ENVIRONMENT AND NATURAL RESOURCES WEBINAR SERIES

GIS TRENDS IN ENVIRONMENT AND NATURAL RESOURCES

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NIKKI GOLDING

ENVIRONMENT AND NATURAL RESOURCES

Webinar Series

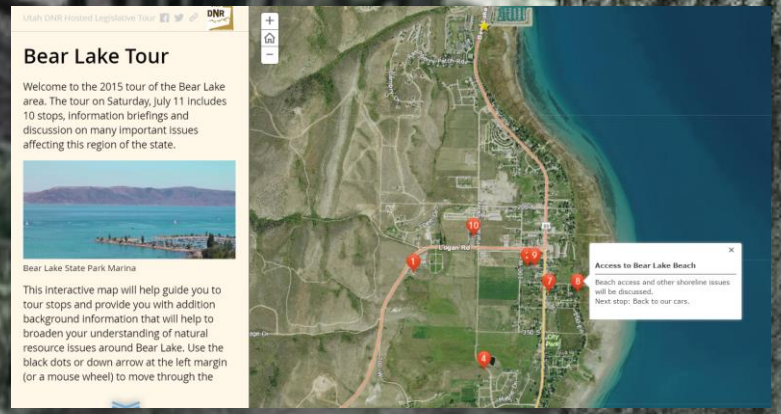
GIS Trends in Environment and Natural Resources
Today

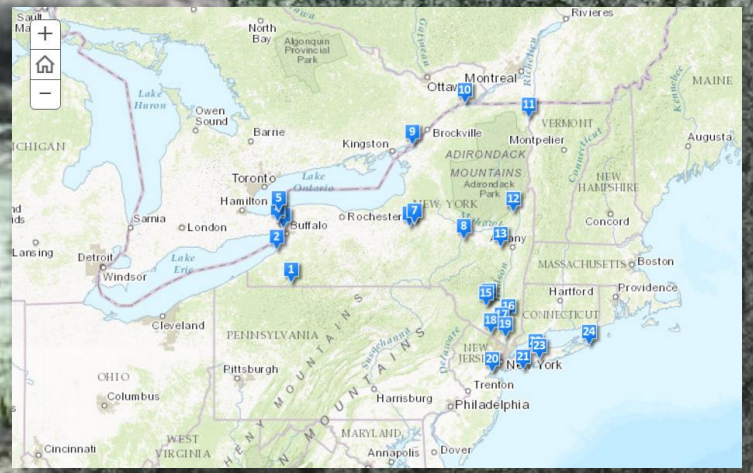
Improving Environmental Permit compliance and Inspection through GIS
June 1

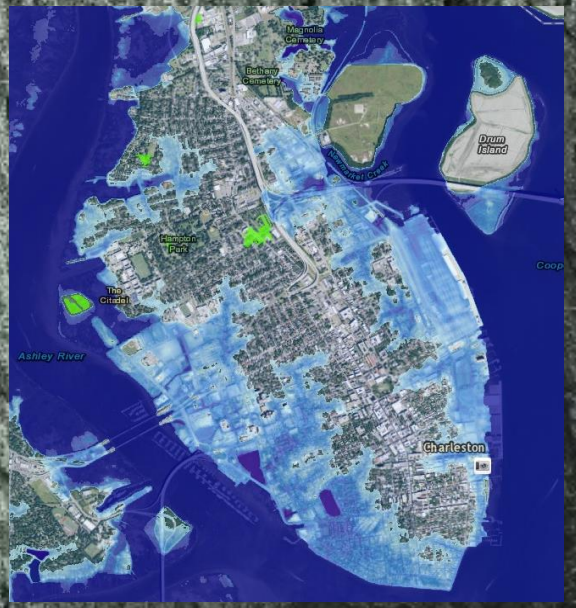
Improving Civic Engagement with GIS
August 3

Understanding Environmental Impacts through GIS
September – TBD

Water Quality Inspections
October - TBD


Utah DNR Hosted Legislative Tour
Bear Lake Tour
Welcome to the 2015 tour of the Bear Lake area. The tour on Saturday, July 11 includes 10 stops, information briefings and discussion on many important issues affecting this region of the state.
Bear Lake State Park Marina
This interactive map will help guide you to tour stops and provide you with addition background information that will help to broaden your understanding of natural resource issues around Bear Lake. Use the black dots or down arrow at the left margin (or a mouse wheel) to move through the
Access to Bear Lake Beach
Beach access and other shoreline issues will be discussed.
Next stop: Back to our cars.


