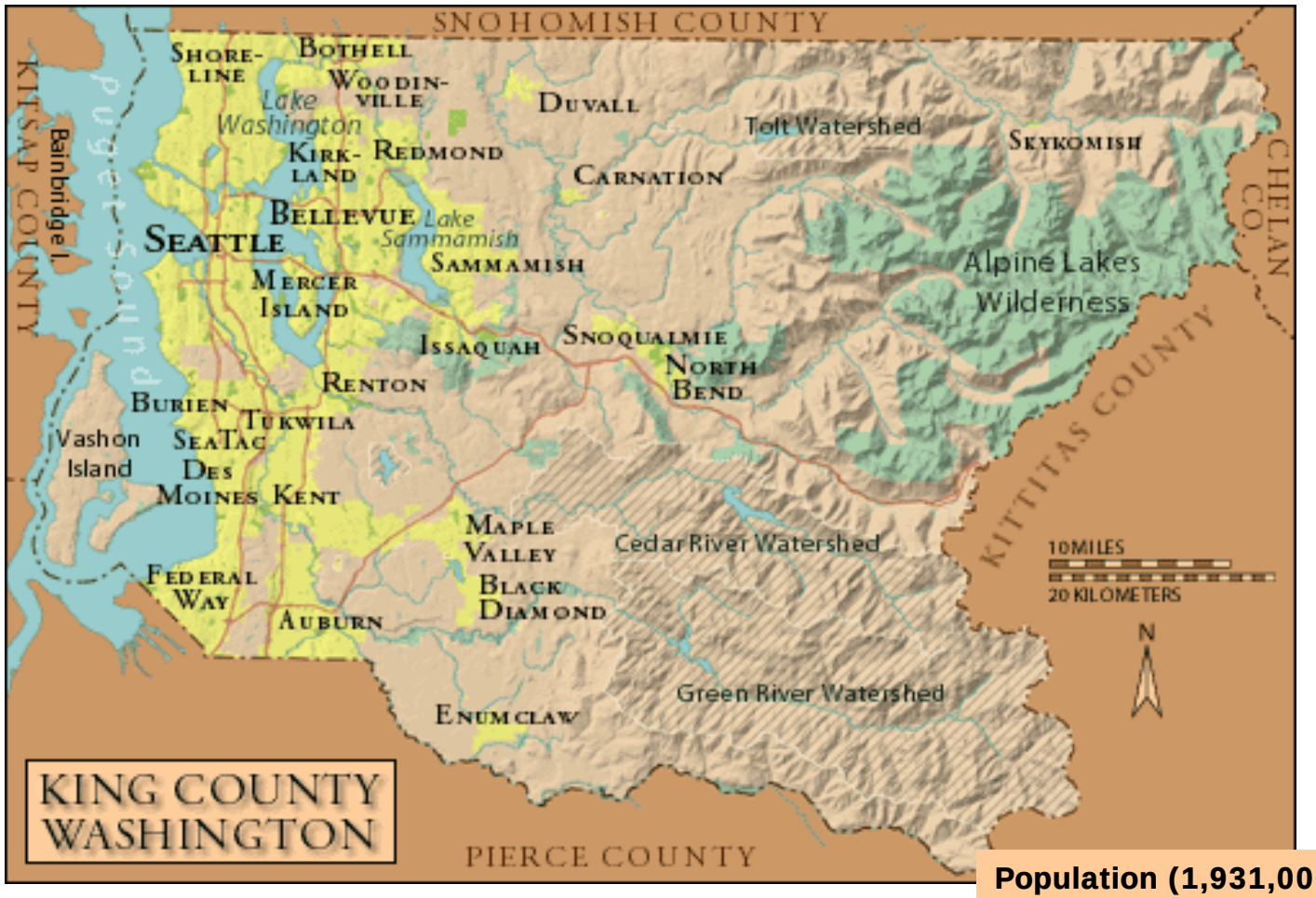
- ***Why Am I Here?***
- ***What will I accomplish?***
- ***What can you glean from listening to me?***

Finance *and* Marketing?
The left brain – right brain manager.

- ***The 21st Century Emerald City Manager:***
  - ***Innovation and creativity***
  - ***Scientific performance***
  - ***Return on investment***

Geography has always been a major integrative element in municipal administration.

- Dr. Costis Toregas, President-Emeritus of the Public Technology Institute, (United Nations Conference on GIS)



- Microsoft
- Gates Foundation
- Boeing
- Paccar
- Nordstrom's
- Amazon
- Starbucks
- Port of Seattle
- Weyerhaeuser
- Univ. of Washington
- Google
- Skype

