



# NACO'S WESTERN INTERSTATE REGION 2017 CONFERENCE

DESCHUTES COUNTY / SUNRIVER, OREGON | MAY 24-26, 2017

Jim Geringer
Former Wyoming Governor
Director, Esri

May 25, 2017





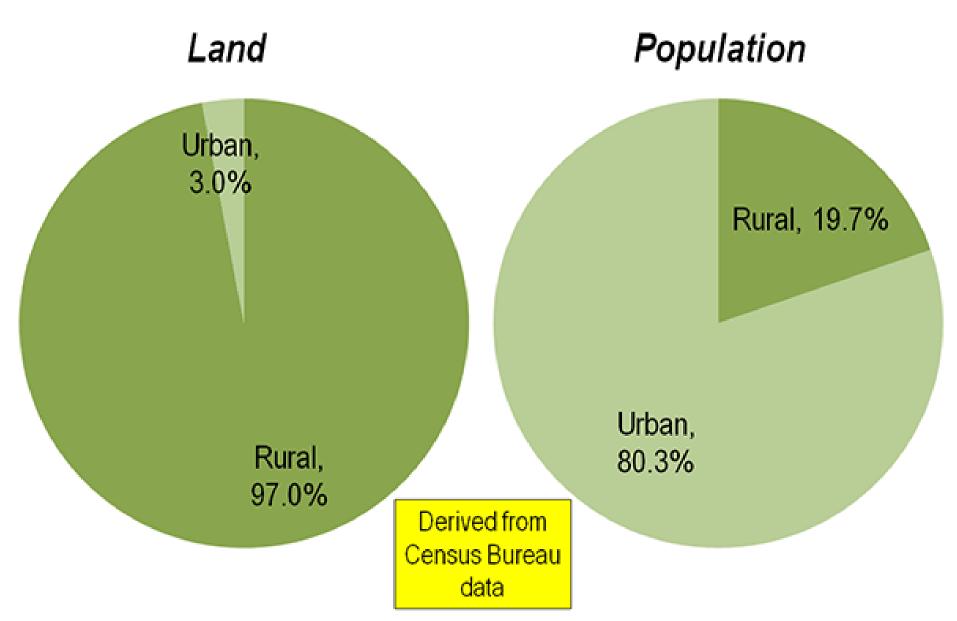


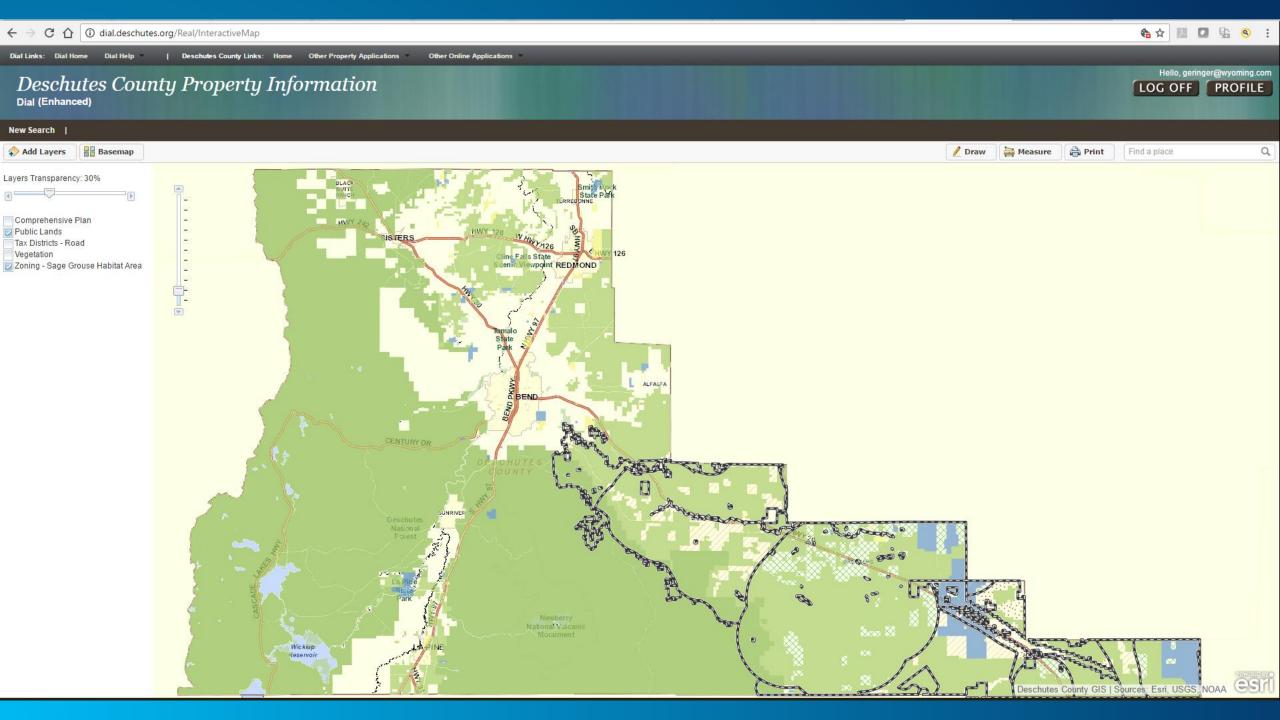




# Urban & Rural Land & Population

UNITED STATES: 2010





## **WIR Issues**

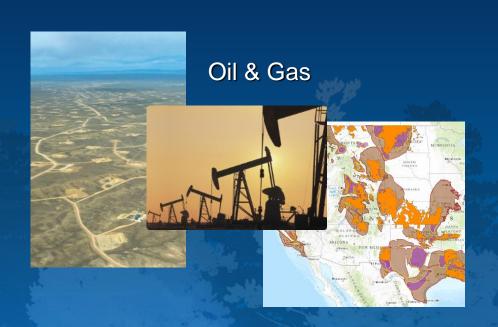
- Payment in Lieu of Taxes
  - Timber, energy and other natural resources
- Rural Friendly Policies
- Needs and concerns, especially natural resources
- Managing growth

- Economic engines and infrastructure
- Innovative economies
- County officials as conveners
  - Problem solvers
  - Bring diverse groups together

# The West: Rich in Open Spaces, Wildlife, Energy and People



# **Growth and Change Were and Are Fragmented**

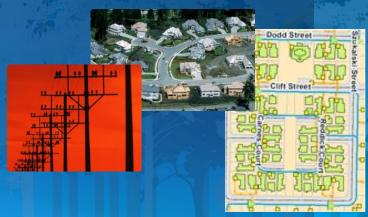




Land Use & Development







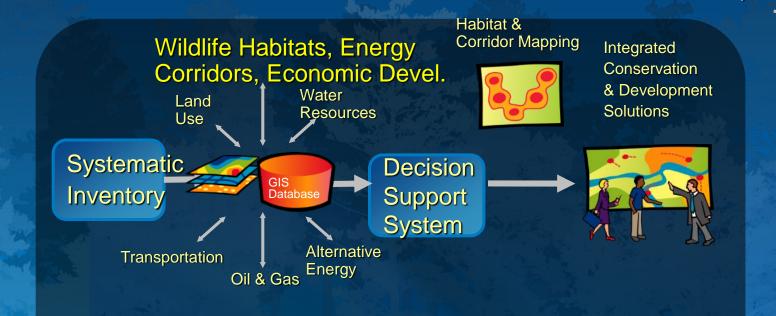
... Policy and Business Decisions Considered Incrementally ... Often in isolation

# A System for Collaboration, Action

GIS as a Platform. . . a System, not a Software.

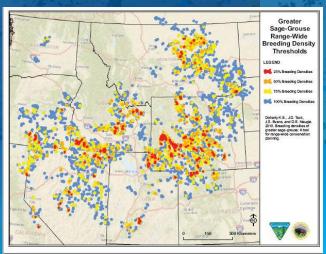
Software. Corridors

Development





**Habitat Areas** 



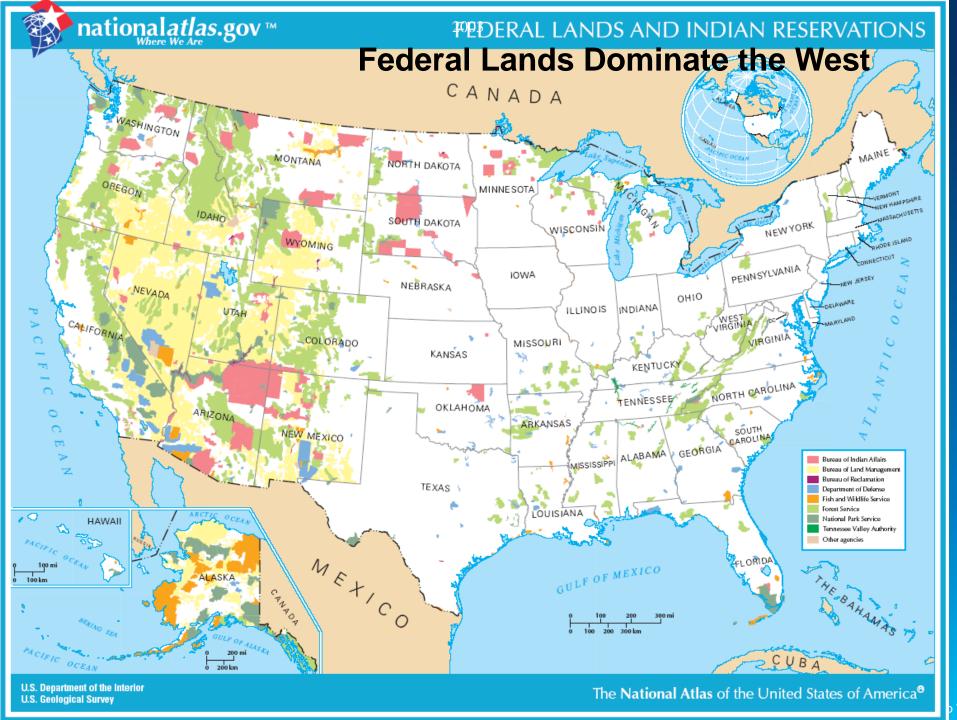
# GIS in Government Connecting People, Places and Policy