Rivieres
North Bay
Algonquin Provincial Park
Ottawa
Montreal
MAINE
Lake Huron
Owen Sound
Barrie
Kingston
Brockville
VERMONT
Montpelier
Augusta
ADIRONDACK MOUNTAINS
Adirondack Park
NEW HAMPSHIRE
Toronto
Lake Ontario
Hamilton
NEW YORK
Rochester
Buffalo
Concord
Sarnia
London
Albany
Lansing
Detroit
Lake Erie
Windsor
MASSACHUSETTS
Boston
Hartford
Providence
Cleveland
CONNECTICUT
PENNSYLVANIA
Pittsburgh
New York
OHIO
Columbus
Harrisburg
Trenton
Philadelphia
WEST VIRGINIA
MARYLAND
Cincinnati
Annapolis
Dover


Magnolia Cemetery
Bethany Cemetery
Drum Island
Hampton Park
The Citadel
Ashley River
Charleston

TRENDS INFLUENCING GOVERNMENT

McKinsey and Company

#1 Mobile Internet

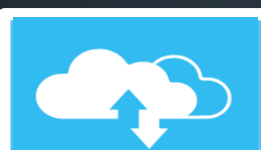
Increasingly inexpensive and capable mobile computing devices and internet connectivity

#2 Automation of knowledge work

Intelligent software systems that can perform knowledge-work tasks

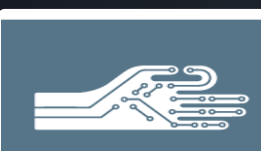
#3 Internet of Things

Networks of low-cost sensors and actuators for data collection, monitoring, decision making, and process optimization



#4 Cloud

Use of computer hardware and software resources to deliver services over the internet or network



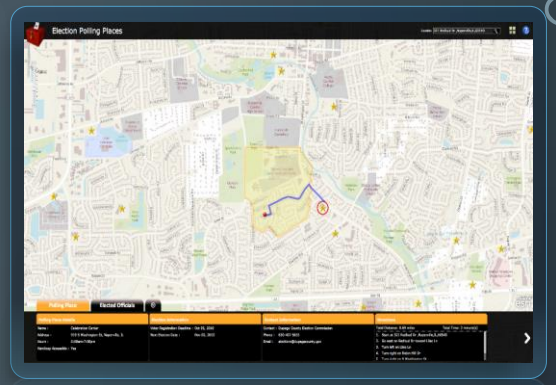
#5 Advanced robotics

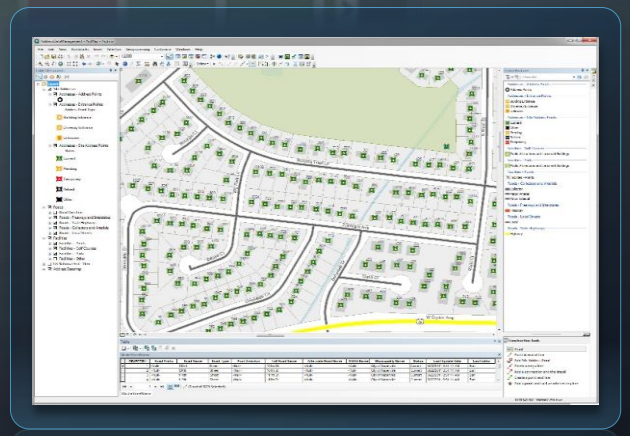
Increasingly capable robots with enhanced sensors, dexterity, and intelligence; used to automate many tasks

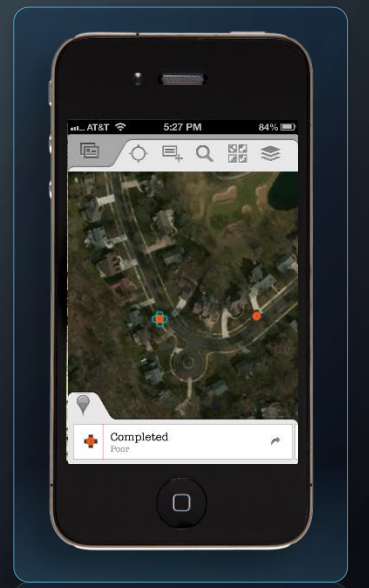
LOCATION FOR THE ORGANIZATION

Maps as a standard framework for communication

- Visualization
- Locators
- Dashboards
- Collectors
- Story Maps
- Open Data / Citizen Engagement







Mission

To help environment and natural resource agencies leverage location-based information to:

