

Chapter 11— General Infrastructure Strategy

Introduction

An infrastructure strategy prepares the City of Union for the long term, cost efficient provision of utility services throughout the City. This strategy accounts for the location of future land uses and their utility service needs and outlines the framework for providing service. Use of this general strategy can help guide decision making for infrastructure investments. For example, if areas are planned to be industrial, then they have different utility requirements than areas planned for recreation. The proper planning of water or sanitary sewer capacity and appropriately sized utility pipes etc., will provide the city with the utility infrastructure it will need in the long term. This strategy provides an overview analysis of potential future needs in the city based on the future land uses and planning principles outlined as part of this Comprehensive Plan.

Influences on the Provision of Utilities

The following parameters influence long term investment in utility infrastructure:

Topography, Public Road Network and Utility Easement Locations

The placement of the lines and the need for lift stations impact the cost to provide services. If severe topographical changes exist or if road and easement networks are incompatible with the most cost-effective route for utility lines, then design and construction costs will increase.

Water Supply and Sanitary Sewage Treatment Facilities' Location

When siting these types of facilities, it is important to consider the natural and built features of the land such as topography, water features, proximity to the service areas, and land use. The costs of operating these facilities will be reduced if a site takes advantage of topography and proximity to the service areas.

Water Supply and Sanitary Sewage Treatment Facilities' Capacities

As the agricultural lands east of the Stillwater River develop, it will be very important to plan for new water and sewer lines before the development actually occurs. The water and sewer capacities for the new developments will need to be calculated, in advance of development, to ensure that the proper infrastructure is in place for complete build-out. This will ensure the capacities, and save the City money, as they will not need to update the infrastructure in the short-term.

Regulatory Restrictions

Additional treatment to purify water or to clean sewage may be needed based on regulatory changes or standards.

Service Provision

In general, the City of Union has been able to provide capacity for new development, and the city has been able to extend appropriate utility services to growth areas throughout the city in a timely fashion. However, areas that have been newly annexed east of Frederick Pike are in need of service to support additional growth and development. Some of these areas are identified as industrial and office uses that will have significant demands for utility services. In addition, there is a large mixed-use area on the southeast corner of the intersection of Frederick Pike and Old Springfield Road that will need more infrastructure capacity than typical single-use developments. There is also a smaller mixed-use development at the intersection of Furnace Road and Old Springfield road that will need service.