- This Governor's Experience as a convener
- Information in context
- Visualization is key to context
- GIS as a powerful platform
  - for Decision Makers
  - for everyday activities
  - Ever increasing public expectations
- Information Integration Not an option but a necessity
  - Cross-boundary Collaboration, Planning, Modeling, Action
  - Web and Cloud based
  - **Mobile tech**



# •All Decisions Are Local —

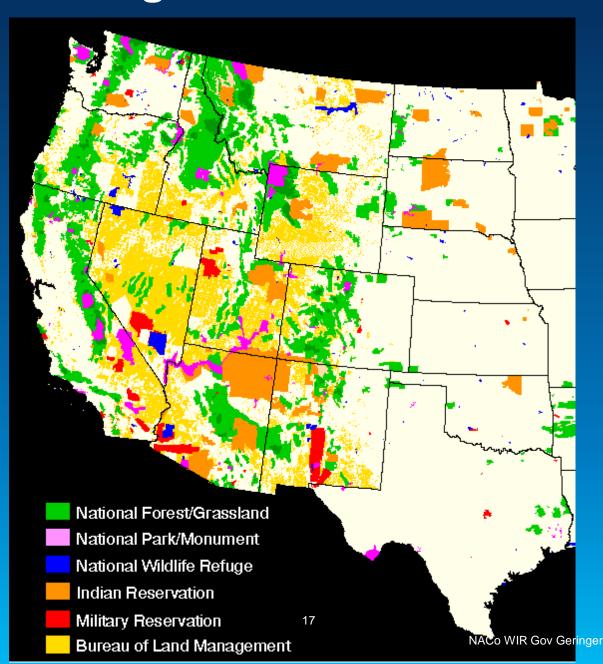
In Impact

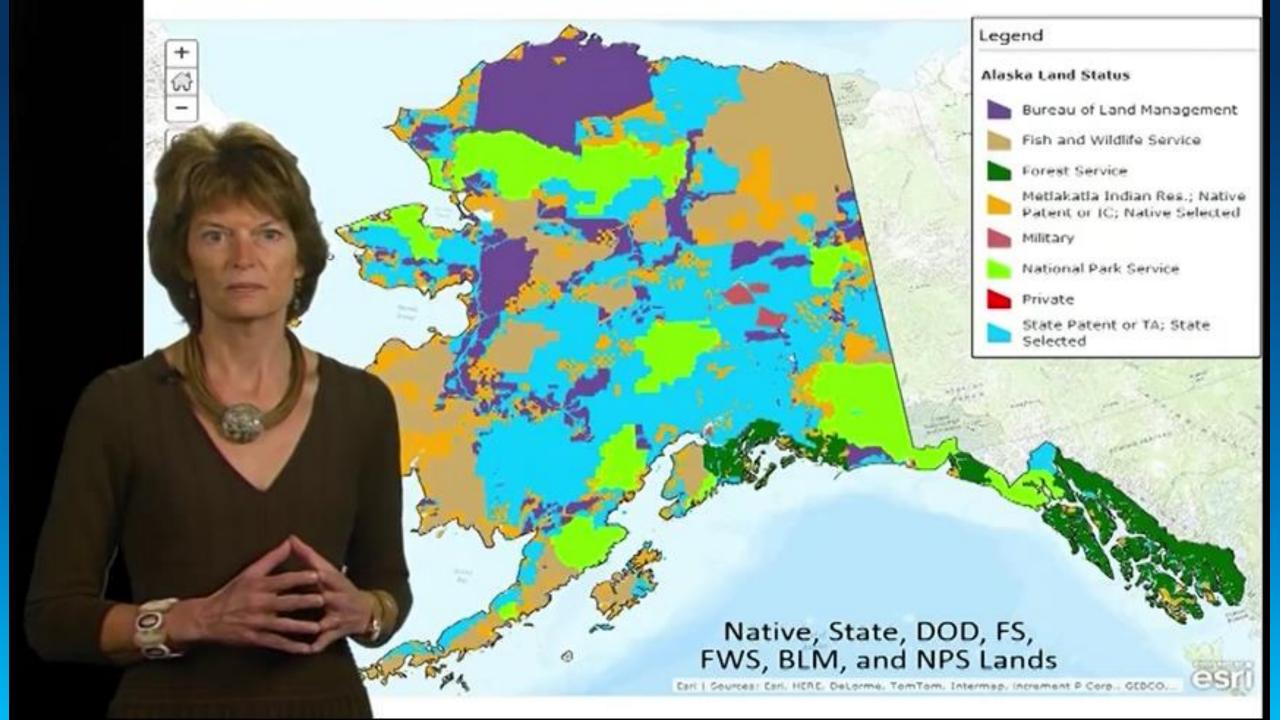


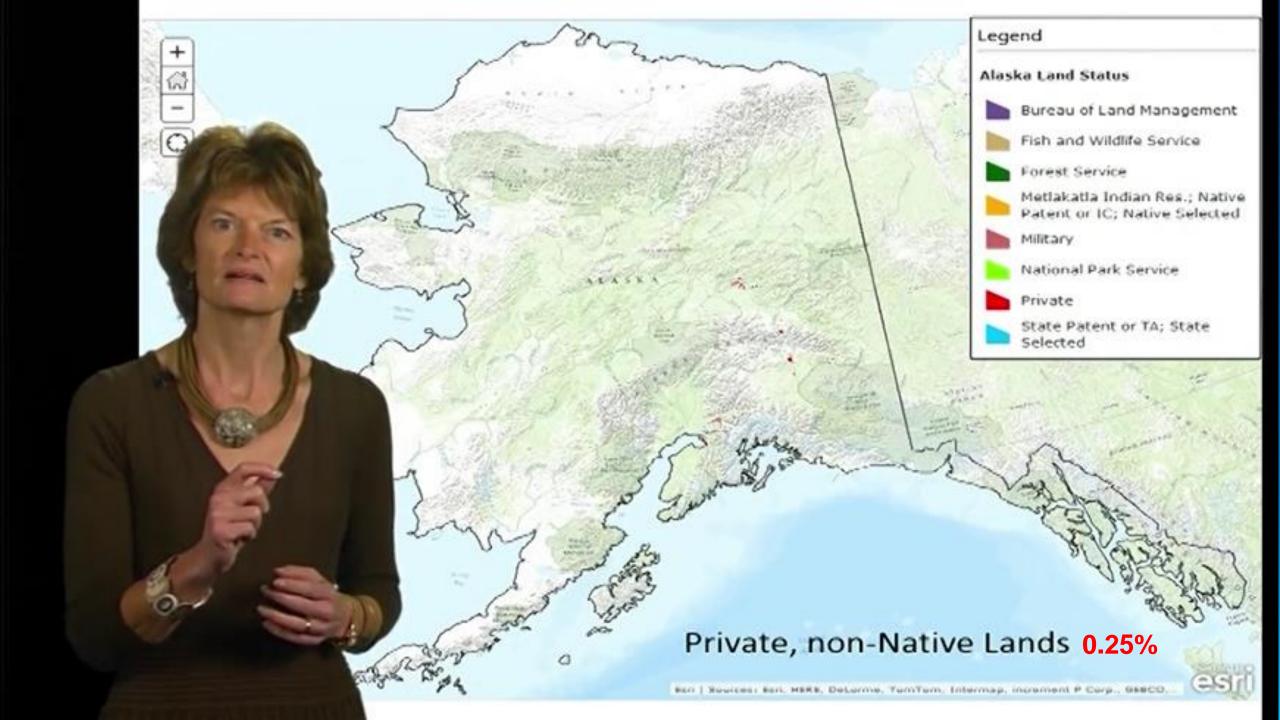
# The Need For a Convener

# **Western Land Management**

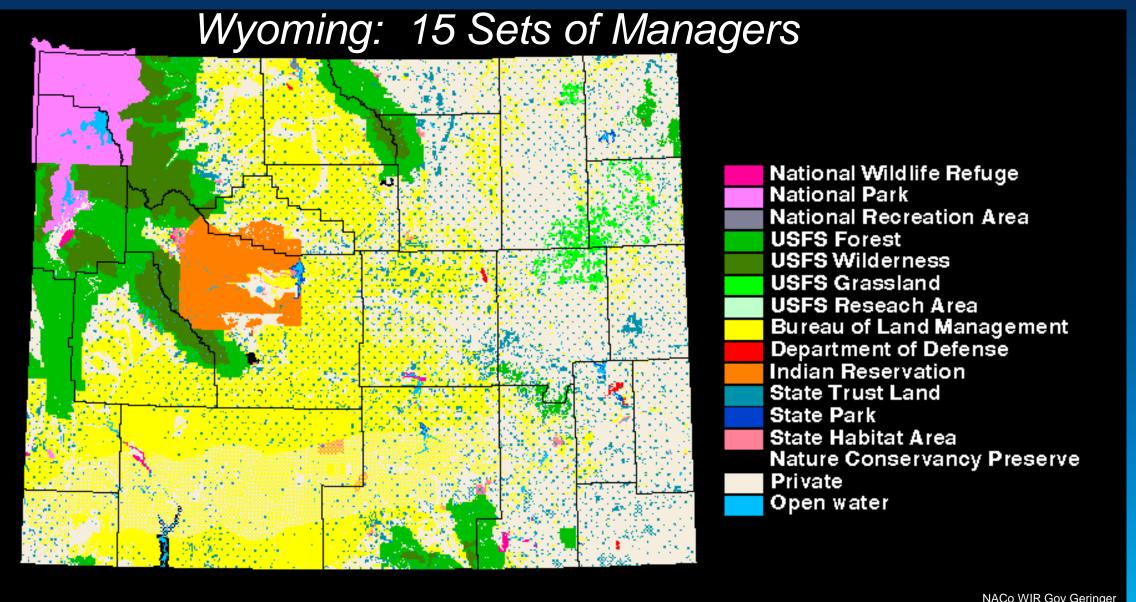
- Concurrent, not exclusive, responsibilities for resource development
  - Land, air, water, minerals, species
- Local impact on economic and social issues
- National managers only "Updated" us







# "We Don't Have A Common Base Map"



NACo WIR Gov Geringer

# What Was Missing?

- The Big Picture, a shared mission, partnership
- People who were willing to work together
- Common purpose to link our actions together for common good
- Discovering how spatial information and the infrastructure to implement it enabled integration ...GIS is More than a Map
- Partnership inherently means Mutual Benefit

... Integrating Disciplines, Organizations and Activities

# Kitchen Table –Leader as Convener

- Local, State and Federal agencies in Wyoming engaged in very few interactive meetings
- Federal Advisory Committee Act (FACA)
- SOLUTION: Invite folks to the Governor's Kitchen Table - every spring
- Began data sharing agreements that were precursor of an enterprise approach
- GIS was the key





## **NEPA:** Friend or Foe

- National Environmental Policy Act 1969
- Enacted "recognizing the profound impact of man's activity on the <u>interrelations</u> of all components of the natural environment"
- "It is the policy of the Federal Government, in cooperation with State and Local governments and other concerned public and private organizations... to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic and other requirements of present and future generations." \_Purpose Clause

## **NEPA Regs from Council on Environmental Quality**

- From § 1501.6 Cooperating agencies.
- An agency may request the lead agency to designate it a cooperating agency.
- · (a) The lead agency shall:
- (1) Request the participation of each cooperating agency in the NEPA process at the earliest possible time.

