

Idaho Geospatial Council –
Executive Committee
(IGC-EC)

September 24, 2018

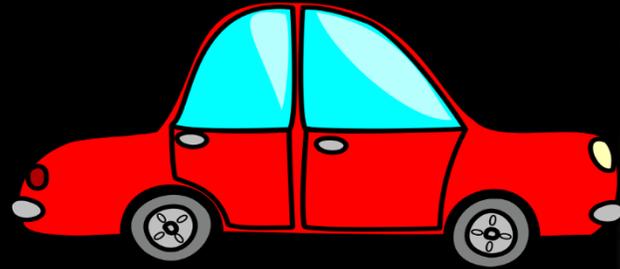
Minutes

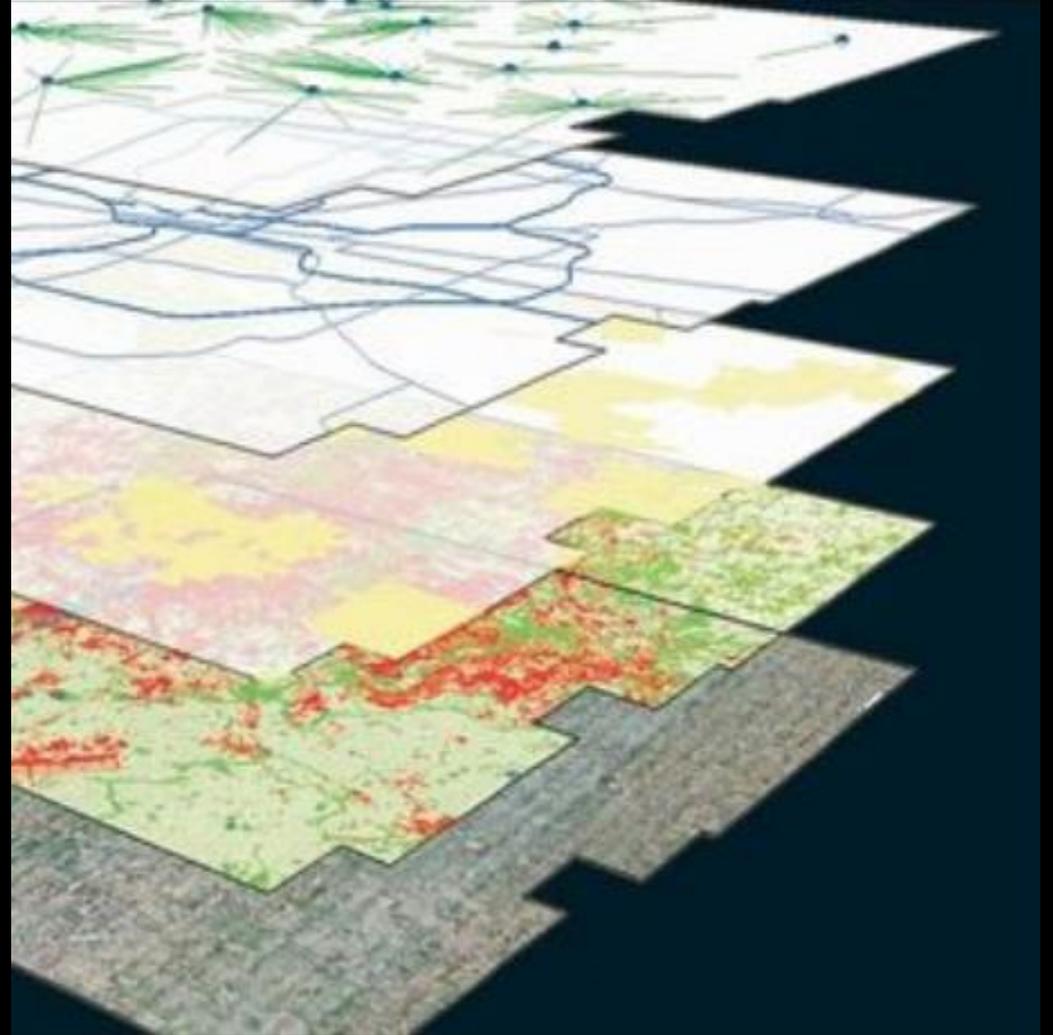
- July 19, 2018
- August 9, 2018 (*Special Meeting*)

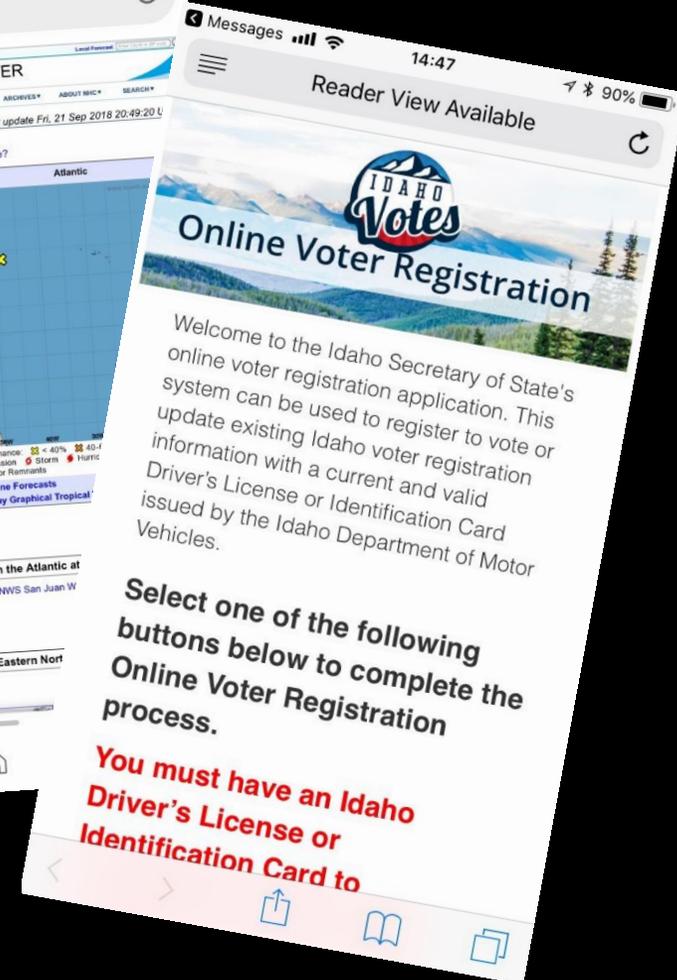
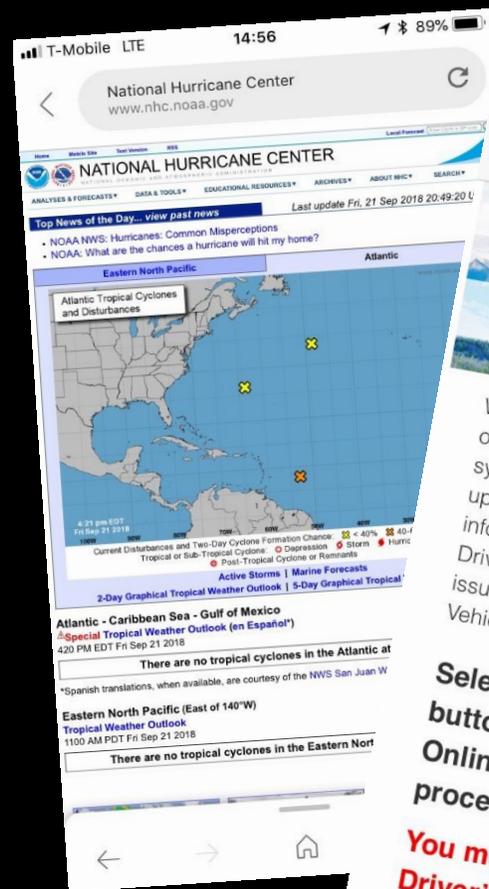
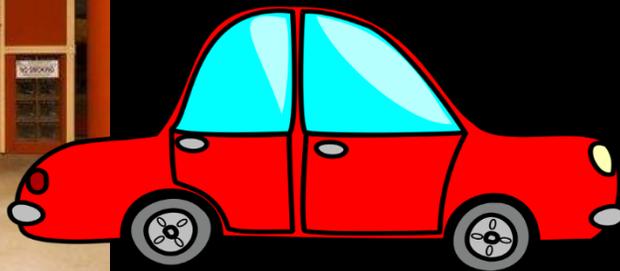
GIS CONSOLIDATION AND THE ROLE OF THE GIO

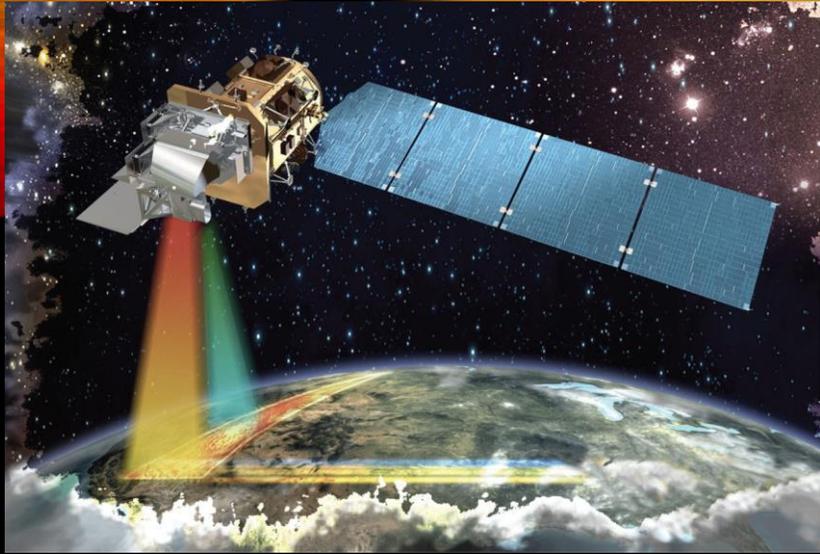
Wilma Robertson, Pam Bond, Kelly Green and Cyndi Andersen
IGC-EC Subcommittee Report, September 2018

Geographic Information Systems (GIS) let us visualize, question, analyze, interpret and understand data









- Big Man On Campus → B1
- Broadband, Anyone? → B2
- Transportation In The Driver's Seat → C1
- When Minutes Matter → D2
- A Flood Of Information → E1
- Small Savings Add Up Big Time → F1
- Great Deeds Done → F3

IndianaMap

YOUR SOURCE FOR INDIANAMAP NEWS

34:1 RETURN ON INVESTMENT → A3

INDIANAMAP NEEDS YOU → A7

HOME SWEET HONDA → B1

IS IT SAFE TO DRIVE? → C2

SAVING HOOSIER FORESTS → E2

FALL 2008

www.indianamap.org



ABOUT THE INDIANAMAP

Statewide Map Supports Local Initiatives

The IndianaMap is a single statewide map for Indiana. It includes everything that goes into making that map a reality—planning, partnerships, funding, coordination, and ways to make it available to people who need it. The IndianaMap embraces the role of geographic information, technologies and innovative institutional agreements to enable improved government service to citizens, and an enhanced ability for citizens to stay informed and to engage in the democratic process.