GIS in the Emerald City

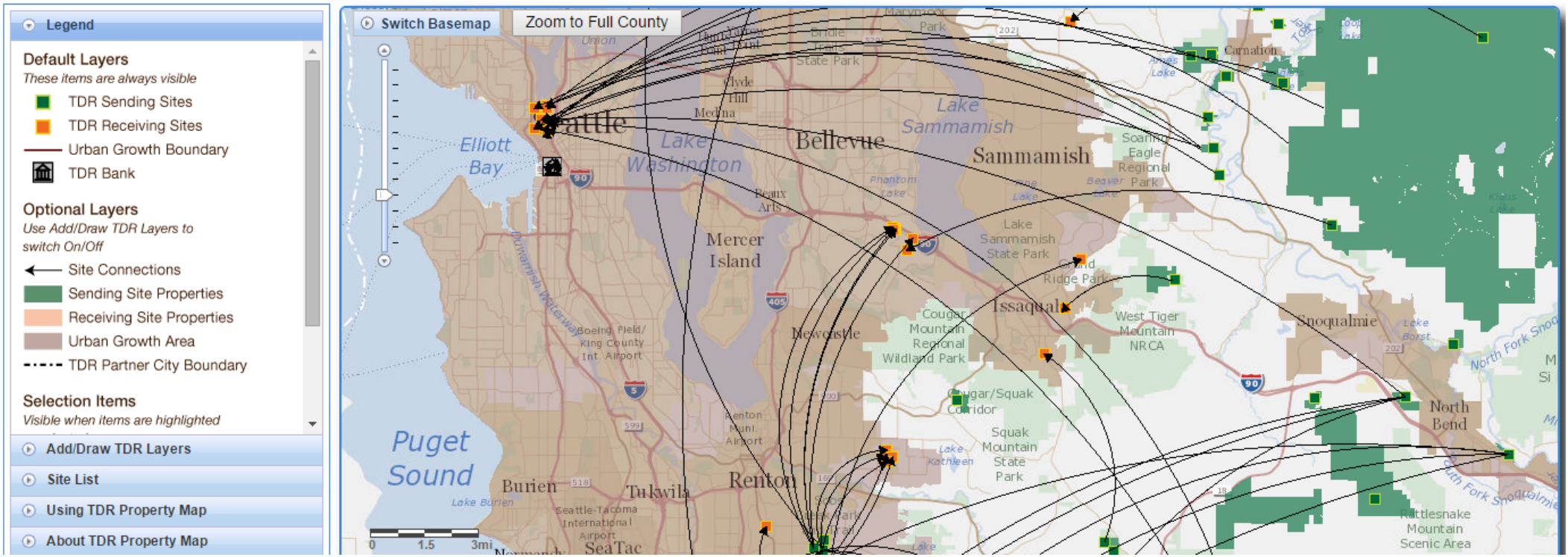
Population (1,931,000 (14th most populous US county)
Area: 2130 square miles (sea level to 8,000')
39 incorporated cities
Viable agricultural and private forestry areas
Remote wilderness & watershed lands

Using a Geographic Information System (GIS) to leverage your assets

- ❑ Geographic assets? – For sure!
- ❑ Demographic assets? – Not so obvious, but yes!
- ❑ Financial assets? – A must.

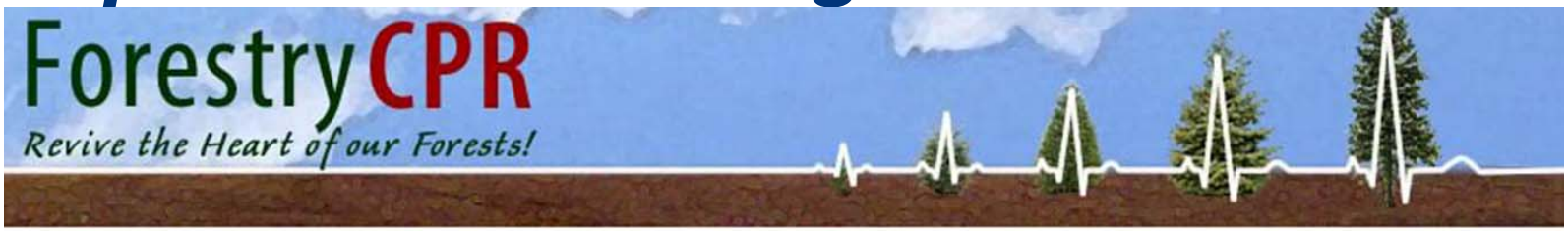
Using GIS to leverage geographic assets: *Regional Transfer of Development Rights*

TDR property map viewer



http://www.kingcounty.gov/environment/stewardship/sustainable-building/transfer-development-rights/tdr-map-viewer.aspx

Using GIS to leverage geographic assets: *Incentivizing changes in urban forestry practices to mitigate climate change*



Did you know?

The Forestry CPR website:

Documents and explains key existing site characteristics using sophisticated Geographic Information System (GIS) analysis

Connects you to local resources to make it easy to enhance your forest's value and productivity

Provides customized management recommendations through a simple forest health assessment

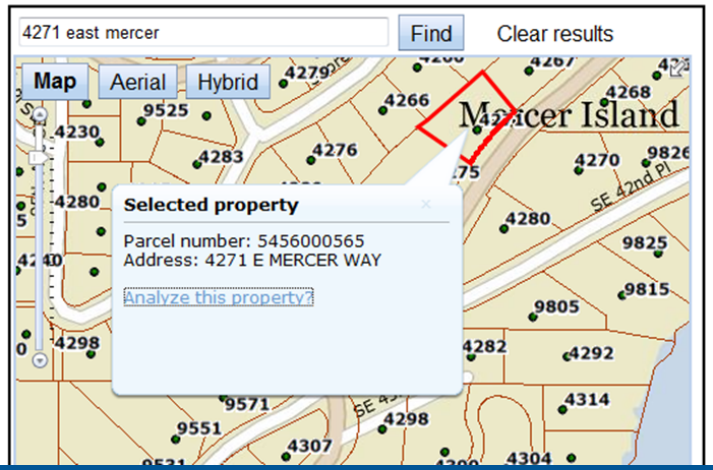
Play Previous Next

Analyze real property in King County

Analyze your property!

