

CHAPTER 4
Utilities and Community Facilities

Section 4.1 Public Utilities Inventory

The physical well-being of the Village of Forreston is dependent upon the adequacy of its public utilities and services. A safe and ample source of water, an adequate means of disposing of solid and liquid waste, and adequate supplies of energy are essential in maintaining the public health, economy and natural resource base of the Village.

A. Wastewater Treatment Plant

The Village of Forreston's original wastewater treatment facility was completed in 1940 with a maximum design flow of 590,000 gallons per day. The design life expectancy of the wastewater treatment facility extends through 2025. The primary components of the wastewater treatment facility include: grit chamber, contact aeration, re-aeration, final clarifier, aerobic digesters, and drying beds. The current wastewater treatment plant is designed for a hydraulic flow of 0.230 million gallons per day (MGD) and biological oxygen demand (BOD) of 263 pounds per day. The 2003 and 2004 wastewater treatment plant flows are shown below in Table 4.1.

Table 4.1
Village of Forreston Wastewater Treatment Plant Flows in 2004 and 2003

Month	2004 Monthly Average MGD	2004 Monthly Maximum MGD / % of Design Maximum	2003 Monthly Average MGD	2003 Monthly Maximum MGD / % of Design Maximum
January	0.101	0.158 / 32%	0.113	0.135 / 27%
February	0.175	0.469 / 94%	0.097	0.125 / 25%
March	0.436	0.811 / 162%	0.131	0.265 / 53%
April	0.264	0.604 / 121%	0.151	0.413 / 83%
May	0.347	0.852 / 170%	0.316	0.634 / 127%
June	0.441	0.830 / 166%	0.158	0.434 / 87%
July	0.207	0.588 / 118%	0.147	0.319 / 64%
August	0.160	0.460 / 92%	0.042	0.193 / 39%
September	0.067	0.143 / 29%	0.046	0.161 / 32%
October	0.092	0.234 / 47%	0.036	0.062 / 12%
November	0.189	0.479 / 96%	0.129	0.517 / 103%
December	0.212	0.473 / 95%	0.231	0.821 / 164%

Source: Village of Forreston

The average monthly BOD loading in 2003 was 158 pounds per day, and in 2004 was 236 pounds per day based on monthly sampling. The highest monthly BOD loading for 2003 was 548 pounds recorded in December, which was 142% percent of the designed BOD loading. The highest monthly BOD loading for 2004 was 563 pounds recorded in May, which was 147% percent of the designed BOD loading. Treated

effluent is discharged to a tributary of the Leaf River, east of the treatment plant. The Village is presently considering the following improvements to the sewage treatment facility: 1) installation of fine bubble aeration in the aeration tanks and digester; 2) installation of variable frequency drives added to the blowers. The wastewater treatment facility currently has that capacity to serve an additional 500 households.

B. Sewage Collection System

The majority of the Forreston sanitary sewer collection system was installed 1912, and consists of approximately 73,190 linear feet of clay and PVC pipe. The sewage collection system has a lift station at Spruce and Chestnut Streets that serves approximately 18 homes and 29 mobile homes, and a lift station at the end of Prairie Court that currently serves 4 homes.

C. Municipal Water

I. Municipal Water Supply and Water Distribution System

The Village of Forreston has two public water supply wells. Well #2 and Well #3 produce 192,000 gallons per day to an estimated population of 1,469 through 600 service connections. Well #2 and Well #3 are 1,000 feet deep in bedrock and overlain by permeable bedrock and impermeable till. The aquifer utilized is considered confined by the Illinois Environmental Protection Agency.

Well #2 is located at the southeast corner of Third and Pine Streets and Well #3 is located next to the new elevated tank at the south end of Garden Street. Wells #2 and #3 pump 350 and 1,000 gallons per minute and have a production capacity of 1,440,000 gallons per day. Well #1 was properly abandoned.