In 2002, the vision was defined to establish a uniform statewide digital map of Indiana for the following purposes:

1. To standardize the consistency and quality of the map data across all Indiana communities.
2. To create efficiencies in data collection and maintenance at state and local levels.
3. To provide unfettered access to map data needed to support Indiana's most pressing issues.
4. To save taxpayer dollars and reduce duplicate spending.
5. To support the business needs of a broad-based statewide user community, including the public, private and education sectors.

\$1.7 BILLION SUPPORTED BY THE INDIANAMAP

Hoosiers Stand to Gain

From transportation to public safety to economic development, the IndianaMap (www.indianamap.org) supports hundreds of local, regional and statewide projects each year. The IndianaMap was used for response and recovery during this year's major flooding, tornado, and earthquake events, Honda's selection of Indiana for its new facility, and much more. Stories documenting how the IndianaMap is used are presented throughout this report. Phase one of the IndianaMap is complete and the results are in—the initial investment of \$8.5 million in the IndianaMap supports over 200-times its value in projects and operations—with 90% of users indicating they could not do their projects without it. As is evident from this study, the IndianaMap proves a good investment by saving taxpayer dollars and providing an information infrastructure that benefits all Hoosiers.

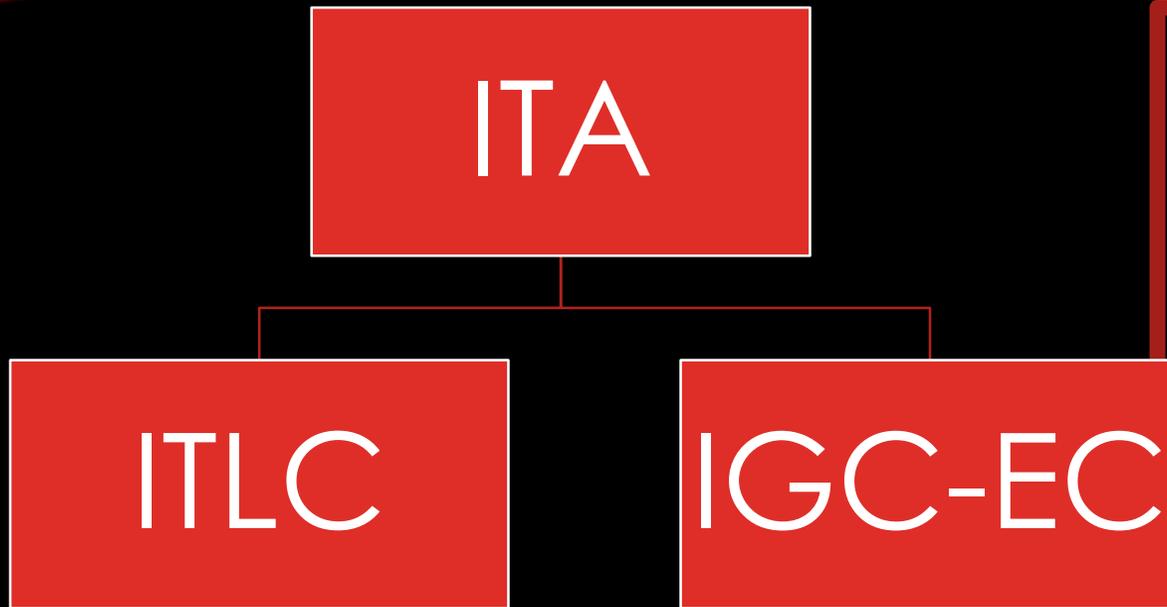
WHY?

- HB 607
- Challenge posed during a number of town hall meetings:

“How can GIS increase its efficiency by consolidation and streamlining?”



WHO?



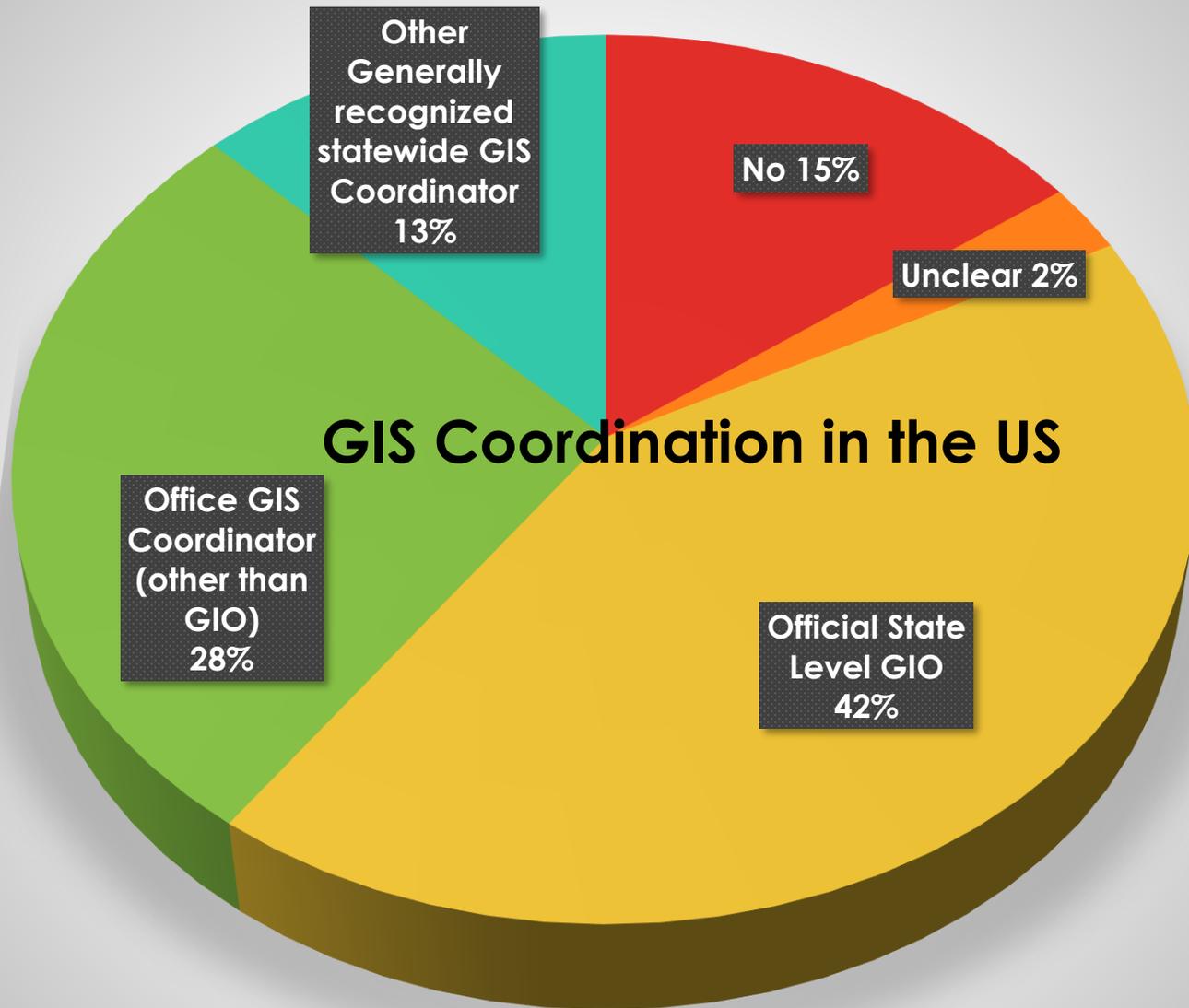
- 16 Members from State, Local, Federal, Tribal Government as well as Private Sector
- 12 elected by the Idaho Geospatial Council (IGC)
- IGC has over 150 members



4-member Sub-committee:
Pam Bond Cyndi Andersen
Kelly Green Wilma Robertson

WHO HAS A GIO?

