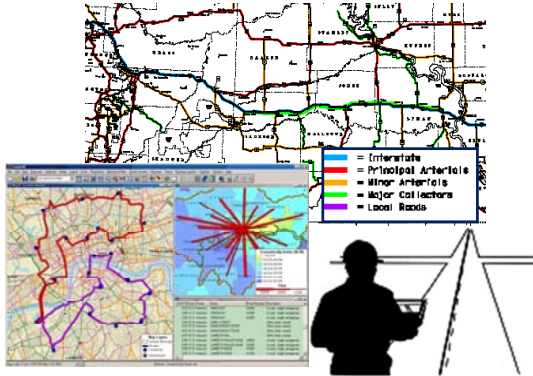


# IDAHO'S STATEWIDE SPATIAL DATA INFRASTRUCTURE

**SDI** \*\*put in the selected brand name?

Supporting Idaho's future through  
geospatial technology

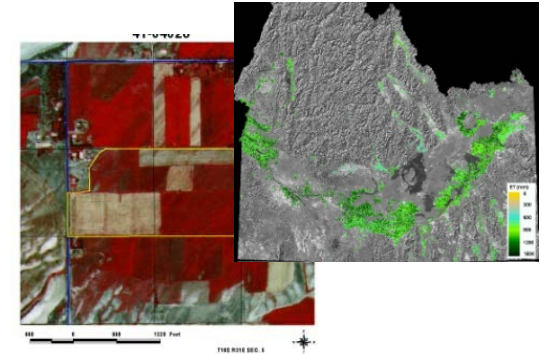
# Geographic information provides vital support for a wide range of business needs and organizations in the state



**Highway and street data** supporting public safety, public works, and transportation planning



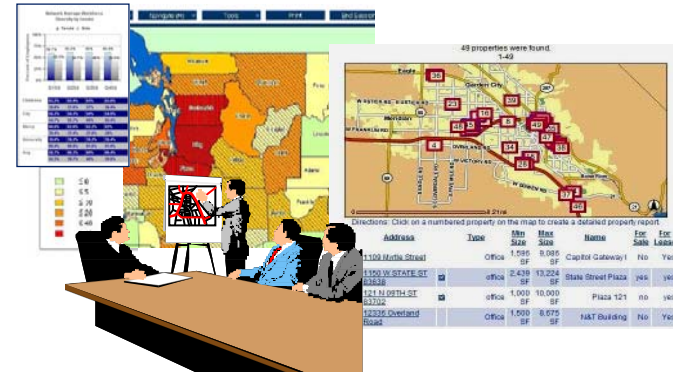
**Parcel data** for real property appraisal and economic development



**Natural resources information** for environmental protection, tourism, and resource development



**Address and demographic information** for governmental service delivery and business development



**Geostatistics** for planning, financial management, and special studies



# SDI is statewide, inclusive, and collaborative





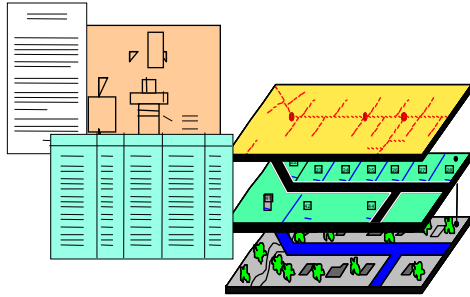
# **Spatial Data Infrastructure—What is it?**

**--not a single system but an ongoing initiative which provides:**

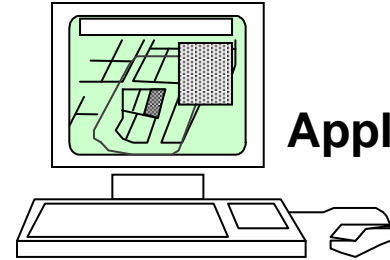
- **Statewide, commonly needed, up-to-date spatial data**
- **Effective access to and sharing of spatial data among a statewide user community: public sector, tribal, private companies, non-profit groups, universities, general public**
- **Easy-to-use applications and services to support information query, mapping, and analysis needs**
- **An organizational structure that supports collaboration and coordination**



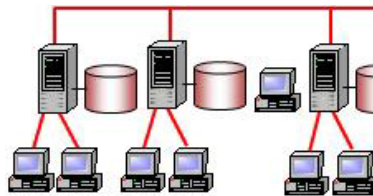
# Components of the SDI



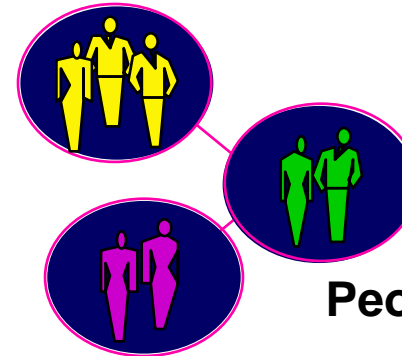
**Geospatial Data**



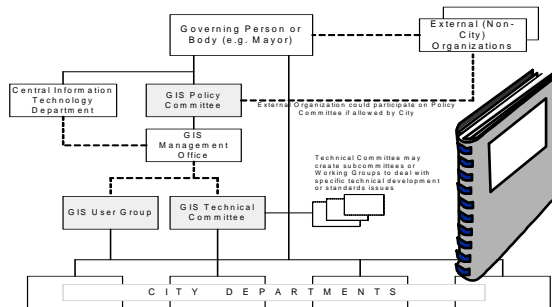
**Applications**



**Physical  
Computer/Network  
Infrastructure**



**People**



**Solid organizational structure, policies, standards, and management**



# SDI Mission and Goals

## SDI Mission:

*With leadership by state government and active participation from stakeholders statewide, we will develop, deploy and efficiently operate the SDI with a focus on meeting the geographic information needs of users and delivering real, substantial benefits to a comprehensive spectrum of organizations and individuals in Idaho.*

## SDI Goals:

1. Sustain and convey a strong **business justification**
2. Implement an improved SDI **management and coordination structure**
3. Complete development of and maintain **Framework data**
4. **Leverage emerging technologies** for enhanced access
5. Connect and **integrate state and local/regional activities**
6. Increase **awareness and support**
7. Encourage and support development and maintenance of **non-Framework geographic data**
8. Expand **integration of geographic information** in enterprise systems
9. Maintain and leverage up-to-date knowledge about **GIS and IT industry trends, products, and services**