1. Deliver improved service,
2. Make better decisions, and
3. Effectively engage citizens.

GIS PROVIDES THE FRAMEWORK AND PROCESS

For Applying Geography

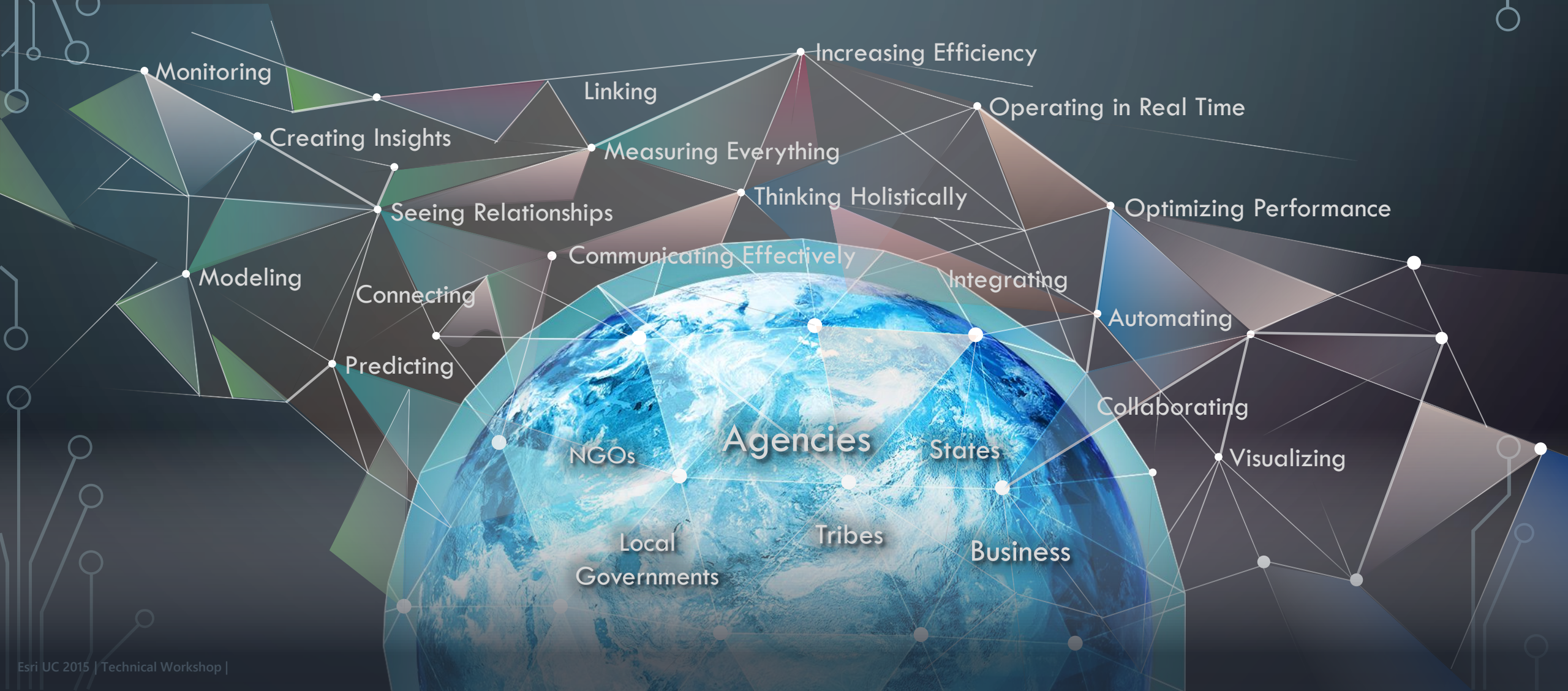
Creating Understanding

Becoming Essential to Everything We Do

. . . Creating More Integrating Government

GIS IS HELPING US BE SMARTER

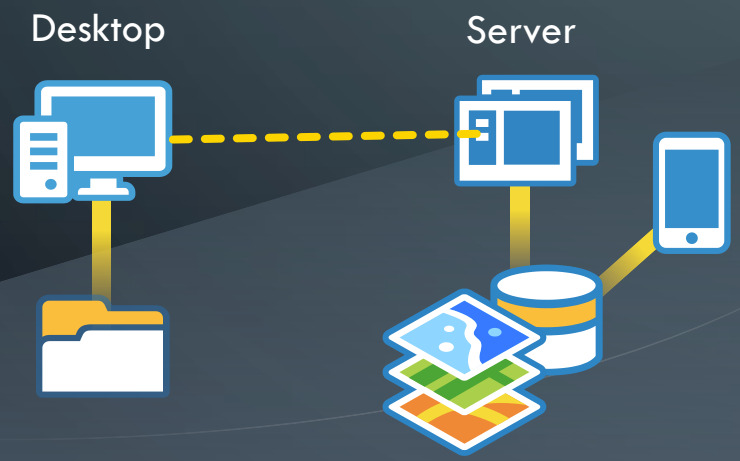
Improving How We Manage and Make Decisions



