

Esri Forestry GIS Solutions Conference
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Mississippi Wildfire and Incident Tracking System

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AGENDA

- Introduction
- Mississippi Forestry Commission's Requirements
- Technology Solution
- Demo
- Next Steps

MISSISSIPPI FORESTRY COMMISSION

- Mission: provide active leadership in forest protection, forest management, forest inventory and effective forest information distribution, necessary for Mississippi's sustainable forest-based economy.



ORGANIZATIONAL STRUCTURE

- Board of Commissioners (Appointed by Governor)
- State Forester
 - Departments
 - Business Support
 - Forest Information
 - Forest Management
 - Forest Protection
 - Forest Health
 - Seven District Foresters
 - Assistant District Foresters
 - Service Foresters
 - Forestry Technicians
 - Forest Rangers



MISSISSIPPI FORESTRY COVER



Legend

	Water - 773,000 Acres
	Open - 9,956,360 Acres
	Regeneration - 2,662,719 Acres
	Pine - 6,820,741 Acres
	Mixed Pine / Hardwood - 2,558,607
	Hardwood - 7,958,909 Acres

Between 1992 and 2008 Mississippi experienced an increase in forested acreage of 1.4 million acres with approximately 1 million acres of that increase being in Hardwood forests.

FOREST INFORMATION

- Supports all Mississippi Forestry Commission program areas by providing information, program promotional activities, and program publicity.
- Utilizes mass media outlets (e.g., radio, television, and newspaper) to release forestry and agency information to the public at large.
- Departments:
 - Informational Material Development
 - Public/Media Relations
 - Outreach / Minority Outreach
 - Firewise



FOREST PROTECTION

- **Mandated to protect the state's forestland from wildfire.**
- **Department includes:**
 - **Fire Services**
 - **Wildfire Suppression**
 - **Burn Bans**
 - **Burn Permits**
 - **Aviation**
 - **Communications**
 - **Forest Protection Grant Programs**
 - **Fire Law Enforcement**
 - **Firewise / Fire Education**



FOREST HEALTH

- Provides forest pest detection, evaluation and control recommendations for all private and state-owned timberlands as well as urban areas.
- Conducts at least one statewide aerial survey each year and additional surveys when needed. Insect and disease spots are ground checked to determine the exact cause and extent of damage.



Southern Pine Beetle



Cogongrass



Redbay Ambrosia Beetle

SCOPE OF PROJECT

- **The basic purpose of the Wildfire Incident and Permit Tracking (WIPT) application is to record data for individual burns and fires into their respective databases and to display permitted fires, wildfires and MFC resources in real-time as data is entered via:**
 - **Permit Manager**
 - **Incident Manager**

