### Strategic Water Resource Development Plan

Summary of Wastewater Treatment Systems

### **KIPDA**

Water Resource Development Commission

March, 2000

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### **KIPDA**

### 11520 Commonwealth Drive Louisville, KY 40299 (502) 266-6084

### ADD Sewer Service (map)

- Estimated 1999 population of 826,000--80% on public sewer
- Estimated 2020 population of 866,000--89% on public sewer
- Proposed projects would connect about 13,700 new households to public sewer during 2000-2020
- Estimated funding needs for public sewer 2000-2005--\$25,000,000<sup>1</sup>
- Estimated funding needs for public sewer 2006-2020--\$79,200,000

The region had an estimated population of 826,359 (342,841 households) in 1999 with a projected population of 866,000 (380,000 households) in 2020. Public sewer systems serve 666,000 area residents, or 80 percent of the population. Proposed sewer line extensions for the period 2000-2020 would provide service to an additional 13,700 households. About 160,000 people in the region currently rely on onsite treatment systems.

Estimated populations and public water service for the seven counties in the region is given below (16 public sewer systems serve the region):

1999 Pop	On Public	2020 Pop	On Public
60,500	27,200 (45%)	78,100	39,000 (50%)
15,100	5,300 (35%)	18,300	10,100 (55%)
662,500	596,200 (90%)	652,000	645,000 (99%)
41,100	18,500 (45%)	52,600	52,100 (99%)
29,500	14,800 (50%)	37,400	18,700 (50%)
10,000	1,700 (17%)	18,100	1,600 (9%)
7,500	2,300 (30%)	9,050	3,600 (40%)
826,000	666,000 (80%)	866,000	770,000(89%)
	60,500 15,100 662,500 41,100 29,500 10,000 7,500	60,500       27,200 (45%)         15,100       5,300 (35%)         662,500       596,200 (90%)         41,100       18,500 (45%)         29,500       14,800 (50%)         10,000       1,700 (17%)         7,500       2,300 (30%)	60,500       27,200 (45%)       78,100         15,100       5,300 (35%)       18,300         662,500       596,200 (90%)       652,000         41,100       18,500 (45%)       52,600         29,500       14,800 (50%)       37,400         10,000       1,700 (17%)       18,100         7,500       2,300 (30%)       9,050

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<sup>&</sup>lt;sup>1</sup> Funding estimates do not include MSD projects which are self-funded (est. \$440 million).

### **EXISTING & PROPOSED** SEWER SERVICE **KIPDA** Kentucky

### Prepared By: Water Resource Development Commission

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Data Collection & GIS Input By: Kentucky Area Development Districts