• It's Not The Act ... It's the Actors ...

# **NEPA**

- Cooperation and Collaboration
- States and Counties participate as Cooperating Agency
- Federal, state and private actions are needed that are
  - Comprehensive
  - Elicit better planning
  - Intergenerational in their beneficial effect
  - Strike a wholesome balance among the environment, the economy and our communities

## What Can You Do?

- Become a convener, trusted advisor
- Bring People Together To Share
  - Experiences
  - Ideas
  - Information
  - Values
  - Approaches
- Don't try to address everything in a single session
- Focus on Purpose, not just the Process
  - Government too often only measures compliance, not outcomes





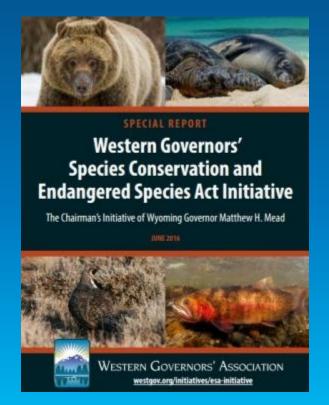
# 'Collaborative Advocacy with other Western States Organizations

- Western Interstate Region of the National Association of Counties
- Western Governors' Association
- Conference of Western Attorneys General
- Council of State Governments West
- Pacific NorthWest Economic Region

President: Principles to Clarify and Strengthen the State-Federal Relationship

Congress: Collaborate with states on budget development

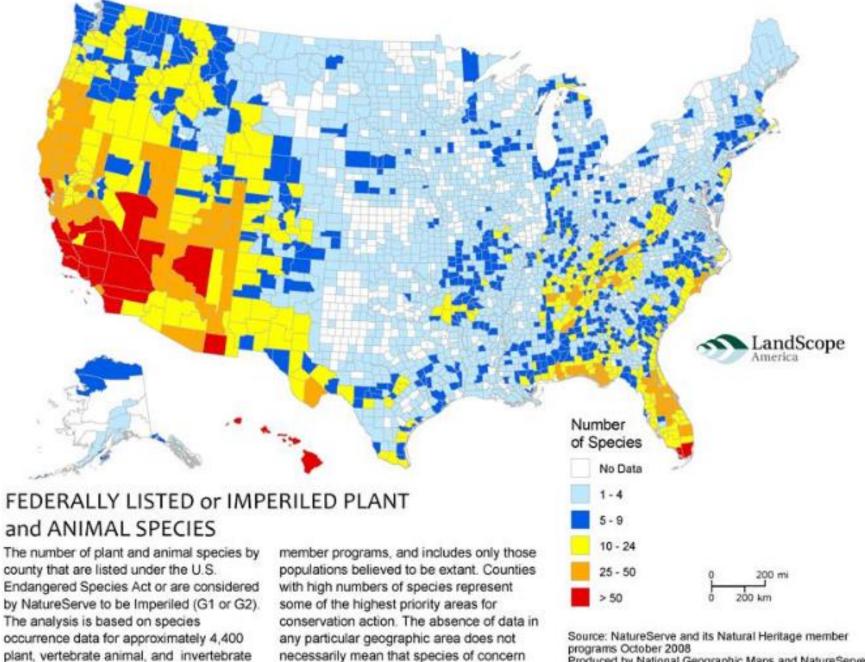












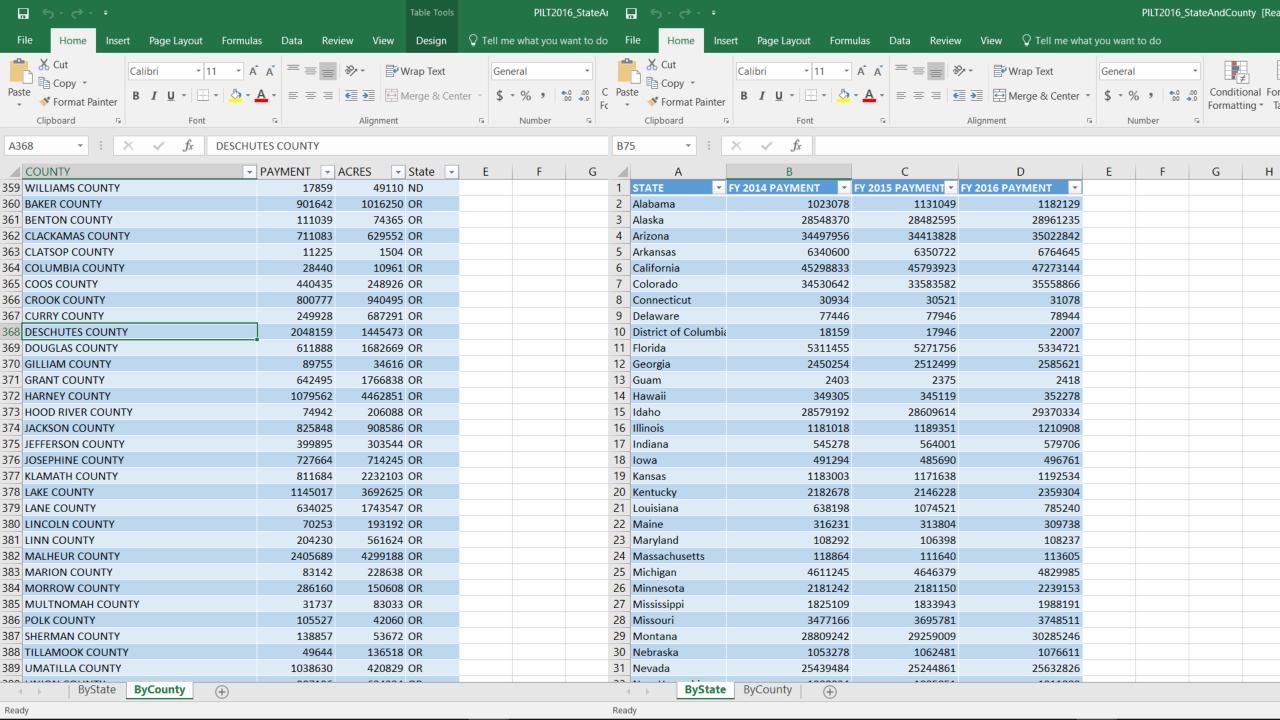
are not present.

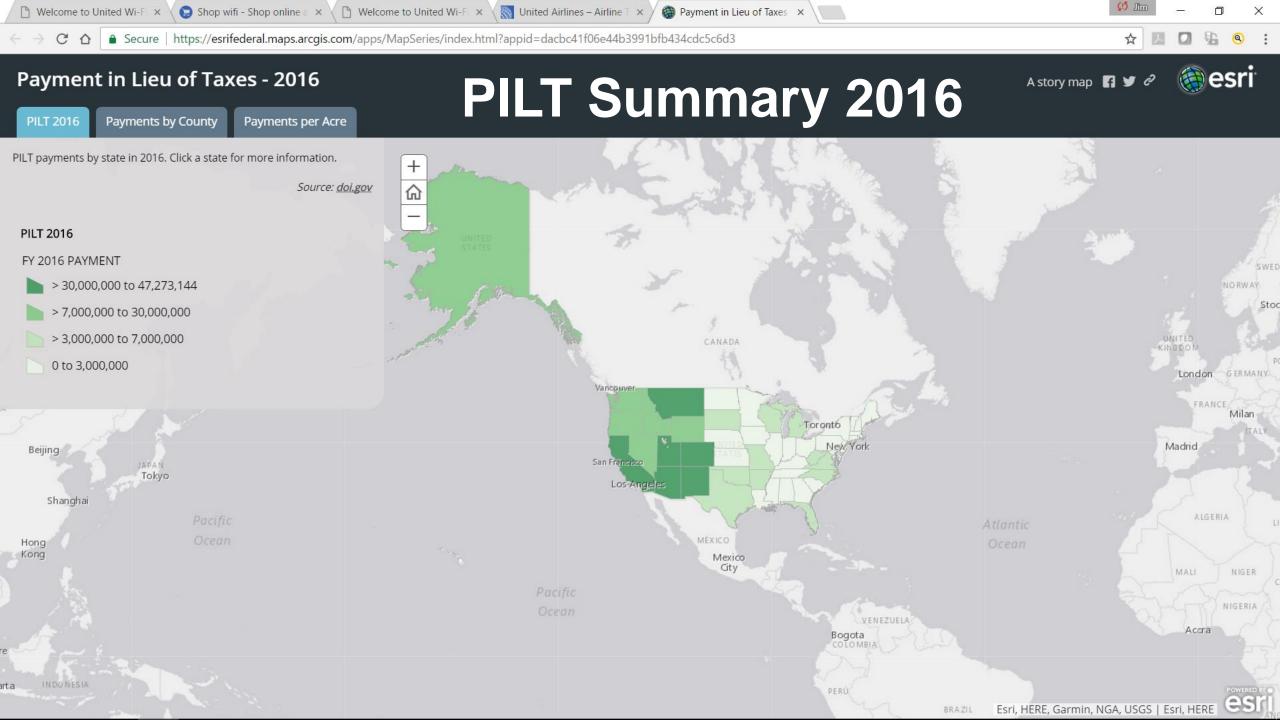
animal species from the Natural Heritage