Instructions:

1. Find your property:
   - Zoom in to find your parcel, or
   - Type in your address (If you type in your address, you still have to zoom until you can click on the red border/outline of your property)
   - Click on the property and select "**Analyze this Property**"
2. Take the Forest Health Assessment for more property specific guidance, or get General Guidance about climate change impacts and King County forests and resources to take action.



Parcel number 5456000565

Area 16299 ft² (0.4 acres)
0% covered by water resources

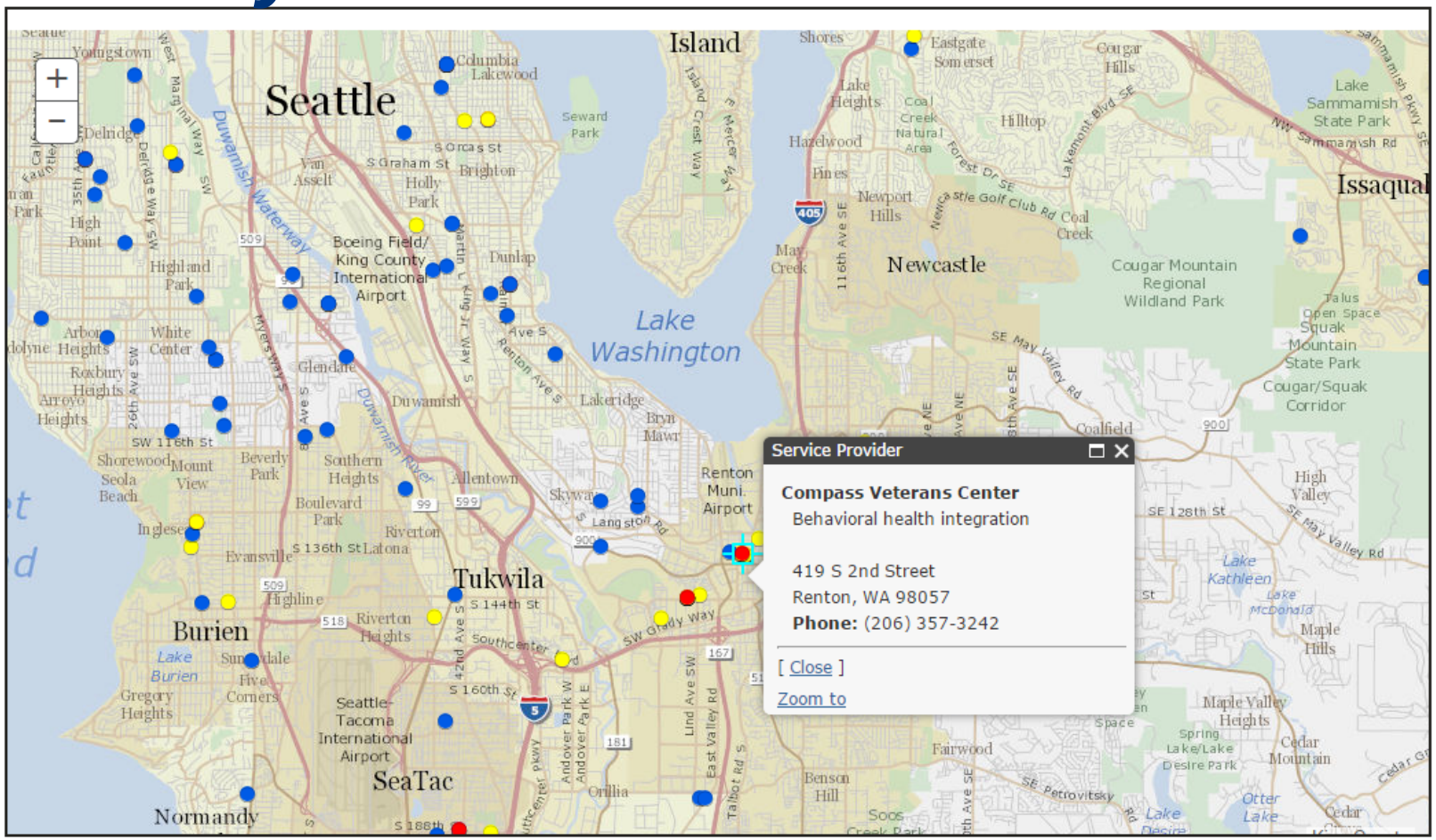
Carbon 26.0 MTCO2e (total)
68.0 MTCO2e per acre
Above average carbon amount
The average tree height is 38.2 feet

Development pressure
The nearest undeveloped parcel is under High development pressure.

