

## 6. UTILITIES & PUBLIC SERVICES

Utilities and public services are an important factor in the quality of a community, impacting and defining many community elements including land use and environmental systems. Modifying utility systems requires understanding its impact on land use policy, physical growth, and natural and social environments. Public services greatly affect the image, safety, and security of the community.

This chapter provides an overview of the existing utilities and public services in Wooster and considers public input and current trends to create a plan that maintains and improves these systems in the future.

**CHAPTER SUMMARY**

# 6.1

## existing conditions

- A number of water system improvements are planned in order to provide a high level of service to meet current and future demands.
- The City has been actively working to create a dedicated (separated) storm sewer system and to reduce the overall impact on the system through the integration of 'green' stormwater management practices.
- The existing sanitary sewage treatment plant has enough capacity to meet the demands of planned population growth through 2020.
- Emergency services are centrally located near the Downtown, with planned expansion of new fire station locations to improve coverage and response times throughout the City.

# 6.2

## public input

- Residents are satisfied with the current delivery of water and place a high priority on the continued maintenance and expansion of the water system.
- Residents support the integration of new 'green' stormwater management methods.
- Proper sewer maintenance and management in older areas should be considered in the future.
- Increased police presence is a priority among residents.
- Code enforcement should continue to be a priority with a focus in and around the Downtown.

# 6.3

## current trends

- Bioswales and rain gardens are becoming an increasingly popular way to reduce the amount of stormwater entering the system.
- Methods of downspout disconnection are particularly beneficial in cities with combined sewer systems.
- Advancements in technology have led to smarter utility delivery and monitoring, creating more efficient utility systems.
- The wide adoption of mobile devices has made updating to a next-generation 911 system a priority for many communities.
- Sharing city services is a cost effective method of reducing repetitive services provided within a service region.

# 6.4

## plan principle + objectives

### *SERVE EFFECTIVELY*

High quality public services and utilities that serve residents effectively, and support future economic growth and expansion.

#### **Objective US.1**

Ensure the expansion and improvement of the City's infrastructure is a priority when making future planning and policy decisions.

#### **Objective US.2**

Promote green stormwater management methods when improving or expanding the existing stormwater management system.

#### **Objective US.3**

Encourage above ground stormwater facilities with dual purposes including naturalized open spaces and public recreation.

#### **Objective US.4**

Develop projects, programs, policies, and procedures to enhance the overall quality of the local watershed.

#### **Objective US.5**

Emergency services should be carefully expanded to ensure the health and safety of residents.

#### **Objective US.6**

Code enforcement should be a focus in and around the Downtown.

# 6.1

## existing conditions

### Utilities

As one of the basic functions of government, the design, implementation, and maintenance of critical public utilities should remain a City priority. Traditionally, the City and the community has placed a high priority on the maintenance and development of the City's utilities. The following is a brief synopsis of the current conditions and plans for these services.

#### Water

*A number of water system improvements are planned in order to provide a high level of service to meet current and future demands.*

The water distribution system continues to be of high importance as the City plans for future growth and development. Based on current and future population trends, it is expected the City will grow to approximately 27,424 by 2020. The Water Distribution System General Plan was prepared to plan for future population growth and outlines a number of critical improvements that will support future development and improve the condition and function of the existing water infrastructure. Since the adoption of the Plan, the City has made considerable progress in maintaining and updating this critical piece of infrastructure.

#### Storm Sewer

*The City has been actively working to create a dedicated (separated) storm sewer system and to reduce the overall impact on the system through the integration of 'green' stormwater management practices.*

Storm and sanitary sewers throughout the City were originally constructed as a combined system, where large storm events could overload the system and result in untreated runoff into local waterways. To address this problem, the City has pursued a plan to separate all storm and sanitary sewers and has completed almost all separation of the combined system.

To reduce the overall demand on the system, the City has also started to incorporate 'green' infrastructure standards that will reduce the amount of water entering the storm system. These systems employ a range of tactics including curbless streets, bioswales, and pervious pavement.

### Sanitary Sewer

*The existing sanitary sewage treatment plant has enough capacity to meet the demands of planned population growth through 2020.*

Access to sanitary sewer service can be one of the largest limitations to future growth and development, and the City currently has enough excess treatment capacity to meet the demands of significant growth and development (see Figure 6.2).

