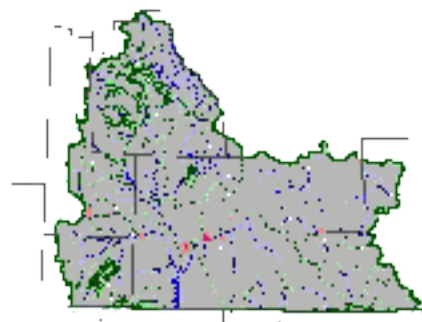


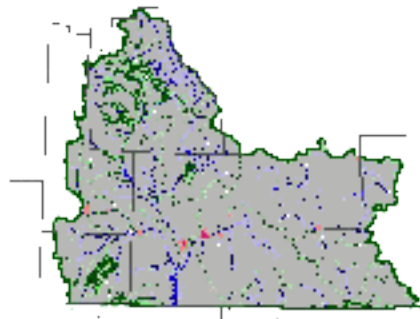
Green River GIS

- ◆ What is GIS?
- ◆ How are we using it to make decisions?



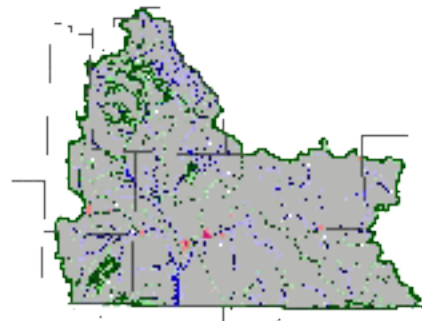
What is GIS?

A Tool to **Display, Store,** and **Manage** Data Tied to a Geographic Location



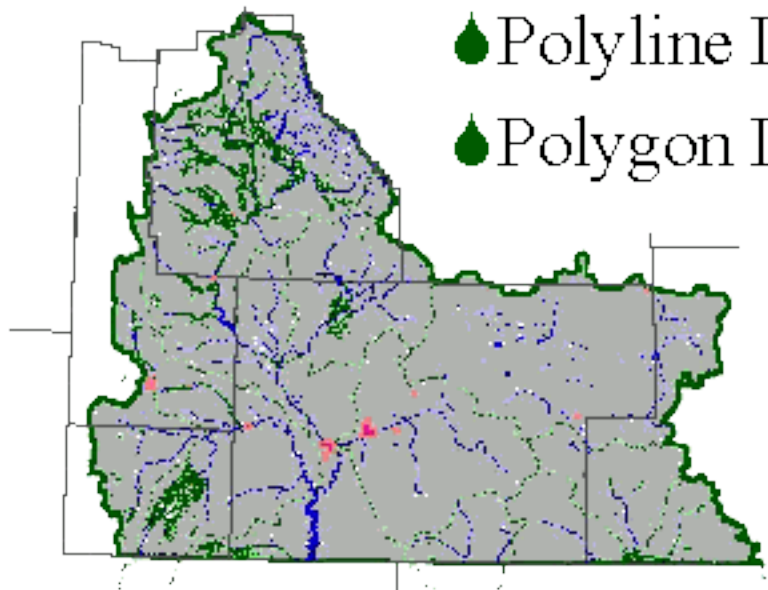
Display Data

- ◆ Digital Map
- ◆ Shows Relationship between Geographic Information



Store Data

- Underlying Database
- Point Data (Coordinate)
- Polyline Data (Length)
- Polygon Data (Area, Perimeter)