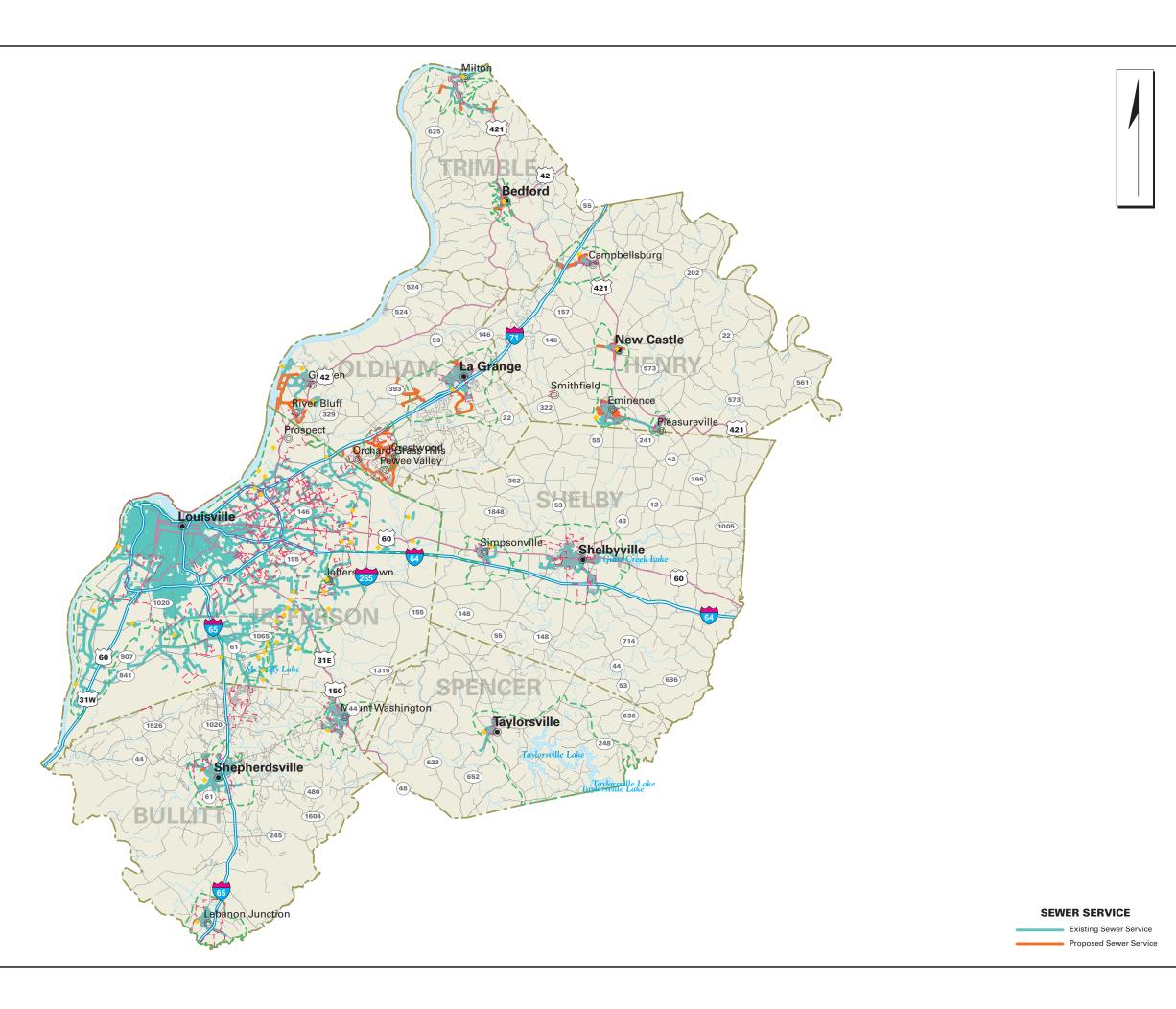




201k Facility Planning Area

Incorporated City Boundary

SewageTreatment Plant



Estimated costs for public sewer expansions and associated system upgrades are:

### Proposed Projects 2000-2005

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
BULLITT							-
Mt Washington			800	1,350			2,150
Shepherdsville	13	78					78
County Total	13	78	800	1,350			2,228
HENRY							-
New Castle	20	720					720
Campbellsburg		400	2,111	1,033			3,544
Smithfield	400	4000					4,000
Eminence	332	185					185
County Total	752	5,305	2,111	1,033			8,449
JEFFERSON							
All projects self funded							
OLDHAM							_
LaGrange		4,500					4,500
Goshen (Private Utility)							,
Metropolitian Sewer District Area		6,400					6,400
Pee Wee Valley		3,000					3,000
County Total	5,500	13,900					13,900
SPENCER							none
SHELBY							none
TRIMBLE COUNTY							-
Bedford	27	400					400
KIPDA Total	6,292	19,683	2,911	2,383			24,977

### Proposed Projects 2006-2020

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
BULLITT							,
New Sanitation District		5000					5,000
HENRY							-
Campbellsburg		400					400
Eminence				2,000			2,000
Smithfield	650	6000				700	6,700
County Total	650	6,400		2,000		700	9,100
JEFFERSON (Projects self funded)							,
OLDHAM							-
LaGrange		19,200					19,200
Metropolitian Sewer District Area		9,100			30,000		39,100
County Total	6,500	28,300			30,000		58,300
SPENCER							-
SHELBY							
Shelbyville				2,000			2,000
County Total				2,000			2,000
TRIMBLE COUNTY							-
Milton	250	825			2,000		2,825
Bedford					2,000		2,000
County Total	250	825			4,000		4,825
KIPDA Total	7,400	40,525		4,000	34,000	700	79,225

### **BULLITT COUNTY**

### Bullitt County Sewer Service (map)

- Estimated 1999 population of 60,500--45% on public sewer
- Estimated 2020 population of 70,100--50% on public sewer
- Estimated funding needs for public sewer 2000-2005--\$2,230,000
- Estimated funding needs for public sewer 2006-2020--\$5,000,000

Bullitt County had an estimated population of 60,499 (21,433 households) in 1999 with a projected population of 78,136 (30,966 households) in 2020. Public sewer is provided to about 45 percent of the county's residents. About 11,800 households in the county use onsite wastewater treatment.