In total, the Water Pollution Control Plant (WPCP) treated a total of 1.536 billion gallons of wastewater with the average daily flow being 4.197 million gallons per day receiving a peak daily flow of 15.86 million gallons on January 27, 2012. This represents a total decrease of 670 million gallons from 2011. In addition, the plant removed 3.9 million pounds (design is 5.02 million pounds) of biological oxygen demanding (BOD) substances and 5.9 million pounds (design is 3.65 million pounds) of suspended solids from the wastewater. The design of the facility is for 7.5 million gallons per day with a hydraulic maximum of 27 million gallons.

In contrast to the wastewater treated at this facility the Water Treatment Plant produced on average 3.247 million gallons per day. The reasons for this obvious disparity of 2.753 million gallons per day between water produced and wastewater treated in 2009 is attributed to a combination of precipitation entering the WPCP through the combined sewer system, collection system infiltration, and unmetered sources. The infiltration component of this disparity continues



to be addressed through the implementation of a sewer separation program. Unmetered sources are being identified and metered as part of the continuing meter upgrade program, however, some areas of the system (i.e. Killbuck South Sewer District and some areas in Madisonburg) will not be metered as they are sewer only accounts and receive a flat rate billing.

*Figure 6.1: Existing Water Towers, City of Wooster*

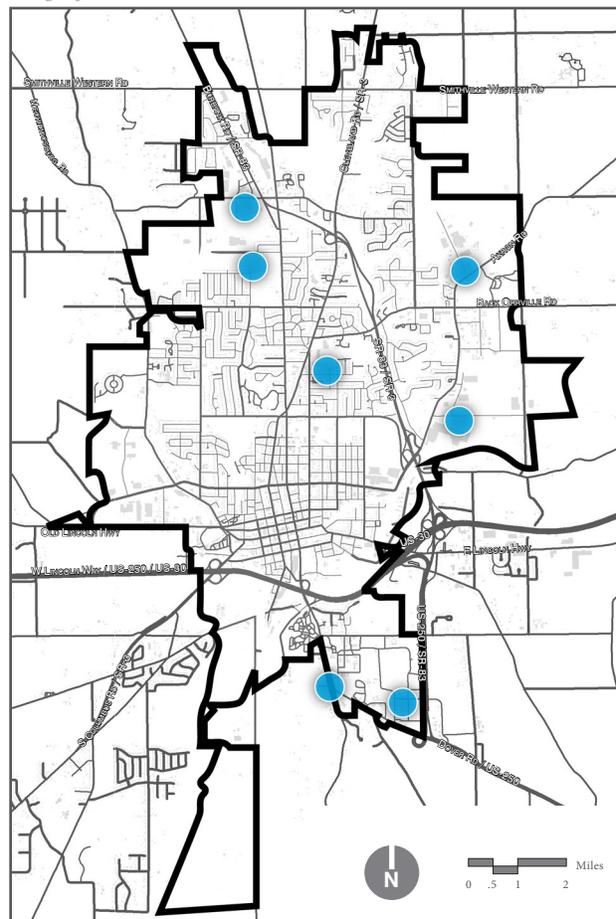
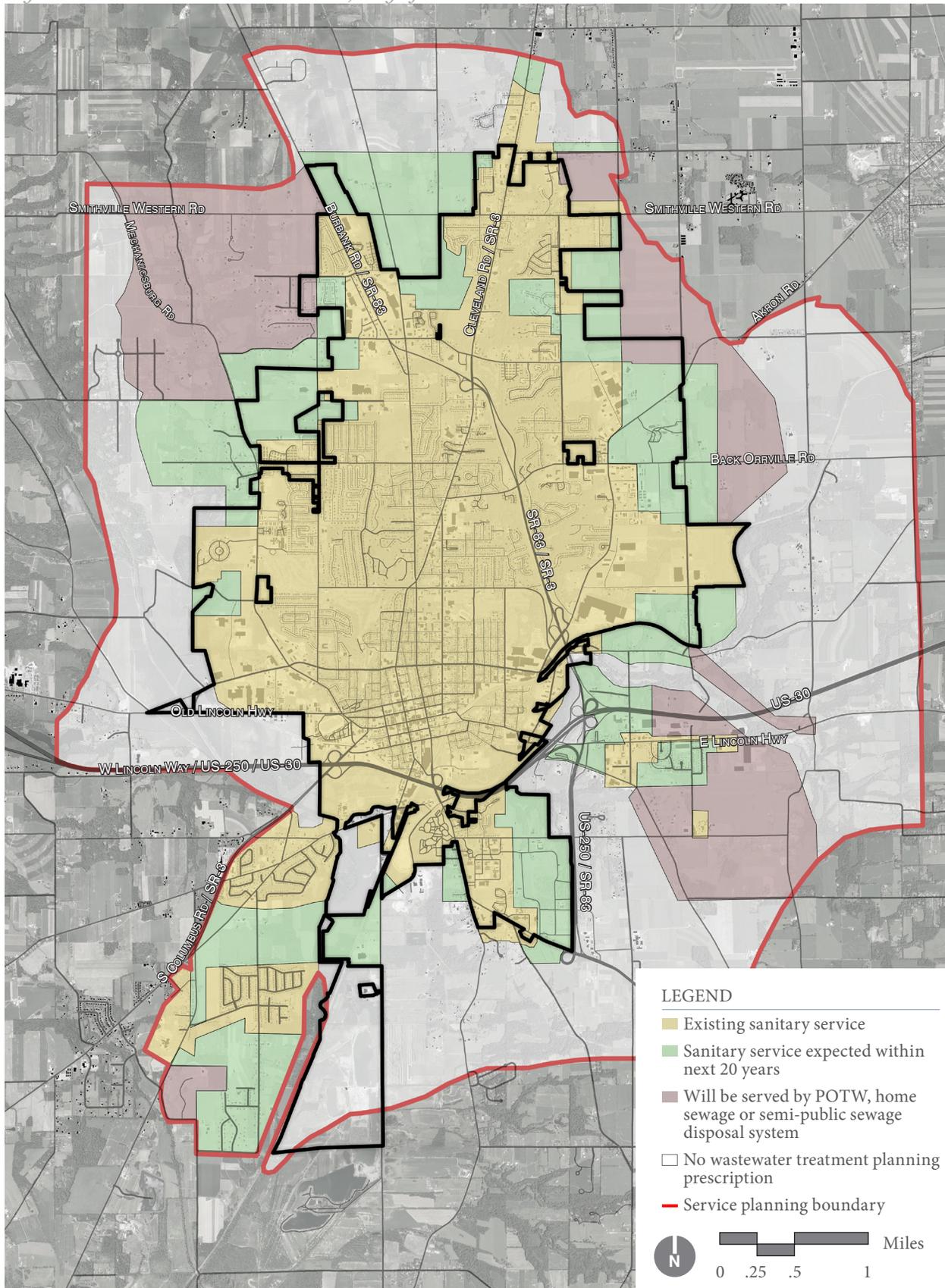