WEB GIS IS A TRANSFORMATIONAL ARCHITECTURE

Opening, integrating and simplifying everything

Systems of Record



Web GIS

Bringing Together Your Existing Systems . . .
and Creating a System of Engagement

WEB GIS EMPOWERS GIS PROFESSIONALS

Expanding Your Impact Across the Organization

Providing Everyone the Geographic Advantage

Web GIS Empowers Everyone in Your Organization

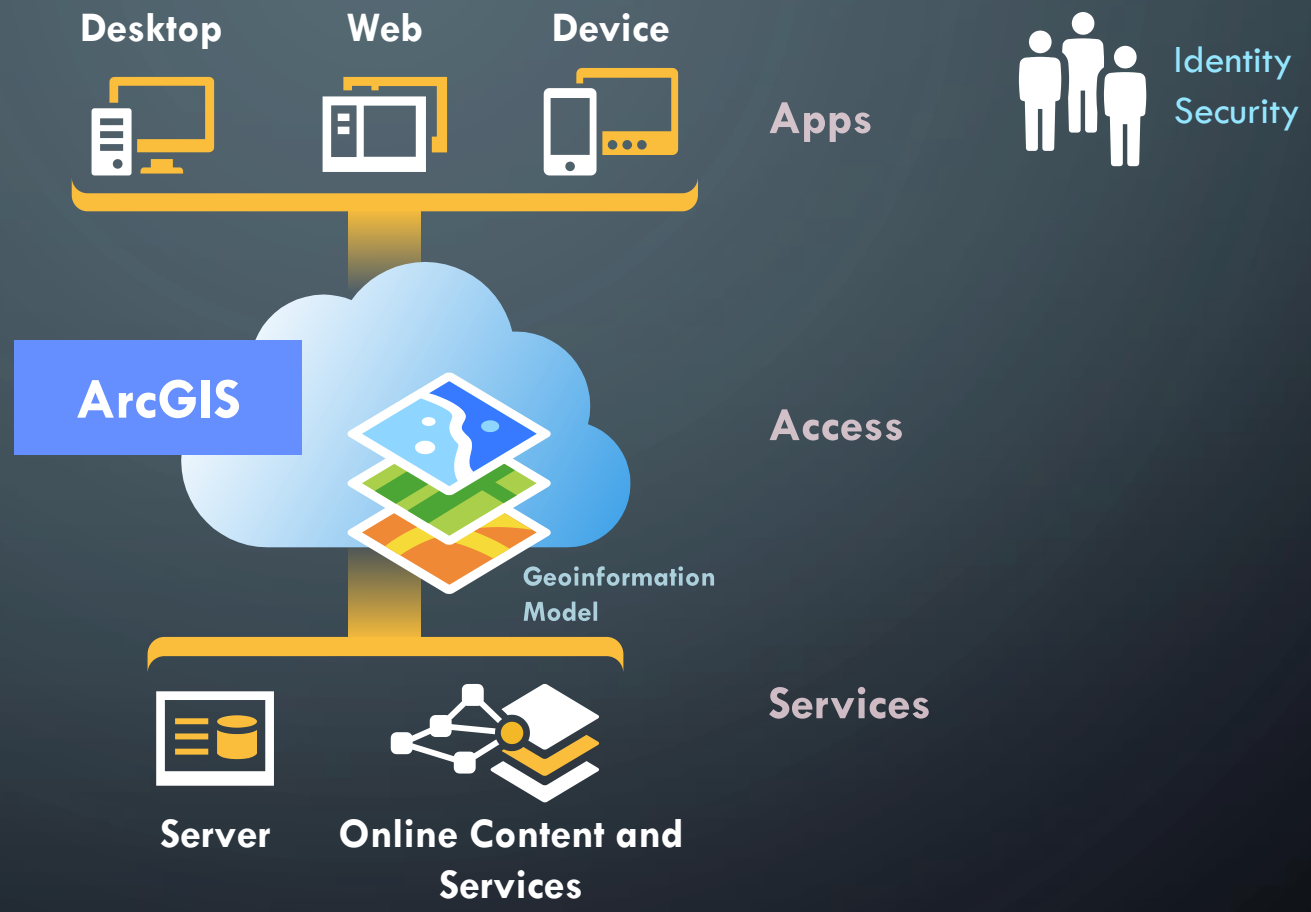
To Discover, Use, Make, and Share Maps from Any Device, Anywhere, Anytime