# **Idaho's SDI is partially built and working—but much remains to be done to achieve the long-term goals**

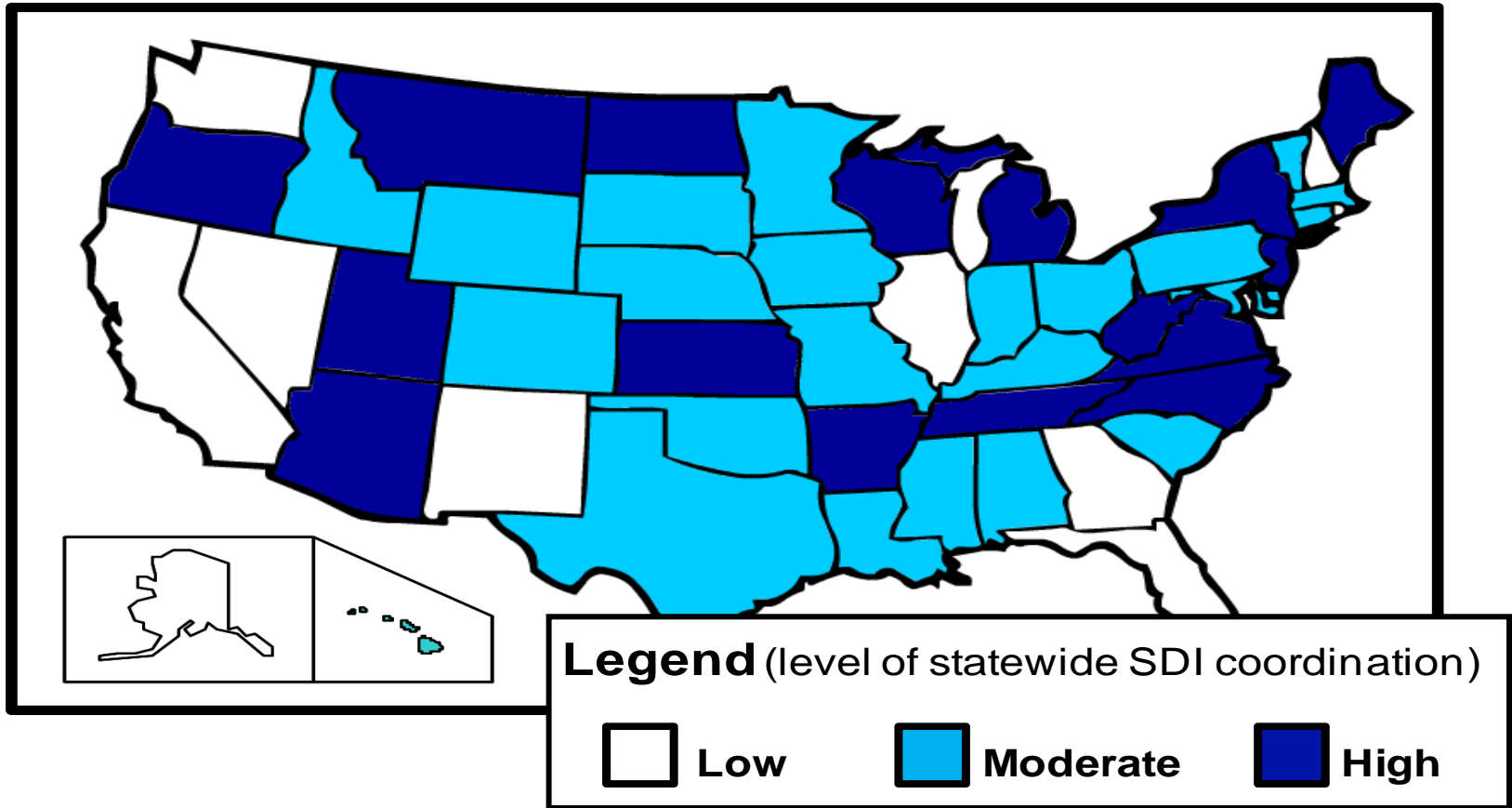
- **Existing organizational structure promoting statewide coordination (IGO, IGC)**
- **Active GIS user groups and region-focused activities**
- **Some Framework data already developed and being maintained**
- **Statewide GIS Web portal and geographic data access through INSIDE Idaho**
- **Considerable ongoing GIS operations and services among state agencies and local governments**

**Bottom line → the foundation has been laid and the state GIS community is well-positioned to achieve SDI goals**





# Level of SDI Coordination: How Idaho rates nationally\*



\*Prepared using Scorecard data from the National States Geographic Information Council (NSGIC) 2008 *State Summaries*