Figure 6.2: Sewer Service Boundaries, City of Wooster



## Public Services

### Emergency Services

*Emergency services are centrally located near the Downtown, with planned expansion of new fire station locations to improve coverage and response times throughout the City.*

The location of the police station Downtown is within close proximity to a high number of residents and businesses (see Figure 6.2). Because police units operate away from the central station on a continual basis, the response time is affected less by the number of stations than it is by the number of units. Police service could be strengthened by the addition of police substations that

would provide shorter travel times to outlying portions of the City.

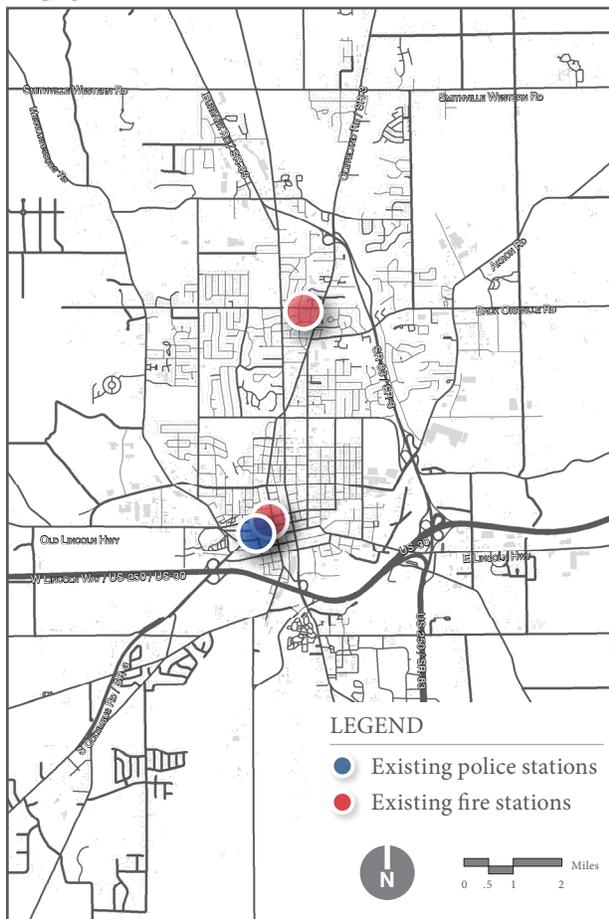
Response times are the most important aspect to fire and emergency medical services and should receive the highest priority when analyzing conditions of the system. Factors that effect response time include location, area of service, and surrounding land uses.

