

# Bear River GIS

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



# What is GIS?

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



# Display Data

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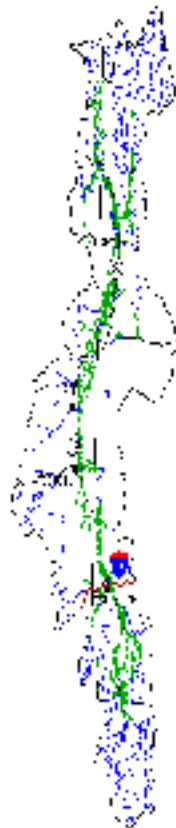
- Digital Map
- Shows Relationship between Geographic Information



# Store Data

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



# Manage Data

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- Link Themes based on Common Data
- Link to Outside Data Sources
  - Physical Links
  - References

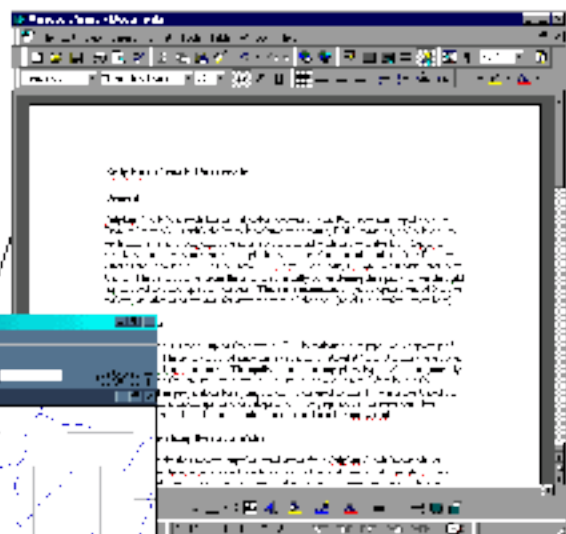
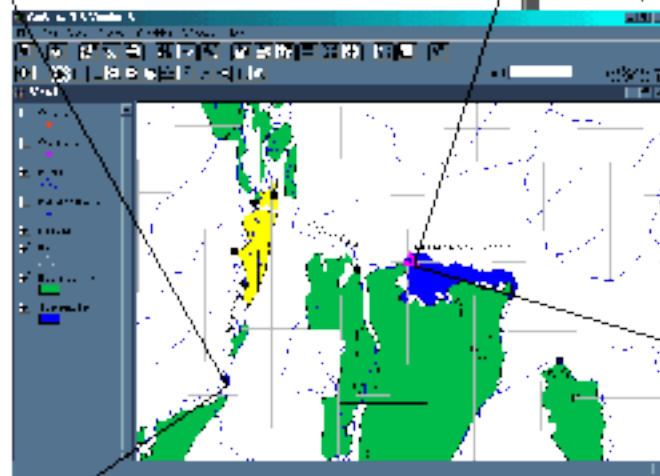