…Making it Easy for Everyone to See How Geography Influences Their Decisions

ArcGIS

An Integrated Web GIS Platform

Web GIS



Providing Mapping, Analysis, Data Management, and Collaboration

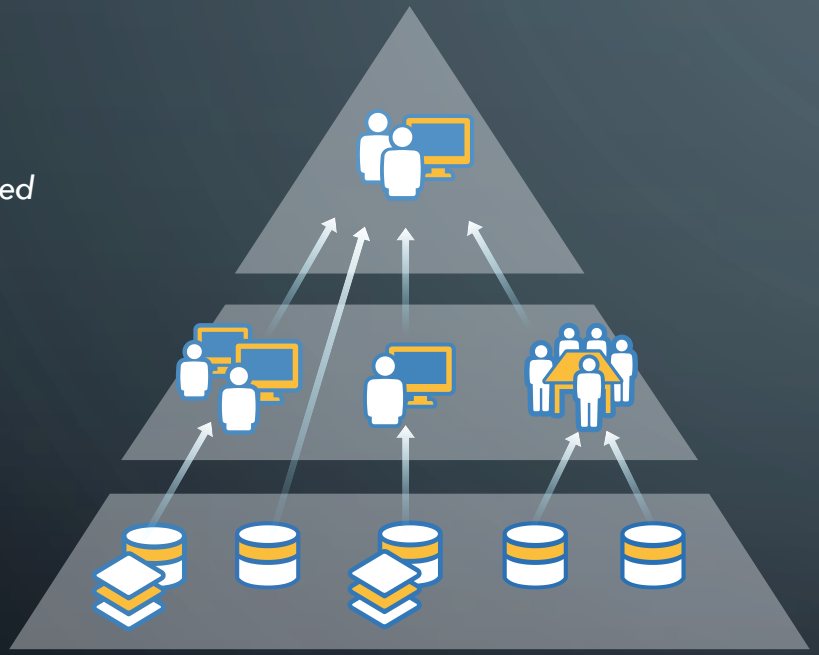
Available on the Open Web . . .
. . . and On-Premises

