

Chapter 2: Planning a GIS Project and/or Program

The purpose of this chapter is to lead us all through the questions we should ask when planning a GIS project, and many of the answers will help us start to set up a well-organized GIS program as well. We can use the example below as an exercise, or you can answer the questions for the real project you are thinking about or already working on.

EXAMPLE: The town of Bolton wishes to create and manage some mapping data layers so that they can be accessed by the Assessor, Zoning Administrator, Development Review Board and Planning Commission. Members of the board and commission have talked about wanting to make maps that show parcel boundaries, waterways, flood zones, river corridors, trails, publicly owned land, development zones, elevation, land cover, roads, and perhaps more that they haven't thought of! The new Zoning Administrator (who is part-time) has some knowledge of GIS and wants to help the town plan this project and also create "digital assets" that they can continue to use in the future.

1. Identify your objectives, don't jump to the solution yet – when considering these questions take a moment to think "outside the box" about how your project might be of interest to a wide audience. In the case of the example above, might citizens also be interested in the maps and data that are being considered? You may or may not be able to expand your audience, but it is important to consider interest beyond your initial audience.
 - a. What problem are you trying to solve?
 - b. Who is the audience?
 - c. What is the most effective format for the final product (paper, digital, online, dynamic)?

2. Identify partners – Do some research to find out if it would help to reach out to: Regional Planning Commission, neighboring towns, VCGI, or simply the other town commission(s) (Conservation) if you haven't talked with them yet.
 - a. Who else cares about the problem statement?
 - b. Who has necessary data, tools, skills?
 - c. Who can help improve the final product through their participation?

3. Define data needed – This is an extremely important bit of research. You really don't want to recreate data that already exists! Check VCGI first, then the RPC, and talk with your parcel mapping company before deciding that you need to create data.
 - a. What do you need? Break down the maps you imagine into their individual data layers
 - b. What already exists?
 - c. What needs to be collected or created?
 - d. What are your data sources?
 - e. Are there costs to acquiring the data?

4. Define tools needed
 - a. What software and hardware is needed?
 - b. Are there other tools available?
 - c. Will you need training?
 - d. What are the costs to acquiring additional tools/training?

5. Define your data storage and distribution strategy – keep in mind that public data has to be available if people ask for it. It is a good idea to talk with your RPC about being the potential distributor of your data if you are a town.
 - a. Will data created/obtained be public information?
 - b. Will others be interested in obtaining the data?
 - c. How will you store and access the data? – This question relates to both file format (shapefile, GeoJson, geodatabase?) as well as literally where you will store it, whether you have enough digital storage space, and how you will do backups of that data (VERY IMPORTANT).
 - d. How will you respond to data distribution requests?
 - e. Are there additional resources for distributing the data (RPC, VCGI)?

6. Put together a plan and run it by the stakeholders
 - a. Identify needs, costs, resources
 - b. Schedule meetings, get feedback, revise

- c. Will this be an ongoing effort that requires periodic update?
 - d. Identify funding needs – grant, line item in budget, one time expense?
- 7. Obtain necessary partners, data, tools, skills...Implement Plan!
- 8. Create a project database
 - a. What is the most helpful way to organize your data?
 - b. Will you have future projects where you access this data again?
 - c. Create folder system before acquiring data if possible
- 9. Analyze/create data
 - a. Use your tools, skills, and data!
- 10. Build map product or final analysis product
 - a. Use your tools, skills, and data
 - b. Communicate with your partners, ask for feedback during the process
- 11. Present the result
 - a. How will you publicize the product/results?
 - b. Will you ask for feedback on your product/results?