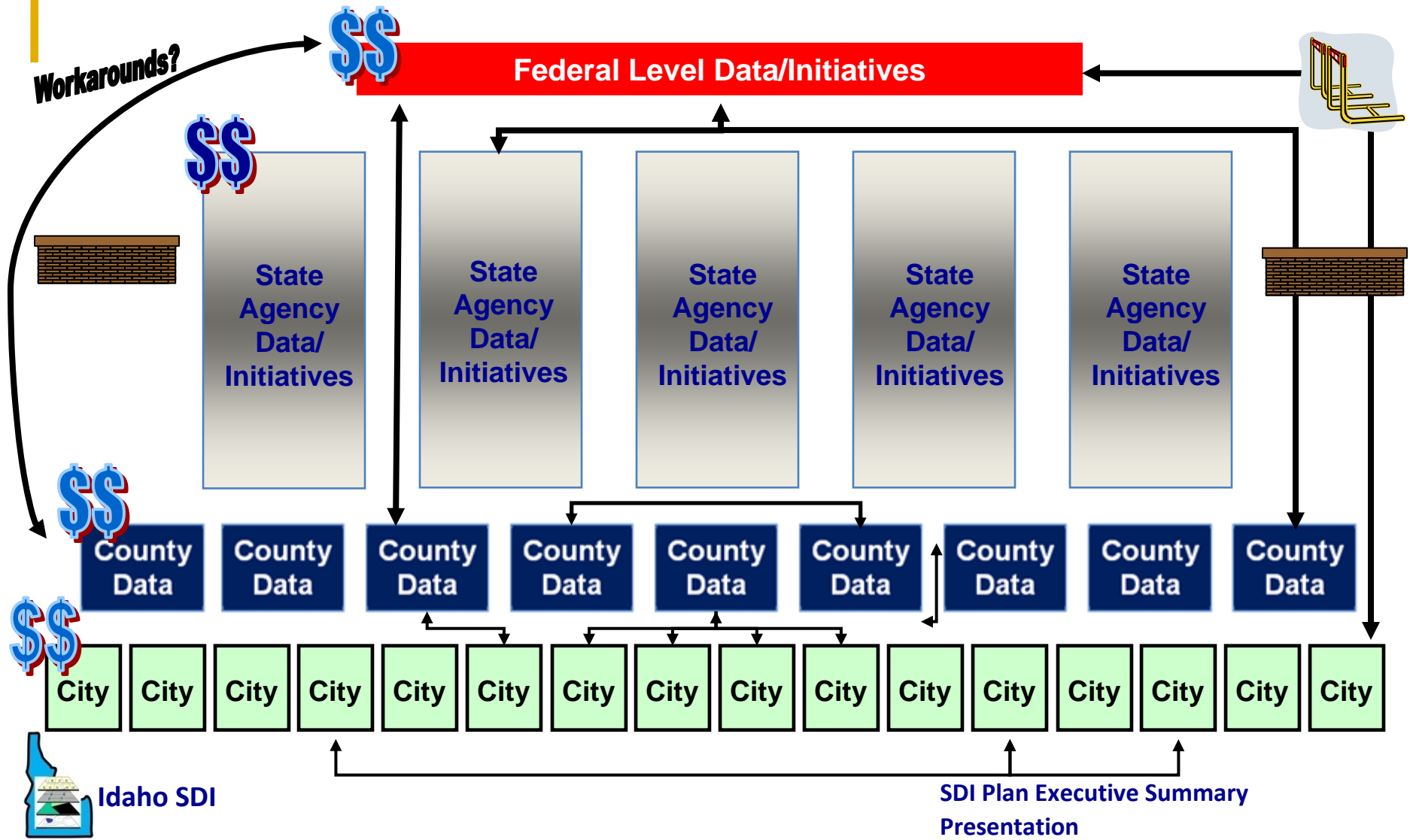




# **The Main Obstacles to Full SDI Development:**

- **Organizational barriers**
- **Incomplete spatial databases**
- **Lack of full coordination and collaboration**
- **Insufficient high-level support, mandate, and policies**
- **Inadequate resources (people, skills, money)**

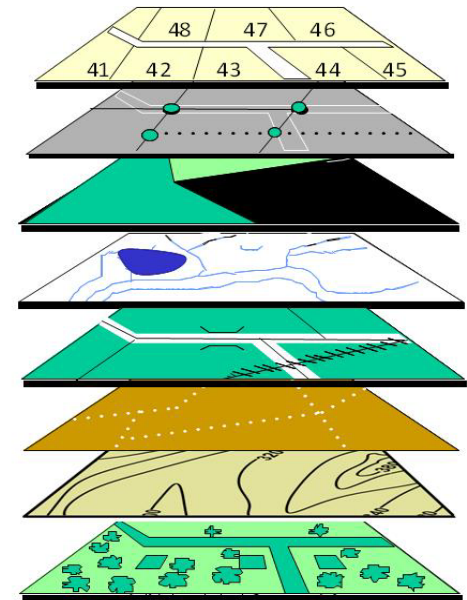
# Organizational barriers obstruct efficient sharing of resources and information

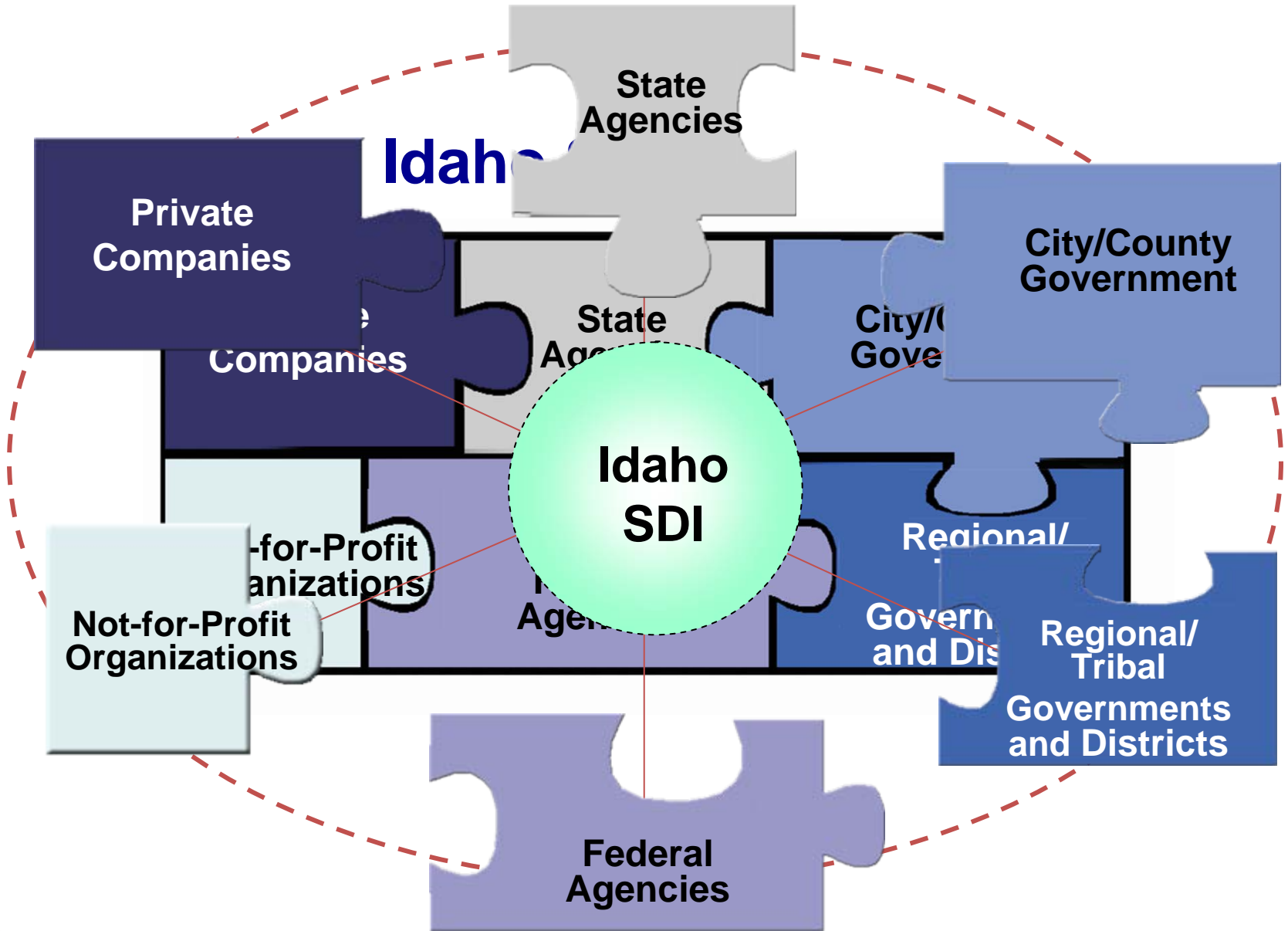


# Geospatial Data Stack Concept

**Build data once, maintain in a unified manner, and make available to all SDI participants**

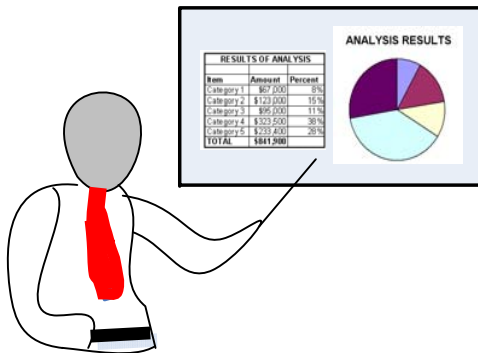
- Opportunities for efficiency and elimination of unnecessary duplication
- Total Cost of Ownership and Return on Investment calculations at a macro level
- Opportunity mining without a single deciding authority
- Addresses the business needs of local governments, so they will have reason to contribute resources to the stack
- Data generalization standards assure usability and value at all levels
- Facts-based management of GIS applied across jurisdictions