### BULLITT COUNTY SEWER PLAN

### Proposed Projects 2000-2005

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
BULLITT							
Mt Washington			800	1,350			2,150
Shepherdsville SX21029001	13	78					78
County Total	13	78	800	1,350			2,228

### Proposed Projects 2006-2020

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
BULLITT							-
New Sanitation District	Trailer Pks	5,000					5,000
BULLITT COUNTY TOTAL	Trailer Pks	5,000					5,000

#### LEBANON JUNCTION WASTEWATER SYSTEM

The city of Lebanon Junction (Bullitt Co.) operates a wastewater treatment facility (established in 1962), that serves 468 homes, 34 commercial, 1 industrial, and 4 institutional. Sewer rates for residential customers average \$ 18.60 per month. Their service area is mainly within the city, but they also have customers in locations outside the city limits. They have experienced problems as a result of flooding, and 90% of the lines are over 20 years old. There has been a need for greater hydraulic capacity and new sewer lines. They

# SEWER SERVICE AREAS BULLITT COUNTY Kentucky

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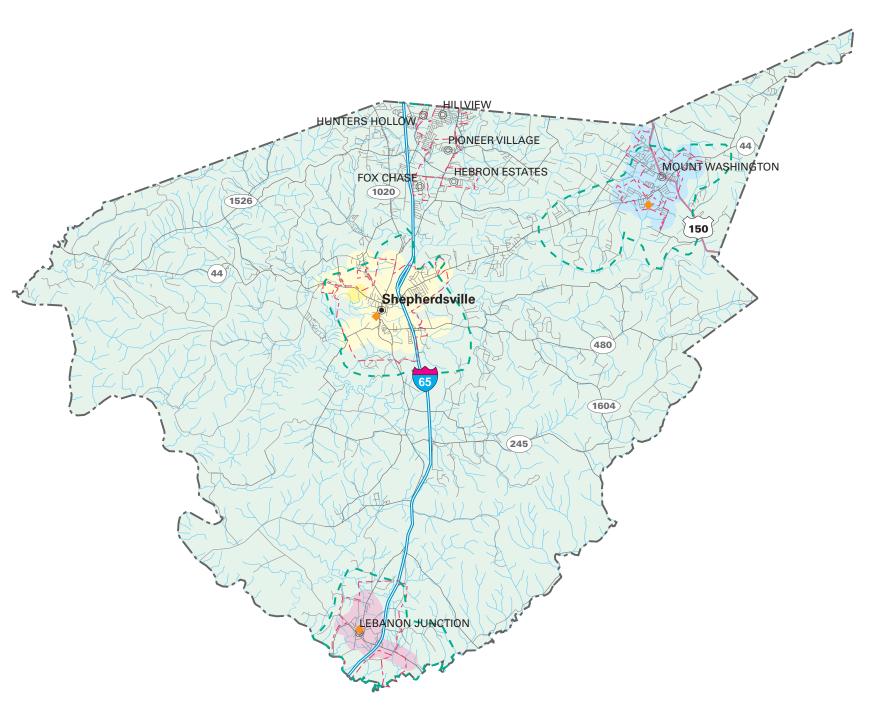


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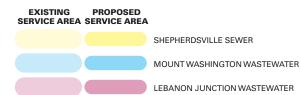
- - - 201k Facility Planning Area

---- Incorporated City Boundary

Sewage Treatment Plant



### **SEWER SERVICE STATUS BY OWNER**



are currently averaging 270,000 gpd and are building a new plant which will have a design capacity of 350,000 gpd. They also could serve an additional 100 customers on the southeast portion just outside the city limits when new line extensions are completed. The effluent destination is Rolling Fork Creek.

#### MT. WASHINGTON WASTEWATER TREATMENT PLANT

The plant is owned and operated by the city of Mt. Washington. Established in 1973, there are presently 2,447 residential, 118 commercial, & 5 industrial customers. The average sewer bill for residential usage is \$13.00 (based upon a 4,000 gallon). There are needs to run collectors to 3 new developments that have been annexed by the city. They have a permitted daily design capacity of 900,000 mgd, and this system is using 50% nominal usage. Mt. Washington has submitted a facilities plan indicating \$297,000 in I/I corrections; \$500,000 for interceptors; and \$350,000 for handling dewatering improvements. This area is experiencing fast residential growth and a total upgrade of their treatment plant will be eminent. Any cost associated with new developments within the city limits will be the responsibility of the developer. The effluent destination is McCullough Run Creek.