Wildlife Habitat Network(s)
A wildlife habitat network is 0.9 miles away to the East

Protected areas
5.8% of land within 1/2 mile is protected from development

Using GIS to leverage demographic assets: *Veterans' Levy Services*



http://www.kingcounty.gov/operations/DCHS/Services/Levy/LeviStrapMapKC.aspx

Using GIS to leverage demographic assets: *Pesticide free play spaces for children*

PESTICIDE-FREE PLACES

Home >> Pesticide-Free Places

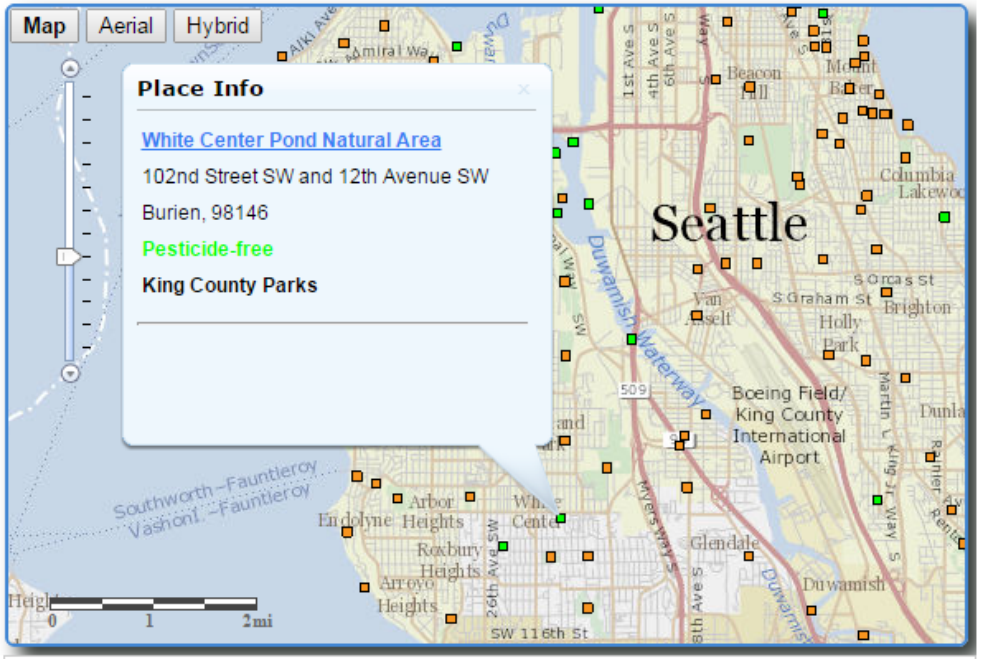
Where kids and pets play worry-free
Find outdoor areas managed: pesticide-free/pesticide-reduced to protect people, water & wildlife.

Search by city or zip

Zoom to a
Zipcode: Go
City: Select ... Go

Pesticide-free place
Pesticide-reduced place

List of places
Map legend - definitions
How to use the map
Disclaimer



Pesticide-Free Places

- Why worry about where they play?
- How to get listed on the map
- Make your yard pesticide-free
- Landscaper help

http://hazwastehelp.org/PFParks/index.aspx

Using GIS to leverage demographic assets: *AIMS High – Equity & Social Justice*

AIMs High Uses Maps to Compare Differences across the County

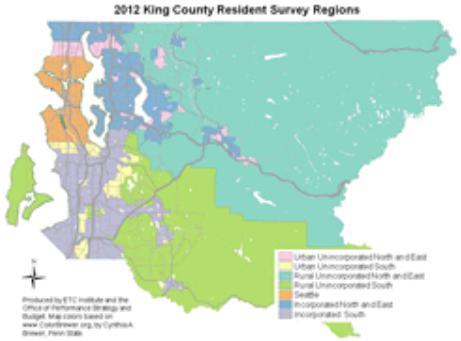
This year's AIMs High website uses more maps than ever before to show how community conditions and performance results can vary across different regions within King County. King County's Equity and Social Justice principle in the KCSP inspires us to understand inequities in our community and our service delivery. Maps are one method of disaggregating information to understand where inequities exist so that we can better direct policies and services to promote equity and social justice.

Why do map areas vary?

AIMs High maps divide King County into multiple sub-regions. This is because the data behind each map comes from different sources with different data collection methodologies and measurement purposes. AIMs High combines geographic data produced for a variety of purposes to create a comprehensive picture of geographic variation within the County. Examples of geographic sub-regions used in AIMs High maps include: city limits, health reporting areas, zip codes, census tracts, and property parcels. The following data sources are the basis for the maps presented in AIMs High:

Mapping King County Resident Perspectives

AIMs High Maps



2012 King County Resident Survey

Healthy Food Access

Percent Adults with no Influenza Immunization

http://your.kingcounty.gov/aimshigh/index.asp

Using GIS to leverage financial assets: *Smart Growth*

TAX REVENUE PER ACRE

Smart growth development generates 10 times more tax revenue per acre than conventional suburban development. The survey concluded that on a per-acre basis, smart growth development patterns produce far more tax revenue than conventional suburban development. Tax revenue,

Smart Growth America
Making Neighborhoods Great Together

FIRST NAME | LAST NAME
EMAIL ADDRESS | SIGN UP

ISSUES | ADVOCACY | PROGRAMS | WORKSHOPS | COALITION | RESEARCH | GUIDES | GET INVOLVED | BLOGS | ABOUT US

The Fiscal Implications of Development Patterns

Every town, city, and county makes decisions about how to grow and what kind of development to build. These decisions shape entire neighborhoods and form the foundation of communities as we know them. These decisions can also have enormous implications for a municipality's finances.

