



CHAPTER 6 MAJOR UTILITIES

6.0 MAJOR UTILITIES

6.1 Water System

The City of O'Fallon operates its own water distribution system. All developed areas within the city receive potable water, and water mains generally follow arterial or collector roads.

The O'Fallon water system purchases water from Illinois-American Water Company to service over 16,000 water customers. The service area for water includes the majority of Fairview Heights, O'Fallon, and surrounding unincorporated areas.

Illinois-American supplies water to the O'Fallon distribution system at Illinois-American's French Village Pump Station located at the intersection of Illinois State Route 160 and St. Clair Avenue on the western edge of Fairview Heights. Additionally, Illinois-American provides to O'Fallon at a meter pit located east of the Metro-Link Station adjacent to Route 161 from their Edgewood Pump Station located in E. St. Louis. The water main from Illinois-American's French Village Pump Station is boosted by O'Fallon's French Village Pump Station located north of St. Clair Avenue approximately 2,400-feet east of Illinois-American's French Village Pump Station. The Edgewood feed is not boosted. Both feeds join near the intersection of Lincoln Highway and Old Lincoln Highway in Fairview Heights. From there water feeds the Fairview Height neighborhoods, the St. Clair Mall elevated storage tank and O'Fallon.

In 2005, the system supplied 1,502 MG of water, which equates to an average daily demand of 4.12 MGD. Peak day demand approached 7.5 MGD. Equalization and fire storage requirements are provided by five separate storage tanks with a total capacity of 3.0 MG. The storage tanks are located at St. Clair Square Mall (elevated, 0.5 MG), East State Street near Behrens Street (elevated, 0.5 MG), and Seven Hills Road near Moye Elementary School (elevated, 0.5 MG), and two ground storage tanks at the City's Public Works Compound on West State Street (ground tanks, 1.0 & 0.5 MG). The pump at the O'Fallon French Village Pump Station is driven only by electrical power. The pumps at the Public Works Compound Booster Pump Station are driven electrically by a commercial feed with a back-up diesel fuel-powered generator. The St. Clair Square storage tank primarily services the Fairview Heights area. The remaining four tanks service the O'Fallon area. In 2006 and 2007, O'Fallon will build a new French Village Pump Station and two

CHAPTER 6 MAJOR UTILITIES

additional elevated storage tanks (each 1,000,000 gallon capacity). One of the tanks will be in O'Fallon in the vicinity of the I-64 corridor. The second will be in the vicinity of Milburn School Road and Pausch Road.

According to the St. Clair County and O'Fallon Comprehensive Plans, growth within the O'Fallon-Shiloh growth corridor is occurring in the residential, commercial, and industrial sectors. Future commercial development will continue to increase along the I-64 corridor, particularly at the new I-64 interchange at Green Mount and I-64/HWY 158 interchange. The Highway 50 corridor should also see an increase in commercial development as existing parcels are developed. Future industrial development has also been identified along the I-64 corridor east of Scott-Troy Road and along the CSX Railroad tracks. When large water users or industrial-type development occurs, O'Fallon should analyze what demands and limitations these projects could produce regarding water supply, wastewater generation, transportation, etc.

Projections from Burns & McDonnell, Inc. in November 1996, (consultants for the City), predicted a population increase in the entire system from 33,881 in 1995 to 52,133 in 2016. These projections look at the demand for the entire water distribution system, not specifically at O'Fallon. Average day demands are projected to increase from around 4.0 MGD to 6.52 MGD. The water system capital improvement plan recommended by Burns and McDonnell in 1996 assumed a high growth projection for the City. The high series growth was based on the population projection information provided in the O'Fallon 1993 Comprehensive Plan. That plan was designed to correct existing deficiencies and meet future water demands. At this time most of the recommendations in that report have been incorporated into the water system. Burns & McDonnell are currently updating data used in the 1996 report and will provide that to the City in 2006. The new report will provide projections for the entire water system and include general cost estimates for the implementation of future improvements.

Future system boundaries have been identified as Highway 161 on the west, FPA expansion limits on the north, Reider Road on the east and approximately Thouvenot Lane/Old Shiloh Road on the south. While these bounds approximately represent both the existing and anticipated future limits of the system, the build out is limited to the far outlying areas. Demands located a significant distance from the pressure/storage centers challenge the capabilities of the existing distribution system; hence, the need to look at future infrastructure needs.



CHAPTER 6 MAJOR UTILITIES

6.2 Sanitary Sewer System

The facilities planning areas (FPAs) of both the O'Fallon Sanitary Sewer District and Caseyville Township Sanitary Sewer District are well defined at this point in reference to how both will serve the existing and future development of O'Fallon. Developments west of the interstate, Simmons Road and Witte Road will be serviced by Caseyville Township. Expansions of the sewer system within the Caseyville Township Sanitary Sewer District and O'Fallon's will be driven by development. The facilities planning area (FPA) for the City's sanitary system is proposed for expansion into Madison County.