WEB GIS INTEGRATES GOVERNMENT

Creating Shared Information and Facilitating Collaboration

Hierarchical

Stovepiped Data



Networked

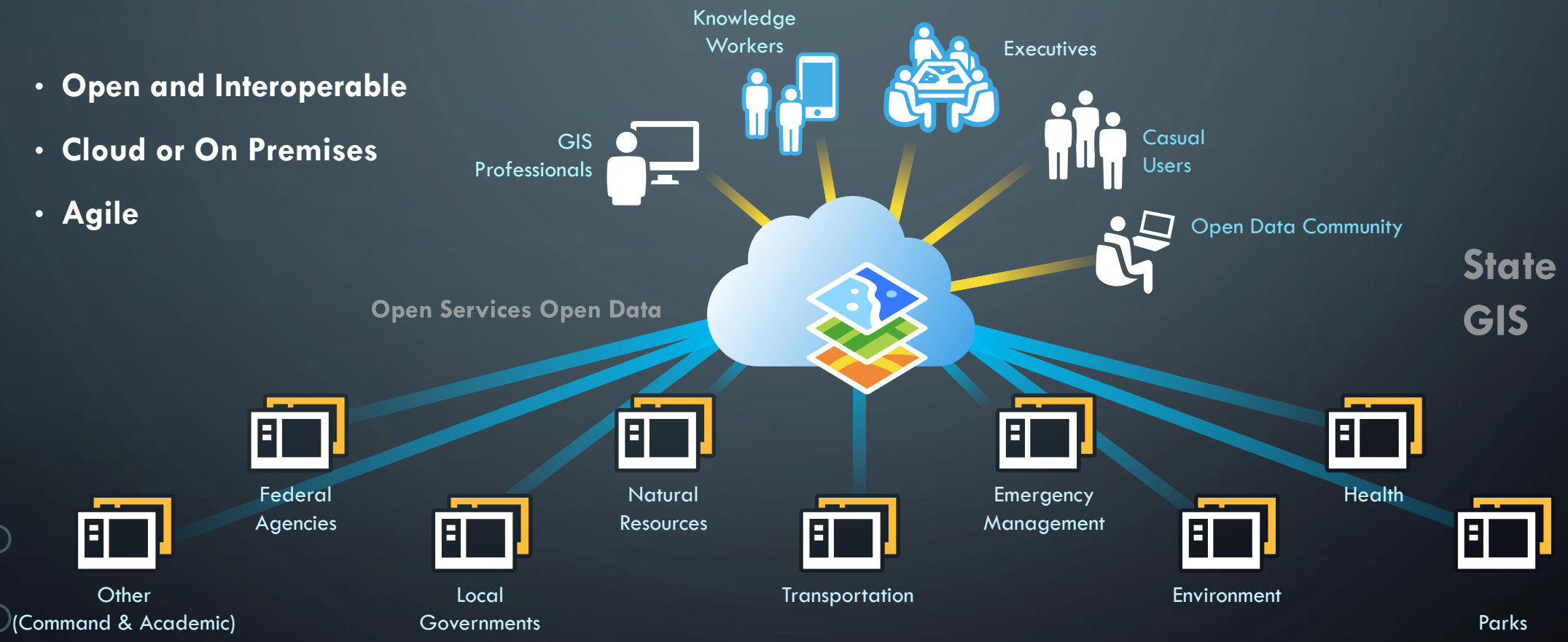
Shared Geographic Understanding

Opening Access and Engaging Everyone

WEB GIS

Provides States a New Pattern for Integration

- **Open and Interoperable**
- **Cloud or On Premises**
- **Agile**

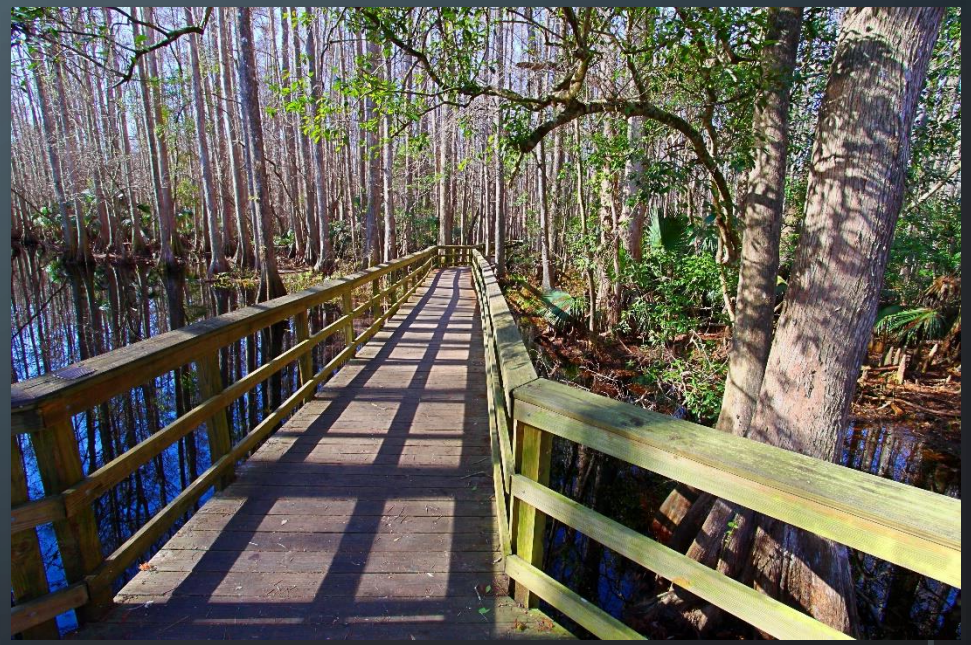


Leveraging the Value of Shared Information

APPLYING WEBGIS TO MEET ENVIRONMENTAL AND NATURAL RESOURCE PRIORITES

ORGANIZATIONS WITH A COMMON MISSION

- Management and protection of natural resources
- Land management and recreation
- Ecosystem restoration
- Species and habitat mapping / conservation
- Public engagement



MANAGEMENT AND PROTECTION OF NATURAL RESOURCES

- Water
- Energy
- Air and Climate
- Land and Ecosystems

Source: ucanr.edu

RECREATION AND LAND MANAGEMENT

- Recreation
  - Water Access
  - Park
  - Wildlife Management Areas
  - …
- Land Management
  - Soils
  - Infrastructure
  - Controlled Burns
  - Land Use/Land Cover
  - Species Management (Plant/Vegetation and Animal)