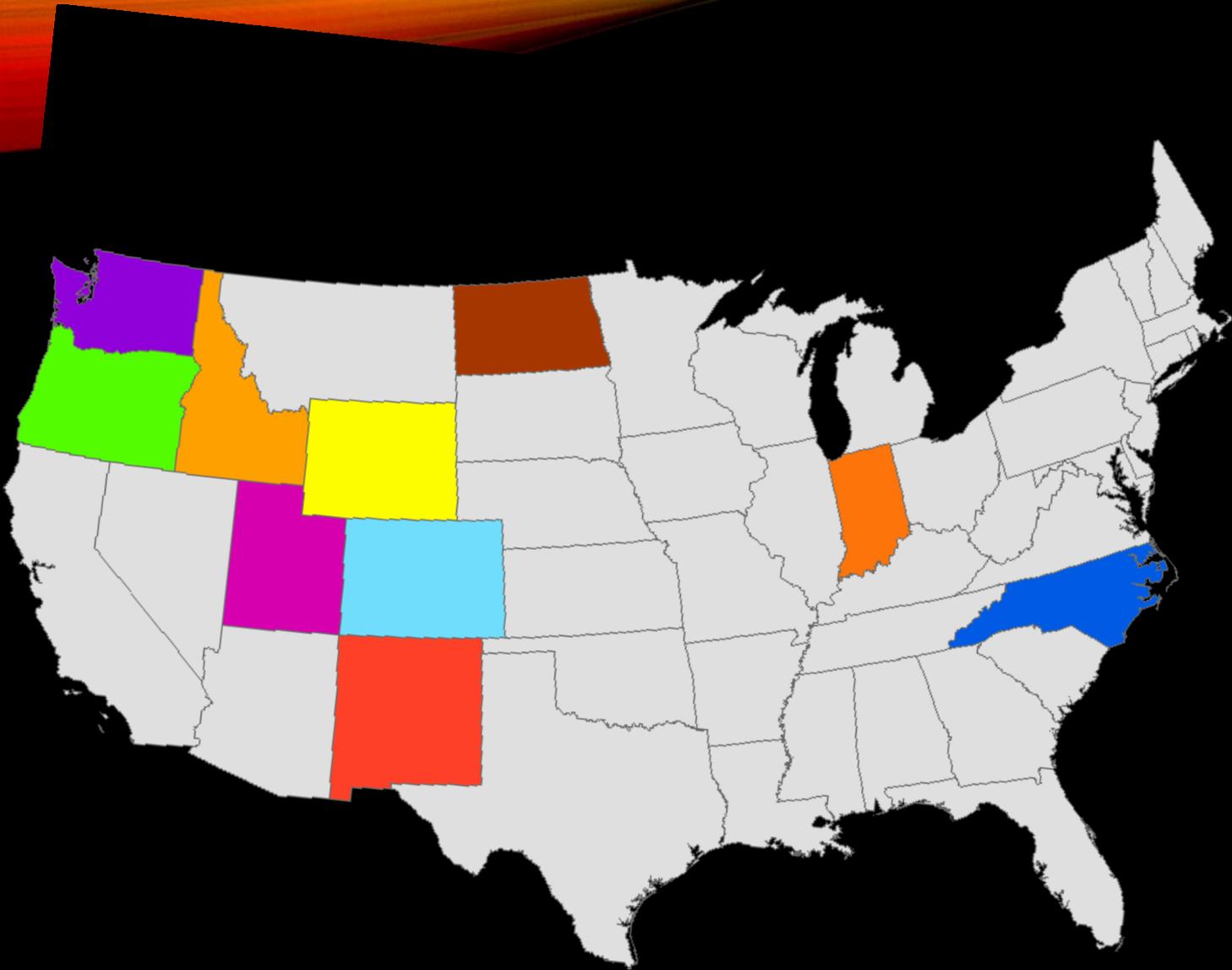
- GIS Coordination revolves around the Geographic Information Officer (GIO)



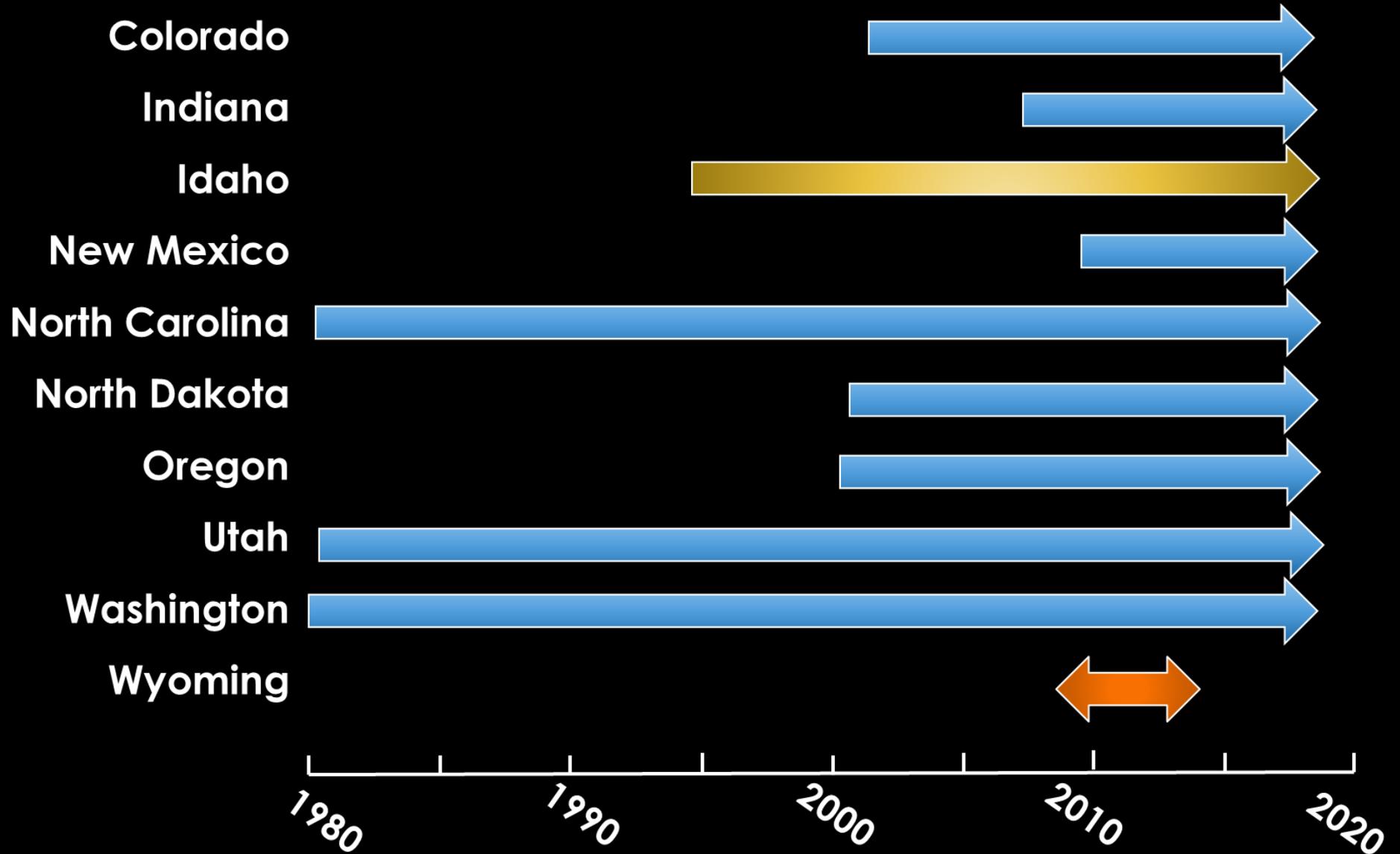
APPROACH:

We interviewed the
“GIO” of 10 States to
find out:

- Their role
- Consolidation Efforts
- Success Stories
- Pitfalls



WHO HAS A GIO?

