

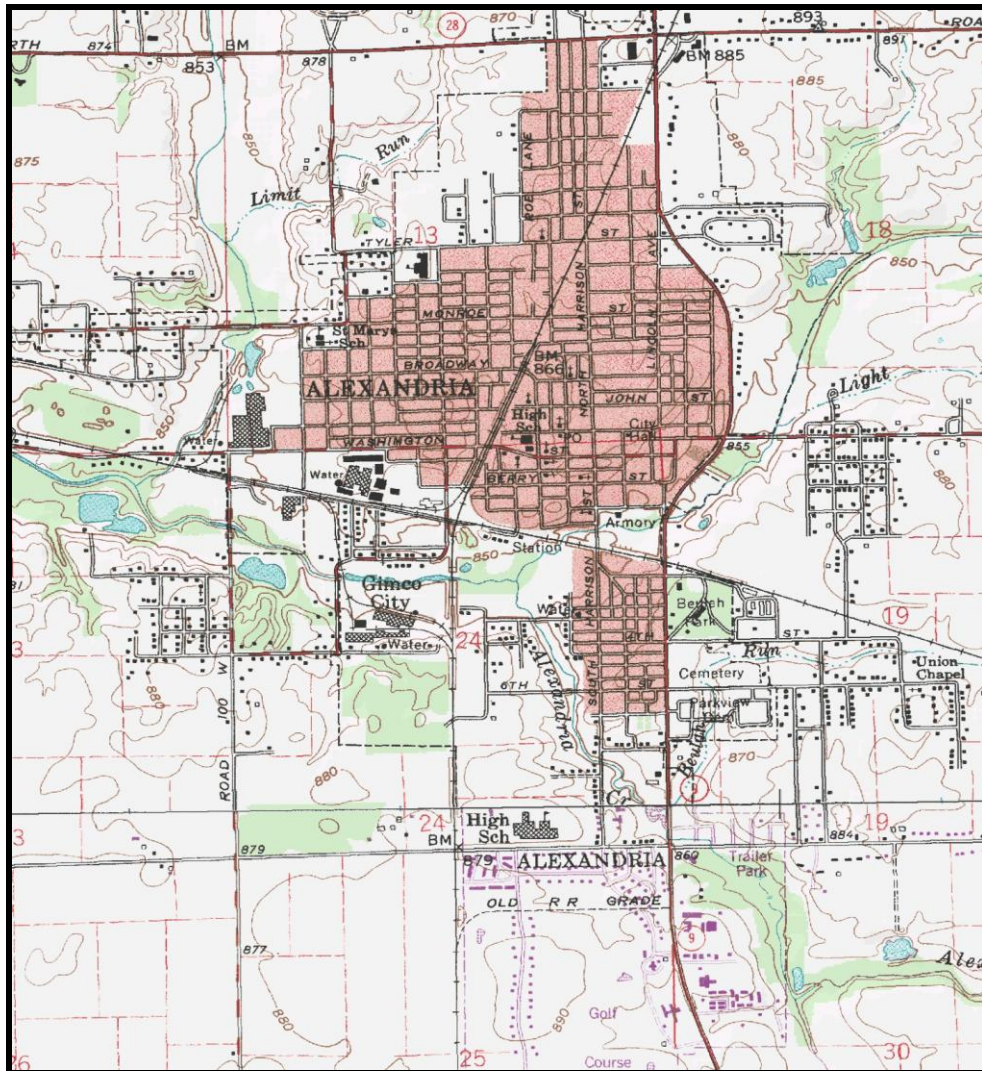


## CHAPTER 3: Natural Environment

### Topography and Soils

#### Topography

The Planning Area has a topography that is somewhat flat with only a slight rise throughout the entire City. The map shown below shows the topographical map of Alexandria.





