

## 8. Infrastructure

### 8.1 VISION STATEMENT

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Infrastructure is a basic building block of the community — essential for the health, safety, and welfare of residents. Utilities should continue to be expanded to meet Yorktown's growing needs. At the same time, the Town should strive to limit any potential negative impacts from infrastructure expansions on Yorktown's natural, historic, or scenic resources.

### 8.2 GOALS

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Goal 8-A: Infrastructure expansions should reflect the land use goals expressed in this Comprehensive Plan.

Goal 8-B: Seek to ensure that all Yorktown residents and businesses have a reliable source of clean, safe drinking water at a reasonable cost.

Goal 8-C: Provide wastewater treatment and disposal that complies with State and City health standards and adequately serves properties within established sewer district boundaries.

Goal 8-D: Continue to expand sewer infrastructure into areas where septic systems are inadequate.

Goal 8-E: Work with utility providers to install infrastructure and provide service connections.

Goal 8-F: Work with developers, utility providers, and State and federal agencies to ensure that water, sewer, electricity, gas, and telecommunications services are reliable, of exceptional quality, and available at a reasonable cost.

Goal 8-G: Promote energy and water conservation.

Goal 8-H: To the greatest possible extent, ensure that cellular antennae and towers are screened and unobtrusively located throughout Town. Encourage the undergrounding of pipes and wires wherever possible.

Goal 8-I: Promote an attractive visual environment throughout Yorktown by appropriately locating or screening above-ground utilities, including cellular antennae and towers.

Goal 8-J: Work proactively to underground overhead wires in the hamlet business centers, in historic districts, along scenic corridors.

Goal 8-K: Limit the potential for future infrastructure expansions to induce haphazard and unsustainable growth.

### 8.3 OVERVIEW OF INFRASTRUCTURE

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- Yorktown's population will not increase dramatically in the coming decades, because there are so few areas of the Town that remain developable and most new development will be low density. Therefore, future increases in demand for water service, sewer infrastructure, electricity, natural gas, and telecommunications services will be manageable.
- Increased service demands will not be so great that they will trigger the need for major facility expansions. Smaller improvements to existing facilities, possibly through the use of new technology, should suffice to keep up with demand. The major work to be done will be simply in the form of service connections to newly developed sites.
- The key to success will be to balance infrastructure improvements with the goal of protecting natural and scenic resources. Expansion of sewer lines, establishment of cellular facilities, and use of septic systems, in particular, can have unintended consequences on development trends, visual quality, and water resources. The Town should plan ahead to avoid possible detrimental impacts.
- More specifically, with regard to both sewers and septic systems, Task Force meeting participants expressed interest in keeping aquifers, the reservoir, and wells clean. There was a general consensus that before vacant land is sewer, sewers should be provided to those developed areas where the soils cannot handle septic. Undeveloped areas outside sewer districts should have zoning densities that would encourage proper functioning of septic and promote natural resource conservation.

### 8.4 POLICIES

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#### Water Supply & Service

***Policy 8-1: Advocate adding a fifth filter to the Catskill Treatment Plant, in order to ensure an adequate public water supply for Yorktown and the region.***

- Work with the NWJWW and other municipalities in the NWJWW district to add the filter, which would increase the total treatment capacity of the NWJWW to 16.0 million gallons per day (MGD) from 14.0 MGD.
- At the same time, work with NWJWW to increase storage capacity, which can help make up water supply shortfalls on peak-demand days.
- With the reduced density zoning proposed in this Comprehensive Plan, future demand may not reach the currently projected levels (13.0 MGD average annual and 16.9 MGD peak.) Adding the fifth filter to the Catskill treatment plant may still be needed, but capacity expansions above and beyond will probably not be.

***Policy 8-2: Work with the NWJWW, the Kitchawan Water District, residents, and businesses to consider extension of the NWJWW water supply into southern Yorktown.***

- The NWJWW may be able to provide water to current Kitchawan customers in that area at a lower cost.

***Policy 8-3: Protect drinking water supplies by upzoning areas of Yorktown with contiguous areas of open space or larger-lot development, limiting increases in impervious surface, and encouraging stormwater recharge.***

- Reduce the density of potential development on large, contiguous sites in northern Yorktown that drain into the Peekskill Hollow Brook watershed (see Chapter 5.)
- Promote "Green Building" techniques that result in more energy efficient and environmentally friendly development (see Chapter 7.)
- Implement the policies of the Comprehensive Plan that support limiting stormwater runoff and encouraging groundwater recharge (see Chapter 7.) This would help replenish private wells.
- Improve water quality inspection and protection for privately drawn water. For wells on private residential lots, ensure that any building, structure, or other developed area is sufficiently distanced from the well head to reduce the potential for well contamination.