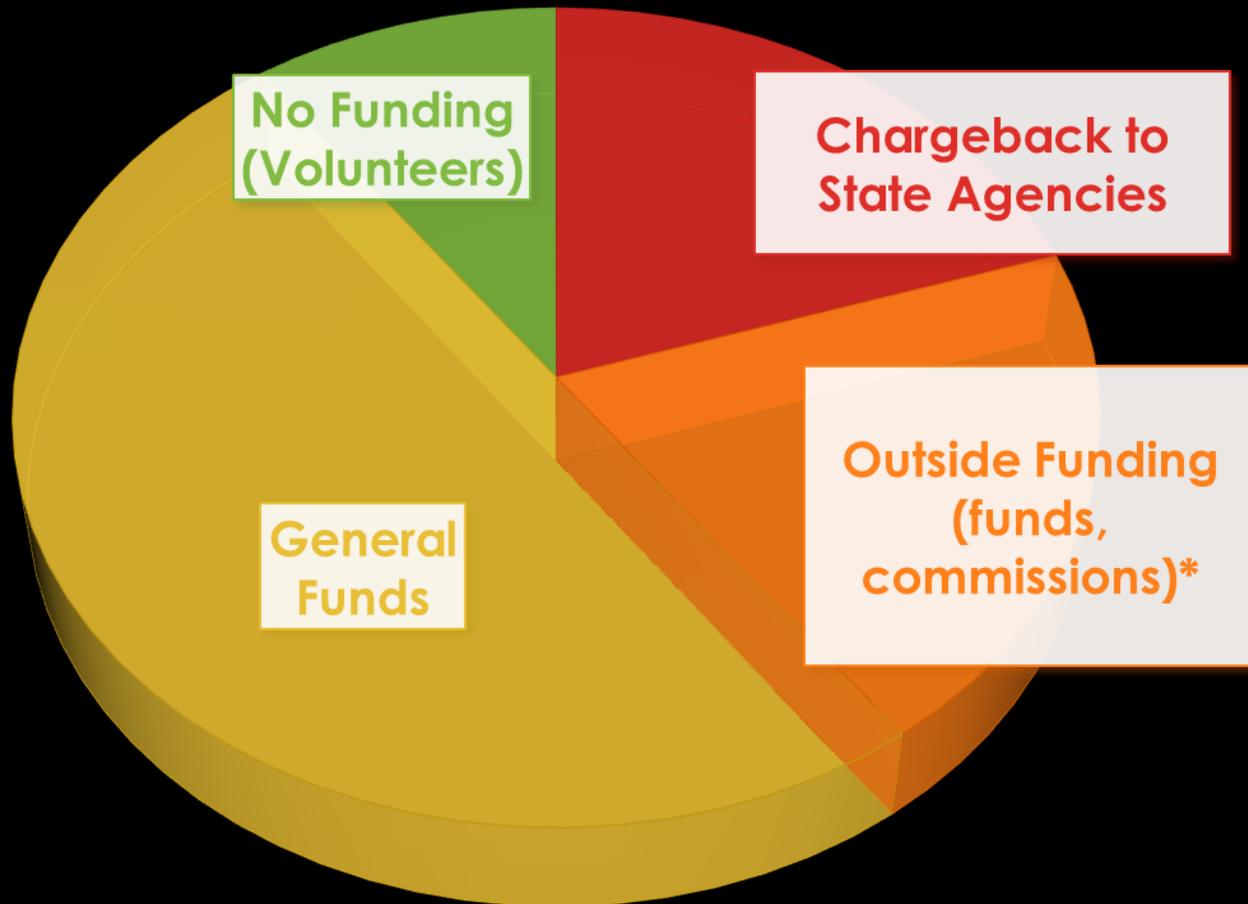


Full time 

Part Time 

Temporary 

FUNDING OF GIO POSITION



- Most States with **Chargeback** model report efforts to secure general funding:
 - Coordination includes more work than just services to agencies
 - It can be hard to justify having agencies spend money on exploring new technologies

* For example Association of Regional Commissions, E911 Program Funds, State Information Database Fund, Utah Reference Network

Main Functions of the GIO

**As mentioned during the interview*

Planning GIS Policy

Improve Data Discovery

Attend GIS Meetings

Facilitate Coordination

Manage State GIS Contracts

AGOL Helpdesk

GIS projects for small agencies

Review Proposed Legislation

Promote the Use of GIS

Support GIS Enterprise Services

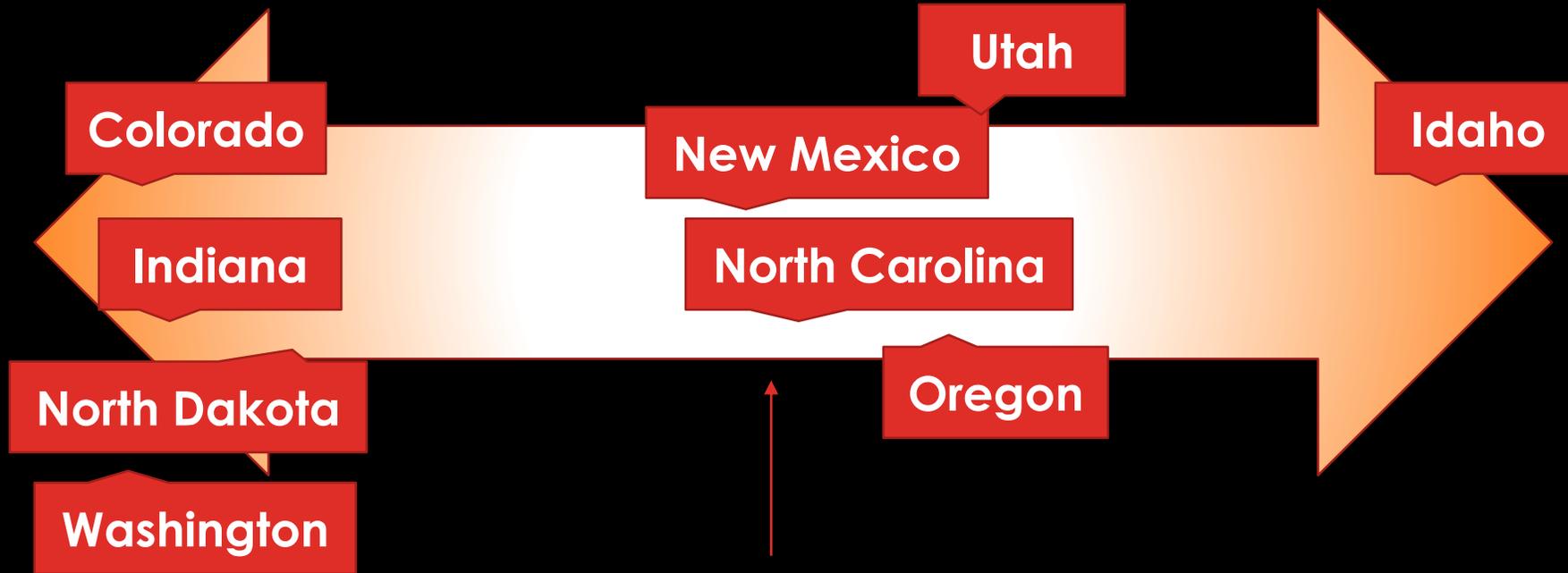
Promote GIS Use in Public Policy

Harvest, Standardize and Host Data

Public Data Sharing



More time spent on data



More time on Agency Projects

Equal amount of time spent on data and agency support

PITFALLS AND LESSONS LEARNED



Consolidate With Caution

❖ Infrastructure:

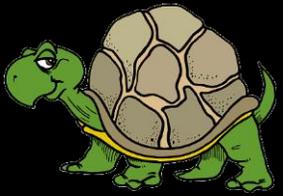
- ❖ Consolidation can work. Beware that it may not work for all agencies

❖ People:

- ❖ Does not work well: GIS personnel is highly specialized to their agencies



PITFALLS AND LESSONS LEARNED



Go Slow, Be Inclusive & Transparent

- ❖ *Moving too quickly, cutting corners, and not involving everyone will cause efforts to fail.*
- ❖ *Demonstrate and build credibility*

PITFALLS AND LESSONS LEARNED



Without Dedicated Money, Funding is Challenging

- ❖ Strive for dedicated funding for the GIO and his/her staff.
 - ❖ Searching for funding is time consuming
 - ❖ Problems with charge back model

THINGS THAT WORKED! AND SAVED \$\$\$

- ❖ Statewide LiDAR and Imagery Acquisitions:
 - ❖ North Carolina saved \$84M
 - ❖ Similar examples in other States
- ❖ Consolidating Infrastructure, Licensing and Software
 - ❖ Cost avoidance study in Colorado showed potential \$450,000 savings over 5 years ...
show options, do not force
 - ❖ North Dakota's GIS Hub



THINGS THAT WORKED! AND SAVED \$\$\$

- ❖ Consolidated Parcel, Address Points, road Centerlines, etc.
 - ❖ North Carolina: consolidated parcels from 100 counties.
 - ❖ Oregon: consolidated address points
- ❖ Set up data steward and data sharing agreements that outline adequate data sharing and consistent updates.
- ❖ If there is no mechanism to keep data current, then why even share it?

Current address point data allowed emergency crews to save all properties and lives with GIS during a major wildfire in Oregon.



IMAGINE HERE IN IDAHO..

Best available
data for all
GIS data



Governmental Boundaries Theme

Mutually agreed-upon borders with all adjoining states are essential to stability for all dependent boundary datasets. BLM and State Tax Commission are working closely to improve the spatial representation of the state boundary in harmony with our neighboring states.

The new representation of Idaho's boundary will result in a ripple of adjustments in other boundaries. Workgroups are forming to focus on clusters of boundary types: General, Elections, Agency/Program, Special Service Districts and Tax Code Areas.



LEADERSHIP

OPEN POSITION
For information contact:
Bill Farnsworth, Office of the CIO
(208) 332-1878

Public Safety Theme

The Public Safety Theme is composed of three elements: Structures and Landmarks, Emergency Services Zones and Critical Features. The first two are required for NextGen 911, and standards have been established. The current focus is on adding new partners to the Structures stewardship circle.



LEADERSHIP

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Geodetic Control Theme

The Geodetic Control Theme provides the positional underpinnings of all spatial datasets and survey measurements, both horizontal and vertical. The current focus is on implementing a real-time network over a densified CORS (continuously operating reference station). As part of grant-funded project, Montana and Idaho are writing a business plan to establish a Regional Geodetic Reference Center. Developing a multi-state control point database and application is also part of the project.



LEADERSHIP

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Cadastral Reference

Cadastral Reference is the spatial grid of township, range, section, quarter-quarter lines, special surveys, mineral surveys or any line or corner established by a federal survey generally referred to as the Public Land Survey System (PLSS). BLM and the workgroup are developing ways to improve CadRef and publish one version.



LEADERSHIP

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rbettis@idl.idaho.gov

Says who?

IMAGINE DATA THAT IS..

Easy to find (One stop shop)

The screenshot shows the homepage of the INSIDE IDAHO website. At the top, it says "Idaho Geospatial Office | Idaho Geospatial Council-Executive Committee (IGC-EC)". The main header features the "INSIDE IDAHO" logo with the tagline "Interactive Numeric & Spatial Information Data Engine" and "Idaho's Geospatial Data Clearinghouse". A navigation menu includes "Home", "Data", "Apps", "Web Services", and "Contributors". A search bar is prominently displayed. Below the search bar, there are three featured items: "Invasive Weed Mapping" (with a sunflower image), "Batch Metadata Modifier Tool" (with a software interface image), and "ArcGIS Desktop Map Document" (with a map image).