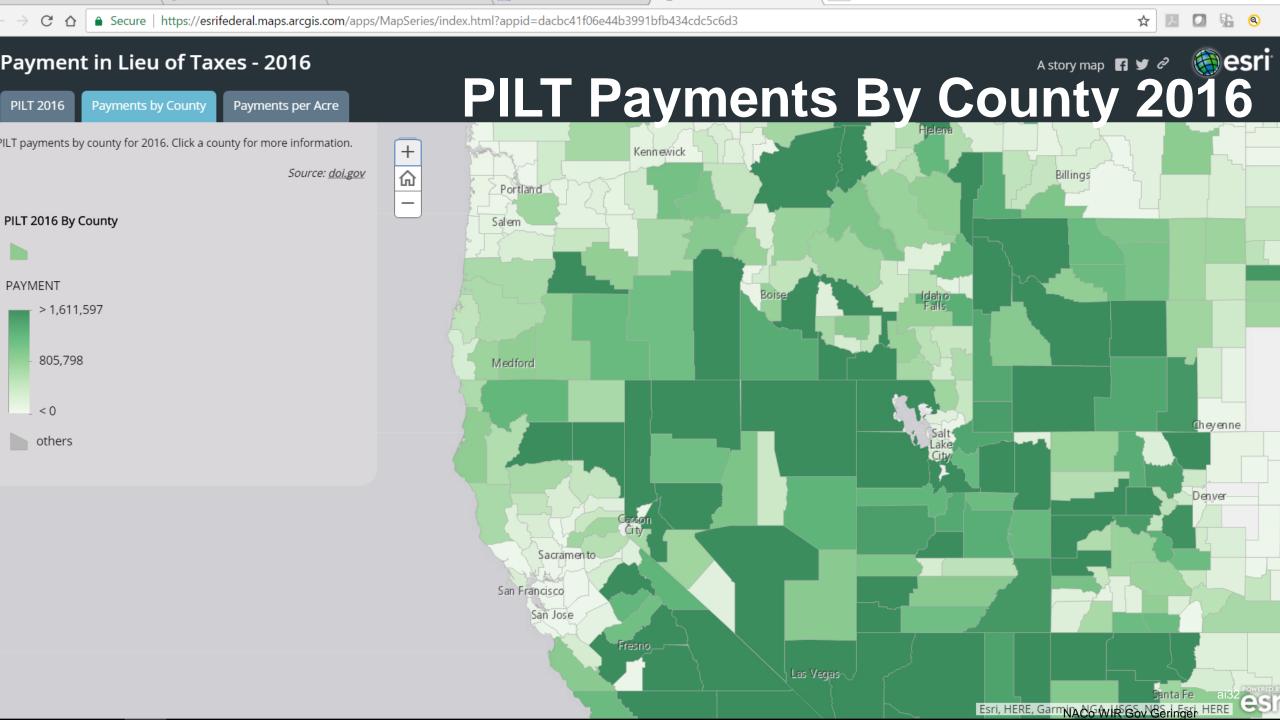
**Number of** imperiled species or species with federal status by county

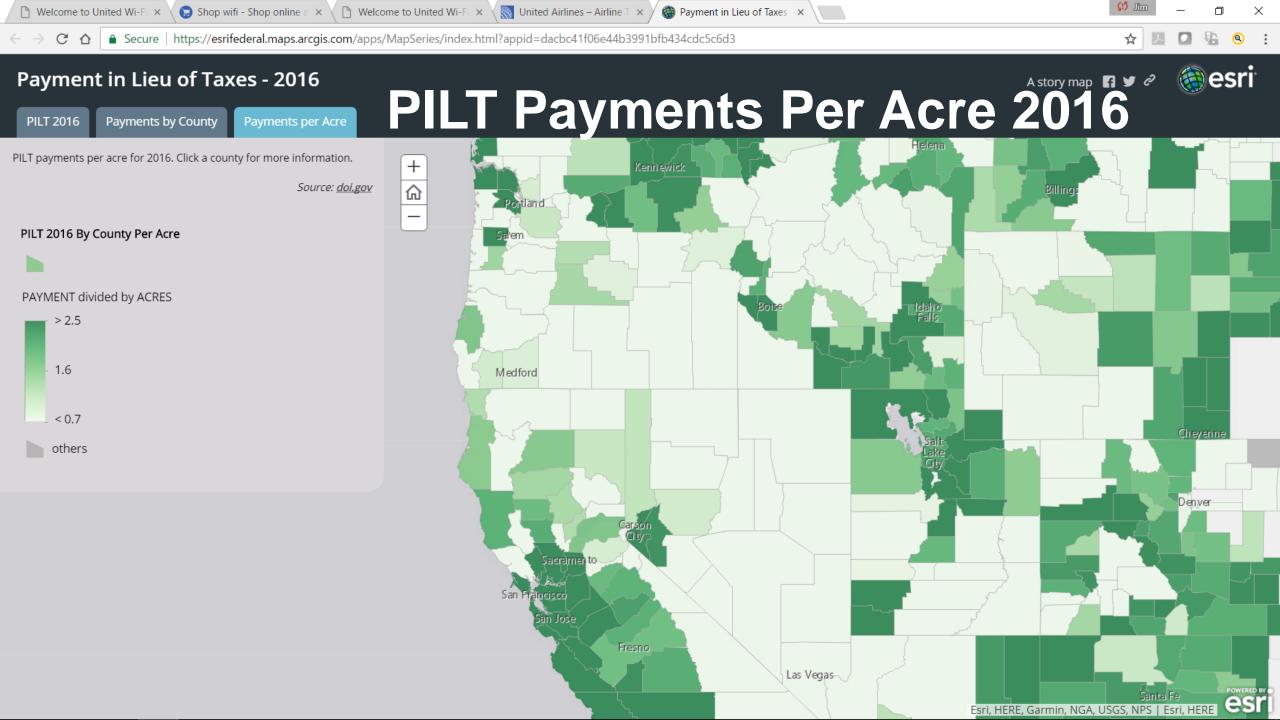
programs October 2008

Produced by National Geographic Maps and NatureServe









## **Energy and Managing Natural Resources**

Wind

#### **Solar Potential**



## **Renewable Energy Monitoring**



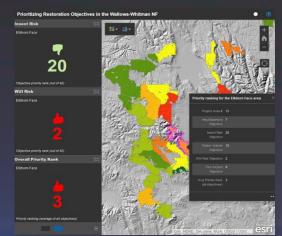
#### **Land Use Suitability**



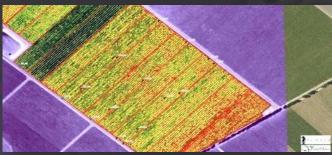
# **Energy Supply** and Demand



#### **Forest Restoration**



### **Vineyard Irrigation**



California

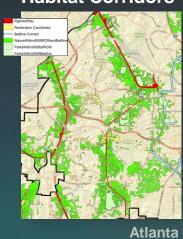
## **Urban, Regional and Conservation Planning**