# What we have going for us

- Clear business need and demonstrated benefits for GIS technology and the SDI
- Significant and ongoing investments in geospatial technology and data
- Well-crafted strategy and plan
- Committed, enthusiastic, and knowledgeable statewide GIS community
- Great interest and momentum to move forward



Task #	Task Name	Plan Start	Plan Finish
1	PROJECT SET-UP AND ON-GOING ADMINISTRATION	7/1/09	12/15/11
1.1	Prepare/Approve Budget	7/1/09	8/12/09
1.1.1	Prepare and present budget	7/1/09	8/11/09
1.1.2	Final budget approval	8/12/09	8/12/09
1.2	Recruit, Assign Staff and Assemble Team	7/1/09	10/20/09
1.2.1	Assign GIS project manager	7/1/09	10/20/09
1.2.1.1	Recruit/hire technical GIS staff person	7/8/09	5/1/09
1.2.1.2	Appoint team members and define roles	7/1/09	8/25/09
1.2.1.3	Conduct team orientation and training	7/29/09	10/20/09
1.3	Retain Consultant for Implementation Support	7/6/09	9/16/09
1.3.1	Select consultant proposals	7/6/09	7/21/09
1.3.2	Select consultant	7/22/09	9/16/09
1.3.3	Consultant notice to proceed (consultant on-board)	9/16/09	9/16/09
1.4	Detailed Implementation Plan and PM Procedures	10/21/09	11/5/09
1.5	On-going Project Monitoring and Status Reporting	5/2/09	12/15/11
1.5.1	Monitor and adjust project scope/schedule	11/6/09	7/28/11
1.5.2	Prepare status reports	5/2/09	9/7/11



# Formal organizational endorsements

- **Association of Idaho Cities**
- **City of Boise Mayor Bieter and Fire Chief Doan**
- **Idaho Power**
- **Intermountain Forest Association**
- **Idaho State University**

**Additional endorsements are being provided**



## What we need to succeed

- **Formal support and authorization from senior officials**
- **Additional resources**
- **Strengthened/expanded collaboration and participation**
- **Recognition that the SDI is a critical part of the state's enterprise information architecture**
- **Greater decision-maker awareness and understanding of current and potential benefits**



# SDI supports a wide range public and private sector business needs:

## Overarching GIS Business Drivers

Business Driver	Priority*
Basis for inter- and intra-organization coordination and partnerships	VH
Response to public demand for information	VH
Reduction in redundancy, labor time, and cost	VH
Enhanced Revenue	H
Energy costs and efficiency	H
Enhancement of environmental quality, sustainability, and livability	H
Management and access to historical geographic information	MOD
Improved geographic data quality and currency	MOD
Support for private business	MOD

\*Priority: Very High (VH), High (H), Moderate (MOD)

## Program or Discipline-Specific Business Drivers

Business Driver	Priority*
Emergency planning/ management and public safety	VH
Real property appraisal	VH
Infrastructure facility management	H
Economic development and tourism promotion	H
Agricultural productivity and invasive species management	H
Land development planning	H
Facility planning and design	MOD
Floodplain/flood event management	MOD
Support for improved regulatory decisions	MOD
Educational program enhancement	MOD
Support to county commissions	MOD
Grant application support	MOD
Public health management	MOD



# Benefits of SDI and GIS technology

- **Operational and Efficiency Gains** → e.g., reducing labor costs and turnaround time for access to and use of maps with effective use of GIS technology
- **Cost Savings** → e.g., reducing contract costs and operational expenses
- **Cost Avoidance** → e.g., keeping requirements for additional resources low while responding to growth and new demands for services
- **Revenue Enhancement** → e.g., Supporting complete and equitable allocation and collection of fees and assessments
- **Difficult-to-Predict Quantitative Benefits** → e.g., response to/recovery from emergency events and support in legal cases
- **Non-quantifiable Benefits** → e.g., enhanced citizen/customer service and decision making and range of economic, social, environmental improvements