MFC USER REQUIREMENTS

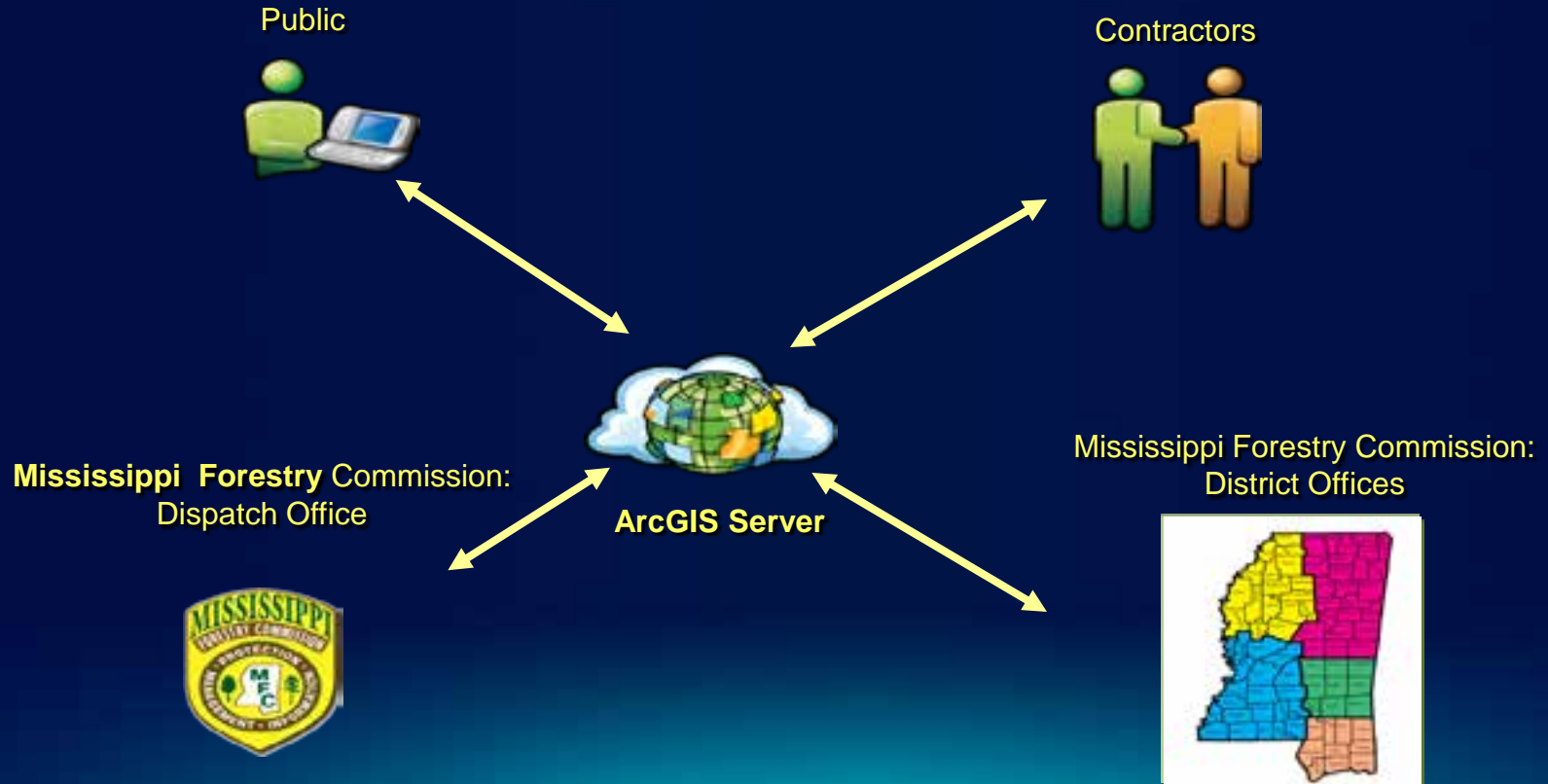
- Record and map all permits as issued
- Convey live info to others
- Record wildfires and dispatch information
- Utilize customer number system
- Utilize drop-down menus
- Map weather parameters
- Location for acreage burns
- Customer history
- State inventory of fire managed land
- Records can be edited and deleted at the dispatch center level
- Real-time data entry (and display)
- Link database to fire report system
- User interface with smoke sensitive areas