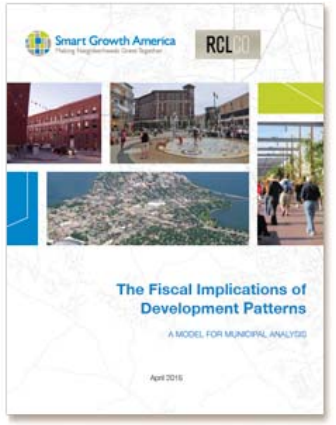
er the past 40 years research has shown that low-density, unconnected, development is more costly to the lic sector than compact, urban development. Every municipality considering new development should erstand the financial implications of these options. How much will it cost to support that new development in ning years? Would the development bring more net revenue if designed differently? These are potentially ti-million dollar questions that no municipality can afford to ignore.

art Growth America, a national non-profit, and RCLCO, a national real estate advisory firm, have created a model designed to help municipalities understand the financial performance of development patterns, and it strategies could generate better returns in the future. We look at a variety of public costs and revenues to municipal leaders understand how a smart growth approach to development could help improve their bottom . Download the overview for more information about our methodology.

e Fiscal Implications: Madison, WI

e City of Madison hired Smart Growth America to analyze potential development ions in the city's Pioneer District, a 1,400 acre area that is largely vacant right v.

DOWNLOAD THE OVERVIEW

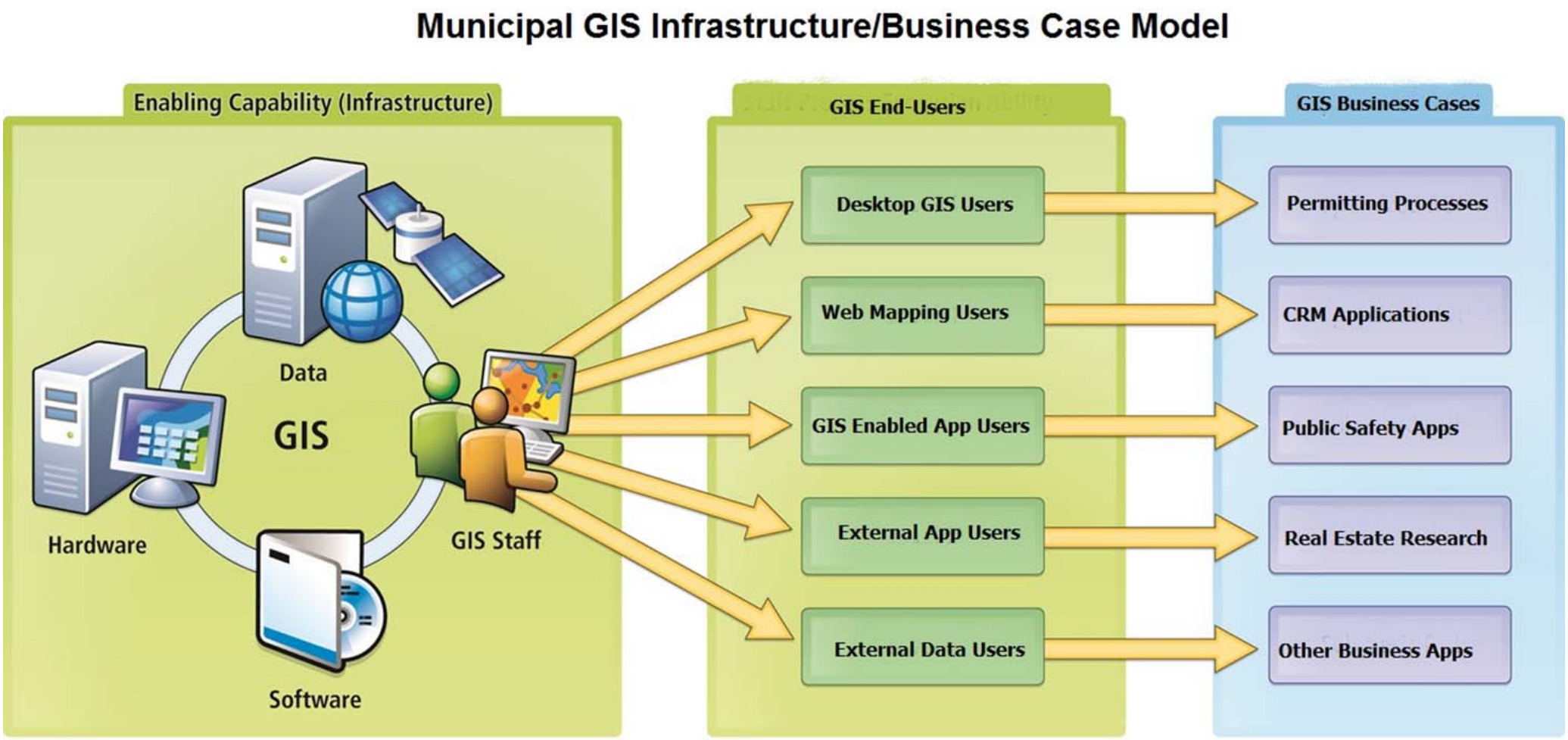


BRING THE MODEL TO YOUR TOWN OR CITY

Smart Growth America and RCLCO are

http://www.gfoa.org/sites/default/files/GFR_AUG_13_78.pdf
http://www.smartgrowthamerica.org/research/the-fiscal-implications-of-development-patterns