# Linking to Other Sources

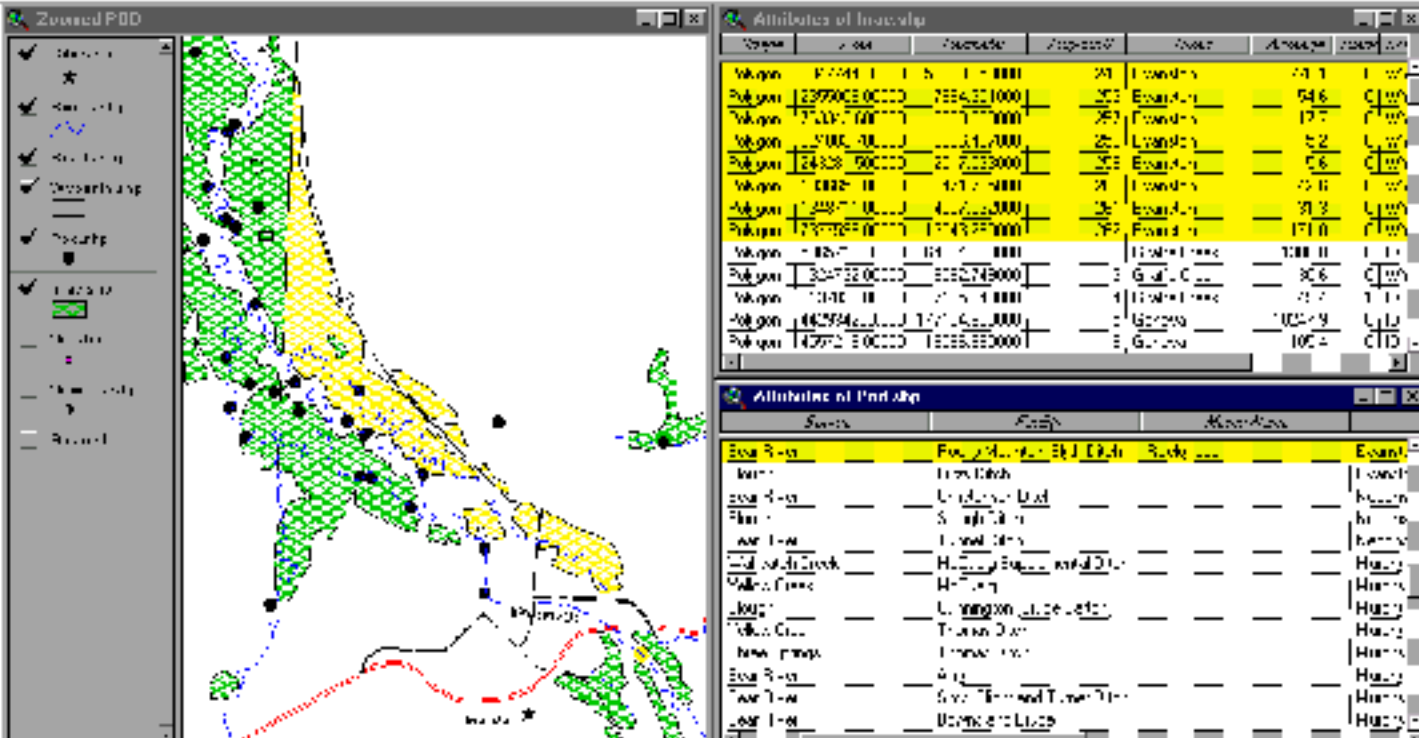


A screenshot of a data table from a GIS application. The table has a header row with columns for 'ID', 'Name', 'Area', 'Perimeter', 'Volume', and 'Elevation'. Below the header, there are several rows of data with numerical values in the 'Area', 'Perimeter', and 'Volume' columns. The table is displayed in a window titled 'Data Table'.

ID	Name	Area	Perimeter	Volume	Elevation
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...



# Using GIS to Make Decisions



The screenshot displays a GIS interface with a map and two data tables. The map on the left shows a region with various land use patterns, including green checkered areas and yellow solid areas. The top-right table, titled 'Attribute of township', provides a detailed list of townships with their respective area, population, and administrative status. The bottom-right table, titled 'Attribute of Pindang', lists various types of land parcels with their respective area, ownership, and status.

**Attribute of township**

No	Name	Area	Population	Level	Code	Status
1	Meloyan	27441.14	1474800	3A	1	Township
2	Pakjaya	237900.00	1234321000	3B	2	Essential
3	Meloyan	27441.14	1474800	3C	3	Township
4	Meloyan	27441.14	1474800	3D	4	Township
5	Pakjaya	237900.00	1234321000	3E	5	Essential
6	Meloyan	27441.14	1474800	3F	6	Township
7	Meloyan	27441.14	1474800	3G	7	Essential
8	Pakjaya	237900.00	1234321000	3H	8	Township
9	Meloyan	27441.14	1474800	3I	9	Township
10	Meloyan	27441.14	1474800	3J	10	Essential
11	Meloyan	27441.14	1474800	3K	11	Township
12	Meloyan	27441.14	1474800	3L	12	Township
13	Meloyan	27441.14	1474800	3M	13	Township
14	Meloyan	27441.14	1474800	3N	14	Township
15	Meloyan	27441.14	1474800	3O	15	Township
16	Meloyan	27441.14	1474800	3P	16	Township
17	Meloyan	27441.14	1474800	3Q	17	Township
18	Meloyan	27441.14	1474800	3R	18	Township
19	Meloyan	27441.14	1474800	3S	19	Township
20	Meloyan	27441.14	1474800	3T	20	Township

**Attribute of Pindang**

No	Name	Area	Code	Status
1	Boa Pindang	10000.00	10000.00	Essential
2	Boa Pindang	10000.00	10000.00	Essential
3	Boa Pindang	10000.00	10000.00	Essential
4	Boa Pindang	10000.00	10000.00	Essential
5	Boa Pindang	10000.00	10000.00	Essential
6	Boa Pindang	10000.00	10000.00	Essential
7	Boa Pindang	10000.00	10000.00	Essential
8	Boa Pindang	10000.00	10000.00	Essential
9	Boa Pindang	10000.00	10000.00	Essential
10	Boa Pindang	10000.00	10000.00	Essential
11	Boa Pindang	10000.00	10000.00	Essential
12	Boa Pindang	10000.00	10000.00	Essential
13	Boa Pindang	10000.00	10000.00	Essential
14	Boa Pindang	10000.00	10000.00	Essential
15	Boa Pindang	10000.00	10000.00	Essential
16	Boa Pindang	10000.00	10000.00	Essential
17	Boa Pindang	10000.00	10000.00	Essential
18	Boa Pindang	10000.00	10000.00	Essential
19	Boa Pindang	10000.00	10000.00	Essential
20	Boa Pindang	10000.00	10000.00	Essential

# Using GIS to make Project Decisions

GIS Coverage	Use for Coverage
Irrigated Acreage/Crop Types	Crop Consumptive Use
Ground Water Well Location and Permit Data	Consumptive Use from Ground Water
Surface Water Diversion Location and Permits	Basin Water Budget
Reservoir Locations and Storage Rights	Basin Water Budget
Basin Hydrography	Basin Water Budget
Streamflow Gage Locations	Basin Water Budget
Towns	Current and Future Municipal Use
Climate Station Locations	Crop Consumptive Use
Average Temperature and Precipitation Contours	Crop Consumptive Use
Dry/Average/Wet Consumptive Use Contours	Crop Consumptive Use
Land Surface and Mineral Ownership	Current and Future Industrial Use
Big Game Habitat Locations	Future Development
Stream Trout Fish Ratings	Future Development
Watershed and Drainage Boundaries	Basin Water Budget
Soil Delineation	Crop Consumptive Use and Future Development
Depth to Ground Water	Future Ground Water Development
Mineral Deposits	Industrial Use Demand Projection
Oil and Natural Gas Deposits	Industrial Use Demand Projection
Surficial and Bedrock Geology	Future Ground Water Development
National Wetlands Inventory	Future Development
Instream Flow Filings	Future Development
TMDL Impaired Streams	Future Development
Aquifer Layout and Information	Future Ground Water Development
Proposed Future Use Location Coverage	Future Development