**Idaho SDI stakeholders have only realized a small amount of the potential benefits that the SDI can deliver**

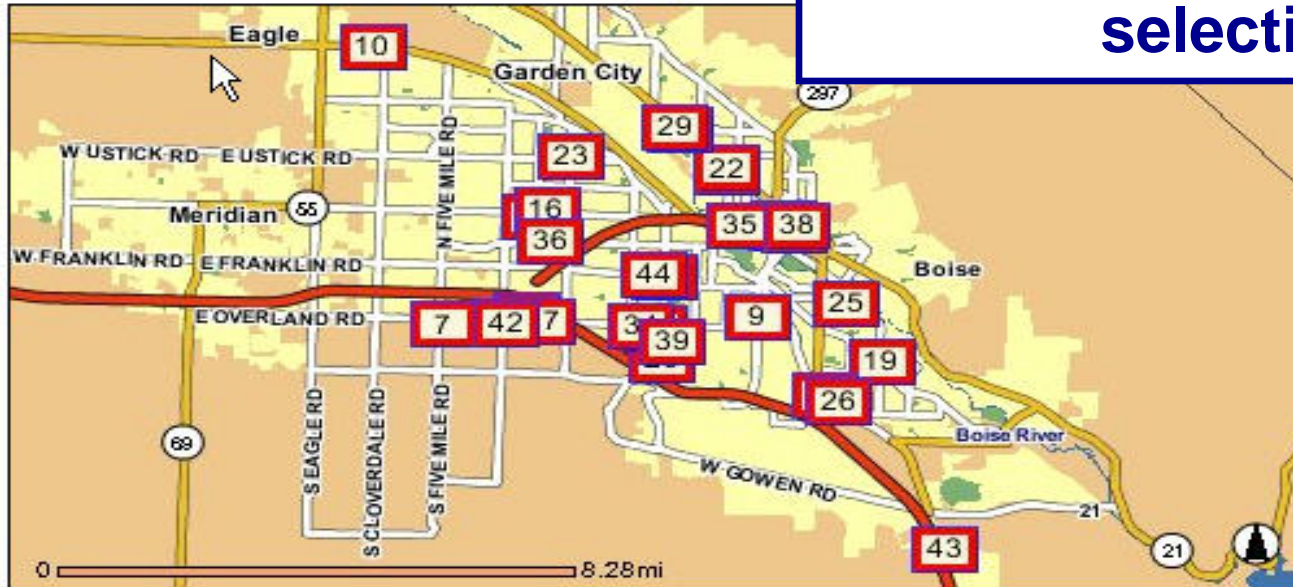


# Examples of GIS applications in Idaho....



44 properties were found  
1-44

# Gem State Prospector: Business development site selection

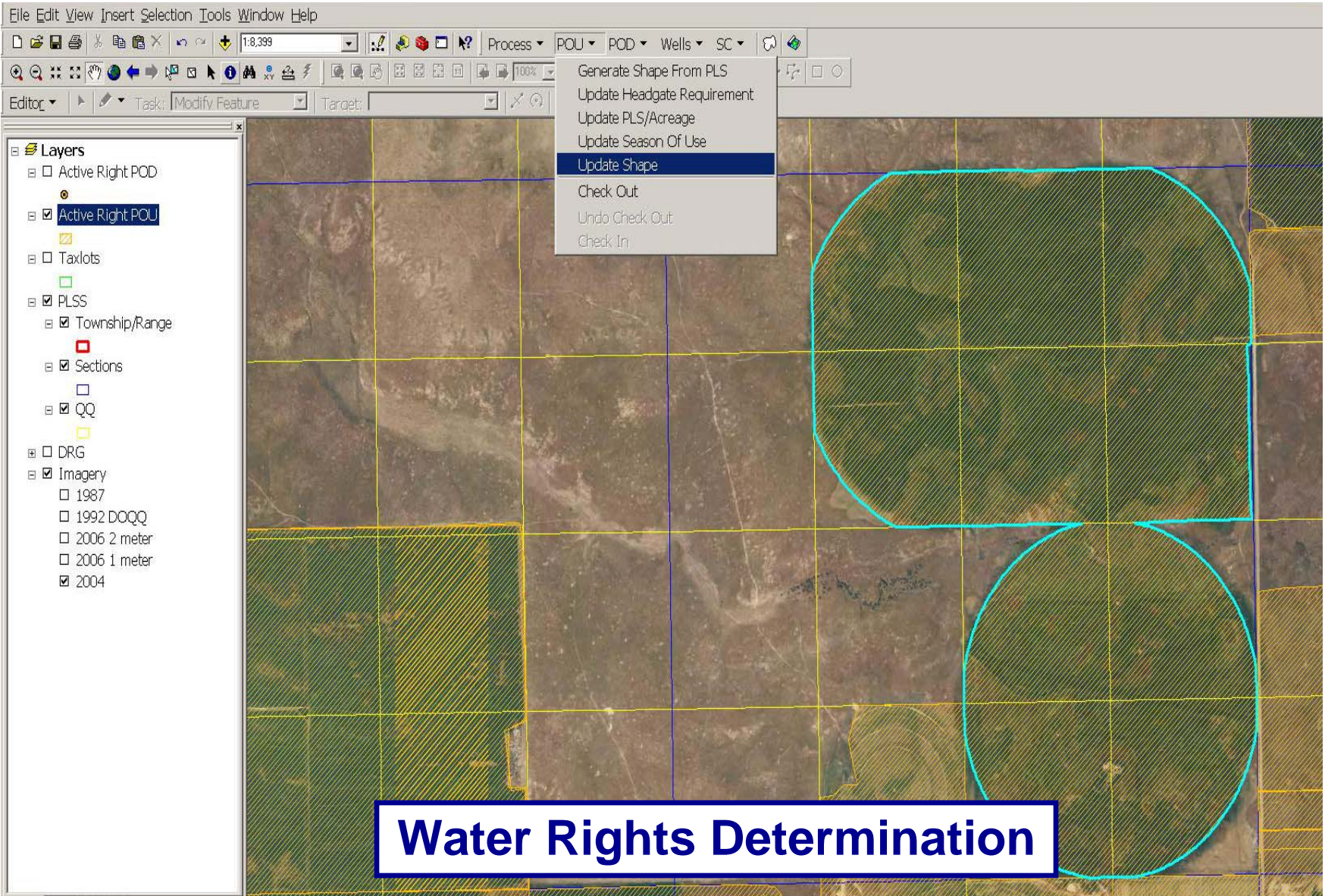


Directions: Click on a numbered property on the map to create a detailed property report.

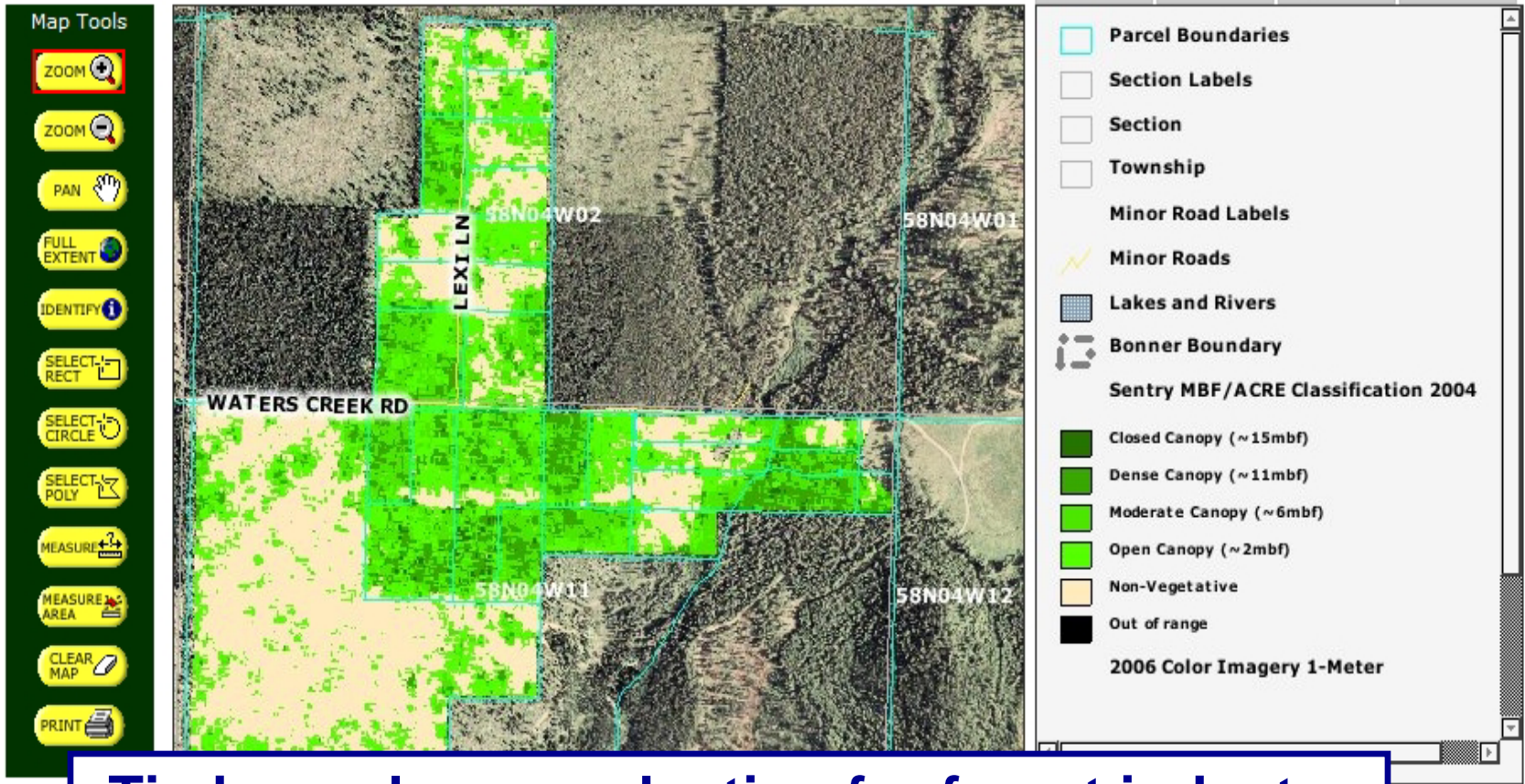
	<u>Address</u>	<u>Type</u>	<u>Min Size</u>	<u>Max Size</u>	<u>Name</u>	<u>For Sale</u>	<u>For Lease</u>
1.	<input type="checkbox"/> <a href="#">101 S. Orchard Street</a>	Retail	1,155 SF	5,268 SF	Shops at Franklin & Orchard	No	Yes
2.	<input type="checkbox"/> <a href="#">1020 W MAIN ST 83701</a>	office, retail	175 SF	2,000 SF		no	yes
3.	<input type="checkbox"/> <a href="#">10321-10477 W. Fairview Avenue</a>	Retail	3,000 SF	3,000 SF	Midvalley Shopping Center	No	Yes
	<input type="checkbox"/> <a href="#">10362-10490 W</a>						