The ROI from GIS



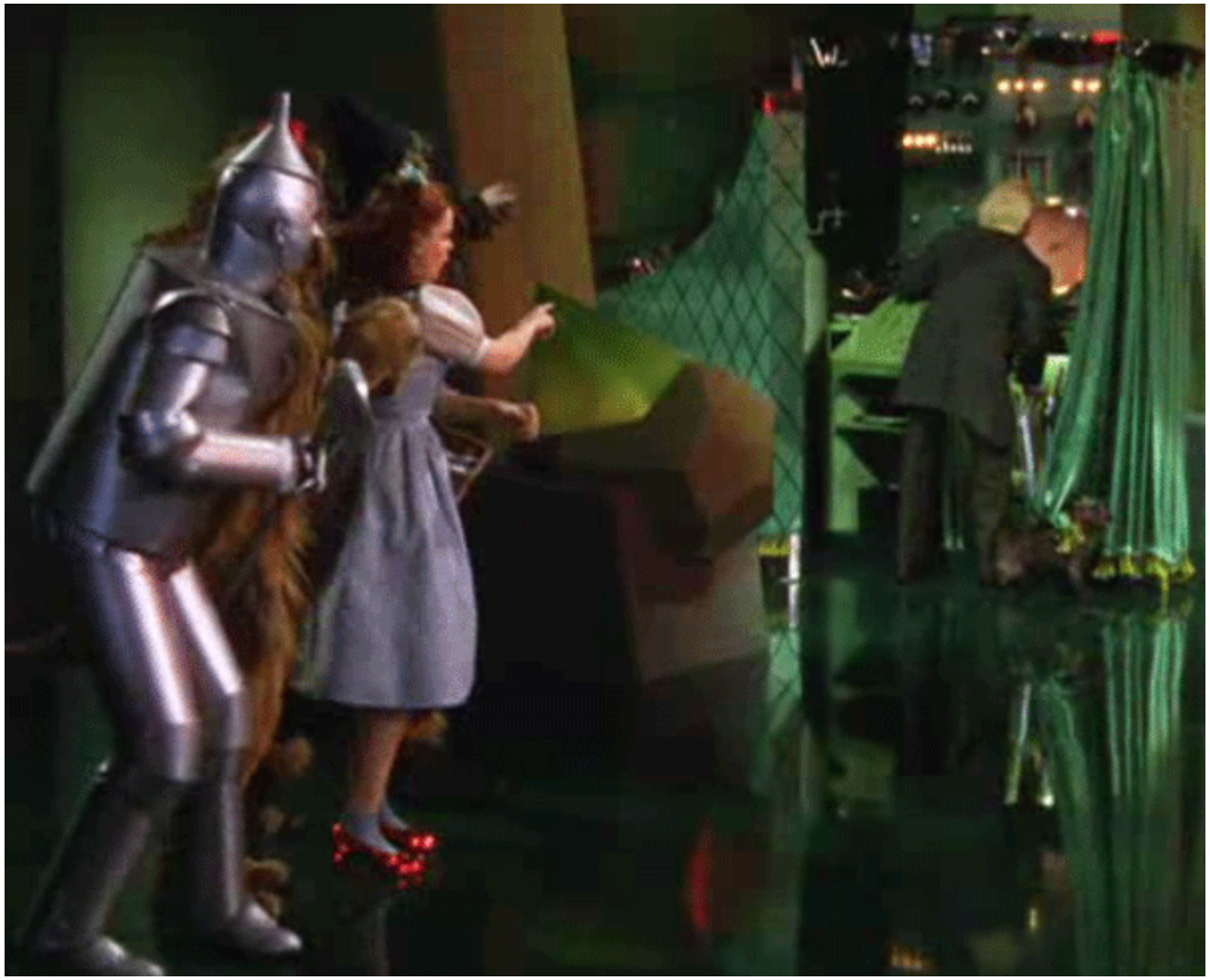
ROI from GIS

GIS combines geographic theory, spatial analysis, and geospatial technology to help society manage the Earth's finite space, with its natural resources and communities.

<u>'Geographic Theory?'</u>

- ✓ ***Maps can represent the real world***
- ✓ ***Space is finite, which gives property value***
- ✓ ***Features are distributed systematically across the earth's surface***
- ✓ ***Getting from point A to point B takes time, and time is money***