#### **Vertical Intensification**



### **Habitat Corridors**



**Green Infrastructure** 



### Neighborhood

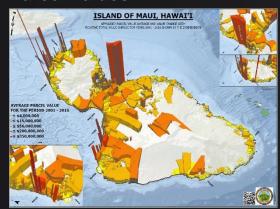


## **Managing Land Information**

#### **Parcel Values**

**Tax Assessment** 

Nebraska



Maui

#### **Residential Platting**



**Parcel Query** 

**Historic District Property Values** 



Georgia

#### **Tax Parcels**



Wisconsin

## **Environmental Reporting**



California



## **Demographics and Human Health**

# Veteran's Access to Healthcare



Minnesota

# Modeling Voting Behavior



Health Facility Management



# Health Insurance and Poverty



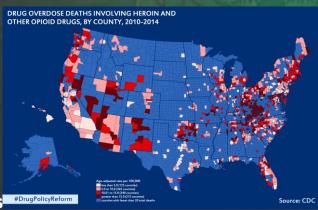
**Census Bureau** 

#### **Access to Health Care**



**New York** 

#### **Opioid Addiction**



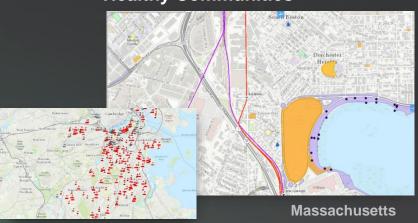
Opioid Prescriptions #DrugPolicyReform

Office of National Drug Control Policy



Centers for Medicare and Medicaid Services

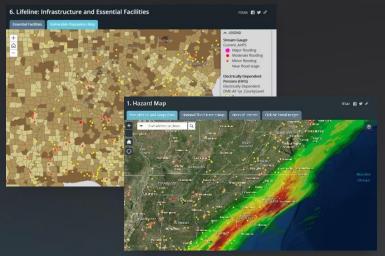
#### **Healthy Communities**



## **Preparing for and Responding to Disasters**

**FEMA** 

#### **Assessing Vulnerable Populations**

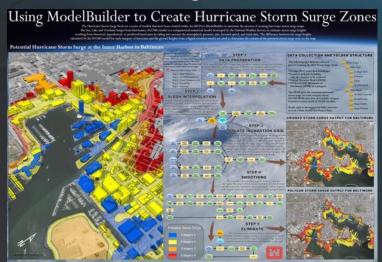


Wildfire Response Planning



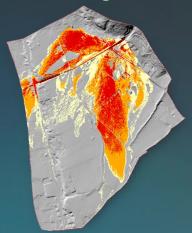
Washington

#### Hurricane Storm Surge Model

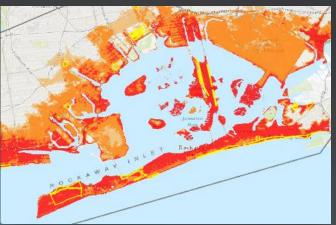


Maryland

# Landslide Forecasting



#### Coastal Flood Analysis



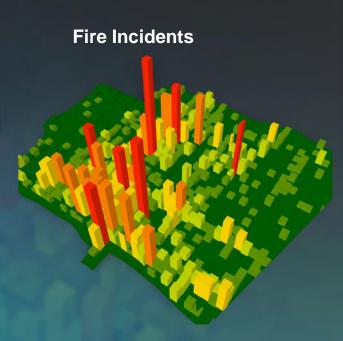
New York

### **Public Safety and Security**

### **Locating 911 Calls**



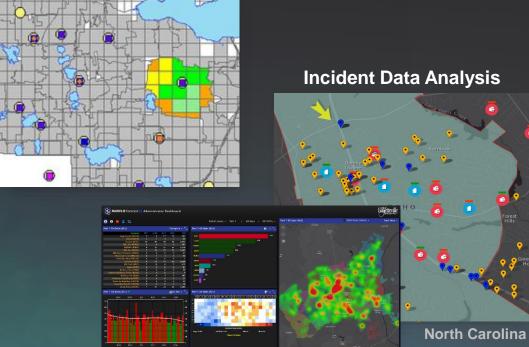
### Florida



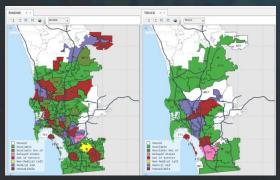
### **Severe Thunderstorm**



### **EMS** Response



# Emergency Vehicle Status



California

# Real-Time Incident Management



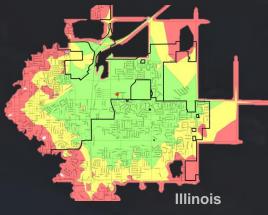
Florida

### **Public Safety and Security**

### **Hazards Mapping**



### Fire Response Times



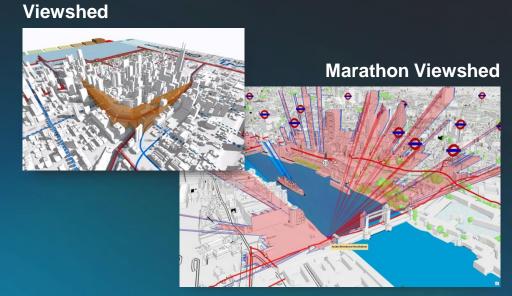
### **Infrastructure Protection**



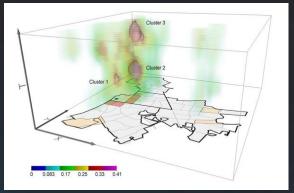
### **Traffic Accidents and Schools**



### CCTV

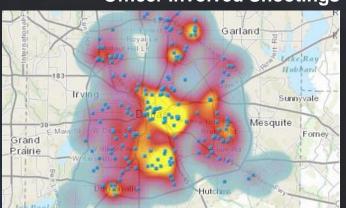


### **Spatiotemporal Crime Patterns**



Louisiana

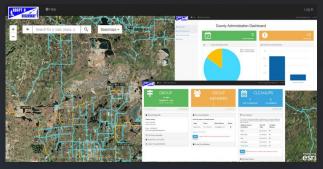
### **Officer Involved Shootings**



Texas

### **Local and Regional Government**

### **Highway Cleanup**



### **Park Information System**



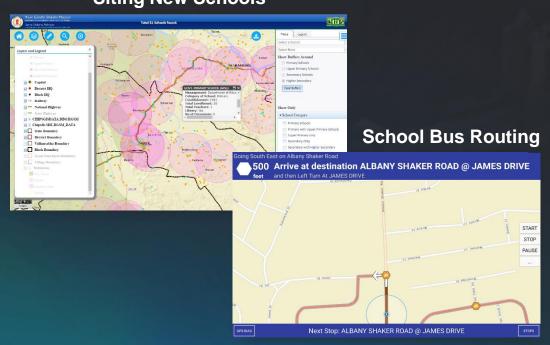
# **Property Assessment Management**



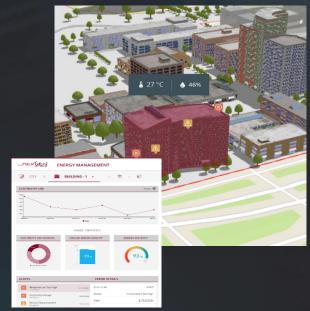
Ohio

### **Siting New Schools**



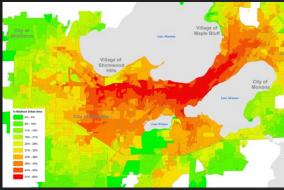


### Smart Community Management



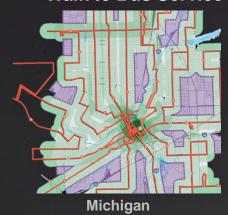
### **Transportation Planning and Management**

# Walking and Transit Model



Wisconsin

### Walk to Bus Service



### **Traffic Management**

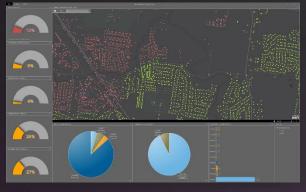


### **Public Transit**



Washington

### **Meter Inspection Dashboard**



Tennessee

# Real-Time Parking Availability



Alabama

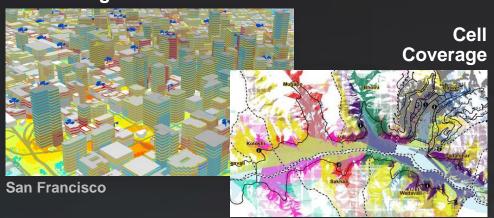
### **Proposed Bridge Visualization**



**Alabama** 

### **Utilities and Telecommunications**

### **4G Building Assessments**





### **IoT Assessment**



Houston

# Circuit and Switch Maps



### **Smart Meters**



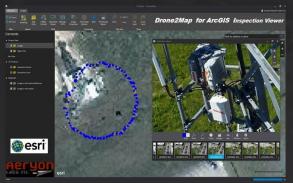
### **Buildings and Campus Management**

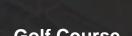
### **Interior Space Planning**



Harvard

### **Drone Mapping**







### **Campus Planning**

Tulsa

### **Street Views**



### **Predictive** Maintenance



### **Evacuation Planning**

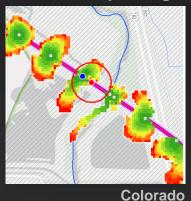


California

**Water Management** 

### **Water and Wastewater Management**

# Hazardous Liquid Incident Reporting

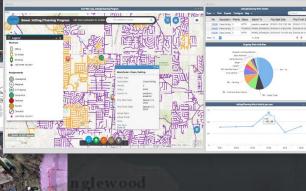


# Facility Management I was a second of the s

Engineering Record Management

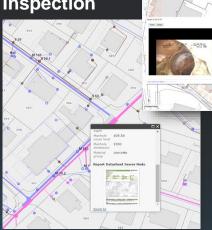


**Work Order Management** 



**Partner Award** 

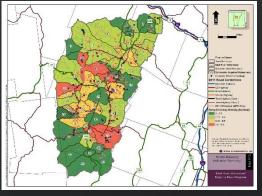
# Sewer Inspection



### **Network Notifications**



### **Storm Water Runoff**



Vermont

Kentucky

### Portals for Citizen Engagement and Enterprise Collaboration



### **Enterprise**

# Geographic Information Gateway



### Roadway Right-of-Way Management



# Utility Line Vegetation Management



### Web Fiber Network Management



### Portals for Citizen Engagement and Enterprise Collaboration

### **Land Information**



**Green Space Planning Revision** 



Oregon

### **Open Data Portal**

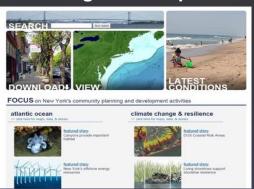
California

Rancho Cucamonga Enterprise GIS (REGIS) is dedicated to providing clients with quality enterprise services,



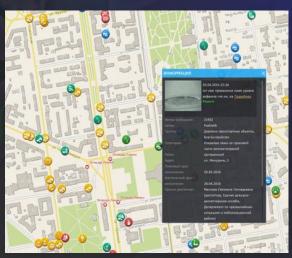
Hawaii

### **Planning & Development**



**New York** 

### Citizen Feedback



### **Park Facilities**



### Portals for Citizen Engagement and Enterprise Collaboration: through Story Maps

# Alley Repair Palooza A Washington, DC Washington, DC

# Urban Change Detection

Nevada





US

### **Promoting Food Establishments**



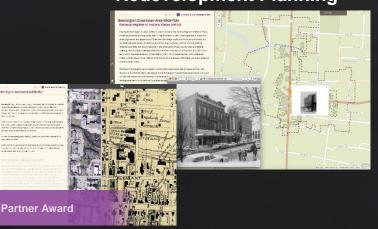
New Jersey

### Public Art Tour



Ohio

### **Redevelopment Planning**



# Value Analysis

### Analysis, Visualization, Maps and Apps



Value Analysis Dashboard



Value Change Over Time



Assessment Neighborhoods



Image Comparison



Photo Survey



Exempt Properties

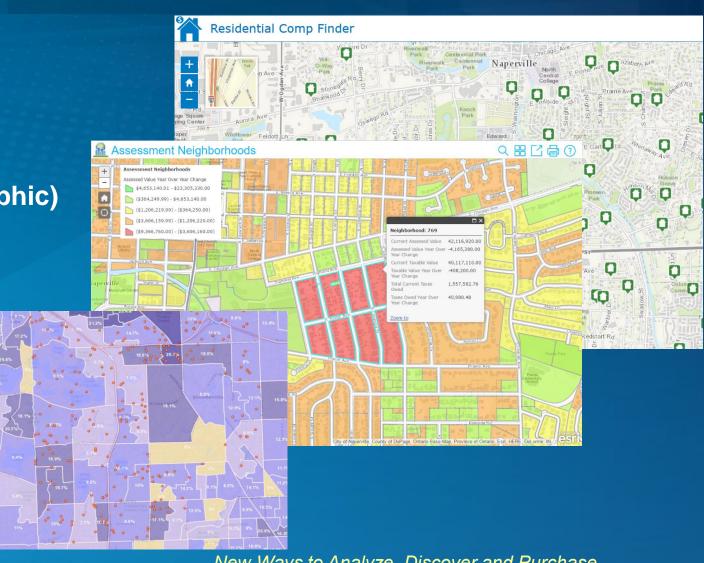
Discover and visualize trends and patterns.....

