

**CHAPTER OUTLINE**

- I. Chapter Focus
  
- II. Findings
  - A. Map Development
  - B. Land Capability Analysis
  
- III. Goals and Objectives
  
- IV. Implementation Statement

**I. CHAPTER FOCUS**

Properly mapping the Comprehensive Plan data is a critical step in the development of the Plan. Accurate, to-scale maps were produced so that they could be combined into composite maps. The composite maps were then used for land capability analysis. The intent of land capability analysis was to arrive at a means to call out those areas that have restrictions and to identify land use conflict areas.

The purpose of this Chapter is to illustrate how the natural features and manmade development factors were synthesized to produce the land use map.

## II. FINDINGS

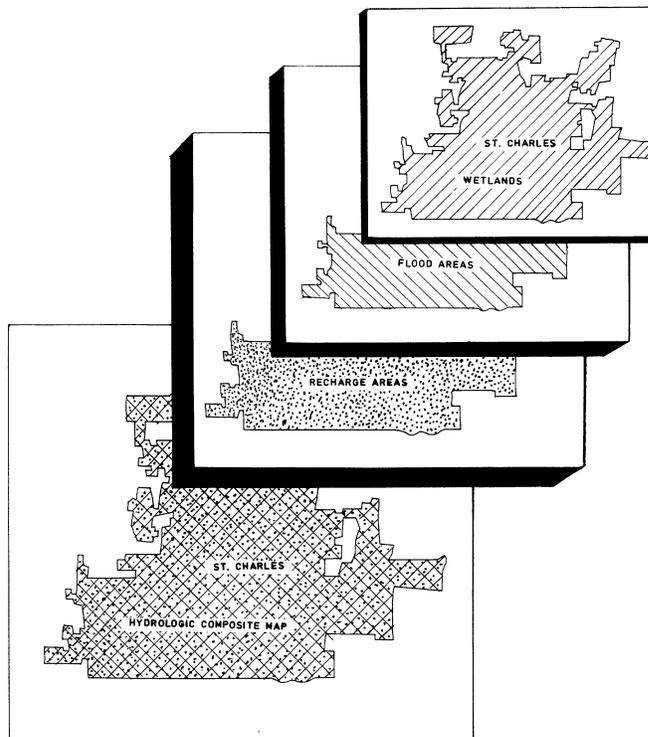
### A. Map Development

Much of the data base for the Comprehensive Plan is represented on maps. This is true for natural and man-made factors. Mapping the information makes it more accessible and useful.

Each map was specifically assembled for the Plan. The most recent and reliable information was used; field checks were made whenever possible. Further, the data was cross-referenced with similar data from Kane County.

The maps were designed to be overlaid, in order to show the cumulative impact of the various natural and man-made factors.

**FIGURE 12-1  
MAP OVERLAYS**



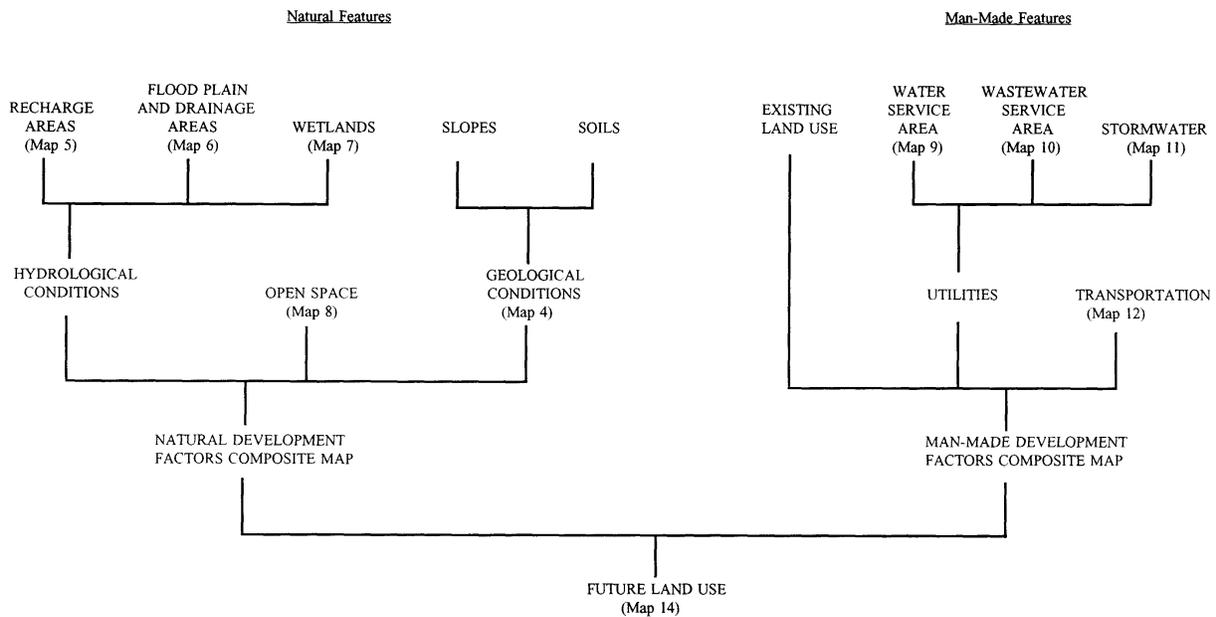
**B. Land Capability Analysis**

There are many physical considerations that determine the suitability of a particular area for a specific land use. These considerations include factors such as flood areas, soils, existing land use, utilities, etc. To put these factors into a proper context, they must be arranged so they can be related to each other. The process of weighing, comparing and fitting the various factors together is called land capability analysis.

The emphasis of land capability analysis is to predict areas of conflict: Areas where human activity is likely to adversely impact the natural environment, or where the natural environment is likely to harm human activity. This is done by overlaying a series of maps, each displaying one variable. See Figure 12-1.

Figure 12-2 shows the development and make-up of the composite maps leading up to the land use map. The composite maps were prepared on a planning component level and are not presented in the plan due to their volume.

**FIGURE 12-2  
COMPOSITE MAPS  
USED TO DEVELOP LAND USE MAP**



### **III. GOALS AND OBJECTIVES**

#### **A. Establish and maintain a data base of physical factors for the City of St. Charles.**

1. Update Comprehensive Plan maps as new data becomes available.
2. As technology and budget restraints allow, convert manual physical data base to computer data base.

#### **B. Develop a harmonious relationship between natural and man-made development factors.**

1. Through the continued use of composite maps, identify adverse impact areas based on natural and man-made development factors.

#### **IV. IMPLEMENTATION STATEMENT**

Base mapping and land capability analysis are vital tools for comprehensive planning. Base maps provide large volumes of information in a manageable format. Land capability analysis merges the base data together, creating an inventory on which wise land use decisions can be made. Further, land use analysis integrates the natural environment into the planning process.

Base mapping and land capability analysis identify the various factors affecting development. By knowing where natural and man-made development variables exist and coexist, a course can be charted to avoid or minimize conflicts.