ECOSYSTEM RESTORATION

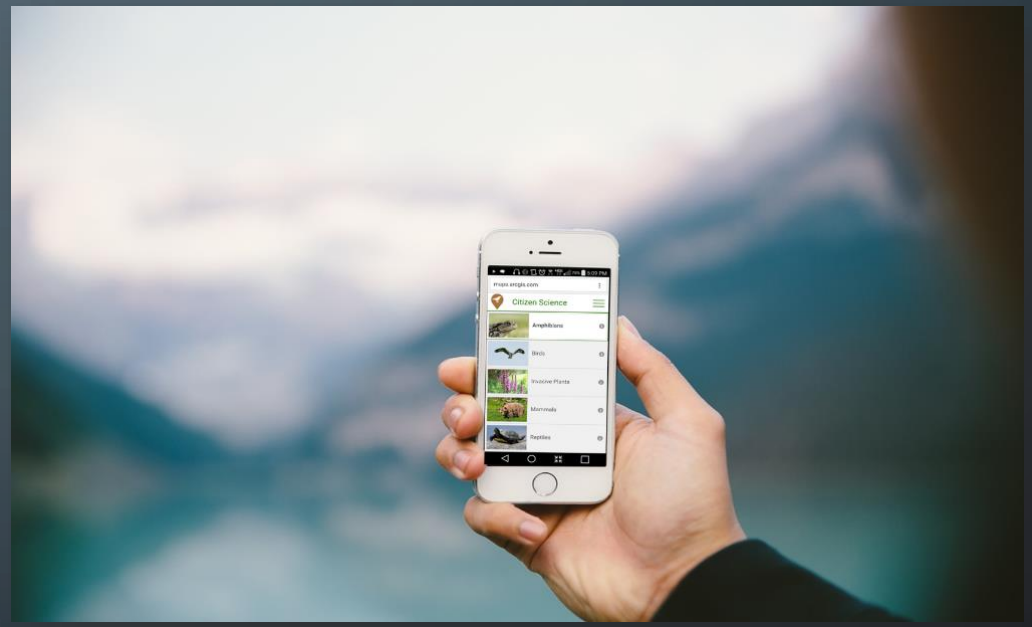
- Land
- Water
- Habitat and Wetlands
- Injured Plant and Animal Species

SPECIES AND HABITAT MAPPING

- Wildlife Corridor
- Plant and Animal Habitat
- Species Distributions
- Impact Analysis

PUBLIC ENGAGEMENT

- Citizen Science
- Education
- Status and Notification
- Transparent Communication
- Data Delivery



GETTING STARTED. NEXT STEPS.

Transportation

- Railroad Crossing Inspection
- Road Closures
- Bridge Inventory
- Environmental Impact
- Crash Analysis
- Guardrail Inventory
- Pavement Marking Inventory
- Sign Inventory
- Signal Inventory

Public Health

- Beach Monitoring
- Water Quality Monitoring
- Restaurant Inspection
- Restaurant Inspection Results
- My Health Services
- Birth Outcomes
- Model Organization

Secretary of State

- Early Voting
- Polling Place Locator
- Election Results
- My Elected Representative

Emergency Management

- Situational Awareness
- Flood Planning
- Special Event Planning
- Emergency Assistance
- Evacuation Zones
- Road Closures
- Damage Assessment
- My Hazard Information
- EM Maps
- Model Organization
- Public Information Map
- Local Impact Map
- Road Closures
- CAMEO Tools
- Incident Briefing
- Health and Safety Reports
- Damage Assessment Dashboard
- Floodplain Inquiry
- Emergency Assistance
- Evacuation Zone

Environment and Fish and Wildlife

- Permit Status
- Permit Inspection
- Hunting License Locator
- Water Access Locator
- Wildlife Management Area Locator
- Environmental Impact Assessment
- Environmental Impact Polling
- Trail Locator
- Citizen Science
- Model Organization
- Impact Briefing
- Water Quality Inspections/Results

Economic Development

- Live, Work, and Locate
- Incentive Zones
- Site Selector
- Event Locator

GIS/IT

- Executive Dashboard
- Briefing Book
- Community Parcels
- Community Addresses
- Maps and Apps Gallery
- Crowdsource Manager
- Crowdsource Reporter
- Service Catalog/Hosted Services
- Model Organization
- PLSS

ARCGIS FOR STATE GOVERNMENT

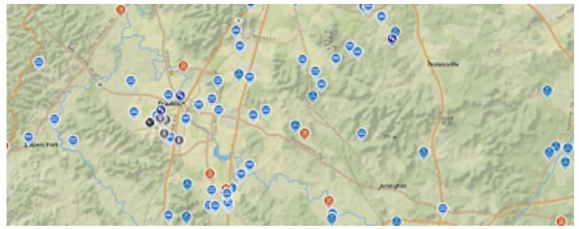
Environment and Natural Resources

Enable constituents to discover timely information around permitted activities, understand the water quality landscape in the state, and provide a means to discover recreational activities in the state.

Facilitate Permit Inspection

An application configuration that enables people to collect permit compliance information in the field. The information can be quickly submitted back to the office in support of reporting compliance status surrounding development activities.

Download



Determine Permit Status

Permit Status is an application that allows stakeholders to search for permitted activities, determine the status of permits, and find out what type of activity is going on close by.

Download

Try it Now

Get Started

Learn how to leverage your geographic information and the ArcGIS Platform to improve state activities.

GET STARTED

Online Mapping Platform

Our ArcGIS Online model implementation helps you organize your geographic information and promote collaboration in your organization.