The *Fire Station Study and Master Plan (2007)* identified delays in response times for fire and EMS. Delays were attributed to crowded facilities, delays in dispatching, and the large size of the ‘fire districts.’

Wooster has two fire stations within the City that service the entire city limits. The department also provides mutual aid to many communities and townships across a large area surrounding Wooster.

The *Fire Station Study and Master Plan* indicated that Station 1 is located in an appropriate location Downtown and is the proper size to handle truck ingress/egress. Station 2 is located to the north on East Highland Avenue, but is smaller. This station’s location is within a single family residential district, but is not large enough to provide adequate service to the surrounding area.

Figure 6.3: Existing Police and Fire Stations, City of Wooster



# 6.2

## public input

### Utilities

#### Water

*Residents are satisfied with the current delivery of water and place a high priority on the continued maintenance and expansion of the water system.*

On a scale of one to five, with one being excellent and five being poor, the telephone survey showed that the public rated water utility at an average of 2.55 (1 highest, 5 lowest).

Response from the public through the open house and Steering Committee meetings indicated a need to prioritize the continuation of high quality, reliable water service throughout the City. As development and redevelopment within the City continues, water infrastructure should be prioritized to accommodate growth.

#### Storm Sewer

*Residents support the integration of new 'green' stormwater management methods.*

Residents agree that future stormwater infrastructure needs to minimize system costs while making Wooster a better and cleaner place. 69% of the 300 telephone survey respondents stated that focusing on green practices and policies was important or very important to making Wooster a more efficient and sustainable community.

An efficient stormwater system will serve the dual purpose of lowering hard infrastructure costs while promoting sustainable design features that add to the character of the City. The use of rain gardens, bioswales, rain barrels, and porous surfaces are examples of how 'green' infrastructure may be integrated into the City's operations.

Figure 6.4: Ward Map

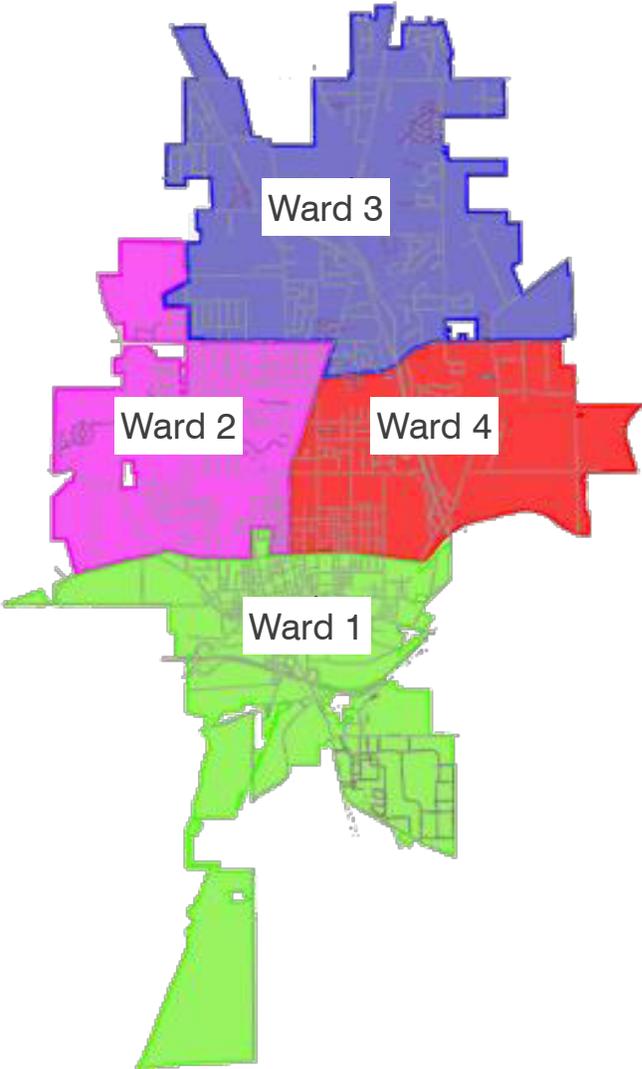


Figure 6.5: How would you rate the quality of Wooster's sanitary sewer service? (1 highest, 5 lowest)