The two existing main sanitary sewer trunks serving O'Fallon within the O'Fallon Sanitary Sewer District follow Engle Creek and its Rock Spring Branch, respectively. The larger trunk, Engle Creek line (30-inch), serves the city's northern portions. The smaller trunk (21-inch) collects waste from southern and eastern areas. The city-operated system has a treatment plant and with large lagoons for overflow capacity outside the current city limits at the confluence of Engle Creek and Silver Creek. Wastewater generated in areas in the City served by the Caseyville Township Sanitary Sewer District System are treated at their plant on Ecology Drive in O'Fallon near Old Collinsville Road.

In recent years, the O'Fallon system has expanded along with the city's growth. The treatment plant has accepted sewage from the Village of Shiloh without exceeding capacity levels. In 1997, the City of O'Fallon completed a significant expansion of its wastewater treatment plant located on Reider Road, north of East Highway 50. The following illustrates the plant's capacity:

Average Daily Flow	5.61 MGD*
Maximum Daily Flow	13.14 MGD*

*MGD = Million Gallons Per Day

Maintenance of the collection system is also a significant concern for the City. Infiltration poses a recurrent problem in older areas of the city where aged sewer pipes allow leakage, creating back-ups in the system. The City has developed an on-going program for improving the sanitary sewer system in the older parts of town to alleviate some of these problems, as well as to help maintain the viability and attractiveness of the older core of the City.



CHAPTER 6 MAJOR UTILITIES

Recommended Sewer System Improvements

The following projects have been identified for the City of O'Fallon regarding sanitary sewer service.

1. Further expand the O'Fallon Facility Planning Area (FPA) to the identified 7,500-acre area in Madison County north of the current FPA boundary.
2. Construct a Northeast Interceptor Sewer.
3. Construct a Southeast Interceptor Sewer.
4. Construct an O'Fallon FPA expansion area Interceptor Sewer System.
5. Construct a Northeast Area Terminal Lift Station and Force Main.
6. Construct the Southeast Area Lift Station and Force Main.
7. Construct a limited number of minor Force Mains.

6.3 Stormwater Sewer System

In 2003, the City of O'Fallon retained the engineering firm of Black & Veatch to develop a Stormwater Master Plan and associated Stormwater Capital Improvement Plan. During analysis, the consulting firm analyzed 320 potential problems using a Stormwater Priority Ranking Form. The result is a prioritized list of the top 23 Stormwater Improvement Projects recommended for completion. The projects are listed in the table below.

City of O'Fallon Stormwater Master Plan Recommended Projects		
<i>Ranking</i>	<i>Project #</i>	<i>Project Location</i>
1	System E	Southeast City Center Sub-Area
2	System B	Southwest City Center Sub-Area
3	Study Area 4	Red Fox Trail and Amberleaf
4	System H	Northeast City Center Sub-Area
5	Study Area 10	Bristlecone Drive
6	Study Area 8	Estate Drive and Lee Drive
7	Study Area 13	West Madison Drive and West Nixon Drive
8	System F	Northeast City Center Sub-Area
9	EC-6	North Seven Hills Road
10	Study Area 9	Fontaine Bleau
11	System C	Northwest City Center Sub-Area
12	Study Area 7	St. Nicholas Drive
13	Study Areas 5 & 6	Jackson St., Wesley Dr., Lakeshore Dr.
14	Study Area 14 – Phase I	Westfield Dr., Susan Ct., Holiday Dr.
15	EC-2	Neighborhood near Persimmon



CHAPTER 6 MAJOR UTILITIES

16	EC-1	Neighborhood South of W. State St.
17	EC-3	Glen Hollow Road
18	Study Area 14 – Phase II	Westfield Dr., Susan Ct., Holiday Dr.
19	Study Area 12	Mulberry Lane
20	System G	Northeast City Center Sub-Area
21	System A	Southwest City Center Sub-Area
22	Study Area 14 – Phase III	Westfield Dr., Susan Ct., Holiday Dr.
23	System D	Southeast City Center Sub-Area

The estimated cost of the above improvements (near \$14,000,000) were thought to be beyond the City's existing funding sources. A Stormwater Advisory Committee (SWAC) was formed in 2005 at the invitation of the Mayor to a group of citizens who had stormwater problems, represented groups or commercial interests that would be affected by any additional collection of funds to correct stormwater problems, and due to their experience in serving city governments could add to the discussion of solutions to problems. AMEC Earth & Environmental was contracted with to provide facilitation of committee meetings and provide necessary information to the committee for their consideration. Recommendations of the committee were presented to the aldermen on the City's Public Works Committee in January of 2006. Based on those recommendations that were forwarded to the full City Council for consideration, the City will contract with AMEC in April 2006 to start the planning phase of the implementation of a Stormwater Utility. Based on the SWAC recommendations a revenue stream of \$1.2 to 1.4 million is needed to adequately address the problems the committee reviewed.