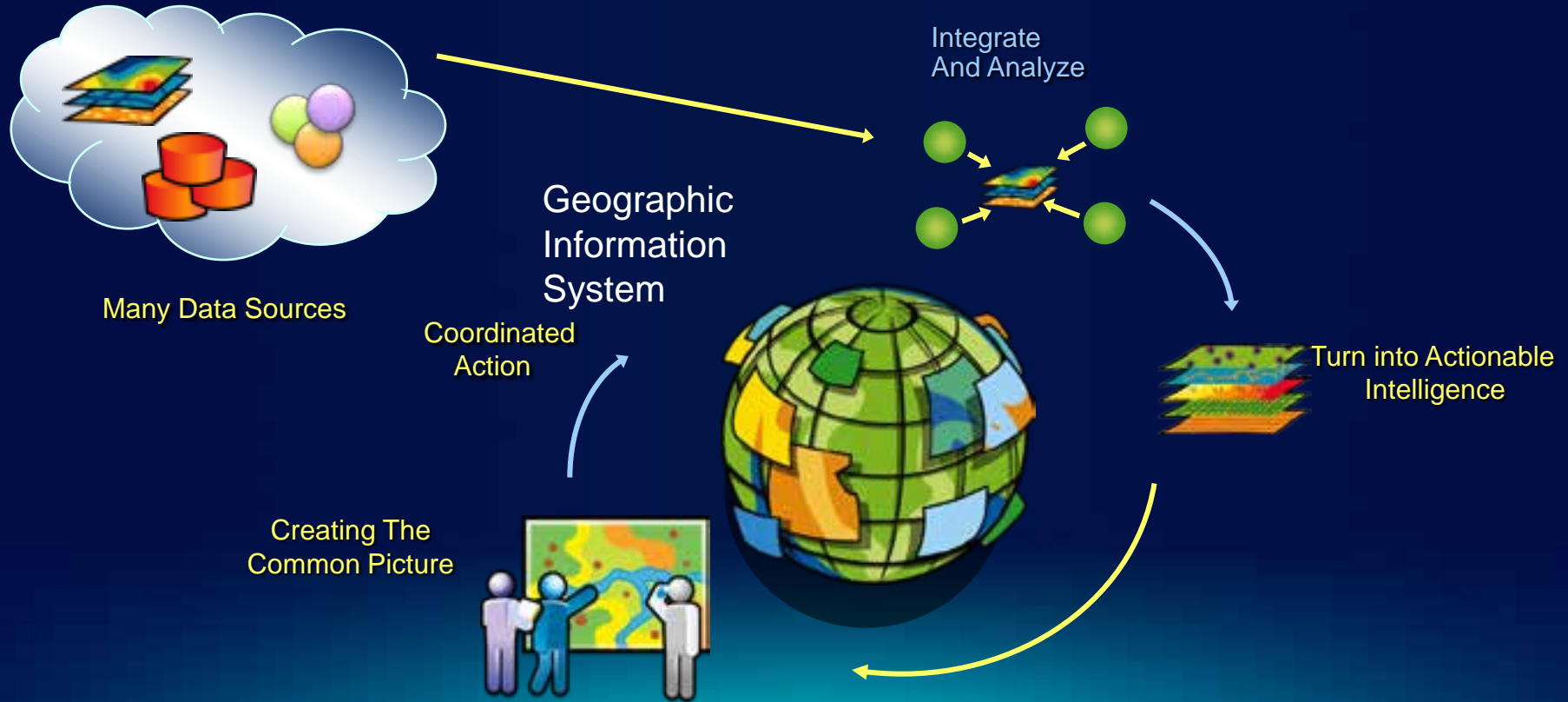
BENEFITS

- Inter-Agency Sharing of Information
- MFC Workflow Enhancement
- Improved Data
- Improved Customer Database

DATA DISTRIBUTION



GEOGRAPHIC APPROACH



ESRI TECHNOLOGY SOLUTION

- **ArcGIS Server 10.0, SP4**
- **ArcSDE 10.0. SP4**
- **ArcGIS Flex Viewer (2.5)**
- **Windows Server 2008 R2**
- **SQL Server 2008**