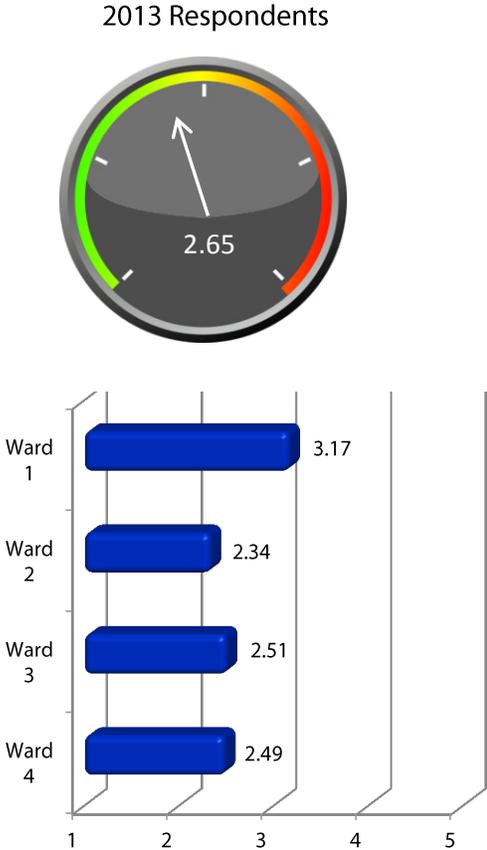
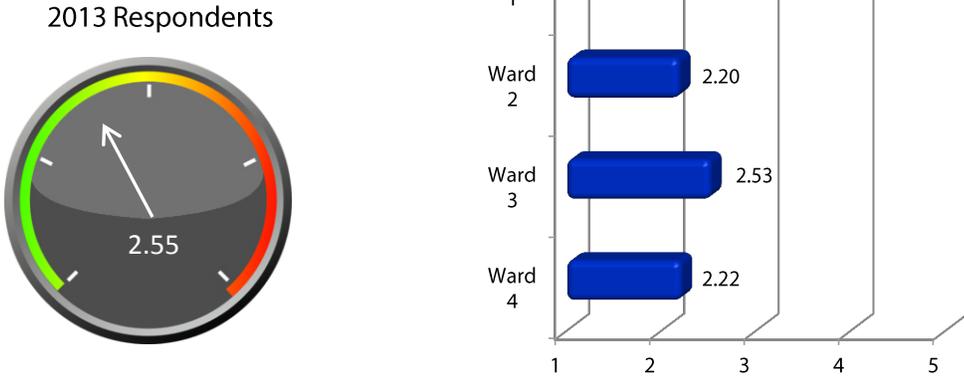


Figure 6.6: How would you rate the quality of Wooster's water service? (1 highest, 5 lowest)



### Sanitary Sewer

*Proper sewer maintenance and management in older areas should be considered in the future.*

Residents rated sanitary sewer service at 2.65, indicating an overall satisfaction with the service in Wooster. Their concerns with the system included maintaining and managing sewer systems in some of the older neighborhoods around Downtown in order to promote future development and redevelopment within these areas.

Throughout meetings and conversations with the public, concern for utility issues were not mentioned often. This is a sign of overall satisfaction by the current services offered by the City.

### Public Services

#### Emergency Services

*Increased police presence is a priority among residents.*

While citizens are content with the quality of police service within the City, there was a minor drop in overall satisfaction from the survey conducted the prior year. Residents and stakeholders expressed a need for stronger police presence in the City, specifically at the south end and in the Downtown area.

While residents rated the overall Fire Department as above average, the department experienced a 0.5 point drop in the perception of service quality from previous year's survey.

Survey respondents in Ward 2 generally rated emergency services from 0.5 to 1.0 points better than the other three wards, indicating a discrepancy in the perception of service level of areas within the City.

*Code enforcement should continue to be a priority with a focus in and around the Downtown.*

According to the telephone survey, many residents find property maintenance to be an issue and believe it should be targeted in the south end of Downtown. Statements made throughout the public input process identified enforcement of property maintenance issues as a priority for maintaining and promoting the unique character of Wooster.

Figure 6.7: How would you rate the quality of Wooster's Police Department? (1 highest, 5 lowest)