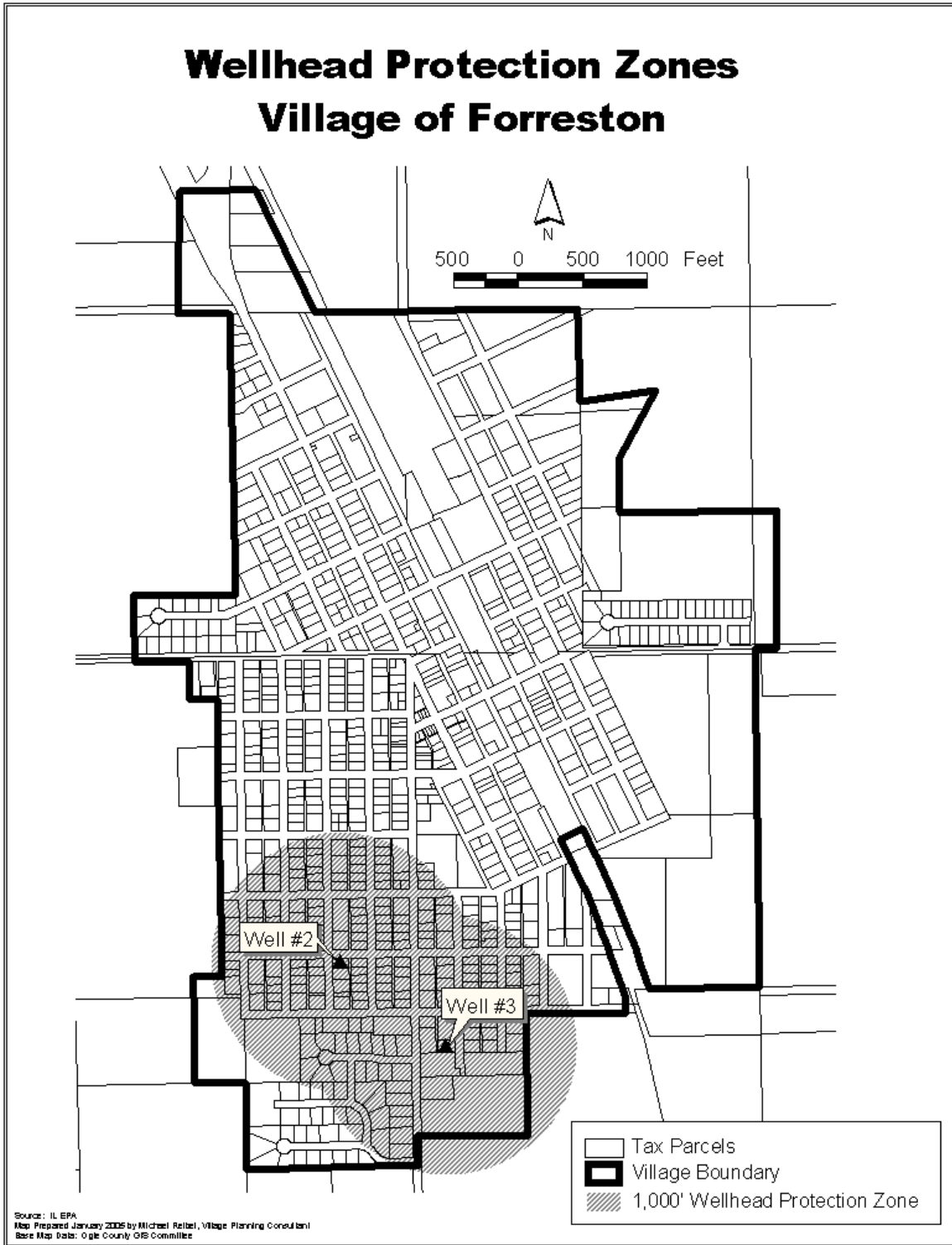
The Village's water distribution system was installed in 1912. There is currently approximately 100,000 linear feet of water main within the Village of Forreston and a total of 623 water meters. The Village of Forreston also maintains a total of 75 fire hydrants.

The Village of Forreston wells are protected by a wellhead protection ordinance, which imposes a 1,000' setback, and includes a listing of permitted and prohibited uses within two specific zones of protection (please see the actual Wellhead Protection Ordinance text for more information).

Based on information obtained in a Well Site Survey published in 1990 by the Illinois Environmental Protection Agency (IL EPA), one potential source of contamination is located within 1,000 feet of one of the municipal wells. However, IL EPA has determined that the Forreston Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria including; monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and available hydrogeologic data on the wells. Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the Forreston Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper siting conditions; a hydraulic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the susceptibility determination. Hence, well hydraulics were not evaluated for this system ground water supply.

Planned water facility improvements include painting the 150,000 gallon water storage tank and water main looping in certain areas throughout the Village.

Figure 4.1 Forreston Wellhead Protection



D. Storm Water Drainage Facilities

There are three major storm sewers in the Village of Forreton: 1) IL Route 26 east on Elm Street to a drainage ditch outside the Village; 2) IL Route 26 east to Walnut and Ash Streets; and, 3) IL Route 26 east to Locust Street. In the last five years the Village has upgraded its stormwater drainage in two critical areas; however, a limited number of surface drainage problems still exist in the Village, particularly spring thaw, or during heavy or prolonged rain events.