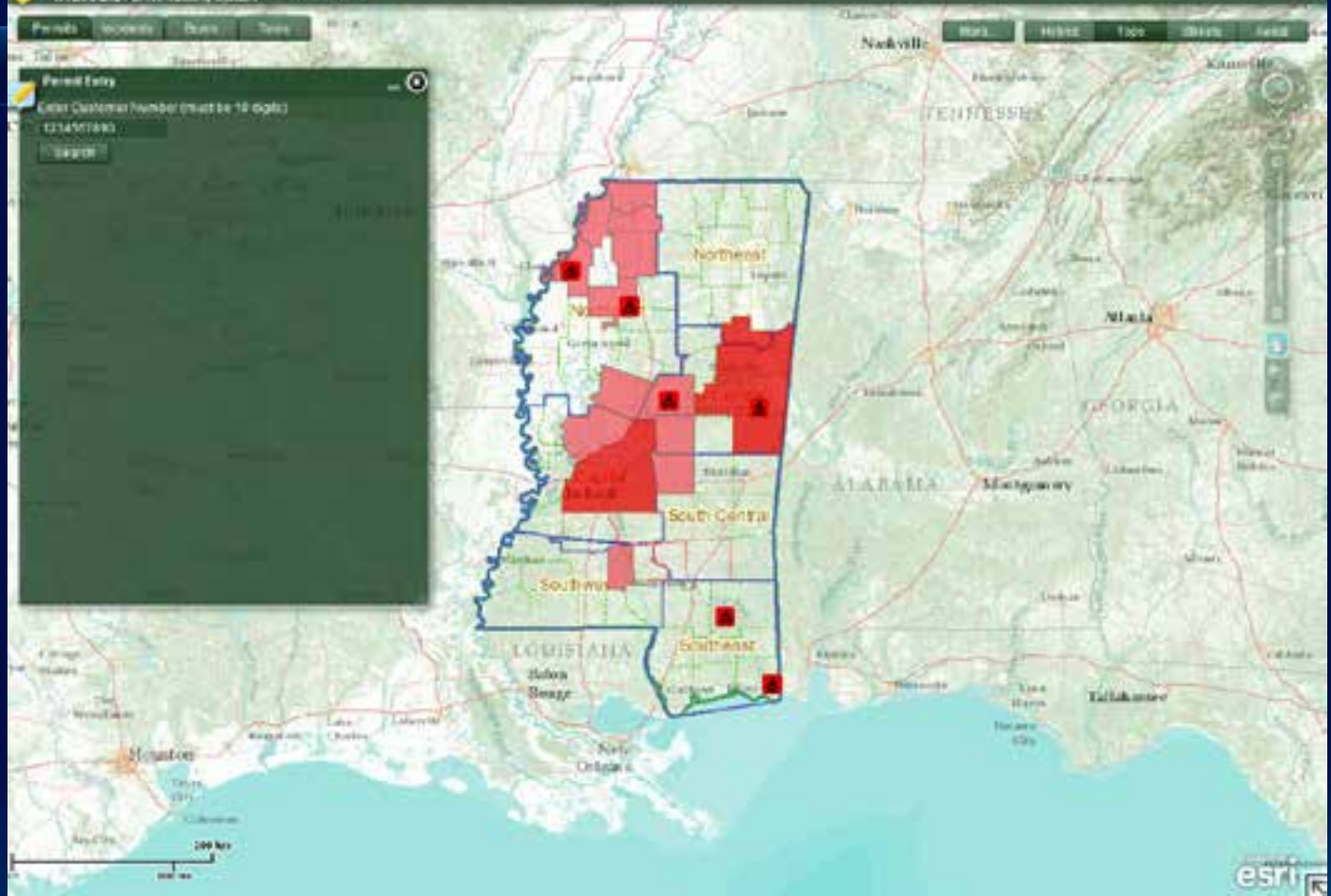
Permits | Licenses | Rules | Tools

Map | Home | Tools | About | Help

Permit Entry

Enter Customer Number (must be 10 digits)
0314507883

SEARCH

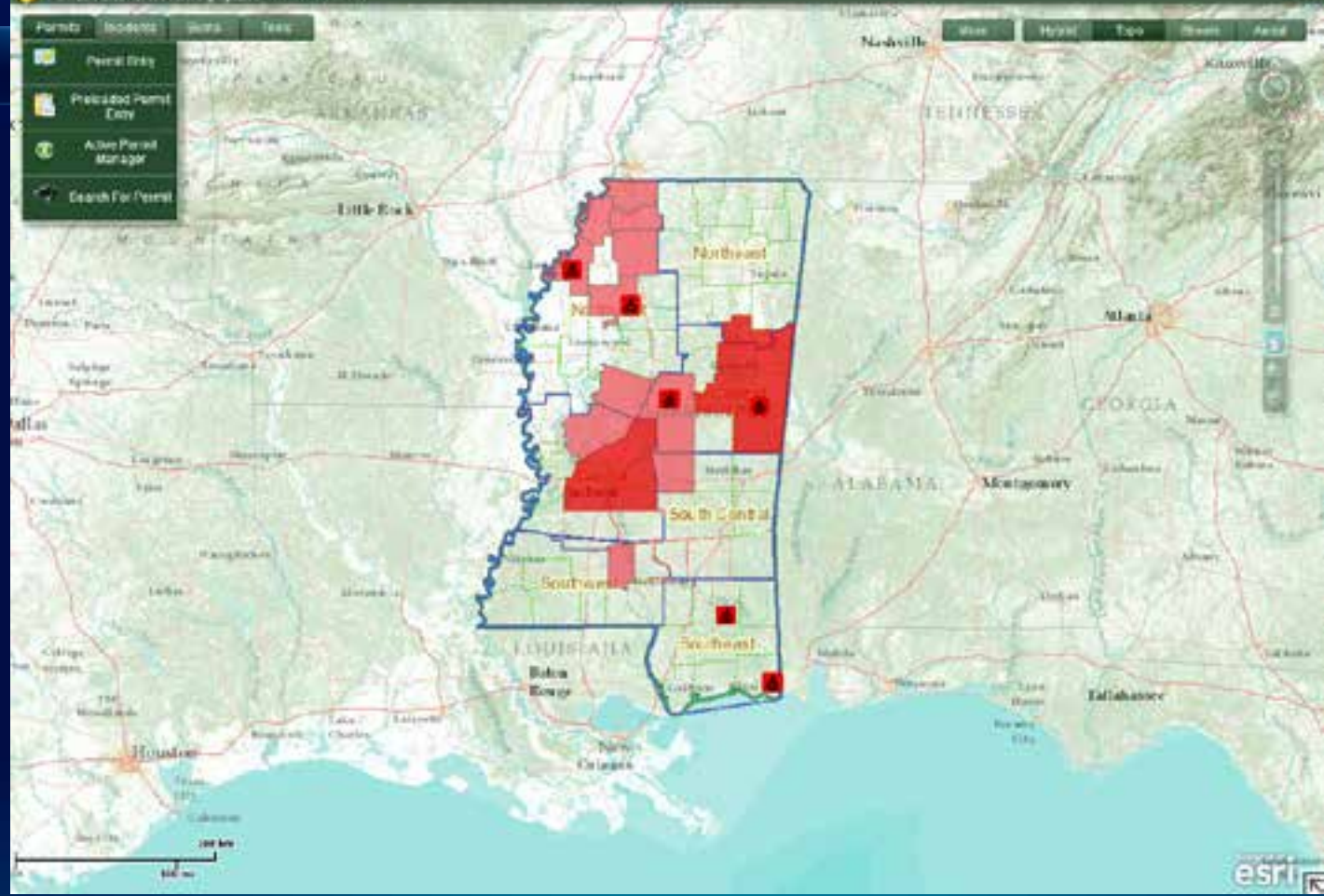




Permits | Locations | Search | Tools

- Permit Entry