6.3 Fiber Optics

Typically, fiber optic service is provided as businesses and customers require it. However, the cost of obtaining the equipment and lines can be extremely expensive. Copper wire is typically the most available and least expensive, depending on use, and it may fulfill many of the same data processing and user needs as fiber optics. Copper wire is currently available and expected to serve the needs of the new medical office park on Seven Hills Road. If a business is considering fiber optics, Ameritech representatives should be consulted early in the planning process due to the time needed to develop an extension.

The current location of fiber optic lines in the City are from the Ameritech office at Lincoln and 5th Street, to Highway 50, then west to Old Collinsville Road. At this point the line runs north on Old Collinsville

CHAPTER 6 MAJOR UTILITIES

Road to Milburn School Road then west to Route 159. An additional line runs north on Lincoln Avenue to the lift station near Lincoln Farm Subdivision. The same line run south on Lincoln Avenue into Shiloh. This line extends through Shiloh coming out on Maple Street before running south on new Route 158 then east on Seibert Road to Scott Air Force Base. An additional fiber optic line runs from Highway 50 south through the entire length of Hartman Lane. This line also extends onto Park Plaza Drive in Central Park Plaza.

Future expansions to be completed include: extending fiber optics from Hartman Lane west on Thouvenot lane; from Highway 50 south onto Green Mount Road; and east from Lincoln Avenue and 4th Street to Smiley then south to Highway 50 then east to the Eastgate Professional Park.

Since 2001, AT&T (formerly Ameritech and SBC) has extended fiber optic lines to the following areas of the City:

- On Frank Scott Parkway, west from Hartman Lane to Old Collinsville Road.
- On Green Mount Road, south from U.S. 50 to Frank Scott Parkway; and north from U.S. 50 to Oberneufemann Road, then Porter Road, to Milburn School Road.
- On North Lincoln Avenue, north from Summerlin Ridge to Troy-O'Fallon Road, then east to Weil Road.
- From South Lincoln Avenue, east on 4th Street to Smiley, then south to U.S. 50, then east to the Eastgate Professional Park.
- On Scott-Troy Road, north from Eastgate Drive (the Eastgate Professional Park) to Oak Hill School Road.
- In Shiloh, from South Lincoln Avenue/Cross Street west on Lebanon Avenue.

Additionally, AT&T indicated they will be extending fiber optics to the new home developments in the City's northwest quadrant.

6.4 Electric

Illinois Power supplies the city's electrical needs. Two transmission lines stretch across north/south and east/west axes. The east/west line generally follows the CSX tracks until it follows Vincennes Road. The north/south line runs parallel to Venita Drive and Porter Road.

CHAPTER 6 MAJOR UTILITIES

While no capacity problems currently exist, continued growth will place increasing demands upon the existing system. Within five years, Illinois Power proposes to build an additional substation off Porter Road, one-quarter mile north of West Highway 50. The four existing substations are located at: 1) Hartman Lane and Famous Avenue; 2) Charles Street and State Street; 3) State Street and Seven Hills Road; and 4) Troy-O'Fallon Road.

As suggested in the 2001 Plan, Ameren (formerly Illinois Power) has built an additional substation on the west side of Porter Road, one-quarter mile north of West Highway 50.

With the City's planned expansion north of the St. Clair/Madison County line, electric distribution to development north of the County line will be provided by Southwestern Electric Cooperative, Inc. (SWECC).

6.5 Natural Gas

Illinois Power Company provides the City of O'Fallon with natural gas. A 14-inch trunk line extends from Ashland Drive in Fairview Heights along the former Illinois Terminal right-of-way into downtown O'Fallon. It continues as a six-inch line parallel to the CSX tracks terminating at Seven Hills Road. Presently, size and capacity of all lines are considered satisfactory. If industrial or large commercial users locate in the city, some distribution lines will require increased capacity.

Ameren indicated size and capacity of all lines serving O'Fallon are considered satisfactory. Future industrial or large commercial users locating in the city will require increasing capacity on distribution lines.



CHAPTER 6 MAJOR UTILITIES

Insert Water and Sewer Improvements Map here.



CHAPTER 6 MAJOR UTILITIES

Insert Major Utility Map here. UPDATE??