E. Solid Waste Disposal

The Village of Forreton currently has no municipal contract for solid waste disposal. Moring Disposal is the main provider of waste disposal to Village residents.

F. Corporate Utilities

1. Natural gas is available throughout the Village from NiCor Gas.
2. Electric Power - Electricity is provided by ComEd/Exelon Corporation.
3. Telephone Service - Local telephone service, long distance, cellular and other specialized phone services are available from a number of private firms.
4. Cable television service is provided by Insight Communications.
5. Internet service is available to Village residents through a variety of sources.

Section 4.2 Analysis of Public Utilities Needs

To maintain the public health, economy and natural resource base of the Village, public utilities and services must be adequate for existing and planned development. Forreton's public utilities and services were analyzed and the following recommendations were developed to ensure that the Village has the continuing capacity to serve existing and new development and that public utilities are provided in areas where they can be most efficiently and economically extended:

A. Wastewater Treatment Plant and Sewage Collection System

The current wastewater treatment plant has adequate capacity to serve future development. The current sewage collection system maintenance program should be continued and expanded in the future if necessary.

C. Municipal Water System

The Village's municipal water system consists of the drinking water supply, which is obtained from a confined bedrock aquifer, a water distribution system and a water storage facility. The municipal water system is adequate to serve existing and future needs.

D. Storm Water Drainage Facilities

The Village should identify, study and work to correct lingering stormwater drainage problems within the Village.

E. Solid Waste Disposal

The Village should work toward a municipal contract for waste disposal and recycling service.

F. Corporate Utilities

The Village Plan Commission and Board would like to be informed of future projects (e.g. line upgrades or new facilities) that may impact Forreston.

Section 4.3 Community Facilities Inventory

A. Village Facilities and Services

1. Village Hall - Forreston Village Hall, located at 102 S. Walnut Avenue, was built in 1902. It sits at the point on the north edge of the downtown business district where Illinois Route 26 and Walnut Avenue converge. A single room on the ground floor of Village Hall serves as the board room where the Village Board meets twice each month and various committees meet frequently throughout the month. This single room also houses the Village President's desk, the Superintendent of Public Works' desk, and a Clerk/Collector administrative area where the public pays their water bills. A separate office for the Police Chief and a single stall garage for the police car are also housed on the ground floor. Approximately one-third of the ground floor is unused other than for the archival storage of old records. The ground floor has an area of approximately 2,000 square feet. The second floor, also approximately 2,000 square feet in area, is accessed by a steep, narrow stairway that exits to Walnut Avenue on the east side of the building. The second floor is largely unused except for the storage of a few items belonging to American Legion Post #308.
2. Police Protection – The Village employs one part-time officer. The Village owns one 2004 police car. The Ogle County Sheriff's Department provides protective services through patrols and on a "callout" basis.
3. Fire Protection - The Forreston Fire Protection District provides fire and ambulance service to the Village. All Fire Protection District staff are volunteer. The Forreston Fire Protection District facility is located in the village at 202 S. Ash Avenue.
4. Library - The Forreston Public Library, located at 204 1st Avenue, provides materials and services to meet the educational, informational and recreational needs of the community. Special attention is given to providing popular materials in a variety of formats for users of all ages.

B. Public School Facilities

Residents of the Village of Forreston and surrounding area are served by the Forrestville Valley Community Unit School District.

C. Junior College Facilities

Residents of the Village of Forreston and the immediate surrounding area are served by Highland Community College, located in Freeport, IL. As a community college, its mission is built around meeting the needs of the greater northwest Illinois community through quality educational and cultural programs. Highland Community College offers comprehensive academic programming with over 60 degrees and certificates.

D. Parks, Recreation and Open Space

The Village of Forreston owns and maintains two parks. Warnken Park is on the east side of the Village. Memorial Park is located near the downtown area.

E. Other Community Facilities and Services

1. Senior Services. There is an active senior citizen's group that meets monthly. Other senior citizen activities are held at the Elmer Davis Apartments Community Room.

2. Churches. Three churches are located in the Village of Forreston: 1) Forreston Reformed Church (505 3rd Avenue); 2) United Methodist Church (402 1st Avenue); 3) Faith Lutheran Church (2nd Ave. & Birch St.).
3. Health Care Facilities. The Forreston Medical Clinic (Dr. Lucio Martinez) is located at 803 S. 1st Avenue.