***Policy 8-4: Continue to expand, monitor, and maintain the water distribution system as needed.***

- Because of wells that run dry and variable water quality in some locations, continue working with the NWJWW to connect houses within the existing water district boundaries into the public water system.
- Expand water district boundaries to include all residential zones that allow lots of a size that cannot support private wells.

***Policy 8-5: Outside existing water district boundaries, maintain lot sizes of adequate size to be able to accommodate private wells.***

- Lower density development can reduce the potential increase in pervious surface (allowing better groundwater recharge) and the possibility of groundwater contamination.
- Lower density implies fewer homes and wells, which reduces the risk for groundwater overdraw. This helps to preserve the water supply for future generations.

***Policy 8-6: Work with Northern Westchester Joint Water Works (NWJWW) and the Kitchawan Water District to improve water conservation efforts.***

- Bolster public education efforts, particularly through the schools.
- Use the Town's web site to promote conservation "best practices."

- Send property owners a brochure with water conservation tips in their tax bills. Require landlords to provide tenants with copies of the brochure.
- Continue working to detect and fix leaks in the water supply system.
- Expand use of gray water (i.e., treated but not potable water) for irrigation of golf courses, parks, and lawns.
- Enact sprinkler legislation. Rather than limiting use of lawn sprinklers, require that new homes have moisture sensors, such that sprinklers shut themselves off when the ground is already wet or when it rains.

***Policy 8-7: Work with other watershed municipalities, Westchester County, and Putnam County to establish a regional approach for the protection of watersheds and aquifers.***

- Through the County and the NYCDEP, there is already extensive regional cooperation for the purpose of protecting the quality of the New Croton Reservoir. Continue working with NYCDEP, Westchester County, and adjacent towns to complete the Croton Plan.
- The Peekskill Hollow Brook watershed crosses many jurisdictional boundary lines and has many potential sources of pollution. Regional cooperation could better protect the watershed.

***Policy 8-8: Continue the current Town practice of continually monitoring and upgrading the water distribution system.***

### **Sanitary Sewer**

***Policy 8-9: Advocate for a speedy resolution to the pending question of sewer diversion to the County's wastewater treatment plant in Peekskill.***

- The diversion question will be decided by the County in consultation with Yorktown, Cortlandt, and Peekskill.
- Whatever decision is made, the Town should continue to advocate for a solution to be reached quickly, so that the Town will know whether to proceed with the upgrade of the Hallock's Mill plant. Resolving the question of diversion is the first step toward addressing the current NYC DEP and State DEC moratoria.

***Policy 8-10: Before expanding any existing sewer districts, make sure enough capacity is set aside for areas within existing district boundaries.***

- The first priority for new sewer service should be existing unsewered development, i.e., existing homes and businesses. The second priority should be vacant or underutilized parcels within the district, where sewers would provide service to future development.

***Policy 8-11: Provide sewer service to areas with failing septic systems or any other areas where lots sizes are not considered adequate for the soils to properly handle septic effluent, while ensuring that any sewer expansion is consistent with the land use goals expressed in this Comprehensive Plan.***

- Limit sewer expansion into areas where septic use can adequately handle wastewater disposal. Sewer expansion in such areas could actually induce faster rates of growth and/or a wave of redevelopment.
- Ensure that proper zoning, use restrictions, and bulk regulations are in place to protect existing community character, prior to the expansion of sewer infrastructure into an area.

***Policy 8-12: Outside existing district boundaries, where vacant sites are subdivided, ensure that minimum required lot sizes are suitable for septic use.***

- Outside existing sewer district boundaries, maintain lot sizes at least 1 acre (consistent with County health standards) or more if warranted by environmental conditions or community character.
- This allows flexibility in the siting of septic fields and can help reduce the potential for septic failures, which could contaminate groundwater, streams, or wetlands.

***Policy 8-13: Continue to expand and improve programs for reducing stormwater infiltration into sewers.***

- There may be innovative techniques worth exploring for the purpose of detecting and sealing cracks and leaks in sewer pipes and manholes.

## **Electricity, Natural Gas & Telecommunications**

***Policy 8-14: Continue to expand electric and natural gas infrastructure in Yorktown as necessary and available.***

***Policy 8-15: Promote expansion of cable internet and DSL services.***

***Policy 8-16: Continue to require undergrounding of utility wires in new subdivisions.***

***Policy 8-17: Work with utility companies to underground existing overhead wires.***

- Identify priority locations for undergrounding in hamlet centers, within historic districts, and along scenic corridors.
- Wherever possible, coordinate undergrounding with the timing of road improvement projects, so as to avoid duplicative excavation and traffic disruption.

***Policy 8-18: Establish parameters for the location and design of cell antennae and towers, so that they do not create visual clutter throughout Yorktown.***

- Prohibit cell towers and antennae along scenic corridors and on historic sites.
- Continue to encourage development of cellular infrastructure on Town property.