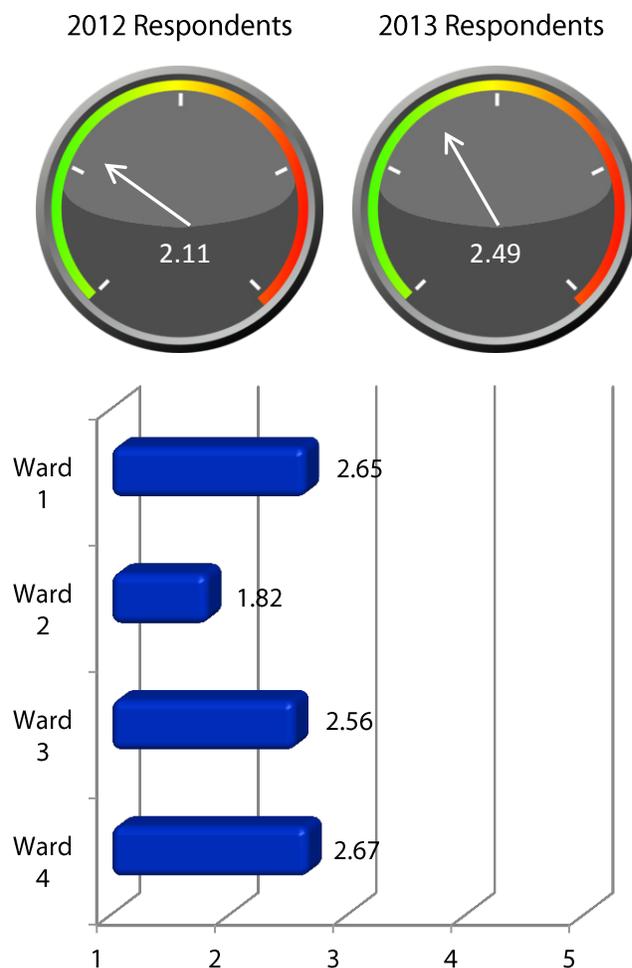


Figure 6.8: How would you rate the quality of Wooster's Fire Department? (1 highest, 5 lowest)

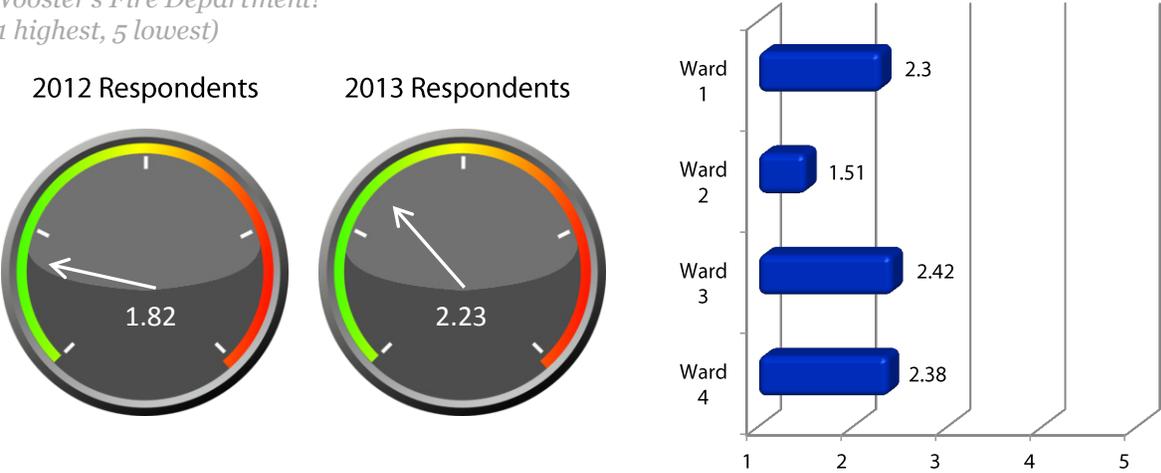
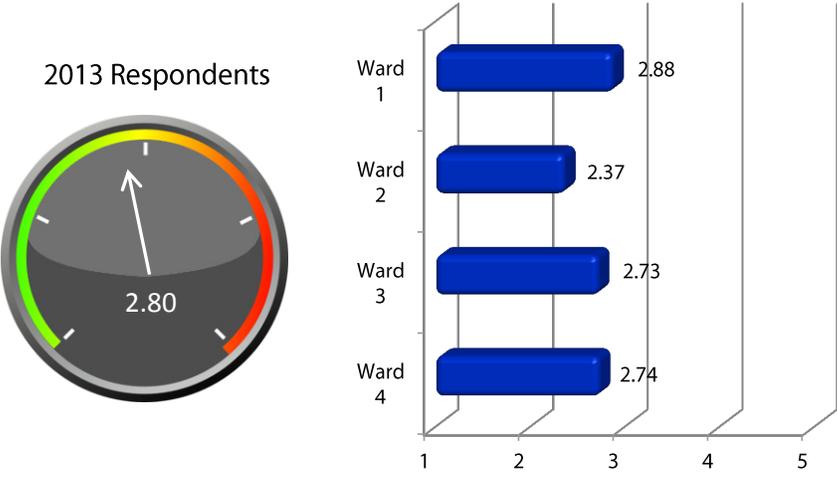


Figure 6.9: How would you rate the quality of Wooster's Property Maintenance Code Enforcement? (1 highest, 5 lowest)



# 6.3

## current trends

### UTILITIES

Recent trends in public utilities have shifted toward cleaner and sustainable methods that are efficient, effective, and financially balanced. This section contains a number of methods that should be considered as upgrades to the existing infrastructure are made or new expansion is conducted.