F. Community Facilities Needs/Issues

To maintain its attractiveness as a residential community, the Village must continue to provide a high level of community services and facilities. The following recommendations are offered to strengthen the Village's existing facilities and services and ensure that future improvement and building programs are economical and efficient.

1. Village Facilities and Services Needs/Issues:
 - a. Village Hall: In March, 2005, some of the upper bricks on both the east and west sides of Village Hall started to deteriorate, causing the brick face to flake off in 1/4" thicknesses. Upon closer inspection, it was determined that the condition of the building's roof was the cause of the brick deterioration. There is an immediate need to install a new roof on Village Hall and to repair the existing brick damage. Funds have been set aside in the 2005-2006 budget to make the needed repairs. A longer term goal is to renovate the Village Hall building to more effectively utilize the available space that is now unused. Though no formal plan exists, discussions have focused on making the building handicapped accessible, creating a separate board room so that the public does not need to exit the building when the board meets in closed session, providing private office areas for the Village President, Police Chief and Superintendent of Public Works, and creating a public-friendly area for the payment of water bills. By statute, certain Village of Forreston records must be kept indefinitely. Ideas for the second floor include a secure record archive area where village records can be stored. Since the Village's sesquicentennial celebration in September, 2004, much interest has been expressed in creating a village museum to publicly display artifacts from Forreston's history. It has been suggested that the second floor of Village Hall could be used for that purpose.
 - b. Police Protection: Maintain the level of service received from the part-time law enforcement staff and the Ogle County Sheriff's Department.
 - c. Fire Protection: The Village is relatively comfortable with the current level of service.
 - d. Library: The Village Board is comfortable with the library facilities and services.
2. Public School Facilities Needs/Issues: None identified.
3. Junior College Facilities Needs/Issues: None identified.
4. Parks, Recreation and Open Space Needs/Issues:
 - a. More youth activities.
 - b. Recreation path/trail.
 - c. Summer youth programs.
 - d. Additional park improvements.
5. Other Community Facilities and Services Needs/Issues:
 - a. More Senior Citizen activities.
 - b. Establishment of a community center.

Section 4.4 Goals, Objectives, Policies

A. Public Utilities And Services Goals, Objectives, Policies

1. Goal

To provide sanitary sewer, water and other necessary public utilities, facilities and services to existing and planned future development in an efficient and cost effective manner.

2. Objectives

- a. Promote the expansion, maintenance, and rehabilitation of utilities and community facilities/services to achieve housing, economic development, land use and other comprehensive planning goals.
- b. Work toward securing a municipal waste hauling and recycling service contract.
- c. Encourage the provision of public utilities in areas that can be most efficiently and economically served.
- d. Promote the extension of public utilities only in areas environmentally suitable for urban development.
- e. Promote the fair and equitable distribution of benefits and costs for future public utility upgrades and expansions.

3. Policies

- a. A capital improvements program should be developed to complement land use strategies of the Comprehensive Plan. (A capital improvements program should be updated and reviewed on a regular basis.)
- c. Land developers should be responsible for the cost of providing facilities and services in order to promote the fair and equitable distribution of costs and benefits.
- d. Maintain and protect the quality of the Village water supply.
- e. Work with Ogle County to coordinate future growth and development.

B. Community Facilities Goals, Objectives, Policies

1. Goal

To maintain and provide community facilities and services that will make Forreston a more attractive community in which to live and work.

2. Objectives

- a. Work with the Forreston Fire Protection District to ensure that adequate fire protection, and ambulance and emergency medical services are provided to all areas of the Village.
- c. Encourage the provision of a wide variety of social, cultural and educational activities for the benefit and enjoyment of all residents.
- d. Village officials should periodically communicate with Forrestville Valley school officials any education-related issues or concerns regarding Forrestville Valley students.

3. Policies

- a. The Village of Forreston should continue work with the Forreston Fire Protection District to provide fire protection services that will attain the highest levels of efficiency in providing for the safety and welfare of residents.

- b. An effective capital improvements program should be implemented to insure long range financial planning for needed public facilities.

C. Parks, Recreation and Open Space Goals, Objectives, Policies

1. Goal

Ensure that adequate open space and recreation facilities are provided for and made accessible to all the residents of Forreston.

2. Objective

- a. Study the adequacy of existing park facilities and include any improvements or acquisitions as a component of a capital improvements plan.
- b. Promote expanded and new community recreational services and activities to meet the needs and desires of the community without increasing the tax burden or creating an additional taxing district, such as a park district.
- c. Require future development to provide park and/or open space lands.