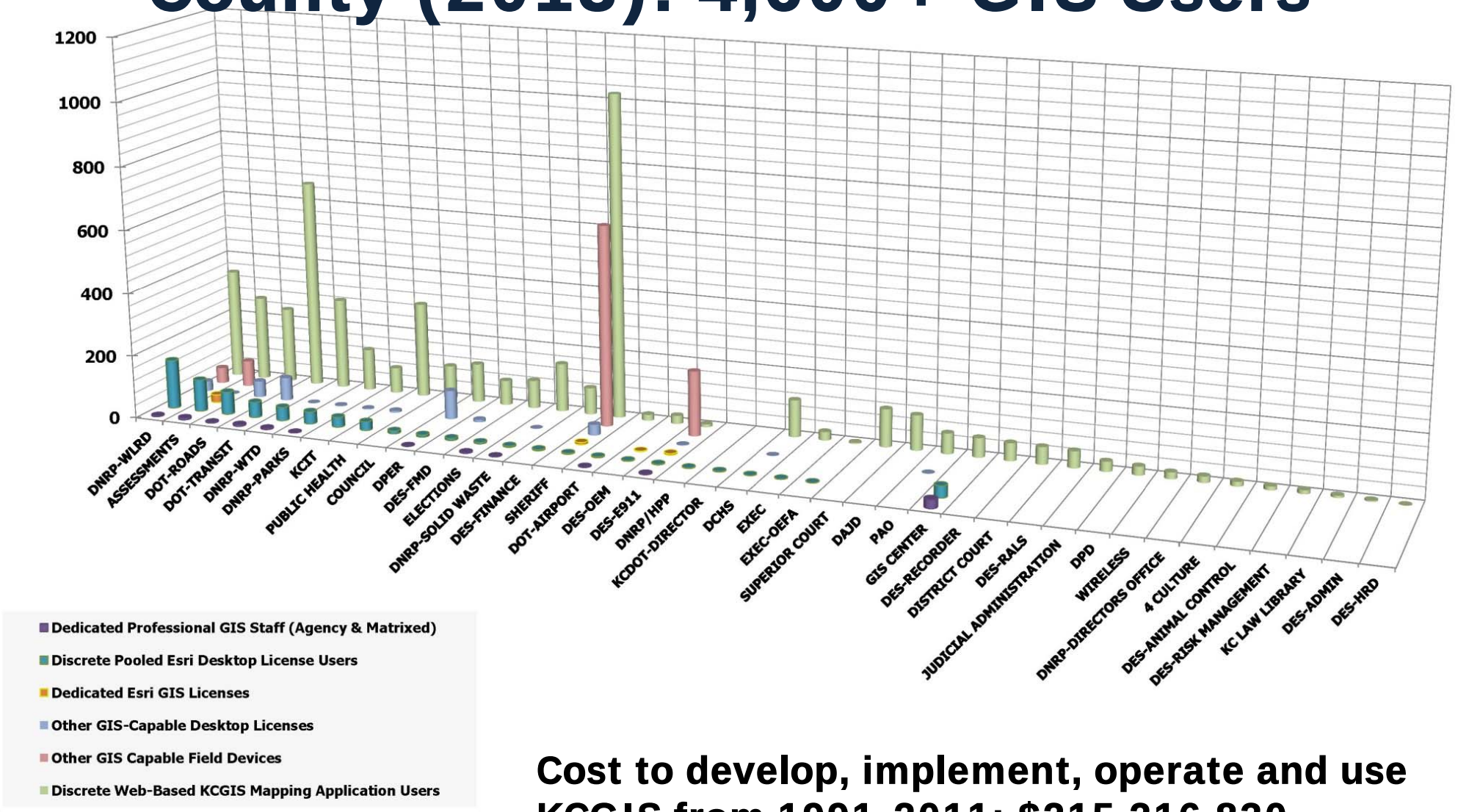
ROI from GIS



Pay no attention to the man behind the curtain!

The power of GIS is in your hands!

The Geospatial Revolution in King County (2013): 4,600+ GIS Users



W:\excel\DeskTopStats\graphicwebandDT.xlsx:Chart1 - 7/9/2014

Cost to develop, implement, operate and use KCGIS from 1991-2011: $215,216,830

GIS delivers significant ROI for King County:

$776 million in net financial benefits from 1998-2010, and $87-180 million in 2010 alone.

RICHARD O. ZERBE, JR.

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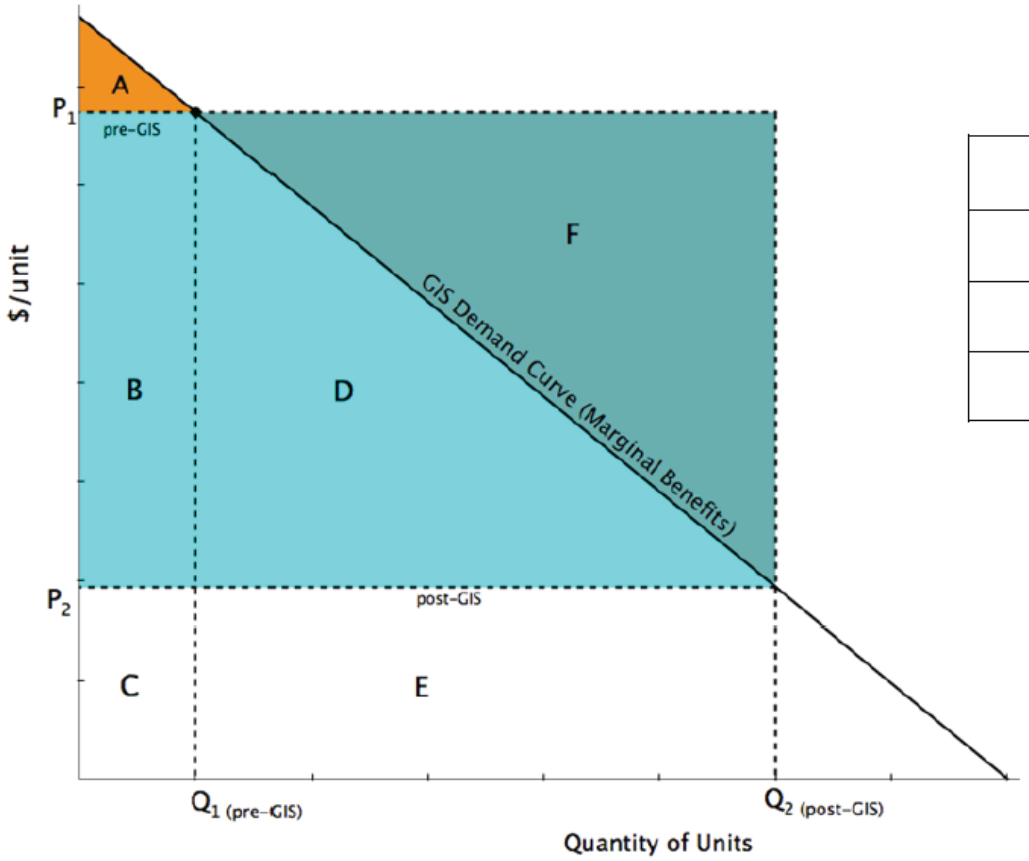
Areas of Specialization:
Law and Economics, Benefit-Cost Analysis, Antitrust, Environmental Economics, Economic History