- Preloaded Permit Entry
- Active Permit Manager
- Search For Permit

Map | Home | Tools | Search | Add





Home | Projects | Issues | Tools

Map | Filter | Tools | Details | About

Parcel Entry

First Name:

Last Name:

Address:

City:

State:

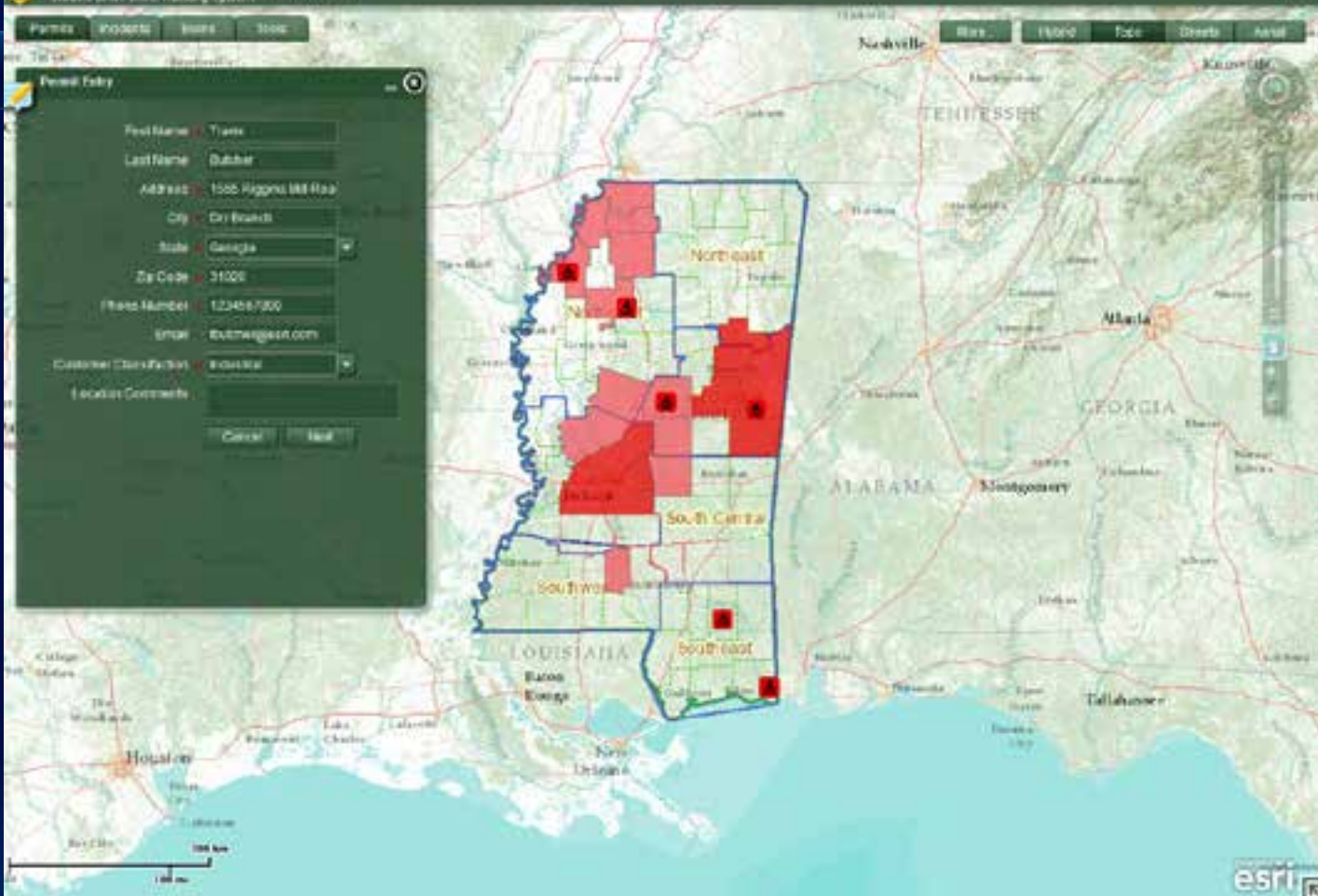
Zip Code:

Phone Number:

Email:

Customer Classification:

Location Comments:





Permits Incidents Burns Tools

TOFG

Wildfire Entry

Enter Land Owner Information

Same as Custom Location

First Name

Last Name

Phone Number

Address Coordinate Map

Address

City

Zip Code

Get Address

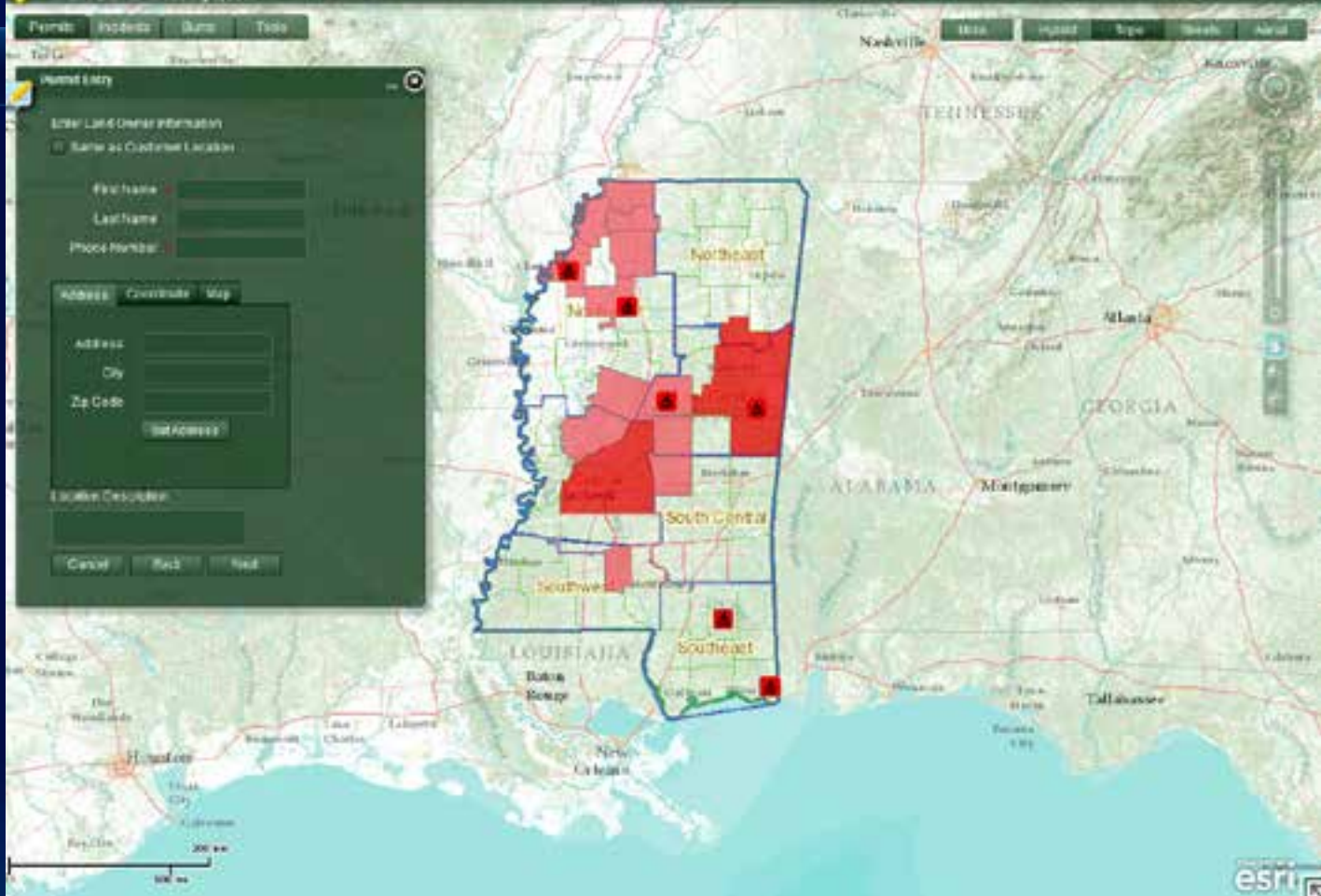
Location Description

