

## Chapter Nine: UTILITIES

### Objectives and Strategies

**Objective 1: Provide for the safe and efficient collection of wastewater generated by the community.**

Dublin's current sewer contract specifies that sanitary sewage generated within the City of Dublin service area and collected by Dublin's sewer system is transported to Columbus' interceptor system. The agreement specifies that the sewage will be treated by Columbus through February 1, 2043. Significant efforts have been made to upgrade Dublin's system, and those efforts should continue to comply with all regulatory requirements.

- A. *Continue Cooperative Efforts...* between the Cities of Dublin and Columbus to ensure that wastewater receives treatment in accordance with all regulatory requirements.

**Objective 2: Continue efforts to remove inflow and infiltration sources within the existing sanitary sewer system.**

Significant quantities of infiltration and inflow (I & I) can enter the sanitary sewer system via illegal clean water connections or as the condition of the sewer deteriorates due to age. As a result, the carrying capacity of the sanitary sewer system can be dramatically reduced. System efficiency and addressing long-term maintenance should be an important component to effective service provision.

- A. *Continue Flow Monitoring...* to identify areas where significant quantities of I & I are entering the collection system.
- B. *Maintain Adequate Carrying Capacity...* as sewer extensions are installed by reducing I & I from mainline sewers and continuing the program to eliminate clean water connections from private property on a voluntary basis.
- C. *Continue compliance with the OEPA... Director's Final Findings and Orders as this will document the efforts to achieve this objective.*

**Objective 3: Implement sanitary sewer extensions to growth areas consistent with the recommendations of the Community Plan in order to provide adequate service for the entire tributary service area.**

Consistency in the design criteria for sizing sanitary sewer extensions is necessary to ensure that adequate capacity for future flows is provided. Oversizing of a sanitary sewer when installed as part of a development project, if appropriate, helps ensure that sewer capacity for the entire tributary service area is provided and costly future upgrades are minimized.

- A. *Design Sewers Appropriately ...* to flow at 75 percent of the full flow capacity, using the design criteria established to forecast future peak flows, and an I & I allowance of 1,000 gallons per day per acre of tributary service area.
- B. *Create Developer Reimbursement Policies...* for the incremental costs of oversizing sanitary sewers to address compensation appropriately that is consistent, equitable, and manageable.
- C. *Develop a Service Extension Policy ... to provide for effective sanitary service extension to currently unserved but occupied properties.*

Objective 4: Ensure that on-site sewage disposal systems are properly designed, installed and maintained.

Section 51.02 of the Dublin Codified Ordinances currently allows for private on-site sewage disposal in the event that public sewage systems are not available. On-site sanitary system design criteria vary from county to county, and portions of the City lie within Franklin, Delaware and Union Counties. As a result, clarification regarding design and installation requirements for systems is needed within Dublin.

A. *Amend the City Code...* relating to on-site systems to incorporate appropriate criteria for system design and installation.

Objective 5: Provide for the safe and efficient delivery of high quality potable water to the community for consumption and fire protection.

Dublin's current water contract specifies that the City of Columbus is to supply potable water to the City of Dublin through February 1, 2043.

A. *Continue Cooperative Efforts ...* between Dublin and the City of Columbus to ensure that an adequate supply of quality drinking water, meeting current and future regulatory standards, is provided.

B. *Develop a Service Extension Policy ... to provide for effective water service extension to currently unserved but occupied properties.*

Objective 6: Implement waterline extensions to growth areas consistent with the Community Plan.

As waterlines have been extended north of Glick Road and west of Avery Road, a new pressure district and additional infrastructure have been and will be needed for areas higher than the 950-foot ground elevations to maintain adequate system pressure. An adequate supply of water is needed for domestic use and fire protection. The oversizing of waterlines should be required as part of a development project to support further system expansion for the area. There is currently no means of reimbursing the developer for oversizing costs.

A. *Design Waterline Extensions And Storage Facilities Appropriately...* to provide adequate delivery rates and system pressures to meet the forecasted peak day demands and applicable fire flow requirements.

B. *Create Developer Reimbursement Policies...* for the incremental costs of oversizing waterlines to address compensation appropriately that is consistent, equitable, and manageable.

Objective 7: Provide consistency between the water and sewer system service areas.

Creation of pressure districts in the northwest quadrant of the City can allow the Dublin water distribution system to be extended well beyond the limits of the sanitary sewer service area (Hyland-Croy Road). However, costly sewer extensions, relief sewers and pumping stations would be necessary to provide the desired full range of utility services to areas west of Hyland-Croy Road.

A. *Provide Waterline Extensions...* from the City of Dublin distribution system only to those areas which can also receive sanitary sewer service from the City.

~~Objective 8: Determine future water tower sites appropriately to blend with the adjacent environment.~~

~~Water towers are needed at various locations throughout the City to meet future demands. Care is needed during the design phase to preserve/enhance the physical appearance of areas where elevated water storage facilities are needed. The potential impact on adjacent residences should be taken into consideration when establishing future locations.~~

~~A. Identify Appropriate Tower Sites... while considering impacts on adjacent development.~~

~~B. Provide Public Notice... of potential water tower sites.~~

Objective **98**: Provide for the safe and efficient collection of stormwater and continue to maintain and improve the water quality of Dublin's tributaries and the Scioto River corridor.

Though Dublin's Codified Ordinances have been updated to include stormwater regulations, the continued management of stormwater flow with development is important to the health, safety and welfare of Dublin residents. In addition, ~~the~~ **new** ordinance is necessary to prevent loss of life and property due to flooding; to protect the quality of ground and surface water; to maintain wildlife habitat; and to encourage the use of natural drainage systems.

A. *Enforce New Standards...* and requirements and update municipal regulations as necessary.

Objective **109**: Continue implementation of the Dublin Stormwater Master Plan to provide adequate stormwater management in tributary areas consistent with the recommendations of the Community Plan.

Development of land has significant impact on stormwater runoff, and most developable land (particularly in the Southwest Area) is flat with few natural drainageways. Detention facilities are needed to meet regional needs, and potential sites may be available in the expansion areas.

A. *Ensure Adequate Stormwater Facility Design...* that will meet performance criteria established in Section 53 of the Codified Ordinances.

B. *Identify and Implement Sites...* for locating regional detention facilities as development occurs.

Objective **110**: Design future stormwater ~~retention ponds and detention basins~~ **management facilities** to blend with surrounding development as an attractive amenity and landscape feature.

As a means to control stormwater, ~~retention basins~~ **best management practices** are often integrated into development plans as amenities. The design of facilities, however, can often result in unattractive ~~erosion control measures~~ **aesthetics**.

A. *Design Future Basins...* to provide required holding area, while creating an aesthetically pleasing feature with softened shapes and landforms. Designs should also incorporate measures to limit impacts by geese.

B. *Focus on Edge Treatments...* and minimize the use of rough rock and stone applications to line basins or ponds.

C. *Integrate Alternative Facility Designs...* to optimize the developable area of sites with limited space, such as in the Bridge Street District. Integrated stormwater management solutions may include green roofs, permeable pavement, bio-retention facilities, rain barrels, planter boxes, etc. These options can be used to reduce the required size of the facility in a manner that is consistent with the surrounding development character.

~~Objective 11: Design future stormwater management facilities to blend with surrounding development as an attractive amenity and landscape feature.~~