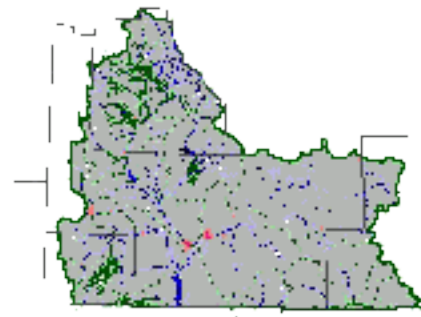
Manage Data

◆ Link to Outside Data Sources

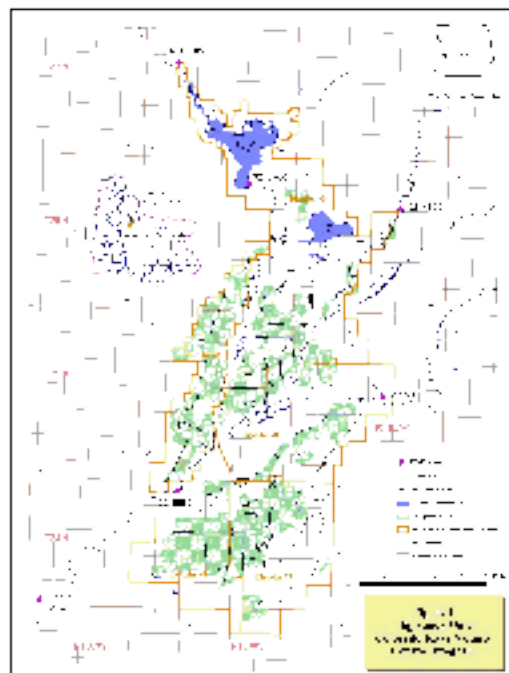
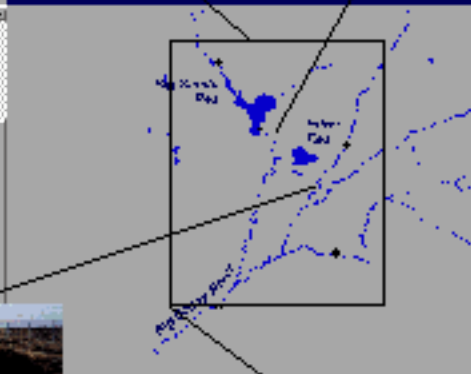
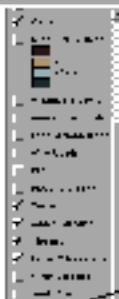
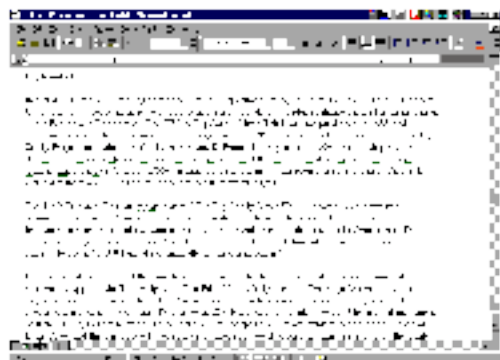
- ◆ Physical Links

- ◆ References

◆ Link Themes based on Common Data



Linking to Other Sources



Using GIS to make Project Decisions

GIS Coverage	Use For Coverage
Basin Boundary	Base Map
Highways and Major Roads	Base Map
Towns	Current and Future Municipal Use and Base Map
Basin Hydrography	Basin Water Budget and Base Map
Stream Gage Locations	Basin Water Budget
Irrigated Acreage	Crop Consumptive Use
Surface Water Diversion Locations with Crop Types	Crop Consumptive Use and Basin Water Budget
Surface Water Rights	Basin Water Budget
Ground Water Well Locations and Permit Data	Consumptive Use from Ground Water
Reservoir Locations and Storage Rights	Basin Water Budget
Climate Station Locations	Crop Consumptive Use
Wyoming Surface Water Quality Classifications	Water Quality and Future Development
Surficial Geology	Future Ground Water Development
Well Coverage from USGS GWSI database	Current and Future Ground Water Development
SEO Well Coverage	Current and Future Ground Water Development
Surface Water Quality	Future Development
Ground Water Quality	Future Development
National Wetlands Inventory	Environmental Use and Future Development
Instream Flow Filings	Environmental Use and Future Development
Proposed Future Reservoir Sites	Future Development
USGS Spring Data	Current and Future Ground Water Development

Using the Spreadsheet Model and GIS to Make Decisions

- ◆ A GIS query of irrigable lands south of Cottonwood Creek indicates approximately 26,000 acres.
- ◆ The surface spreadsheet model provides monthly available flow along the Green River between Horse Creek and Cottonwood Creek: For months July-September (Dry Year) 56,000 AF total available flow (132,000 AF Normal Year).
- ◆ 25% Reduction in available flow in Dry Year (10% Normal Year), assuming $\frac{1}{2}$ foot depletion.

Using GIS to Make Decisions

- ◆ A rich resort tycoon bewildered by his prospects in Jackson Hole wanders down to Pinedale. He is interested in building an alternate resort outside of Pinedale which would likely need its own groundwater source. He's interested in what is presently available.