Cancel

Back

Next

Info Legend Style Search Aerial



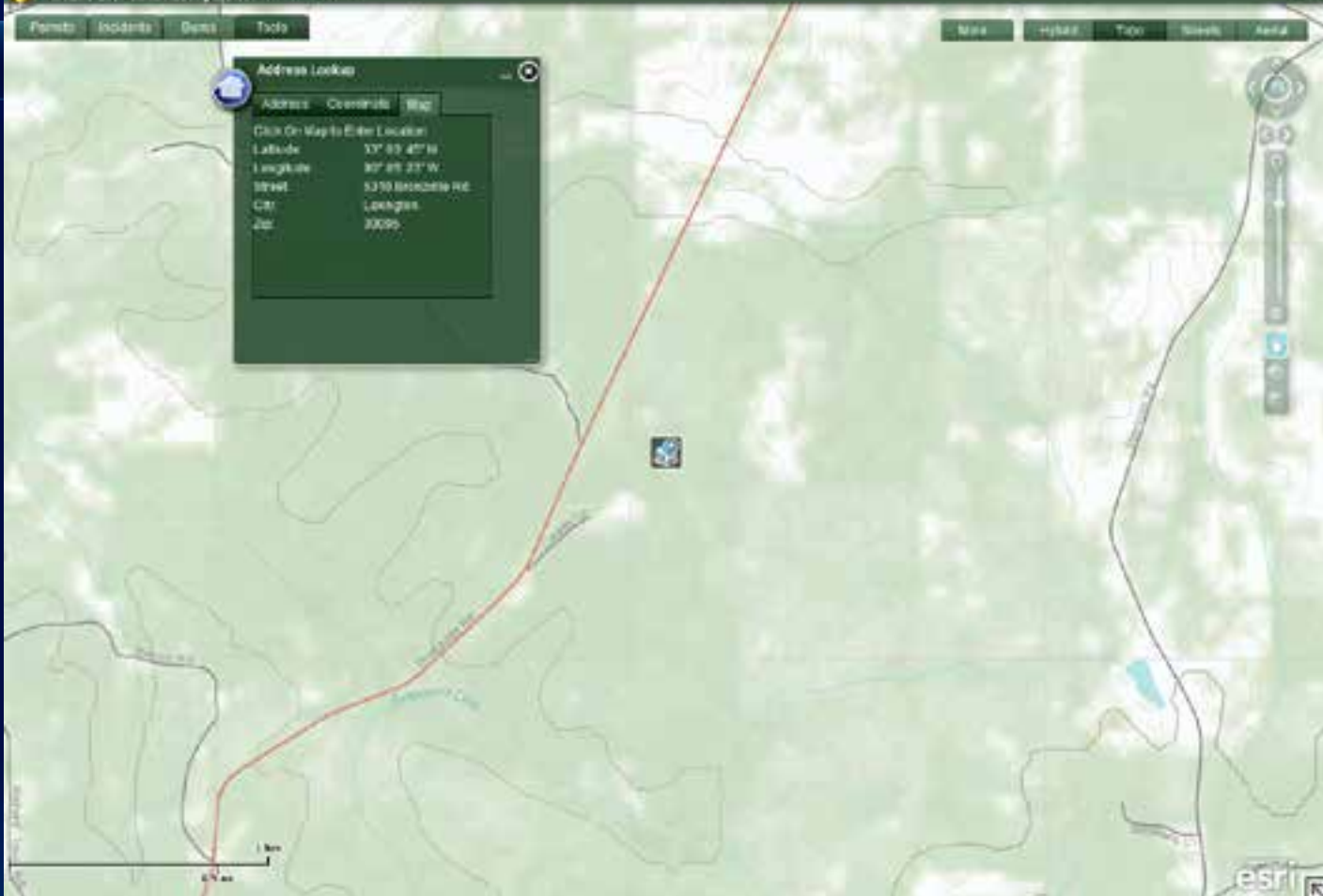


Permits Incidents Demos Tools

Map Hybrid Topo Streets Aerial

Address Lookup

Address	Coordinates	Map
Click On Map to Enter Location		
Latitude	33° 53' 47" N	
Longitude	90° 45' 27" W	
Street	5370 Brookside Rd	
City	Longview	
Zip	39095	