#### Bioswales and Rain gardens

*Bioswales and rain gardens are becoming an increasingly popular way to reduce the amount of stormwater entering the system.*

Bioswales are vegetated, mulched, or xeriscaped channels that provide treatment and retention as they move stormwater from one place to another. Vegetated swales slow, infiltrate, and filter stormwater flows, which then permeates into the soil, diverting stormwater from the system. As linear features, vegetated swales are particularly suitable along streets and parking lots.

Rain gardens (also known as bioretention or bioinfiltration cells) are shallow, vegetated basins that collect and absorb runoff from rooftops, sidewalks, and streets. Rain gardens mimic natural hydrology by infiltrating and evapotranspiring runoff.



*Rain garden used within a parking lot to reduce stormwater runoff.*



*Bioswale alongside roadway.*

### Downspout Disconnection

*Methods of downspout disconnection are particularly beneficial in cities with combined sewer systems.*

Downspout disconnection refers to the rerouting of rooftop drainage pipes into rain barrels, cisterns, or permeable areas instead of storm sewers. Downspout disconnection stores stormwater and/or allows stormwater to infiltrate into the soil, reducing the overall impact of surface runoff.

### Smart technology

*Advancements in technology have led to smarter utility delivery and monitoring, creating more efficient utility systems.*

Utility providers have begun to incorporate sensing and tracking technology to better manage water, sewer and stormwater flows. These advancements can make it easier to anticipate spikes in system use, as well as system problems that will inevitably arise. Utility providers have also standardized wireless technologies for meter reading, which allows a cost effective method for collecting usage data from consumers.

The incorporation of smart technologies has allowed consumers to monitor and reduce their amount of utility usage, notably to reduce the amount of electricity, water, and gas usage.

## PUBLIC SERVICES

### Updated 911 Infrastructure

*The wide adoption of mobile devices has made updating to a next-generation 911 system a priority for many communities.*

Past 911 systems were built to track emergency location using telephone land lines as the point of emergency. Knowing the exact location of emergency calls made it easy to deploy emergency response units to the area. Since emergency calls can now be made from almost any location using mobile devices, it is more difficult for these existing systems to track emergency call locations. Existing 911 systems are now being updated to accommodate new methods of communication including mobile phone calls, text, and multimedia messages. Introducing text-to-911 capabilities into

the 911 system give people access to emergency communications in situations where a voice call could put the caller at risk. This also provides access to emergency response to those with disabilities who are unable to make a voice call. While text and multimedia messages are not a substitution for a voice call, they provide a wider scope of accessibility in emergency situations.

### Shared Services

*Sharing city services is a cost effective method of reducing repetitive services provided within a service region.*

With changing revenue streams from both State and Federal funding sources, communities are looking for ways to decrease spending while maintaining or enhancing the delivery of city services. One way cities achieve this is through shared services with neighboring jurisdictions. Through the sharing of services, both entities are able to reduce cost and maintain or enhance the delivery of services. In Ohio, shared services are often coordinated through cities and townships for fire protection and cities and counties for safety services.

# 6.4 plan principle + objectives



*High quality public services and utilities that serve residents effectively and support future economic growth and expansion.*

## RESPONSIBLE PARTIES

-  WOOSTER LEADERSHIP
-  PLANNING AND ZONING
-  CITY ENGINEER
-  PARKS AND RECREATION
-  POLICE DEPARTMENT
-  FIRE DEPARTMENT
-  CODE ENFORCEMENT
-  WAYNE COUNTY
-  MAIN STREET WOOSTER
-  CHAMBER OF COMMERCE
-  THE COLLEGE OF WOOSTER
-  OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
-  WOOSTER COMMUNITY HOSPITAL
-  PRIVATE LAND OWNERS

## TIMEFRAME

Short Term	1-3 years
Medium Term	3-6 years
Long Term	6-10 years
Ongoing	Action to be continuously addressed

**Objective US.1**  
**Ensure the expansion and improvement of the City’s infrastructure is a priority when making future planning and policy decisions.**