***Policy 8-19: Ensure that infrastructure improvements and maintenance do not adversely affect property rights and aesthetic values.***

## APPENDIX TO CHAPTER 8: EXISTING CONDITIONS REPORT

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### Water Supply & Service

- Yorktown (north of the reservoir): Public water supply comes from the Northern Westchester Joint Water Works (NWJWW.) Sources of water:
  - Amawalk Reservoir: 7.5 MGD (current capacity of treatment plant);
  - Catskill Aqueduct: 7.0 MGD (current capacity of treatment plant.) There is the potential for a 25 percent expansion.
  - Interconnect with the Peekskill Hollow Brook. Most of the capacity of this system, however, is needed for Peekskill's own use, and the quality of the water is poor and deteriorating. It is only used currently in emergencies.
- Some areas south of the Reservoir, including the IBM campus, are supplied from New Castle. The cost of this water is significantly higher than NWJWW water.
- The NWJWW recently prepared a report entitled *The Long Term Water Needs of the Members of the Northern Westchester Joint Water Works* (June 2002.) Some of its conclusions were as follows:
  - Current capacity is 14.0 million gallons per day (MGD), about half of that capacity coming from the Amawalk Reservoir and the other half coming from the Catskill Reservoir.
  - Current average monthly demand for the district is about 9.4 MGD, with a peak of 30 percent greater at 12.3 MGD. By 2011, demand is expected to increase to 11.1 MGD, with a peak of 14.4 MGD. This peak level is just above current capacity. By 2026, average monthly demand is expected to rise to 13.0 MGD, with a peak of 16.9 MGD. In both 2011 and 2026, the average demand would still be below current capacity, but peak demand could be higher on certain days.
  - With the reduced density zoning proposed in this Comprehensive Plan, future demand may not reach the currently projected levels (13.0 MGD average annual and 16.9 MGD peak.) After the addition of the fifth filter, further capacity expansions above and beyond will probably not be needed.
  - The addition of a fifth filter at the Catskill treatment plant could provide the NWJWW with an operating capacity of 16.0 MGD. In this scenario, capacity will still fall short of demand on peak days, but the shortfall could be made up by storage capacity.
  - The distribution capacity in Yorktown is not cited as a constraint on future water delivery.
  - Water storage capacity should also be expanded, in order to provide back-up storage in case of pump failure, help meet local fire demand needs, and provide capacity for peak demand.

- About 5 to 10 percent of Yorktown residents rely on private wells.
  - Large areas in the southern half of the Town lie outside the existing water districts. Private wells are the only choice for water supply in these areas.
  - Several hundred households in the NWJWW district use private well water (particularly in the southeastern part of Yorktown north of the Reservoir.) Some wells have run dry, and the water quality is variable.
- The NWJWW is currently in the process of implementing a remote reading system for water meters. This will help achieve lower overhead costs.
- The Town has about 20 water billing districts. The districts all contribute to a shared "water storage and distribution district", which acquires water from various sources and keeps it in storage tanks for emergency use.

### ***Past Plans***

#### Town Development Plan, 1970

- None.

#### Town Development Plan, 1983

- None.

#### Town Development Plan, 1988

- "Projects requiring large quantities of public water for purposes other than human consumption shall provide, when feasible, an alternative or emergency water supply" (page 3).

### **Sanitary Sewer**

- Hallock's Mill Sewer District (Town district; a.k.a. Yorktown Heights Sewer District):
  - Treatment plant was built in the early 1960's with a capacity 0.5 MGD; it was upgraded in 1971 to 1.5 MGD. Average daily flows currently exceed capacity.
  - 56 miles of sewer, 1,500 manholes, 8 pump stations
  - Current moratorium: DEC (State) is not allowing additional sewer extensions; DEP (City) is not allowing new individual sewer connections.
  - *Diversion proposal*: treatment plant would be turned into a pump station; flow would be pumped to the Peekskill treatment plant; total capacity of the pump station would be 1.73 MGD (negotiated by the County.)
  - *Upgrade proposal*: treatment plant would continue to operate but would have to be upgraded to comply with both DEP (City) and DEC (State) watershed regulations; future increases in capacity would be difficult without DEP variances and DEC permits, since the discharge flows into Croton Reservoir. Total capacity of the upgrade would be 2.0 MGD.