Home Incidents Alerts Tools

Home Incident Tools Alerts Aerial

Active Incident Manager

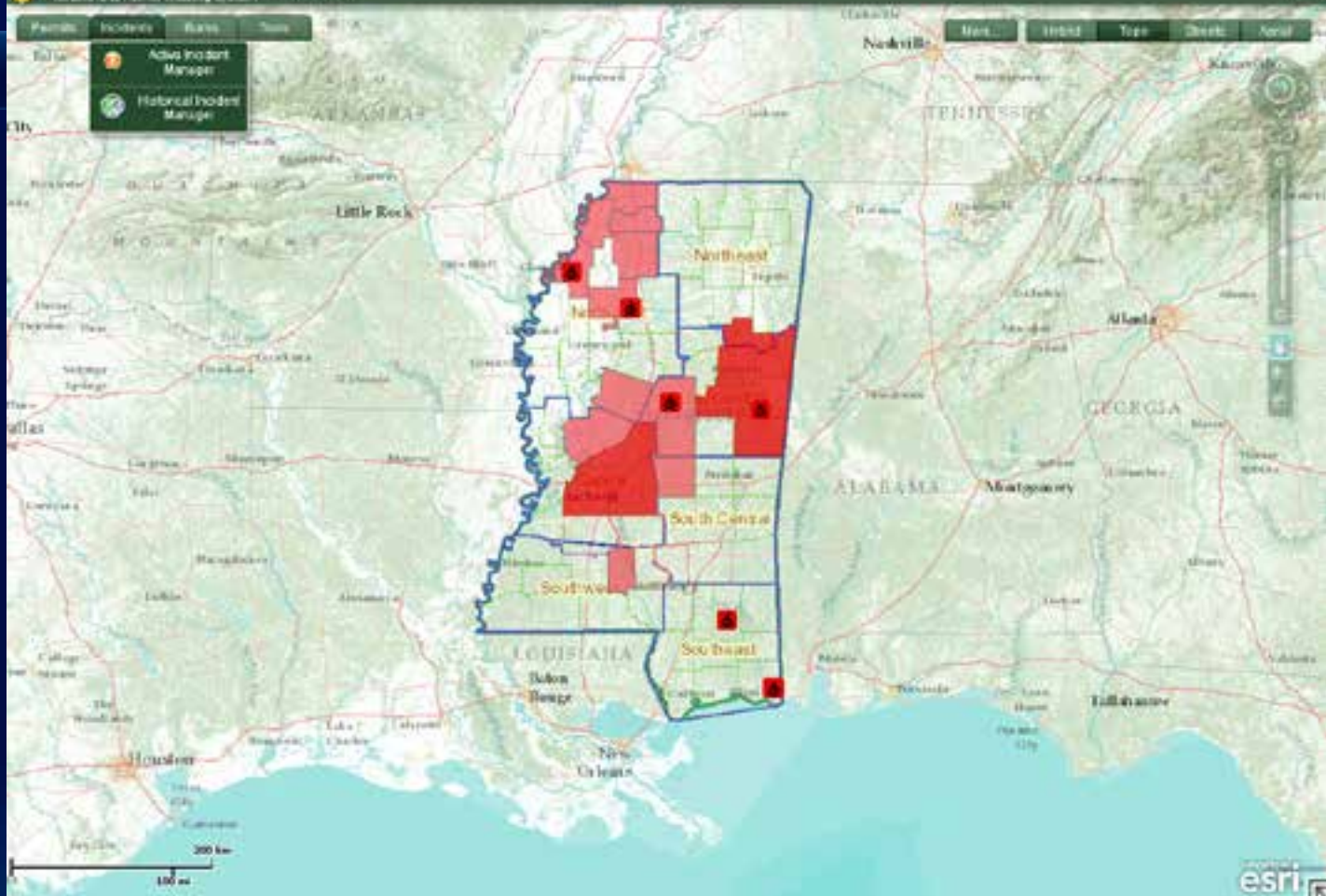
Choose District: [dropdown]
Choose Unit: [dropdown]
Choose County: [dropdown]
Dispatcher: [dropdown]
Specific Incident: **FY2012-1620010**

Show Available Resources Show Alerts Only

Total Incidents: 194

Incident Name	West Gullet Fire
Response ID	FY2012-0150002
County	Quitman
District	Fire
Reported Date	07/19 03:07:00 12
Response Type	Wildfire
Incident Name	FY2012-1620010
Response ID	FY2012-1620013
County	Monroe
District	Outback/office
Reported Date	11/23 03:08:00 12
Response Type	Wildfire
Incident Name	1661
Response ID	FY2012-0570064







Home | Incidents | Burns | Tools

Map | Layers | Tools | Search | Help

Historical Incident Manager

Choose District:

Choose County:

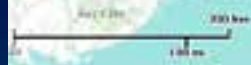
Select Date Range: 04/25/012 04/25/012

Query By Date Range

Specify Incident:

Total Incidents: 0

Northwest
South Central
Southwest



NEXT STEPS

- **Development**
- **Testing**
- **Deployment**



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