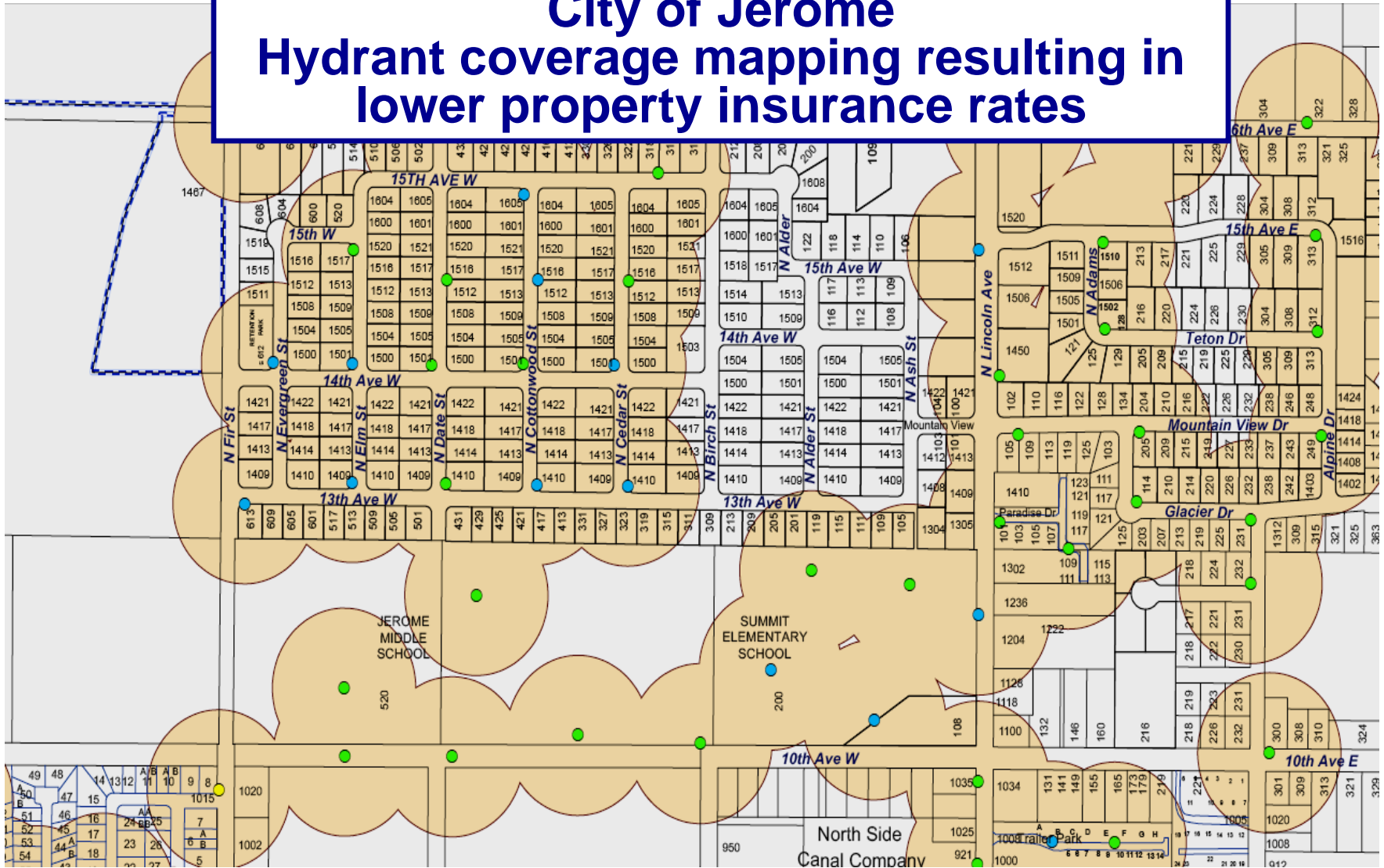






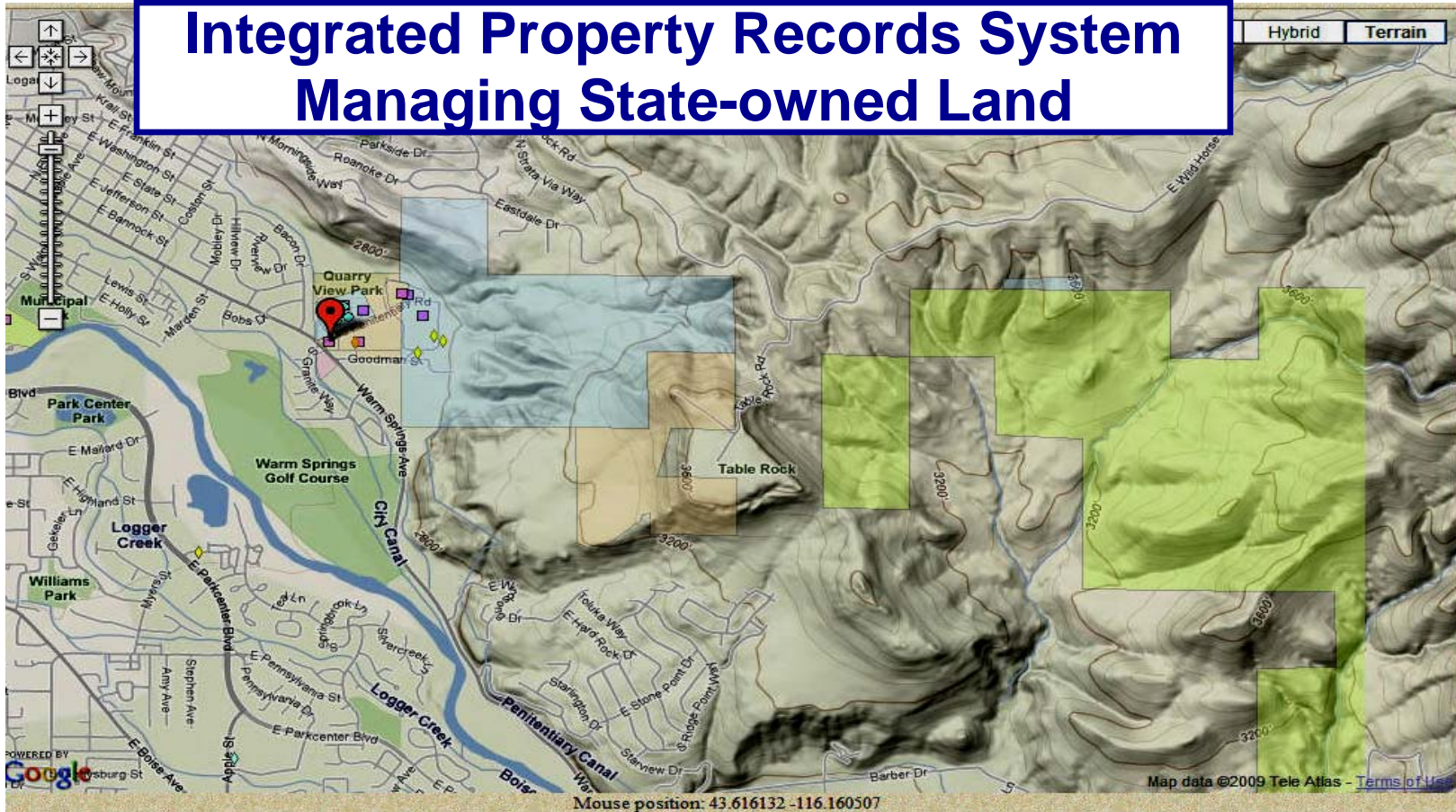
# Timber volume evaluation for forest industry

# City of Jerome Hydrant coverage mapping resulting in lower property insurance rates





# Integrated Property Records System Managing State-owned Land



- **To change scale**, use the tool at the upper left of the map or the wheel on your mouse.
- **To change the background imagery**, select a button from the upper right of the map.