Easy to recognize:



The screenshot shows a window titled "Data Source Item Description - NHDFlowline". It contains the following information:

- Tags:** FWHydrography, Hydrography, Stream / River, Lake / Pond, Canal / Ditch, Reservoir, Spring / Seep, Swamp / Marsh, Artificial Path, Reach Code
- Summary:** The NHD is a national framework for assigning reach addresses to water-related entities, such as industrial discharges, drinking water supplies, fish habitat areas, wild and scenic rivers. Reach addresses establish the locations of these entities relative to one another within the NHD surface water drainage network, much like addresses on streets. Once linked to the NHD by their reach addresses, the upstream/downstream relationships of these water-related entities—and any associated information about them—can be analyzed using software tools ranging from spreadsheets to geographic information systems (GIS). GIS can also be used to combine NHD-based network analysis with other data layers, such as soils, land use and population, to help understand and display their respective effects upon one another. Furthermore, because the NHD provides a nationally consistent framework for addressing and analysis, water-related information linked to reach addresses by one organization (national, state, local) can be shared with other organizations and easily integrated into many different types of applications to the benefit of all.
- Description:** The National Hydrography Dataset (NHD) is a feature-based database that interconnects and uniquely identifies the stream segments or reaches that make up the nation's surface water drainage system. NHD data was originally developed at 1:100,000-scale and exists at that scale for the whole country. This high-resolution NHD, generally developed at 1:24,000/1:12,000 scale, adds detail to the original 1:100,000-scale NHD. (Data for Alaska, Puerto Rico and the Virgin Islands was developed at high-resolution, not 1:100,000 scale.) Local resolution NHD is being developed where partners and data exist. The NHD contains reach codes for networked features, flow direction, names, and centerline representations for areal water bodies. Reaches are also defined on waterbodies and the approximate shorelines of the Great Lakes, the Atlantic and Pacific Oceans and the Gulf of Mexico. The NHD also incorporates the National Spatial Data Infrastructure framework criteria established by the Federal Geographic Data Committee.
- Credits:** See dataset specific metadata.

Fully documented

Easy to add to any map:

The screenshot shows a standard map application toolbar. The "Add" button (represented by a plus sign) is selected, and a dropdown menu is open. The menu options are:

- Add Data...
- Add Basemap...
- Add Data From ArcGIS Online...

The "Add Data From ArcGIS Online..." option is highlighted in blue.

The screenshot shows a data layer titled "All Idaho Road" in a map application. The layer is associated with the "Idaho Transportation Department" and was last updated on 7/10/18. A green checkmark icon is visible in the bottom left corner of the layer's metadata box, and a minus sign icon is in the bottom right corner.

Always up to date

Idaho
Geographic Information Systems (GIS)

State GIS Strategic Plan

Idaho Geospatial Council— Executive Committee
A subcommittee of the
IDAHO TECHNOLOGY AUTHORITY (ITA)

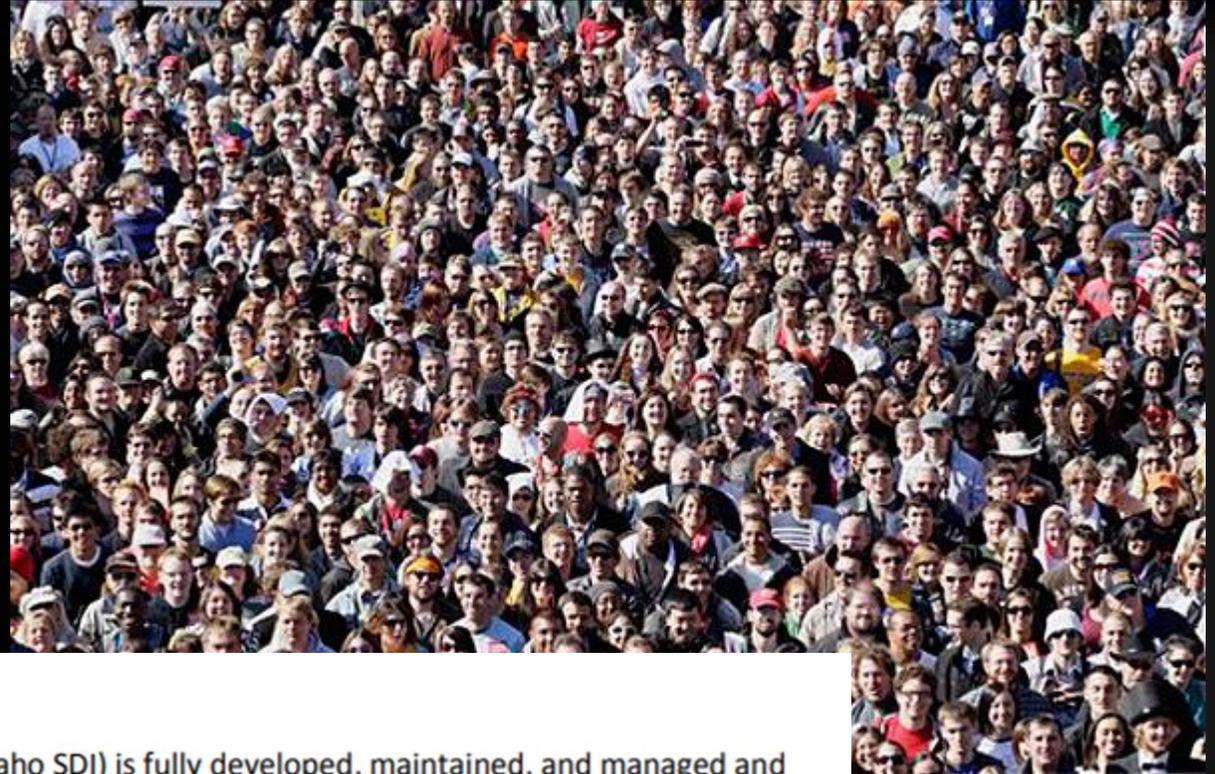
Approved by ITA: Effective December 6, 2016



WE ALREADY HAVE A PLAN

V1. Published in 2009
V2. Revised in 2016

Idaho Geospatial Stakeholders



2.1 Vision and Mission

Vision: Idaho Spatial Data Infrastructure (Idaho SDI) is fully developed, maintained, and managed and supports the missions of Idaho organizations through easy access to high-quality, up-to-date geographic information and related services.

Mission: With leadership by state government and active participation from stakeholders statewide, we will develop, deploy and efficiently operate the Idaho 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.

GOAL 1: Create/support a robust geospatial data clearinghouse for sharing current and historical TIM Framework and other authoritative data layers.

Objective: Seek and secure the funding and staffing needed for an official TIM geospatial data clearinghouse.

Strategy: Have a designated clearinghouse administrator who can reach out and support TIM/authoritative data stewards, review datasets and documentation and help keep them current, and maintain the clearinghouse website; acquire and maintain dedicated funding for this position.

GOAL 2: Provide best available statewide TIM Framework data layers.

Objective: Increase the number of officially recognized TIM Framework data layers and create a recognizable TIM “brand.”

Strategy: Create an inventory of Framework data layers currently available from metadata; reinvigorate the Framework Leadership Team; start with the top 10 (as defined by current survey results) and work with the associated agencies/TWGs to get the data layers nominated – host TIM nomination workshops and TIM metadata workshops; host the Framework data layers in the geospatial data clearinghouse and brand as TIM.

GOAL 3: Improve geospatial data quality.

Objective: Improve the quality and currentness of publicly available GIS data through education and have data stewards publish their geospatial data as Open Geospatial Consortium (OGC) services (WMS, WFS, WCS, etc.).

Strategy: Increase education on and encouragement to follow State GIS policies and standards; education on proper metadata; education on transition to web services.

GOAL 4: Improve delivery and accessibility of GIS services and information.

Objective: Increase stakeholder exposure to geospatial data and leverage the more user-friendly mapping applications to make geo-information more sharable and usable.

Strategy: Explore the use of data sharing applications such as Esri Open Data and data.gov; encourage not only GIS staff but others to use tools like Story Maps and Web Map Applications to relay geo-information to their customers and the public; encourage the use of mobile-friendly templates; funding for and encourage data stewards to use ArcGIS Server/shared State ArcGIS Server and enterprise ArcGIS Online accounts.

Implementation of the Strategic Plan in Idaho is very slow - and hence the benefits from a fully implemented plan are not being realized

MAIN TAKE-AWAYS

Most efficiencies and cost savings gained from coordinating **data**:

- Large scale data acquisitions (LiDAR, Imagery)
- Improve access and data quality:
 - Collect, Standardize and Distribute shared datasets (Parcels, Address Points, etc.)
 - Set up agreements with (local) agencies to formalize data steward agreements
 - Promote data sharing (GIS Hubs, Open Data Portals) and keep data free

Many of those items are addressed in the Idaho GIS Strategic Plan

MAIN TAKE-AWAYS

- Consolidate Infrastructure, licenses and software where possible.
- Be very careful about consolidating GIS personnel.
- Be a “circuit rider” – **build relationships and trust**
- IGC-EC and technical working groups are volunteers in advisory capacity: those people need support to execute the plan
- The GIO and his/her staff play a significant role in all those efforts:
 - **Need skilled staff, resources and funding to realize full benefit**

THE VALUE OF A GIO



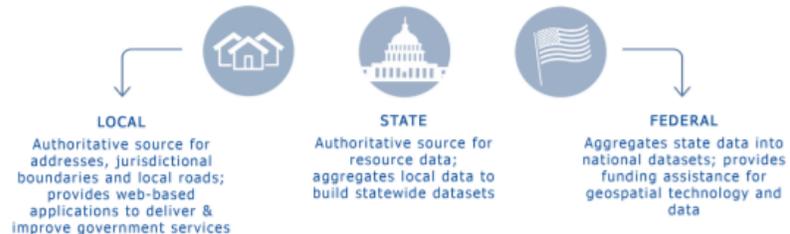
VALUE OF A GIO

APRIL 2018

A Geographic Information Officer (GIO) is a critical position in state government:

- Promotes efficient and transparent government through geospatial technology applications
- Maximizes the value of spatial data through data sharing
- Leverages accessible public data to expand economic investments and growth
- Serves as an advocate to local governments and state agencies to integrate geospatial technology into their business practices
- Consults on geospatial web applications and apps that will bring benefit to state agencies and their constituents
- Acts as a portal for professional communications related to geospatial technology
- Can legally enter into grants, MOUs, and contracts to save money on geospatial procurements
- Can do the same thing using a variety of titles (e.g. GIS Coordinator, Geospatial Manager)
- No other senior member of State Government studies a map of your state more than a GIO

GIS HAPPENS AT ALL LEVELS OF GOVERNMENT



GIS IN THE PRIVATE SECTOR



FOUNDATIONAL DATA ASSETS



TOPOGRAPHY/
ELEVATION



CADASTRAL



IMAGERY



HYDROLOGIC
FEATURES



HUMAN FOOTPRINT
FEATURES

GIS TECHNOLOGY

- Improves efficiency in delivery of government services
- Identifies gaps in key services
- Enhances public safety
- Augments data analytics through visualizing spatial patterns
- Enhances better decision-making
- Improves management of natural resources
- Supports planning and implementation of transportation projects

STATEWIDE GIS COORDINATION IS GOOD GOVERNMENT

- Reduces duplication of efforts
- Accesses and maintains foundational data layers
- Ensures access to public data layers
- Leverages economy of scale for products, software and services
- Augments the knowledge base of professionals in the field
- Establishes standards and best practices through collaborative processes

SUPPORT STATUTORY AUTHORITY AND STABLE FUNDING FOR A GIO POSITION IN YOUR STATE TO SUPPORT EFFICIENCY, INTEGRATION, AND SMART DECISION-MAKING.



WWW.NSGIC.ORG
INFO@NSGIC.ORG
504-265-9720



*“Progress happens at
the speed of trust”*

*Jack Dangermond,
ESRI User Conference, 2018*

REFERENCES

- Georgia Association of Regional Commissions Press Release, 2015. “Georgia Association of Regional Commissions Announce Selection of Susan Miller as the Geospatial Information Officer in Georgia”.
- Interviews with:
 - Jon Gottsegen, Colorado Office of Information Technology
 - Megan Compton, GIO for Indiana
 - Bill Farnsworth, GIO for Idaho, Enterprise Applications and Customer Relationships
 - Gar Clarke, New Mexico Geospatial and Broadband Program Manager
 - Tim Johnson, Director of the Center for Geographic Information and Analysis in North Carolina
 - Bob Nutsch, GIO for North Dakota
 - Cy Smith, GIO for Oregon
 - Matt Peters, IT Director (“GIO”) for Utah Automated Geographic Reference Center
 - Karen Rogers, Wyoming Game and Fish
- NSGIC, 2018. ‘Geospatial Maturity Assessment – Preliminary results for the Idaho Geospatial Executive Committee.’
- IGC-EC, 2016. ‘Idaho Geographic Systems (GIS) State GIS Strategic Plan

ITA Report

- ▶ Update to a number of ITA policies to remove the definitions from the policy.
 - ▶ Instead: refer to Guideline G105 “ITA Glossary of Terms”. More soon.
- ▶ IT Governance: Next Steps
 - ▶ Implementation of HB 607 – formation of the Office of IT Services
 - ▶ There have been a number of Town Hall Meetings (two of the GIS specific)
 - ▶ July 5 letter from Governor to State Agencies detailing goal to “consolidate, streamline and improve IT operations”. ITS is compiling list of agencies that would benefit from such a strategy.

ITA Report - Continued

- ▶ Approved State Strategic Goals

- ▶ Manage IT and Information from the perspective of state government as a whole
- ▶ Safeguard privacy and security of information
- ▶ Seek improvements in all aspects of information technologies and services

Mr. Zickau noted importance of including GIS community in helping set state strategic goals and promised to start a dialogue with IGC-EC for our input

- ▶ ITS is creating list of tools used in multiple agencies to look for opportunities to consolidate and get better (bulk) pricing

ITA Report - Continued

- ▶ The new History Museum opens October 12



The “virtual tour” looked AWESOME!

G105 – Glossary of Terms

Idaho Technology Authority (ITA)

ENTERPRISE GUIDELINES – G100 GENERAL

Category: G105 – ITA GLOSSARY OF TERMS

CONTENTS:

- I. [Definition](#)
- II. [Rationale](#)
- III. [Guideline](#)
- IV. [Contact Information](#)
- V. [Revision History](#)

I. DEFINITIONS

***Cybersecurity Breach:** A cybersecurity incident in which unencrypted sensitive information or personal information is disclosed. (See also Idaho Code section § [28-51-104](#) for breach of the security of the system.)*

***Cybersecurity Event:** An unauthorized act, successful or unsuccessful, exploiting a **cybersecurity threat**, to gain access to or use of a network or system, or data stored on a network or system.*

G100 - General

- » G105 - ITA Glossary of Terms **New 8/21/2018**
- » G110 - Agency IT Plan
- » G115 - Business Recovery Plan
- » G120 - Exemption Process

Example:

Idaho Technology Authority (ITA)

ENTERPRISE POLICY – P4500 COMPUTER AND OPERATIONS MANAGEMENT

Category: P4510 – CYBERSECURITY INCIDENT REPORTING

III. DEFINITIONS

See ITA Guideline [G105](#) (ITA Glossary of Terms) for definitions.

G350 – Addition of ESRI's “Authoritative” designation

▶ Page 4 - addition

USA Geology Units 

 Map Image Layer by Esri

Updated: November 4, 2016

 Subscriber

 Living Atlas

 Authoritative

A TIM Framework Dataset may be a compilation of Authoritative Data from multiple Authoritative Sources, for example from different geographic regions that will be compiled into one Trusted Dataset.

IGC-EC recommends that the Authoritative Source is verified by ESRI and that the Authoritative Dataset is designated as “Authoritative” in ArcGIS Online. For a description of this process see <http://doc.arcgis.com/en/arcgis-online/reference/>

IV. PROCEDURE REFERENCE



Action Item

Geodetic Control Technical Working Group

GC-TWG

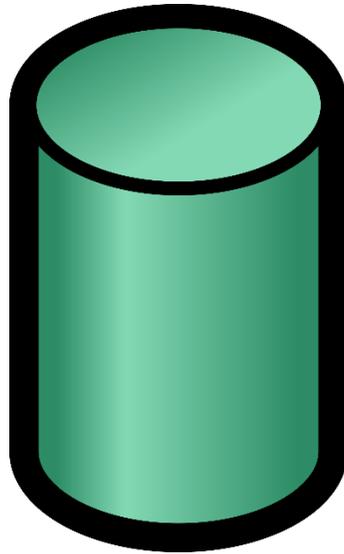
Chair: Keith T Weber, GISP

ISU GIS TReC



IDTM or IDOM?

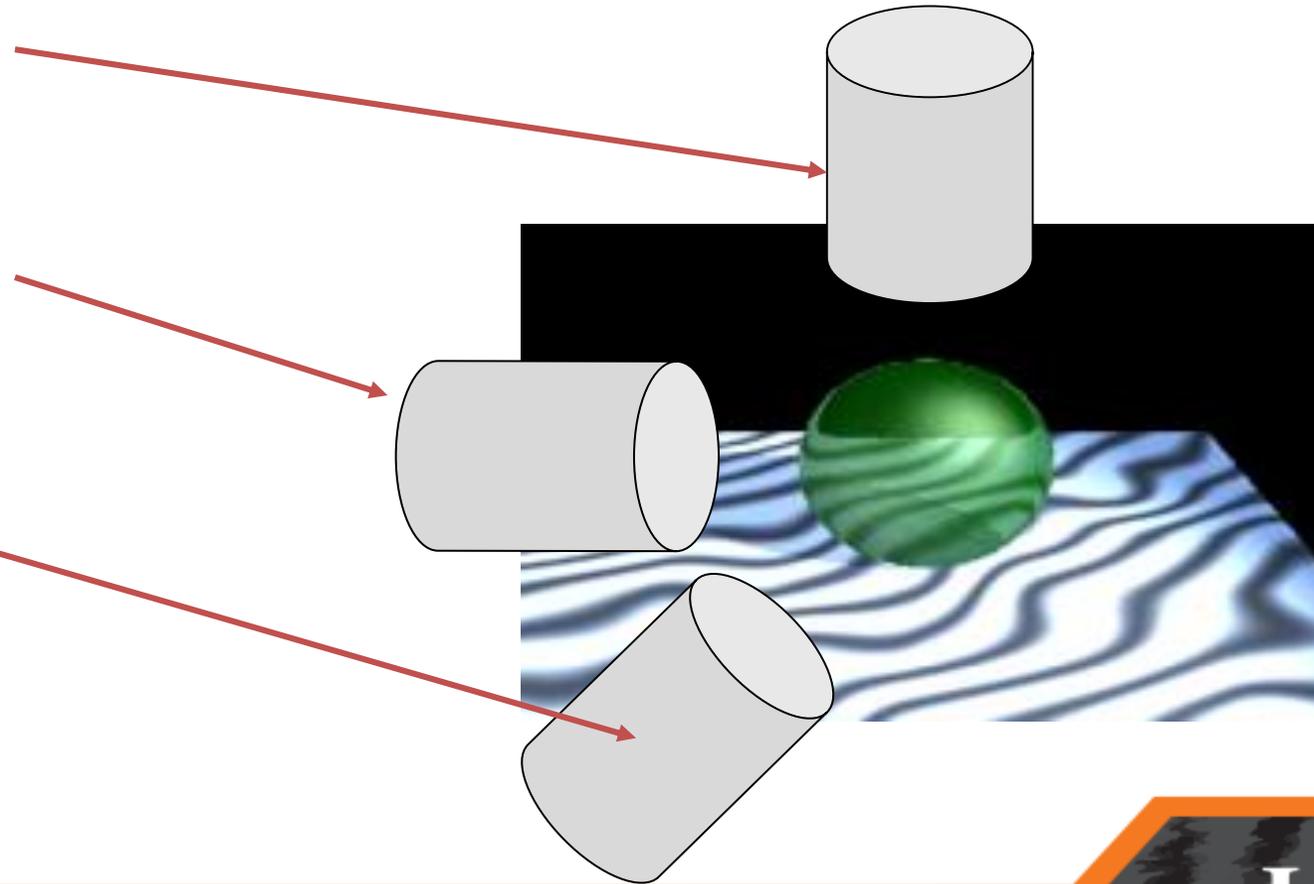
- Transverse Mercator or Oblique Mercator?
 - Mercator¹ is the name of a specific cylindrical type of projection