### SHEPHERDSVILLE WASTEWATER TREATMENT PLANT

The plant is operated and owned by the city of Shepherdsville. The current sewer bill for residential usage is \$16.00. This system (which was established in 1962) serves 1,788 households, 261 commercial, 4 industrial, and 51 institutional customers. This treatment facility has pre-treatment and then sends to sludge digesters, so there is no effluent destination. The system operators are currently upgrading their treatment facility while the collection system needs to be expanded and have I/I corrections addressed. The northern portion of Bullitt County all along I-65 is heavily populated and commercialized. The county is considering the possibility of creating a new sanitation district to serve that region. At the same time, the other option is the expansion of MSD into the northern corridor of Bullitt County. Once a sewer service is in place, this region would experience much more residential and commercial development.

### **HENRY COUNTY**

### Henry County Sewer Service (map)

- Estimated 1999 population of 15,100--35% on public sewer
- Estimated 2020 population of 18,300--55% on public sewer
- Proposed projects would connect about 1,400 new households to public sewer during 2000-2020
- Estimated funding needs for public sewer 2000-2005--\$8,450,000
- Estimated funding needs for public sewer 2006-2020--\$9,100,000

Henry County had an estimated population of 15,145 (6,279 households) in 1999 with a projected population of 18,300 (8,000 households) in 2020. Public sewer is provided to about 35 percent of the households. About 4,100 households use on-site systems. About 1,400 customers could be added to public sewer service through new line extensions in 2000-2020.

### HENRY COUNTY SEWER PLAN

### Proposed Projects 2000-2005

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
HENRY							-
New Castle							,
SX21103001	5	180					180
SX21103002	5	180					180
SX21103003	5	180					180
SX21103004	5	180					180
Total	20	720					720
Campbellsburg							,
SX21103010			2,000	33			2,033
SX21103011			111				111
SX21103013	pot	200					200
SX21103014	pot	200					200
SX21103015				1,000			1,000
Total		400	2,111	1,033			3,544
Eminence (mostly developer funded)							-
SX21103005	12	15					15
SX21103006	50	15					15
SX21103007	40	45					45
SX21103008	30	30					30
SX21103009	200	80	`				80
Total	332	185	`				185
Smithfield	400	4,000					4,000
County Total	752	5,305	2,111	1,033			8,449

# SEWER SERVICE AREAS HENRY COUNTY Kentucky

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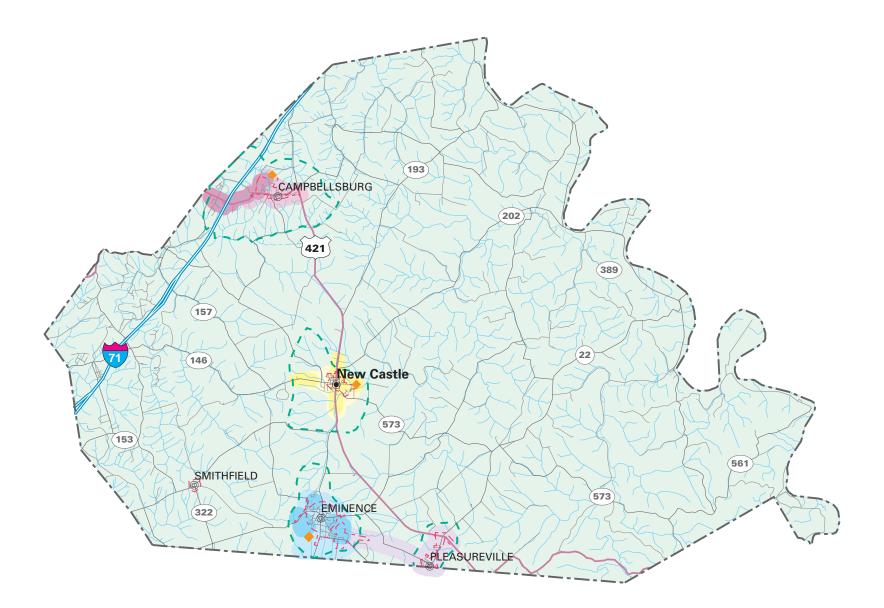