- **To show workplace information**, position the mouse pointer over the feature and click the left mouse button. The feature should then be highlighted. Click on the highlighted feature to view an information window presenting that feature's information.

Workplace On

Workplace Off

Stateland On

Stateland Off

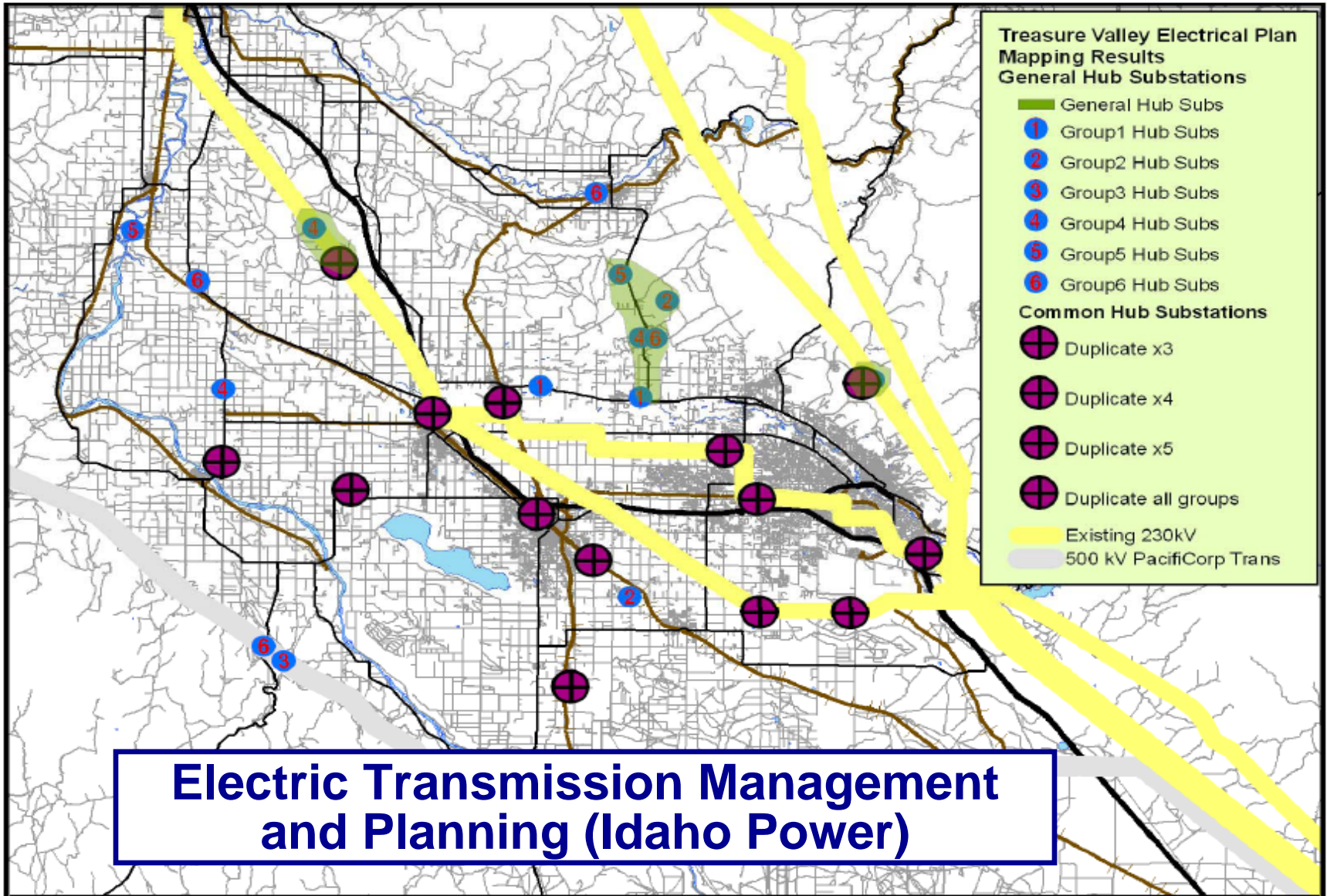
Clear Identify Results

Grace, ID

Find!