1- Gerardus Mercator, a geographer and cartographer

Projection Orientations

- Equatorial
- Transverse
- Oblique



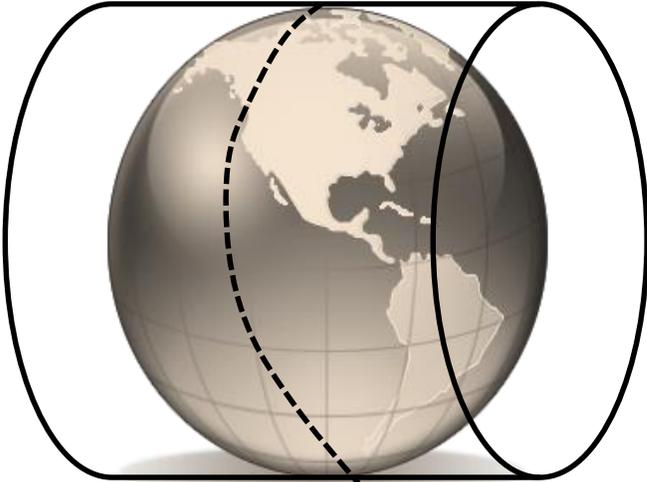
Projections



Canada is distorted

Projection works best where
"paper touches the globe"
(equator)

Cylindrical
Projections

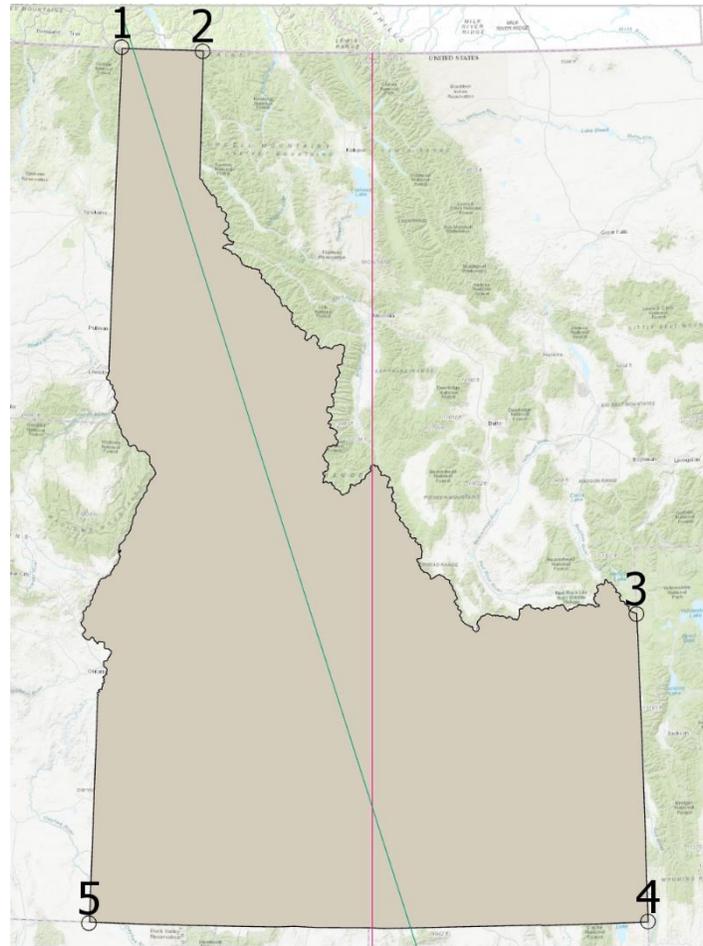


Transverse Mercator:
frequently used in Idaho

The Point of Contact is Important

- Ideally, the **area of interest (AOI, Idaho)** is centered beneath the point of contact
 - Transverse Mercator, this point (line) is referred to as the **Central Meridian**
 - Oblique Mercator, the line is called the Great Circle or **Principal Meridian**
- Distortions (shape, area, distance, and direction) increase as one moves away from the point of contact

Let's Look at an Example



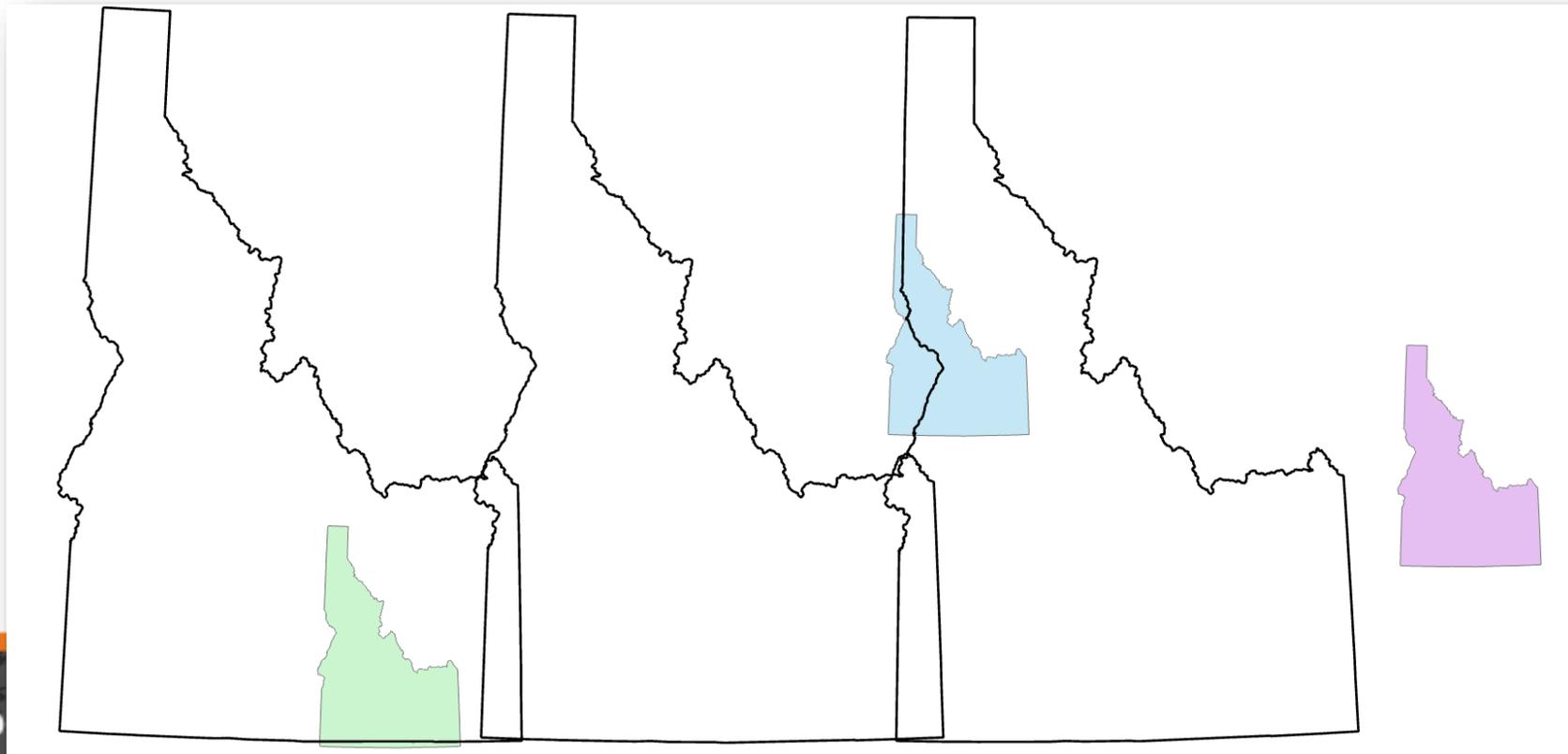
DESCRIPTION	MEAN	MEDIAN
TM (current)	220,568	234,233
OM -18°	163,146	202,304

A Example PRJ

- PROJCS["IDOM_WGS84",GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID["WGS_1984",6378137.0,298.257223563]
- PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]]
- PROJECTION["Hotine_Oblique_Mercator_Azimuth_Center"]
- PARAMETER["False_Easting",4250000.0]
- PARAMETER["False_Northing",1000000.0]
- PARAMETER["Scale_Factor",1.0]
- PARAMETER["Azimuth",-18.0]
- PARAMETER["Longitude_Of_Center",-114.61352425]
- PARAMETER["Latitude_Of_Center",44.35106255]
- UNIT["Meter",1.0]]

False Easting/False Northing

- `PARAMETER["False_Easting",4250000.0]`
- `PARAMETER["False_Northing",1000000.0]`
- When graphed “by the numbers...”