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- - - 201k Facility Planning Area

---- Incorporated City Boundary

Sewage Treatment Plant



### SEWER SERVICE STATUS BY OWNER



### Proposed Projects 2006-2020

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
HENRY							,
Campbellsburg SX21103012	??????	400					400
Eminence				2,000			2,000
Smithfield	650	6,000				700	6,700
HENRY COUNTY TOTAL	650	6,400		2,000		700	9,100

Henry County has a population of approximately 15,000 and a projected growth rate of 15%. There are 3 public wastewater treatment plants in this county--Campbellsburg, Eminence, and New Castle. Pleasureville has its own collection system which then pumps to Eminence for treatment. The cities of Jericho, and Pendleton are areas along Hwy. 153 and I-71 respectively. These areas are experiencing high growth rates. In order to continue this growth, public sewer service may be needed.

### NEW CASTLE WASTEWATER TREATMENT PLANT

The plant is owned and operated by the city of New Castle. This system serves approximately 1,400 people. Within this service area there are 395 residential, 48 commercial, and 7 institutional customers. The wastewater facility was established in 1985. The average sewer bill (per month) is \$23.00. The maximum hydraulic capacity is 1 MGD of which they are currently using only 30% of their nominal capacity. The effluent destination is Town Creek. A sewer line extension is needed for homes along HWY 146 & HWY 157. These homes have septic systems which fail seasonally. Otherwise, there are no service gaps within the city boundaries.

### CAMPBELLSBURG WASTEWATER TREATMENT FACILITY

The plant is currently providing wastewater treatment for 966 people. This system has 293 residential, 26 commercial, 1 industrial and 2 institutional customers. Their treatment plant has a maximum design capacity of 350,000. They are at 100% of nominal usage. Sewer rates average \$19.18 per month for residential usage. They are presently under a line extension ban, and there are I/I problems to be addressed. This treatment facility needs upgrading and collectors are in need of replacement (ie: clay to PVC). The effluent destination is Carmon Creek.

There are 2 areas just outside the city limits that will most likely be developed in the next 5 years. Residential growth in these specific areas depend on the ability of the Campbellsburg Wastewater treatment plant to do major upgrading of it's treatment plant and collection system. The city does not have a 201 facilities plan at this time, but their engineers are preparing a study for future improvements and expansion.

### EMINENCE WASTEWATER TREATMENT PLANT

The plant has a wastewater treatment and collection system that serves 2,751 residents. This system, which is owned by the city of Eminence, has a 500,000 mgd design capacity and nominal usage is 50%. It was established in 1958. This system has 808 residential, 99 commercial, 4 industrial, and 5 institutional connections. The effluent destination is the Kentucky River. The average monthly sewer bill is \$21.00. There are no service gaps within the city, but there are 4 areas adjacent to their boundaries that will require public sewer service. Its projected that the Eminence treatment facility will need 2 additional pump stations and approximately 2 miles of 8 inch force main to provide sewer service to these 4 residential developments. An estimated 300 households would be affected. They also treat wastewater collected from the city of Pleasureville, who bills their 350 customers at an average monthly rate of \$22.50.

### **ON-SITE TREATMENT SYSTEMS**

The Kentucky River embankments has homes extending from Port Royal to Lockport to LeCompte Bottom that are in need of collection and treatment to alleviate raw sewage discharges. Lockport has a population of approximately 160 people who have failing septic systems, and raw sewage discharges. The groundwater is contaminated in this area.

The city of Port Royal has a population of app. 250 people. Some of the residents have failing treatment systems which are suspected to be causing water quality degradation to nearby tributaries of the Kentucky River.

The city of Smithfield has a population of app. 122 residents and is located south of Jericho. Cost estimates have been reviewed which include treatment facilities consisting of a bar screen, stabilization pond, and disinfection.

Stonehurst subdivision has 60-70 trailers with app. 250 residents and is located on I-75. Raw sewage discharges exist in this subdivision, with eventual discharge going to a nearby creek.

The city of Sulphur has a population of app. 160. Some of these homes have inadequate treatment systems which are suspected to cause water degradation to a nearby creek.

At least 50% of the 70 residents in Turners Station have failing septic systems.