# Revenue Opportunities

### New Services, New Ways to Deliver

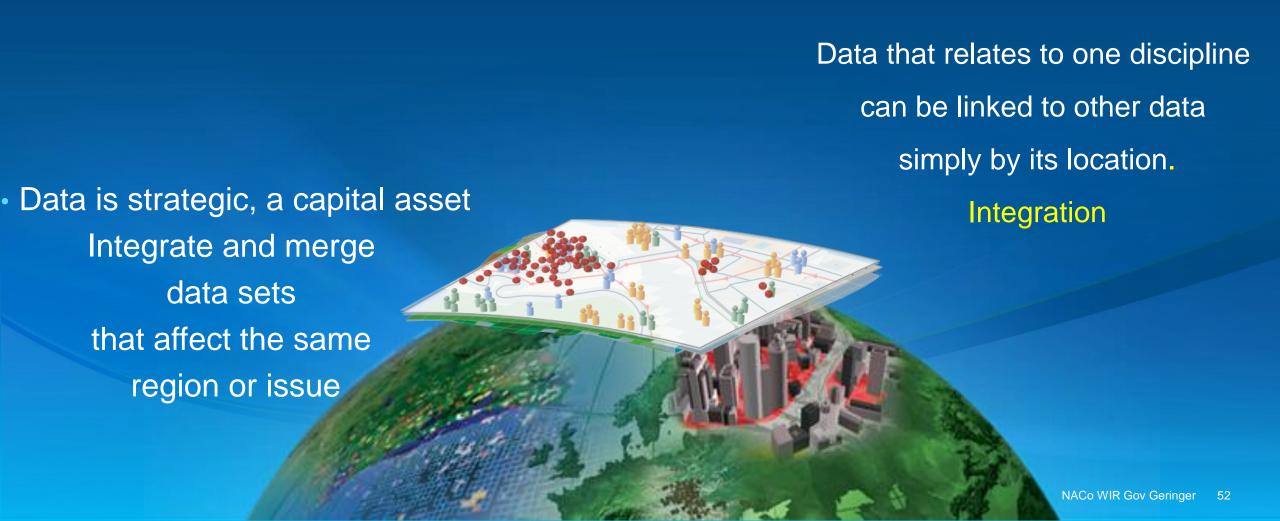
- Transfer Activity Analysis
- Fraud Detection
- Transfer Activity Notification (Geographic)
- New Repository
  - Restrictions





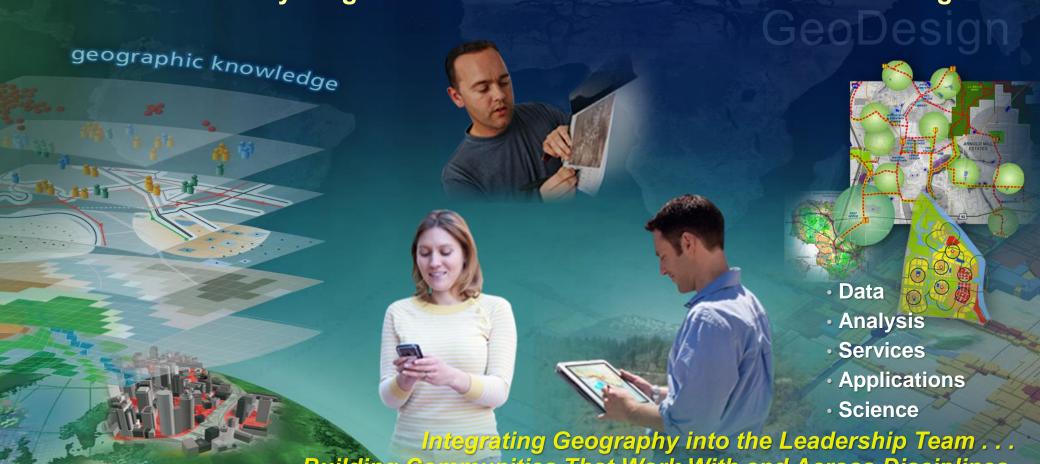
New Ways to Analyze, Discover and Purchase.....

Help people understand today's priorities:
It's not about technology or GIS it's about solutions





**Everything You Do Is Somewhere...and affects something else** 

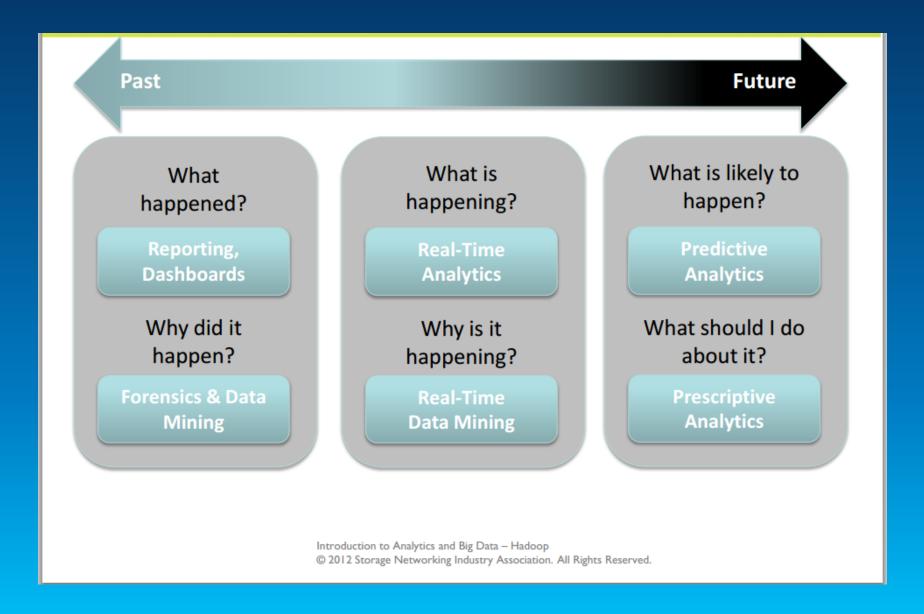


Integrating Geography into the Leadership Team . . . Building Communities That Work With and Across Disciplines, Geographies and Organizations

## GIS Provides the Framework and Process



### **Questions from Decision Makers**



# Field GIS

### Taking GIS Beyond the Office





I Want To...

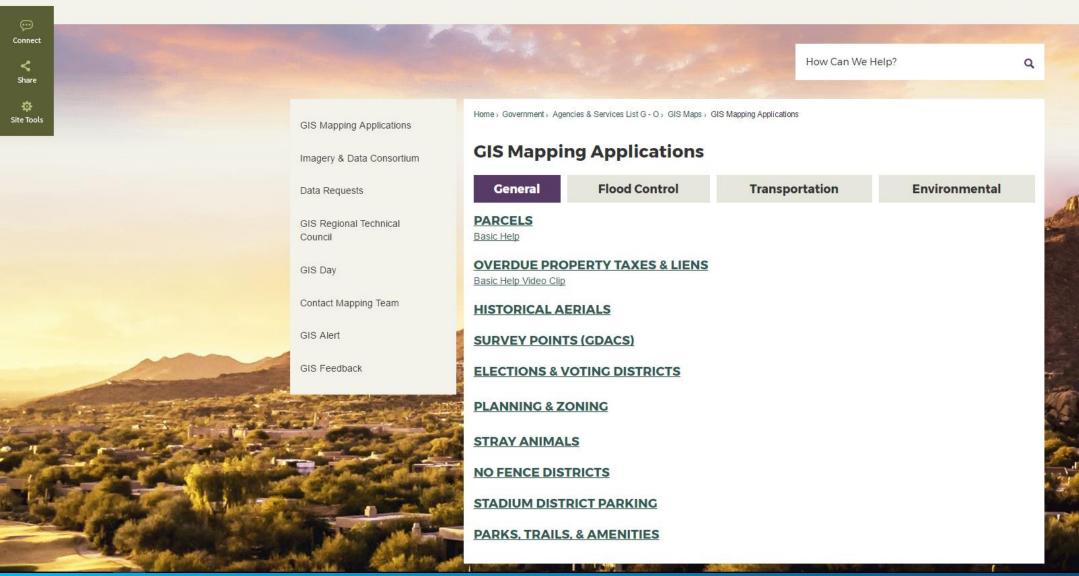
Services

Residents

Business

Government

59





### Welcome to Routt County's Open Data Catalog

Routt County GIS is pleased to introduce the new Open Data Catalog, which provides public access to all of Routt County's published open data.

Use the search bar at the top of the page to find data relating to topics of interest. As you browse through the different datasets, the extent of each will be displayed on the map. Once you find what you are looking for, select the dataset from the list to be able to view the data and get options for download. Alternatively, click the link below to browse a complete list of datasets.

**Browse Routt County Open Data** 

### **Featured Content**



Parcel Data



**Zoning Data** 



The Cheyenne and Laramie County Cooperative Geographic Information Systems (GIS) Program was established in 1993 to benefit the member agencies, government agencies, private industry, and the general public.

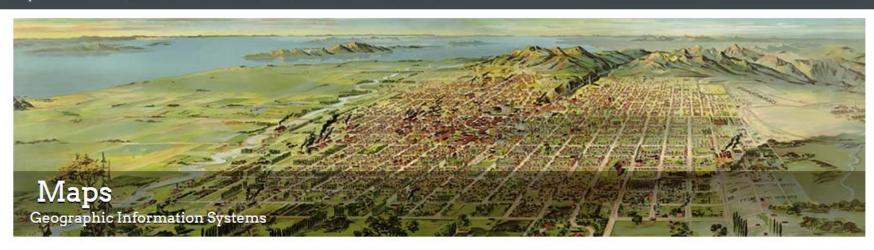
The Cheyenne City Council and Laramie County Commissioners adopted Resolutions in 1998 to establish the GIS Program as a means of organizing GIS efforts and coordinating the development of the Program.

Photo by Tom Mason

Contact SLCo

Search Salt Lake County





SLCo / Maps

About SLCo Maps

I Want To

**GIS Data** 

Interactive Maps

Blog



### Addressing

- Street Text Files
- Email



### Assessor

- Neighborhoods
- Tax Districts
- Resident Percent Change
- Commercial Percent Change
- Valid/Non-Valid Sales
- Email



### Clerk

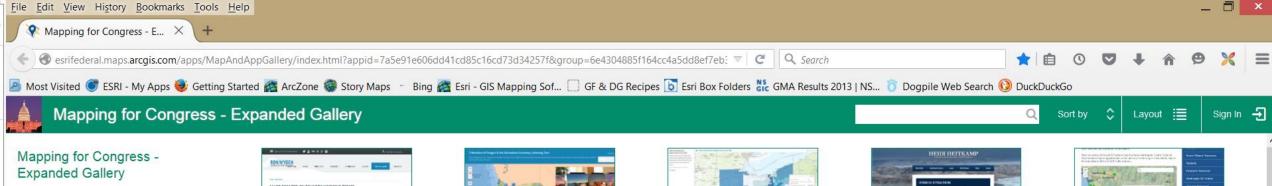
- Precincts
- County Council Districts
- · Congressional Districts
- State Senate Districts
- State Representative Districts
- School Districts



### Economic Development

- Redevelopment Area Maps & Analysis
- Project Area Boundaries
- Proposed Project Area Analysis
- Site Selection Analysis

# **ArcGIS Online & Congress**



Explore examples of maps made by members of the U.S. Congress. These maps help members communicate to constituents what the need is behind legislation, what the possible outcomes of



Senator Ron Wyden - Map ... Web Mapping Application



Senator Ron Wyden - Janu... Web Mapping Application



Senate Committee on Forei... Web Mapping Application





Senator Ron Wyden - 7 Wo... Web Mapping Application



Senator Ron Wyden - Mem... Web Mapping Application



Senator John Thune - Histo... Web Mapping Application





Senator Sherrod Brown - O... Web Mapping Application



Senator Sherrod Brown - O...