## Soils

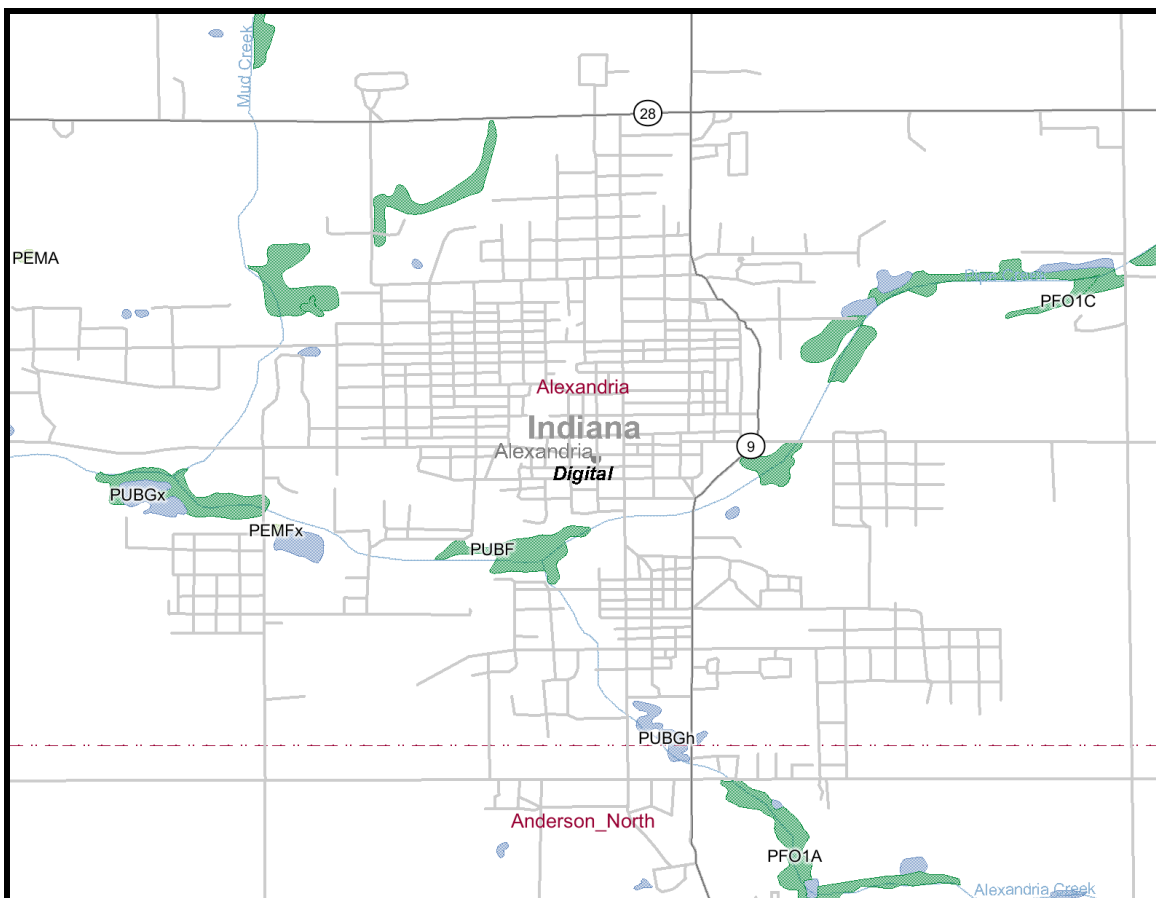
The soils in the area are predominantly of the Crosby (30%) and Brookston (18%) silty loams. Both of these soil types have poor drainage capabilities. We have included a general soil map of the Alexandria area.



## Wetlands

The Federal government defines wetlands as areas with hydric soil (soil formed in the presence of water), and water at or near the ground surface long enough in the growing season to support hydrophytic vegetation. Wetlands are considered the single most productive type of wildlife habitat in the United States.

Several types of NWI wetlands are found in the Planning Area. Wetlands in the area consist of seasonally, temporarily and semi permanently flooded areas. In the map below, we show the wetland identified in the National Wetlands Inventory within the Planning Area.



## Hydrogeological Characteristics

### *Outstanding State Resources Waters, Exceptional Use Streams and Natural and Scenic Rivers*

There are no outstanding state resources waters, limited use streams, exceptional use streams, or natural and scenic rivers in Alexandria.

### *Floodways*

The Federal Emergency Management Agency (FEMA) completes comprehensive flood studies for the Planning Area. These studies use standard hydrologic and hydraulic computer models to find out the potential flooding from each riverine flooding source.

FEMA defines a “floodway” and a “floodway fringe” within their modeling and flood management system. A floodway is the channel of a stream and adjacent floodplain area that must be kept free of encroachment to carry the 100-year flood without substantial increases ( $> 0.1$  ft.) in flood height. The floodway fringe is the area between the floodway and the natural 100-year floodplain boundary. The floodway fringe could be completely obstructed without increasing the water surface elevation of the 100-year flood.

In the Planning Area, there are several Flood Hazard Areas as determined by the FEMA FIRM maps.

