Role of a Successful Project Manager

1. **Communicate.** Be able to communicate clearly with all stakeholders

2. **Planning & Organization.** Build the proper foundation for successful project. Set up meetings, schedules, and deliverables

3. **Problem Solving.** Analyze problems and make timely decisions

4. **Leadership.** Be confident in your decisions without jumping to conclusions or making premature judgments

5. **Strive for Excellence.** This is your project and should reflect a piece of yourself.
GIS: the project
Define the question or problem

- What is the mission, vision and objectives of the project?
- What needs to be achieved with the project?
- What methods do I use to meet those goals?
- What are the best practices in the field?
Define the question or problem

- Write a short description of the problem
  - General scenario
  - Stakeholders
  - Specific issues
  - Decisions to be made
Planning the workflow

1. Define research question or problem
2. Create project description and overview
3. Identify project deliverables & objectives
4. Define project success criteria
5. Identify major milestones & target dates
6. Other management plans – resource, schedule, cost, quality assurance, communications
GIS Data Compilation

- Create a folder structure
  - By source
  - By topic

- Compile all necessary datasets
  - May be provided to you
  - ESRI, RLIS, OGDC, or other common sources
  - Collect or create your own data
GIS Data Compilation

- Document all your sources
- Check for metadata or create metadata
  - Description of the data, including attributes
  - Data creation (source)
  - Coordinate system (projection) info
  - Resolution
Layer Name: mjriv_fi

Description: This dataset originally came from Metro RLIS. After making a selection, it currently only contains the Willamette & Columbia rivers.

Scale Range

You can specify the range of scales at which this layer will be shown:
- Show layer at all scales
- Don't show layer when zoomed:
  - Out beyond: <None> (minimum scale)
  - In beyond: <None> (maximum scale)
Item Description

Title: U.S. Cities

Tags:
point, cities, capitals, demographics, population, households, location, society, United States, 2000

GIS Data Management

- Create a standard directory structure for each project
  - Project folder
    - Data Folder
      - By source / geography
      - By topic
    - Documentation Folder
    - MXD folder
    - Map Folder (jpg or pdf)
    - Tables Folder
GIS Data Structure by Source/Location
GIS Data Structure by Topic
GIS Data Management - Tips

- Create a project geodatabase
  - set as default Geodatabase
Choose a template for your new map

[Screen capture of a software interface showing a folder named "Applications" and a file named "TryonCreek.gdb".]

Default geodatabase for this map:
\psf\Home\Documents\ArcGIS\Default.gdb
Poor Data Management
Improved Data Management
Improved Data Management
Project Documentation

- Project
  - File>Document Properties
  - Include some basic information about your project

- Process
  - Flowchart
  - Model Builder
  - Text document
Project Methodology

- **Methods**
  - Research on best practices
  - In-depth understanding of the content and processes being modeled
Prepare your data

- Convert all your datasets into the same projected coordinate system
  - Be aware of units (meters, feet)
- Convert from table to GIS data
  - Geocode addresses
  - Add X/Y data
  - Table join
Data Analysis

- Apply appropriate geospatial tools to your data
  - Buffers, clip, spatial join, map algebra, point density, etc.
- Use tools that will produce the deliverables identified in *Project Planning* step
- Do not forget to document your steps!
Question

Project Planning

Data Compilation & Collection

Data Preparation

Methodology / Documentation

Data Management

Data Analysis

Maps, Charts, Graphs, Reports
Outputs

- Drafts, Drafts, Drafts!
  - Print out drafts! Screen & print colors will look different
- Never spend too much time on the 1st draft of a map – starting point
- Do not take critiques personally
- Accept feedback, yet stand your ground