Senator Sherrod Brown - O... Web Mapping Application





Senator Heidi Heitkamp - W... Web Mapping Application



Senator Sherrod Brown - In... Web Mapping Application



Senator Sherrod Brown - P... Web Mapping Application





**Rep. Juan Vargas - Taxpaye...**Web Mapping Application



House Committee on Home...
Web Mapping Application



Rep. Mark Takano - The We... Web Mapping Application



# JAMES E. RISCH U.S. SENATOR FOR IDAHO IDA

HOME / IDAHO INFO / IDAHO MAP GALLERY

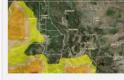
ABOUT

### **IDAHO MAP GALLERY**

**IDAHO INFO** 



Idaho Active Wildfires



**SERVICES FOR IDAHOANS** 

Idaho Drought Areas



**ISSUES & LEGISLATION** 

NEWSROOM

RELA

> STA

Wildland Fire Potential



Fire Retardant Avoidance A.



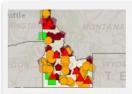
Idaho Farmers Markets



Idaho Brownfields Success ...



EPA Regions and Offices in ..



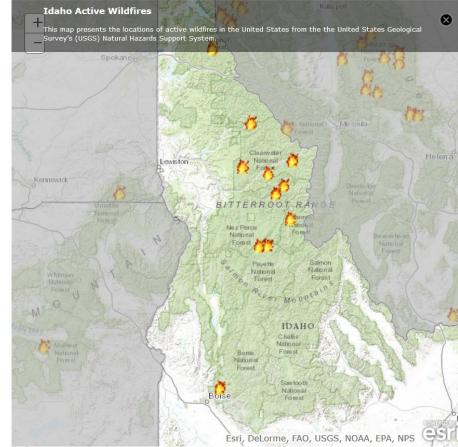
EPA Cleanup Sites - Idaho



Idaho DEQ Office Locations

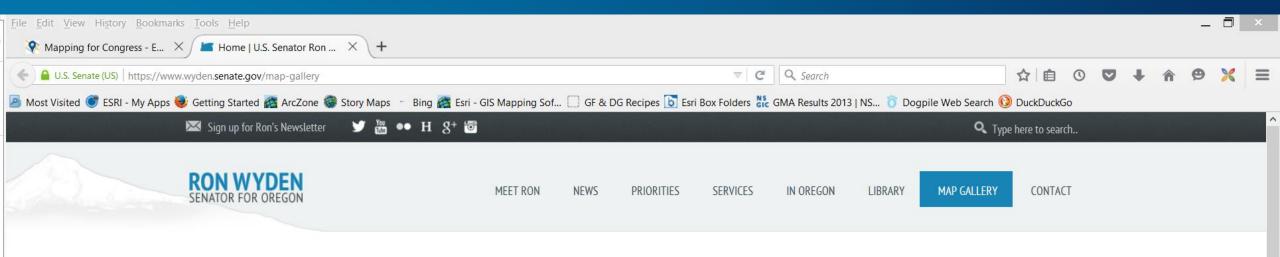


### **IDAHO MAP GALLERY**



### **RELATED LINKS**

- ➤ IDAHO LINKS
- ➤ REGIONAL INFORMATION
- > STATE SYMBOLS
- > IDAHO MAP GALLERY



Home > Map Gallery

### MAPS CREATED BY SENATOR WYDEN'S OFFICE

Scroll over the icons below and click "View App" to see each map or visit the online map gallery here.









The Rapid Rise of Farmers' Ma...

Northwest Large Fire Map 201...

Wildfires in Oregon



January Town Halls - 2015





Oregon Breweries

Oregon Active Wildfires



Resources

### **Taxpayers Resources**

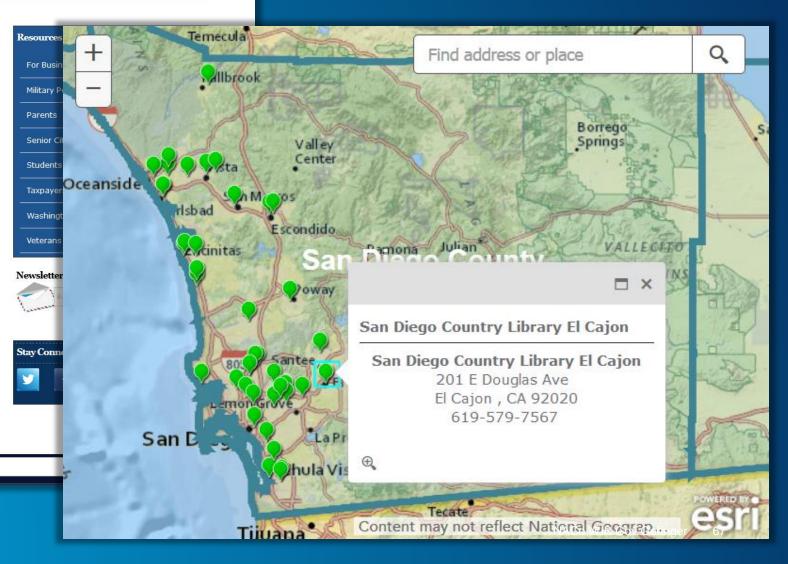
The Internal Revenue Services (IRS) offers free tax preparation help to people who generally make \$53,000 or less, persons with disabilities, the elderly, and limited English speaking taxpayers. This program is known as the Volunteer Income Tax Assistance (VITA) program. In addition to the VITA program, the Tax Counseling for the Elderly (TCE) program is available to taxpayers 60 years of age and older and specialize in questions about pensions and retirement- related issues.

There are various VITA and TCE sites around San Diego and Imperial County. Some of these locations require appointments, so be sure to call them to get all the details. Explore the map below to find a VITA/TCE site near you.



view interactive map

For more information on the VITA and TCE program, visit the IRS website.



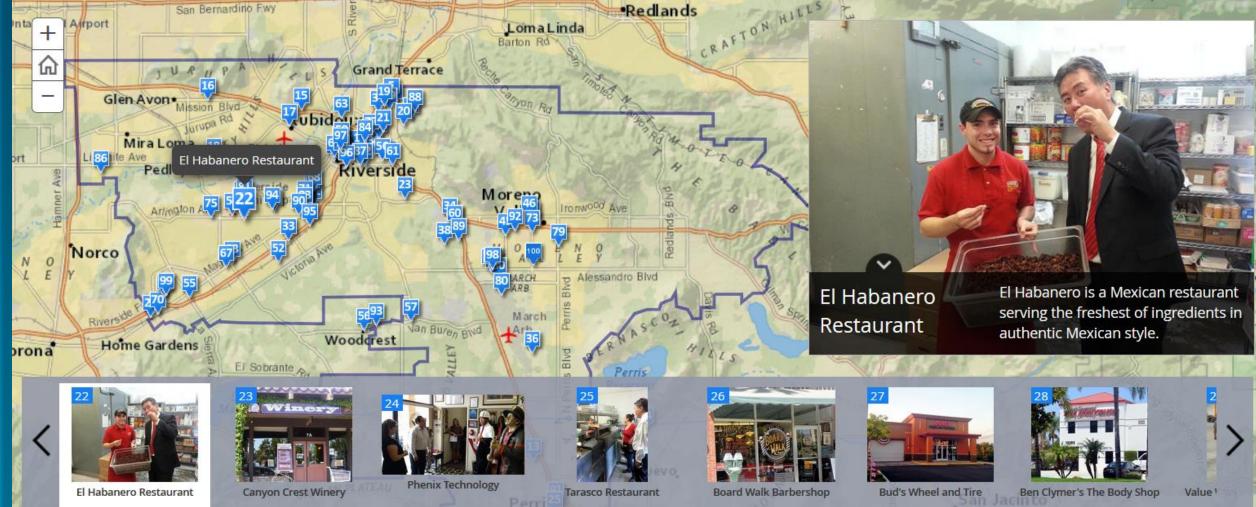
### **Inland Empire 100 Business Tour**

A story map 🚹 💆 🔗



Congressman Mark Takano





### **Maps Made Easy**



Industries Products Support & Services About Community

### ARCGIS BLOG

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Monthly Archives: April 2017

### Launch a Story Map Journal at a specific section

by Bern Szukalski on April 13, 2017



Story Map Journal is a very popular and versatile story map template, ideal for when you want to combine text with maps and other media. Examples include Mountains of Fire, Atlas for a Changing Planet, and many more found on the ... Continue reading →

Posted in ArcGIS Online, Story Maps | Tagged story map, Story Map Journal, Story Map Tip, Story Maps | 1 Comment

### Launch a Story Map Tour at a specific tour stop

by Bern Szukalski on April 13, 2017



Story Map Tour is one of the more popular Esri story map templates. It's useful when you want to present a set of photos or videos along with captions, linked to an interactive map. It's ideal for walking tours or ... Continue reading →

Posted in ArcGIS Online, Story Maps | Tagged story map, Story Map Tip, Story Map Tour, Story Maps, storytelling | 3 Comments

### Visualizing data in web apps: leveraging the platform

by Kristian Ekenes on April 13, 2017



The ArcGIS API for JavaScript contains powerful visualization capabilities that bring your data to life on the web. Some of these include using unclassified or classified color, size, opacity, and any combination of them to visualize numbers; unique symbols for ... Continue reading →

Posted in App Developers, Apps, Cartographic Design, Uncategorized, Web | Tagged arcgis, ArcGIS API for JavaScript, jsapi4, Platform, renderers, smart mapping, SmartMapping, Visualization, Web Apps | Leave a comment