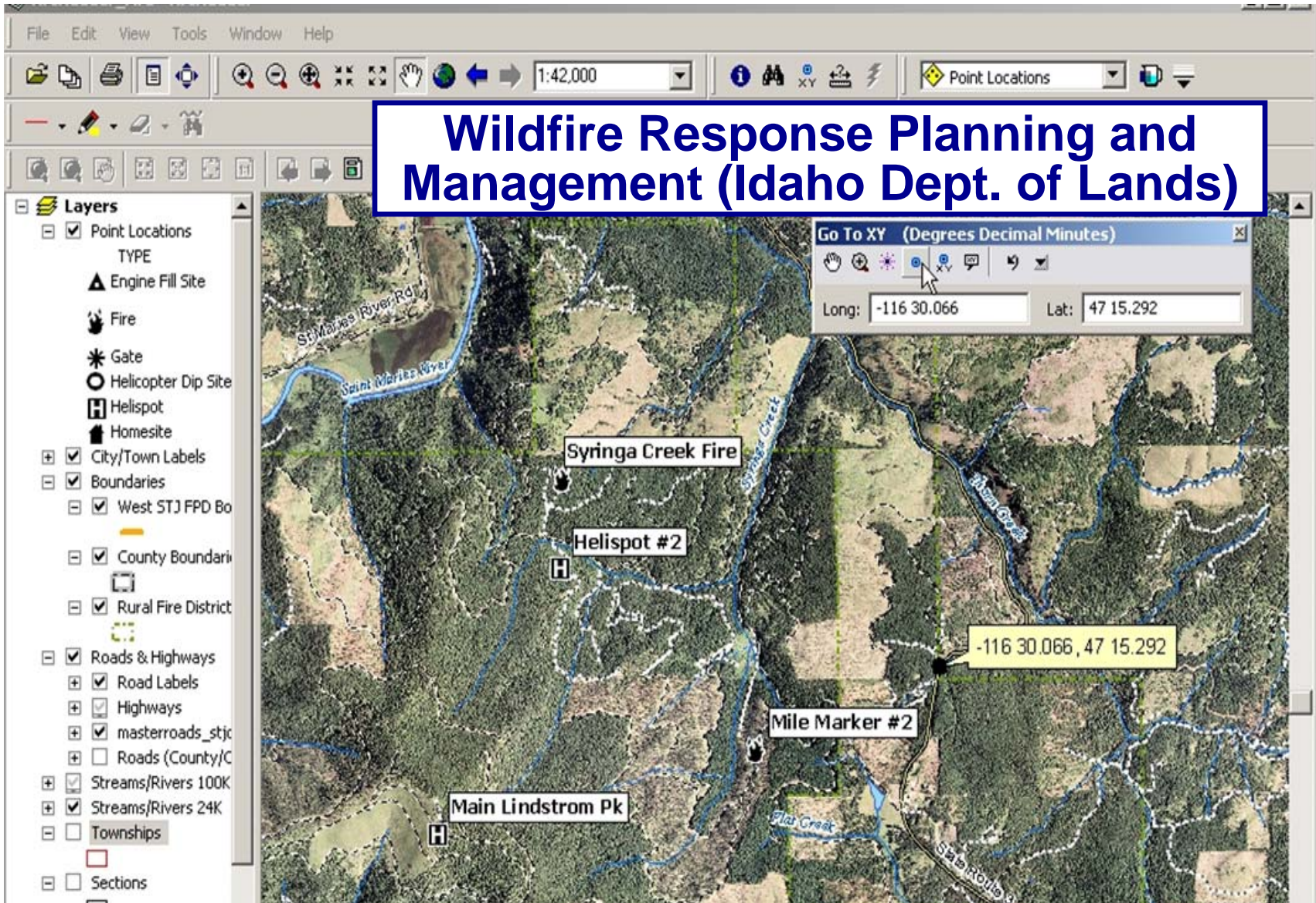


**Electric Transmission Management and Planning (Idaho Power)**





# Wildfire Response Planning and Management (Idaho Dept. of Lands)



# SDI development phases

Phase	Projected Timing	Key Milestones
<b>Phase 1: Organizational Development and Technical Design</b>	Jan. 2009 to Dec. 2010	<ul style="list-style-type: none"> <li>• Get formal approvals and establish additional funding sources</li> <li>• Put in place SDI governance/org structure</li> <li>• Continue with Framework data development</li> <li>• Assign roles and prepare work plans for implementation initiatives</li> <li>• Define Regional Center structure and data stewards</li> <li>• Design/develop critical enterprise applications</li> </ul>
<b>Phase 2: High- Priority SDI Development and Deployment</b>	Jan. 2010 to June 2011	<ul style="list-style-type: none"> <li>• Secure additional funding sources and partnerships</li> <li>• Strengthen statewide participation</li> <li>• Develop and deploy of critical GIS applications</li> <li>• Continue with Framework data development and stewardship</li> <li>• Establish/formalize initial Regional Centers</li> </ul>
<b>Phase 3: Continued SDI Development and Deployment</b>	July 2011 to Dec. 2012	<ul style="list-style-type: none"> <li>• Continue with Framework data development and stewardship</li> <li>• Establish additional Regional Centers</li> <li>• Enhance Core Data and Services operations</li> </ul>
<b>Phase 4: Full SDI Development and Deployment</b>	Jan. 2013 to Dec. 2013	<ul style="list-style-type: none"> <li>• Maintain funding sources and partnerships for SDI development</li> <li>• Complete statewide coverage on most Framework data</li> </ul>





# Cost projections (5-year) for SDI development

SDI Implementation Cost Category	5-Year SDI Cost Projection
Augmented staff and operational budget for IGO	\$431,000
IGC Operational Support	\$52,000
Outreach, Communications, Promotion	\$44,500
Framework Database Development and Stewardship	\$21,449,000
Regional Center Development and Support	\$510,000
Computer Hardware, Software, Network Infrastructure	\$50,000
Training/Education	\$385,000
GIS Application Development and Deployment	\$900,000
INSIDE Idaho Enhancement/Virtual Portal Development and Operation	\$675,000
	<b>\$24,496,500</b> *

\*About 40% of these funds are already committed or budgeted through state and federal programs



# Funding/financing strategies

**SDI development will be paid for through:**

**a) improved leveraging and use of current ongoing investments**

**b) additional state budget allocations, and**

**c) use of new funding and financing sources and strategies....**



# Many opportunities for financing the SDI: Funding follows decision maker support.....

Special budget funds  
(non-General Fund)

Data Licensing

Gain Sharing

Bonds

Grants and  
Earmarks

Others....

Special  
transaction fees

Service  
agreements

User fees

Private  
sponsorships/  
promotions

Re-assignment of  
unused funds





# SDI Strategic Plan and Business Plan

**Strategic Plan** → Describes context, the long-term vision, and overall direction for SDI development (the “*what*”)

**Business Plan** → Sets forth the business justification and detailed approach to achieve the SDI vision (the “*why*” and “*how*”)