GC-TWG

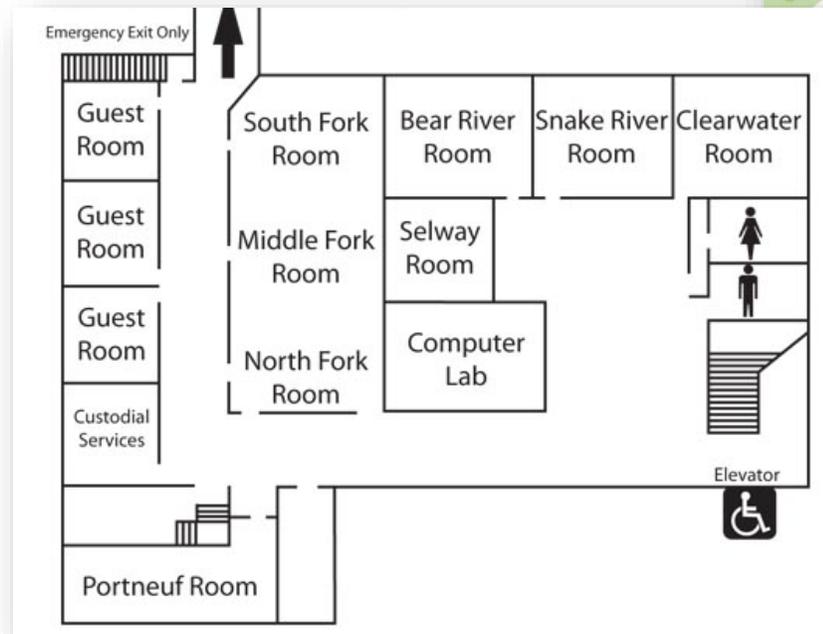
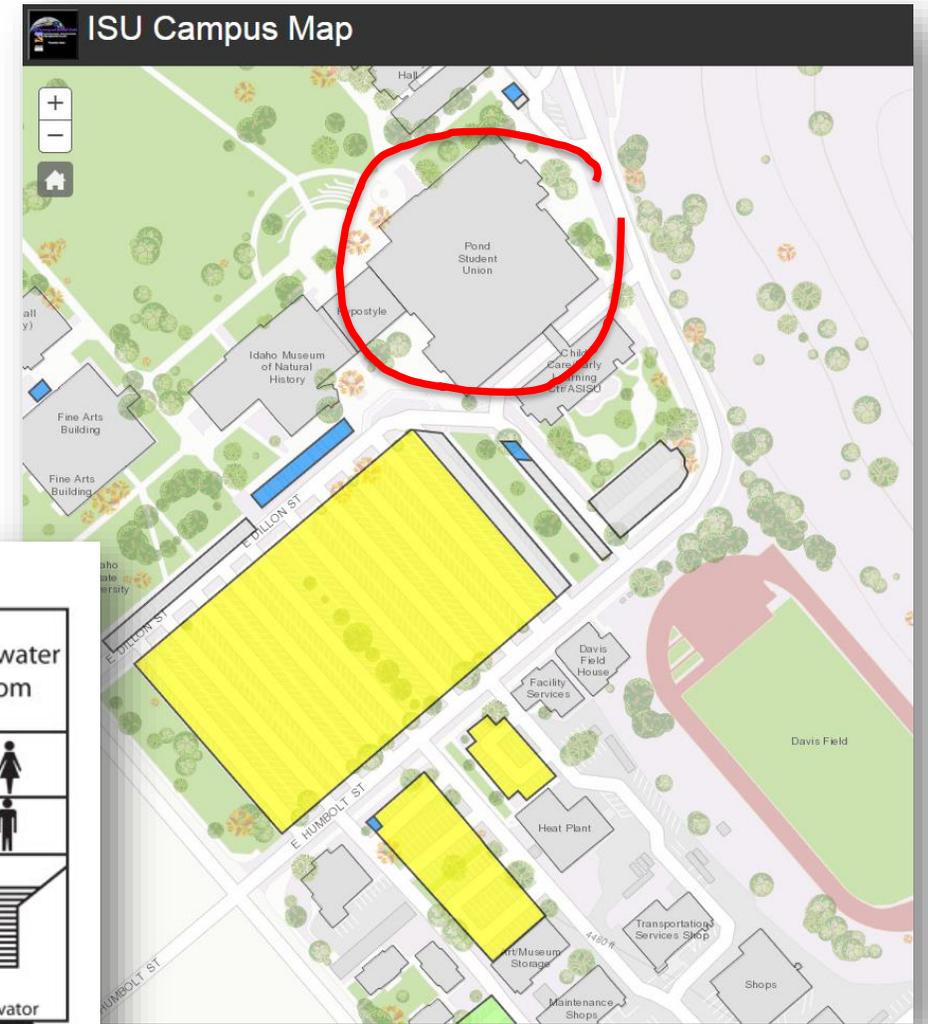
- Discussion/Questions?

webekeit@isu.edu or giscenter@isu.edu

IGC Meeting in Pocatello

- Hold the Date!
 - Wednesday, October 10th and
 - Thursday, October 11th

ISU Pond Student Union Bldg. (PSUB),
Salmon River Suites
(top floor)



WEDNESDAY OCTOBER 10TH**Goody's Deli**

6:00PM

Demos and Discussions Dinner social hosted by NR URISA. Topics include Exporting data out of Pro, Importing data into Portal, Survey123, and StoryMaps... all at Goody's Deli, 905 S. 5th Ave., Pocatello (across the street from the ISU Campus) 208.233.9210
<https://www.facebook.com/Goody's-137403041262/>

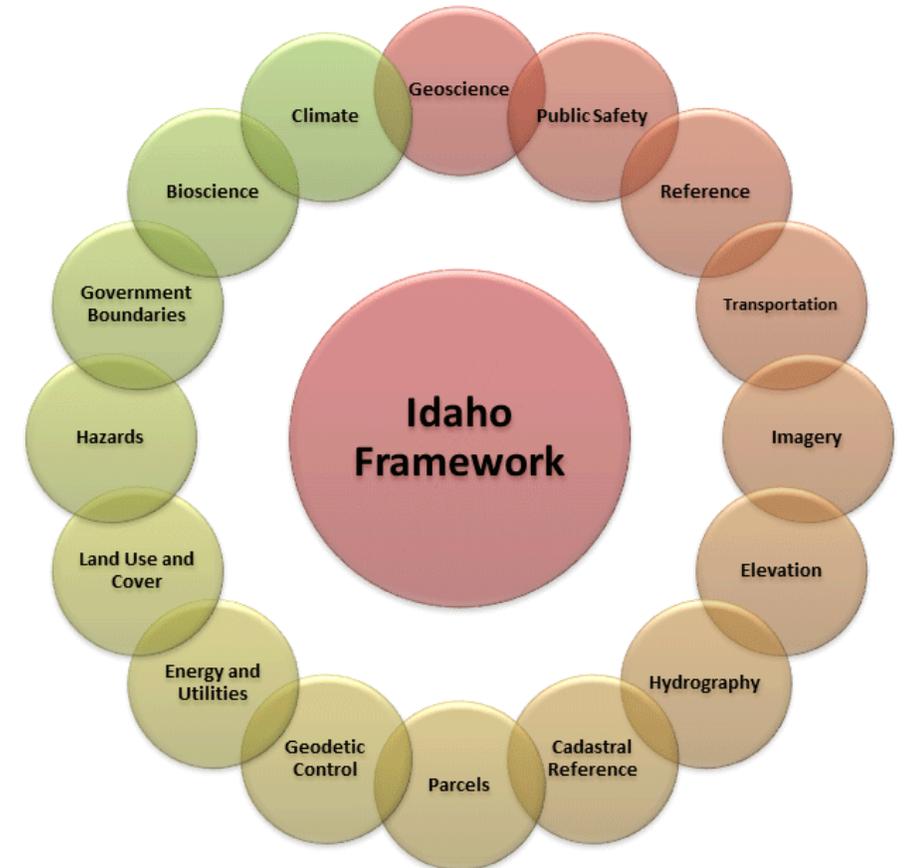
**THURSDAY OCTOBER 11TH****PSUB Salmon River Suites****GIS Center (Graveley Hall B19)**

8:45 AM	Welcome and opening remarks	
9:00 AM	IGC-EC Updates- Wilma Robertson	
9:15 AM	State of GIS in Idaho- Bill Farnsworth	
9:45 AM	BREAK	
10:00 AM	TWG updates and Super-TWG discussions (Elevation, Hydro, Imagery, Geodetic Control, and Public Safety)	Google Earth Engine: Taking Geoprocessing into the cloud (a hands-on experience)- Dane Coats
10:30 AM		Idaho's "811- Call Before You Dig" process and GIS- Craig Campbell
11:00 AM	A Life of GIS- Dennis Hill	GIS: How Surveyors and GISP's can help each other-Stewart Ward
11:30 AM	LUNCH BREAK	
1:00 PM		
1:30 PM	Esri Best Practices Architecture- Scott Moore	
2:00 PM		
2:30 PM	BREAK	
3:00 PM	Professional Certification- Cyndi Andersen	High Resolution Lidar Strategy for Hydraulic Modeling- Tanner Daley and Heather Rice
3:30 PM	GIS and the Census 2020 - Carolina Echava	Embedding Story Maps into Web Apps- Jet Johnstone
4:00 PM	Working in Indian Country- Laurie Ames	Geography of Wildfires Across the West (1950-Present)- Keith Weber
4:30 PM	ADJOURN	

Keith Weber**Cyndi Anderson****Kindra Blair****Dennis Hill****Wilma Robertson**

Current Topics

- Framework TWG meetings
- Super-TWG meetings (chairs, please attend)
- GIS Professional Certification
- Share updates on your projects



Ideas for additional topics...

- Publishing web services from ArcGIS Pro
- Using/Managing your AGOL
- Using/Managing Portal
- Other Ideas or interests?

Contact either Keith (webekeit@isu.edu), Cyndi (cyndia@bannockcounty.us), or Dennis (dhill@pocatello.us)

Questions?



Adjourn

- **Upcoming Meetings**

- ✓ **IGC Bi-Annual Meeting**

Wednesday & Thursday, October 10-11, 2018

- ✓ **IGC-EC Meeting**

Thursday, November 15, 2018