- The District has an ongoing program to reduce stormwater infiltration into the sewer system. For example, one ongoing project is the lining (i.e., sealing) of sewers and manholes for this purpose.
- Peekskill Hollow Brook Sewer District (County district.) Serves areas in the northern part of the Town, including the recently added areas around Mohegan Lake.
- Lakeside Treatment Plant (a.k.a. Hunterbrook) was recently converted into pump station and diverted to Peekskill. Some extensions have been completed.
- The Hunterbrook extension (Crompond business district; adjacent residential areas) is currently being outfitted with sewers. Potential additional areas in need of sewers include: (1) Overlook Avenue; (2) Gomer Street; (3) Jefferson Valley business district; (4) Crompond business district; (5) Sparkle Lake neighborhood; (6) southern Mohegan Lake neighborhood; (7) Birch, Hemlock, and Hickory Streets; (8) Sunrise Street and vicinity; and (9) south side of Countryside Estates.

### ***Past Plans***

#### Town Development Plan, 1970

- "Part of the reason for allocating a large area of the Town for low-density development is the prevention of a situation where private sewage disposal systems may become inadequate in the future and public sewers must then be built."
- Septic on one-acre lots; half-acre lots on public sewer.
- A 1958 report, *Master Plan for Sewerage in the Town of Yorktown*, determined that most of the land south of Yorktown Heights would not be feasible for public sewers.
- An update of the 1958 report recommended running sewer lines into northwestern Yorktown from Cortlandt to serve Mohegan Lake, Shrub Oak, and Jefferson Valley.
- Studies completed in 1962 and 1965 called for the development of a trunk sewer line along the southern edge of the Croton Reservoir, which would collect effluent from Yorktown (and possibly adjacent towns as well) and carry the sewerage to a plant or discharge point along the Hudson River in the vicinity of Croton Point. The 1970 Plan suggests that there would be problems with such improvements, namely: (1) cost; (2) duplication of treatment, in Yorktown and the regional plant.

#### Town Development Plan, 1983

- Septic on one-acre lots
- Four (4) sewer service areas were proposed in the 1968 County Sewerage Study:
  1. The Peekskill Hollow Brook Sewer District (County District)
  2. The Hallock's Mill Sewer District (Town District; a.k.a. the Yorktown Heights Sewer District). Needs expansion but it may not materialize within the next ten years considering the population growth and housing construction.
  3. Kisco River
  4. The Hunterbrook Area (extension of the Peekskill Hollow Brook District.) The increased capacity is reflected in the new Town Plan showing new area for multi family type development to the former "Whites" property.

Town Development Plan, 1988

- Septic on two-acre lots; anything smaller should be on public sewer.
- Phasing would be permitted for areas where sewers would be allowed but are not yet available. Recommendation: In the R1-10 and R1-20 districts, the minimum lot size would be increased to 40,000 square feet, and then a 50 percent reduction in the lot size would be permitted when sewer hookups are provided.
- Sewer districts are operating near capacity. The Lakeside Village plant is being diverted to Peekskill's Hollowbrook plant. The Yorktown Heights plant requires expansion. Some septic systems are failing.

**Electricity, Gas & Telecommunications**

- New York State Electric & Gas (NYSEG) and the New York Power Authority provide electricity. Natural gas is provided by the Consolidated Edison Company of New York, Inc. (Con Edison.)
- Verizon operates and maintains the telephone wires that run throughout Yorktown and is responsible for providing dial tone (i.e., basic telephone and internet capability) in Yorktown. Since the deregulation of telecommunications in the 1990's, people can choose other providers for long-distance telephone and/or internet service.
- Cablevision is the cable provider in Yorktown.
- Cable internet and DSL services are available in some parts of Yorktown, although not everywhere.
- Yorktown currently requires new subdivisions to have underground wires. Some older areas of the Town have overhead wires.
- Like every town throughout the country, Yorktown has been inundated with applications for new cellular antennae.
  - Cell companies strive for full coverage of their cell signals, so they want to have their antennae throughout the Town.
  - To the extent feasible, the Town requires wireless telecommunications facilities to be built on Town property with the approval of the Town Board. As an alternative, the Town allows cell antennae to be built on private property with the approval of the Zoning Board of Appeals.
    - In some respects, the approval route for building on Town property is actually easier than building on private property.
    - For development on private property, the Town has established locational priorities: (1) non-residential districts; (2) sites with non-residential uses in residential districts; (3) residential sites in residential districts. Collocation is encouraged. There are setback and height requirements, and submittal of a visual environmental assessment form is required as an addendum to the applicant's SEQR submission.

- A significant benefit of requiring building on Town property is that rental revenue goes to the Town's taxpayers. Also, there are advantages from a character viewpoint. On public land, wireless facilities can be almost entirely hidden from public view. For infrastructure built on Town property, the Town (as the property owner) reserves the right to impose any conditions of approval as it may deem appropriate.

***Summary of Past Plans***

Town Development Plan, 1970

- Not discussed.

Town Development Plan, 1983

- Not discussed.

Town Development Plan, 1988

- Not discussed.