Webbtown has 12 trailers with app. 40 residents, some of whom have inadequate systems.

### JEFFERSON COUNTY

### Jefferson County Sewer Service (map)

- Estimated 1999 population of 662,500--90% on public sewer
- Estimated 2020 population of 652,000--99% on public sewer

Jefferson County had an estimated population of 662,507 (281,836 households) in 1999 with a projected population of 651,646 (294,448 households) in 2020. Public sewer should be available to practically everyone in the county by the year 2005.

### JEFFERSON COUNTY SEWER PLAN

### Proposed Projects 2000-2020

System	New Customers	Cost (\$1000)	Line	Treatment	New	Lift	Total
	Served		Upgrade (\$1000)	Expansion (\$1000)	Treatment (\$1000)	Stations, and other (\$1000)	Costs (\$1000)
JEFFERSON							
All projects self funded							

Jefferson County has approximately 677,000 residents, with Louisville as the major city in this county. The Louisville and Jefferson County Metropolitan Sewer District serves the residents in this county. MSD also collects and treats wastewater in the adjacent counties-Oldham, Shelby, and Bullitt. MSD has 169,545 residential, 17,362 commercial, and 686 industrial customers. It was established in 1946. This system has a \$440 million five-year capital program to serve practically all of the developed areas of Jefferson County, in addition to providing service to the western section of Oldham County.

The service gaps within the MSD boundaries that will be provided with sewer service under the five –year plan are:

- Anchorage
- Birchwood
- Bancroft
- Beckley station
- Forest Hills
- Hilridge
- Prospect
- Middletown Industrial Park

# SEWER SERVICE AREAS JEFFERSON COUNTY Kentucky

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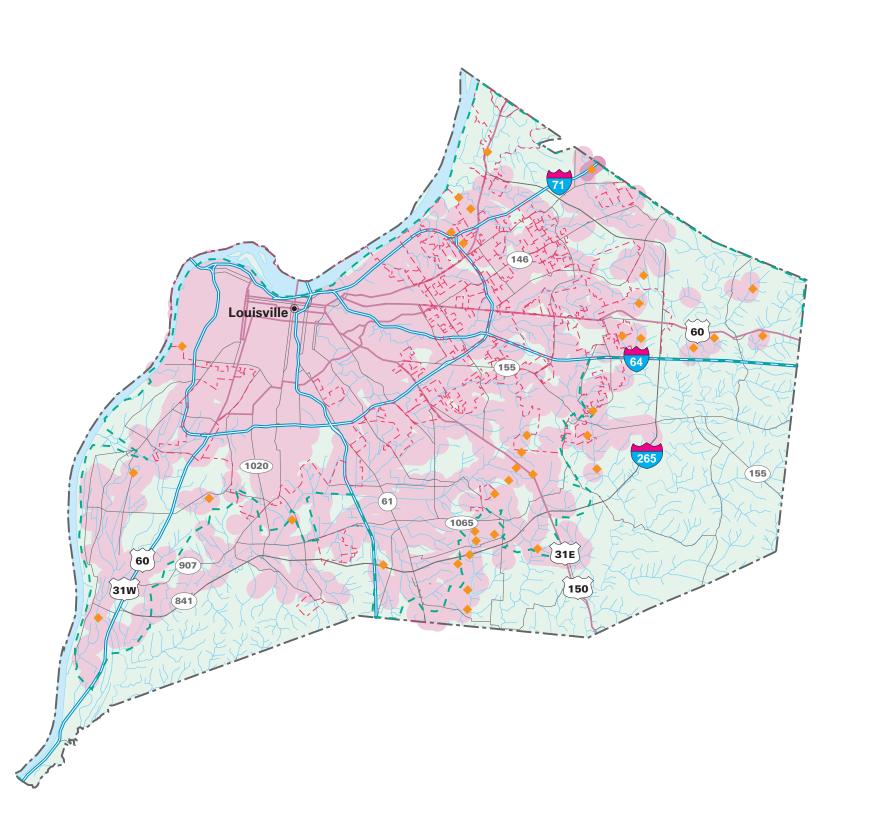


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- - - 201k Facility Planning Area

