# 2-Day: Water Resources Applications of GIS Level I

**Overview**
This course covers GIS concepts for water resources applications. Upon completion an attendee will know how to query a GIS database, manipulate tabular data, edit spatial and attribute data, and present data clearly and efficiently using maps and charts in the context of water and watershed.

Participants will learn how to use ArcGIS Pro to explore how these applications work together to provide a complete GIS solution.

This 2-day course is for those who are **not** new to GIS **but new to ArcGIS Pro** or **new to specialized applications such as water resources**. **If you have never taken a GIS course please take our Beginner GIS course first**. This course will introduce basics of GIS for water related applications followed by hands-on experience working with water related data including National Hydrography Data Sets.

**Prerequisites and Recommendations**
Participants should have formal training or experience-based knowledge of GIS (i.e familiar with fundamentals GIS). **Prior experience with ArcGIS desktop is preferred**. Upon successful completion of this workshop a participant will have knowledge and experience needed to enroll in Intermediate (Level II) and Advanced GIS applications for Water Resources workshops



**Module I: Getting Started with ArcGIS Pro**
Learning Objectives
  ➢ Introduction to ArcGIS PRO Software
  ➢ Introduction to Project
  ➢ Working with catalog Pane
  ➢ Add data to a project

**Module II: Foundations of Query**
Learning Objectives
  ➢ Utilization of Geoprocessing Tools
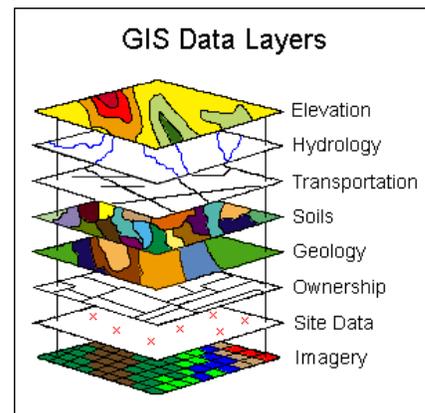
Case Study: Foundations of Query
Case Study:  Utilization of Geoprocessing Tools

**Module III: Introduction to Map Making and Display**
Learning Objectives
  ➢ Fundamentals of map making and display

   ➢  Manipulating and Display

- ➢ Labelling of maps
- ➢ Map Making with
- ➢ Advanced Map Making
- ➢ Share a web map
- ➢ Import ArcMap in ArcPro
- ➢ Working with Datum and Projection

**Module IV: Data Integration – GPS, Remote Sensing and Digitizing**
Learning Objectives
- ➢ Working with GPS data of weather station
- ➢ Image classification and Water Budget Analysis
- ➢ Create Points on a map