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### **Technical Communities**

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Developer (648)

Editing (190)

Geodata (240)

Imagery (427)

Mapping (851)

Mobile (313)

Python (81)

Security (28)

### **Apps, Maps, and More**

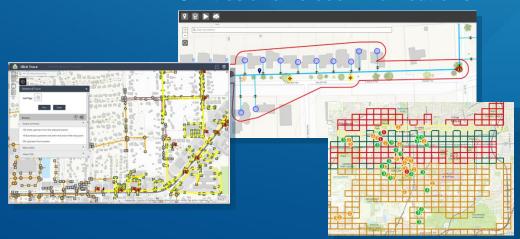
- Ready-to-Use
- **Best Practices**
- Configurable



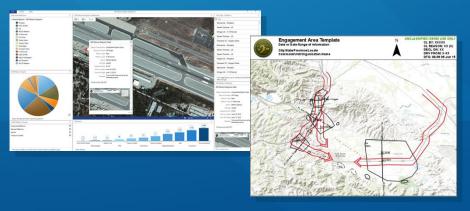
### **Public Safety and Emergency Management**



### **Utilities and Telecommunications**



### **Military and Security**

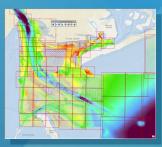


Fully Supported, Open Source, and Free

# Solution Products Provide Focused Applications

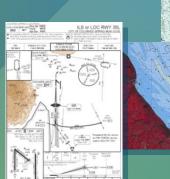
### **Production Mapping & Charting**





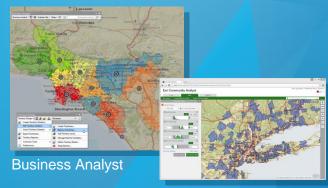
Maritime Chart

Bathymetry



Aeronautical Chart

### **Decision Support**



**Community Analyst** 



### **Specialized Areas**





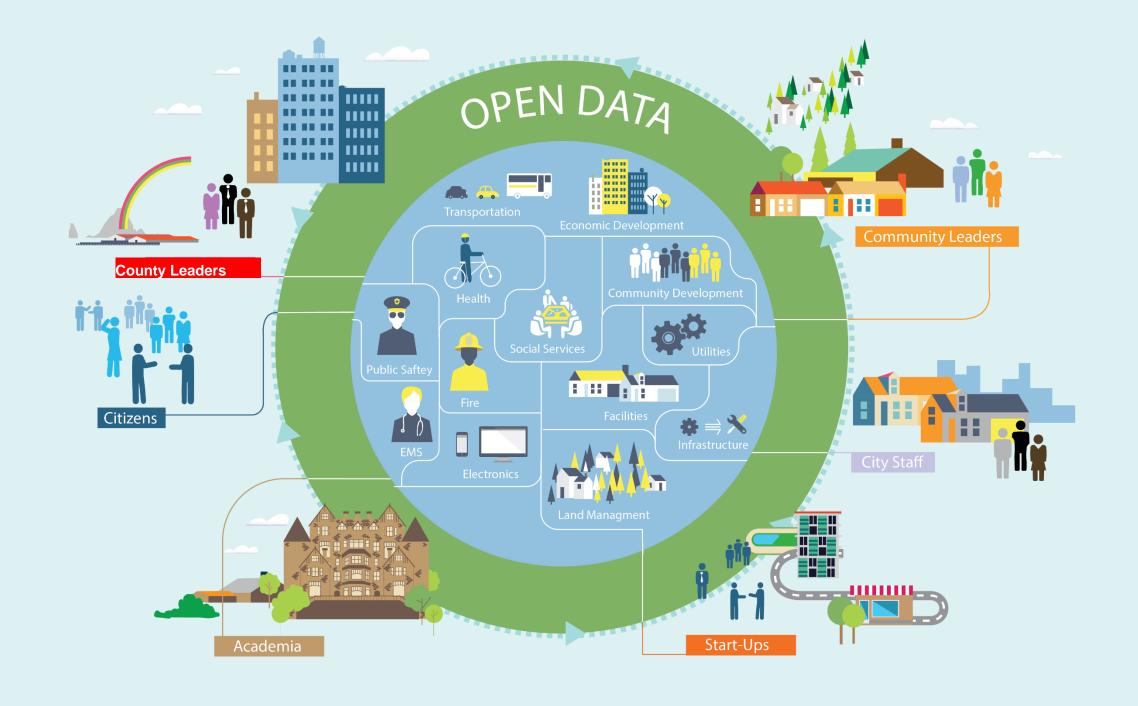
# A Platform for Civic Engagement

The Hub Approach

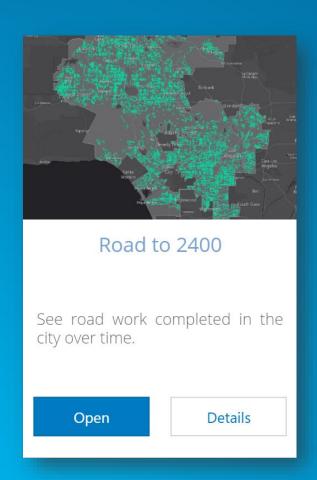


Citizens

DOT, Sanitation, Housing, Metro...



## Storytelling is Key



- Goal: Pave 2400 miles of road
- No clear way to track progress
- Data stuck in DWP, DOT, CFO, DGS
- Location is common denominator to visualize
- Registered all needed data in Open Data
- Built a story map to tell the narrative
- Communicates to constituents clearly

- Collaborative
- Open
- Timely

### Gillette Regional Water Supply Project

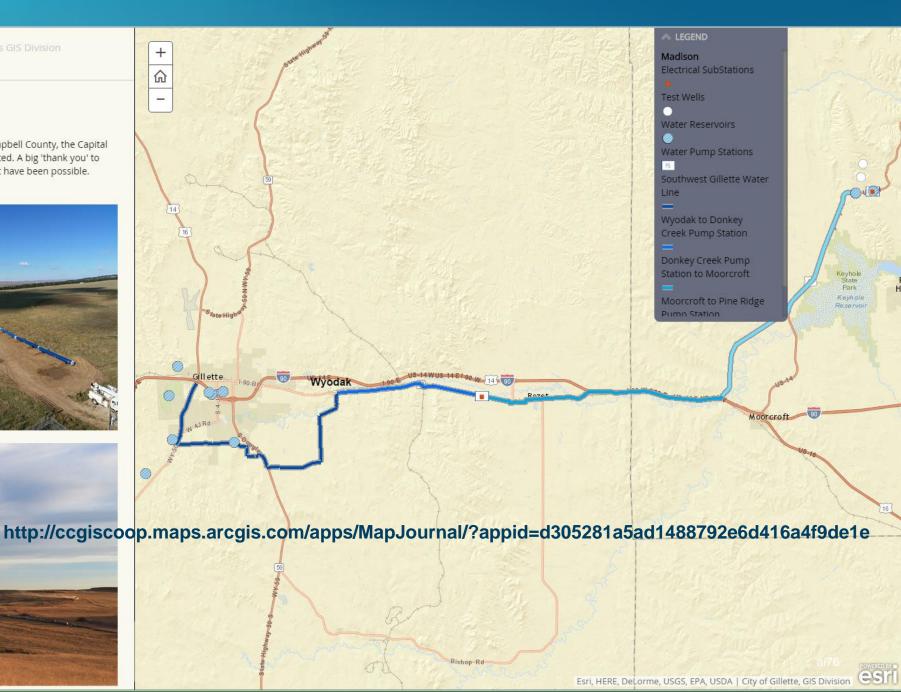
### Thank you!

### Capital Facilities Tax Ends 18 Months Early!

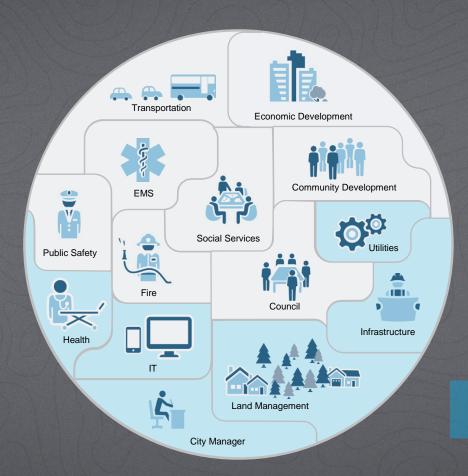
Due to the continued growth and vibrancy of the economy in Gillette and Campbell County, the Capital Facilities Tax ended in the first quarter of 2015, 18 months earlier than projected. A big 'thank you' to everyone for shopping locally - without your continued support this would not have been possible. Remember, we're all in this together.





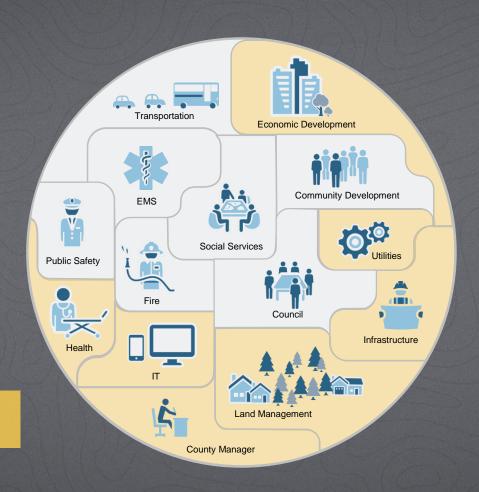


# Initiatives Cross Departments



**Clean Water** 

# Initiatives Cross Departments



**Economic Development** 



http://www.kauffman.org/kauffman-index/about/latest-release

- California, Texas, Arizona and Colorado were in the top 5 for highest startup activity in 2017 among the 25 largest states;
- Oklahoma, Wyoming, Alaska, Montana and Nevada had the highest startup activity in 2017 among the 25 smaller states; and
- The Austin, Los Angeles, San Diego and Las
   Vegas metropolitan areas also ranked in the top 5.

## Web GIS Creates New Connections Across Organizations

Providing an Open Platform for Collaboration and Innovation



V

"Business, government and citizens, frustrated by years of litigation and stalemate, have begun to turn to the *common good*, sometimes out of desperation, but more frequently out of hope.

\_ Former EPA Director Bill Ruckelshaus



Laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truth disclosed, and the manners and opinions change with the changes of circumstances, institutions must advance also and keep pace with the times.