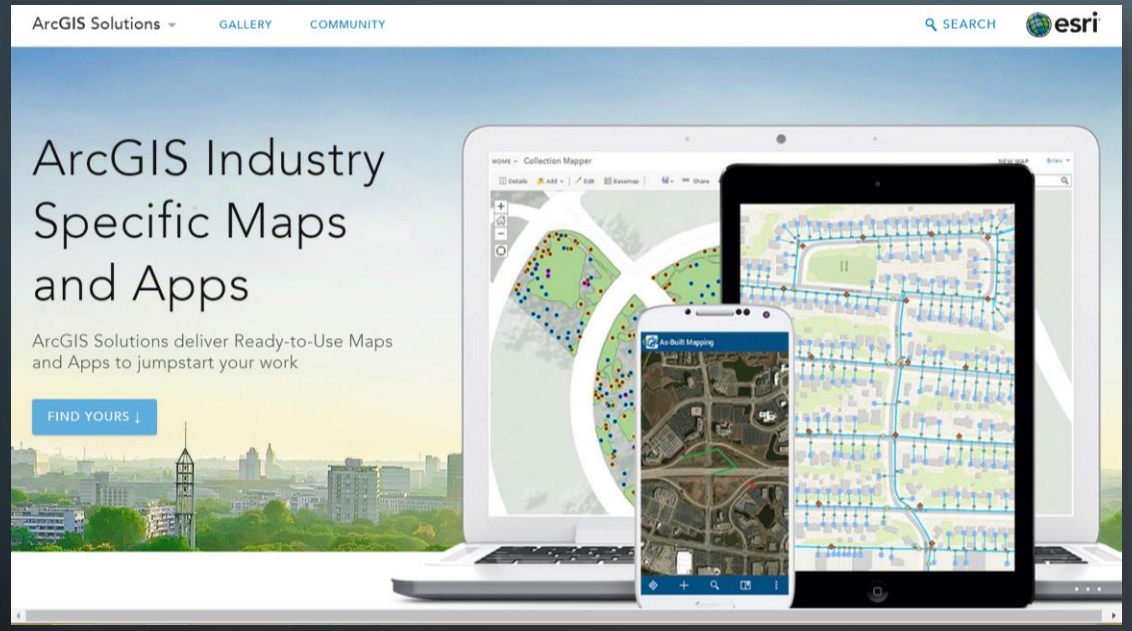
LEARN MORE

From our Blog

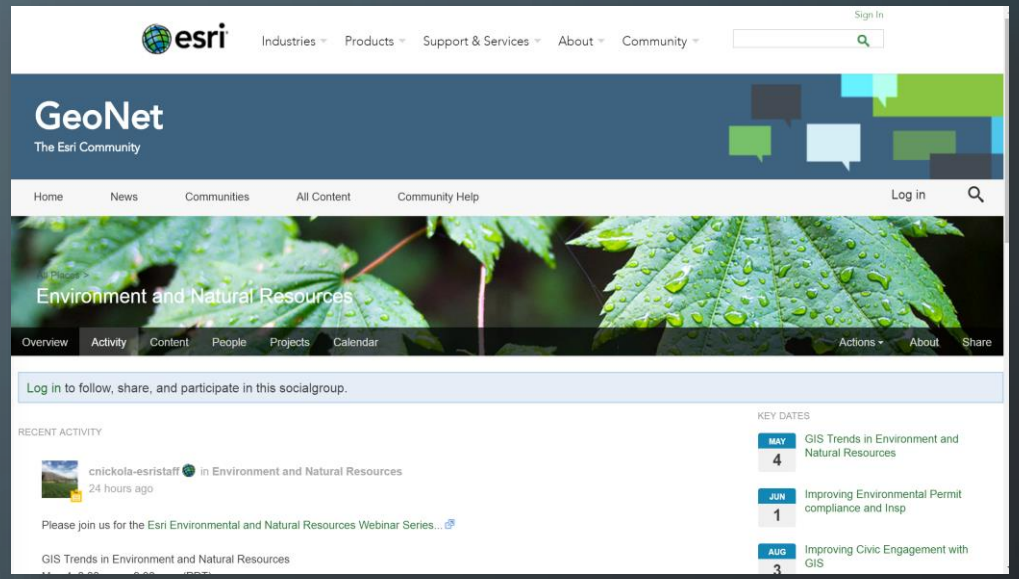
Community Contributions Update

THE COMMUNITY

It's not just about the technology



Destination where organizations can collaborate



Have ongoing dialog, share success stories and learn from others

Questions

Please enter in Question form

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Thank You

http://solutions.arcgis.com

https://geonet.esri.com/groups/env

@ArcGISStateGov

http://esri.github.com

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