**Action US.1.1**

*Implement the recommendations of the Water Distribution System General Plan.*



*Time Frame: Ongoing*

**Action US.1.2**

*Plan for the expansion of the water delivery system through the placement of new water tanks and towers in areas of inadequate coverage and/or low pressure.*



*Time Frame: Ongoing*

**Action US.1.3**

*Continue to separate combined storm and sanitary systems as part of regular maintenance and planned infrastructure projects.*



*Time Frame: Ongoing*

**Objective US.2**  
**Promote ‘green’ stormwater management methods when improving or expanding the existing stormwater management system.**

**Action US.2.1**

*Promote ‘green’ street standards as a method of reducing stormwater runoff.*



*Time Frame: Ongoing*

**Objective US.3**  
**Encourage above ground stormwater facilities with dual purposes including naturalized open spaces and public recreation.**

**Action US.3.1**

*Amend applicable City Codes to strongly encourage consolidated stormwater facilities that provide service to all parcels within a subdivision.*



*Time Frame: Ongoing*

This code revision should prevent subdivided parcels from establishing their own detention or retention basin facilities. Where possible, arrangements should be made to connect such facilities and open spaces to those of adjacent developments creating larger, contiguous areas of open space and/or stormwater facilities. Such a policy should not preclude or discourage the use of rain gardens or rain barrels.

### Action US.3.2

*Encourage the improvement of above ground stormwater facilities and surrounding open space to allow its dual function as public recreation space.*

Policies should be established by which such spaces could be developed as park space in new (or existing) developments, counting toward a developer’s park space dedication requirement. Surrounding open space should include attractive landscaping and public access and may include recreational facilities such as walking paths, a shelter or gazebo, a playground, and perhaps a dock or boardwalk. The developer and the City would negotiate the financial arrangement for facility maintenance and upkeep.



*Time Frame: Ongoing*

### Action US.3.3

*Create a policy to encourage developers to build a more diversified collection of flood water and stormwater storage and treatment facilities.*

Facilities should be encouraged to include stormwater retaining (constructed) wetlands, ponds with wetland planting shelves, meadows, and dual purpose grass recreation or athletic fields that may serve as storage space for particularly large storm events.



*Time Frame: Ongoing*

## Objective US.4

**Develop projects, programs, policies, and procedures to enhance the overall quality of the local watershed.**

### Action US.4.1

*Identify ditches and streams throughout the City and develop recommendations as for whether these streams should be protected, restored, or reconstructed.*

Protect waterways and encourage developers and the City to restore or reconstruct waterways that need improvement.



*Time Frame: Long Term/Ongoing*

### Action US.4.2

*Restore ditches and streams that are recommended to be restored and place them in a conservation easement to protect these investments.*

Those developing properties adjacent to or including a ditch or stream should be strongly encouraged to reconstruct the corridor as a part of their project, relocating the waterway if needed. City-led projects adjacent to or including a ditch/stream corridor should include the restoration or reconstruction of similar ditch/stream corridors. When completed, the restored or reconstructed ditch/stream should be placed within an easement held, if possible, by the City.



*Time Frame: Ongoing*

**Action US.4.3**

*Little Apple Creek should be enhanced and promoted as a unique environmental asset in the community.*

Ditches/streams that should be protected should be integrated into current or future parks or developments. When these areas are developed, the City should consider the promotion of conservation or cluster type development to protect the overall quality of the watershed and surrounding greenspace.



*Time Frame: Ongoing*

**Objective US.5**

**Emergency services should be carefully expanded to ensure resident’s health and safety.**

**Action US.5.1**

*Enhance police coverage and presence in and around the Downtown during evening and night hours.*



*Time Frame: Short Term/Ongoing*

**Action US.5.2**

*Identify new areas within the community to build new, relocate or expand stations for fire, police, or related operations.*



*Time Frame: Short Term*

**Objective US.6**

**Code enforcement should be a focus in and around the Downtown.**

**Action US.6.1**

*Focus on property maintenance issues in older neighborhoods around the Downtown.*



*Time Frame: Short Term/Ongoing*

**Action US.6.2**

*Create educational materials that inform residents about City property maintenance code.*



*Time Frame: Short Term*

**Action US.6.3**

*Work with the local community leaders to develop a community service/clean-up day to assist homeowners who are seniors or disabled with property maintenance. As part of this event, the City should consider providing dumpsters or trash receptacles to support the neighborhood and the community in their clean-up efforts.*



*Time Frame: Short Term*

**Action US.6.4**

*Target repeat property maintenance offenders and work with the prosecuting attorney to develop short-term compliance strategies.*



*Time Frame: Ongoing*