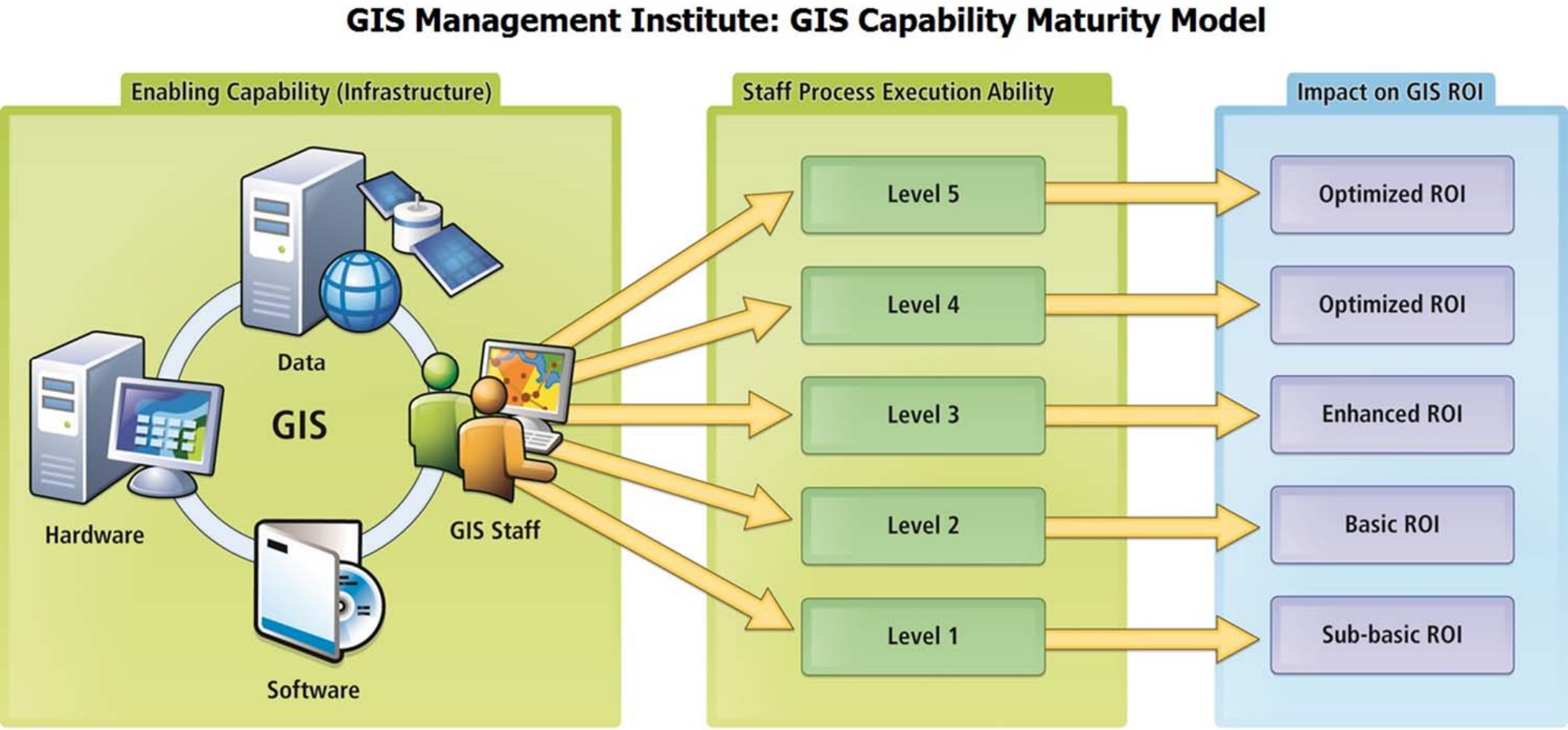
Richard O. Zerbe, Jr. joined the Evans School faculty in 1981, and holds and adjunct appointment with the University of Washington School of Law. He teaches environmental ethics, microeconomics, government regulation, law and economics, and benefit-cost analysis.



	Estimate 1 (new demand curve)	Estimate 2 (old demand curve)
Gross Benefits	B + C + D + E + F	B + C +D + E
Costs	C + E	C + E
Net Benefits	B +D + F	B + D

AN ANALYSIS OF BENEFITS FROM USE OF GEOGRAPHIC INFORMATION SYSTEMS BY KING COUNTY, WASHINGTON
-Prof. R. O. Zerbe
http://tinyurl.com/kcgisroi

Enhancing GIS Effectiveness and ROI



http://www.urisa.org/main/gis-management-institute/

From the Emerald City: Back to Kansas….and beyond

Questions/Comments?

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