---- Incorporated City Boundary

Sewage Treatment Plant



**SEWER SERVICE STATUS BY OWNER** 

EXISTING PROPOSED SERVICE AREA



METROPOLITAN SEWER DISTRICT

- Spanish Cove
- Shadowland Watterson Woods
- Mill Creek area [Southwest portion]
- Pond Creek area [Southern portion]
- Floyds Fork Creek area [Northeast portion]

### **OLDHAM COUNTY**

### Oldham County Sewer Service (map)

- Estimated 1999 population of 41,100--45% on public sewer
- Estimated 2020 population of 52,600--99% on public sewer
- Proposed projects would connect about 12,000 new households to public sewer during 2000-2020
- Estimated funding needs for public sewer 2000-2005--\$13,900,000
- Estimated funding needs for public sewer 2006-2020--\$58,300,000

Oldham County had an estimated population of 41,143 (14,209 households) in 1999 with a projected population of 52,612 (18,453 households) in 2020. Public sewer is provided to about 45 percent of the county's residents. About 7,800 households treat wastewater on site. About 12,000 customers could be added to public sewer service through new line extensions in 2000-2020.

### **OLDHAM COUNTY SEWER PLAN**

### Proposed Projects 2000-2005

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
OLDHAM							,
LaGrange SX21185004-6		1,200					1,200
SX21185013		3,300					3,300
Total	5,000est	4,500					4,500
Goshen (Private Utility)							
Metropolitian Sewer District Area							
SX21185010	???	6,400					6,400
Pee Wee Valley	500 est	3,000					3,000
County Total	5,500 est.	13,900					13,900

### Proposed Projects 2006-2020

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
OLDHAM							-
LaGrange SX21185001-3		400					400
SX21185014		4,800					4,800
SX21185015		14,000					14,000
Total		19,200					19,200
Metropolitian Sewer District Area							,
SX21185011	?????	2,700			30,000		32,700
SX21185012	??????	6,400					6,400
Total		9,100			30,000		39,100
OLDHAM COUNTY TOTAL	6,500 est.	28,300			30,000		58,300

### SEWER SERVICE AREAS OLDHAM COUNTY Kentucky

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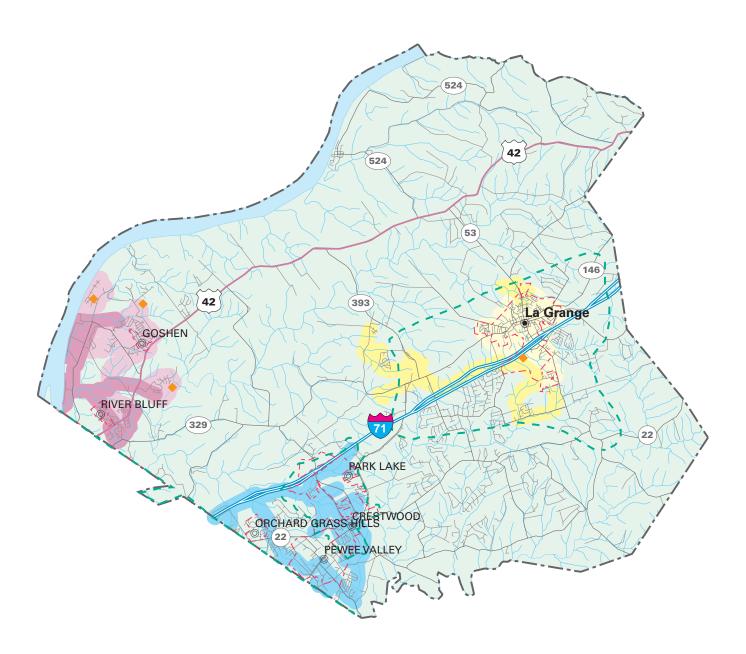


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- - - 201k Facility Planning Area

---- Incorporated City Boundary

Sewage Treatment Plant



### **SEWER SERVICE STATUS BY OWNER**

EXISTING PROPOSED SERVICE AREA

UTILITY COMMISSION OF THE CITY OF LAGRANGE

METROPOLITAN SEWER DISTRICT

GOSHEN UTILITIES INC

Oldham County has a population of approximately 47,000 people, with a predicted growth rate of 11%. The I-71 strip is a high growth area in Oldham County. There are many communities along this interstate--Crestwood, Ballardsville, Brownsboro, Buckner, La Grange, and Pewee Valley.

At this time, there are four systems serving the Oldham County population--LaGrange, Goshen, MSD, and Crestwood (collection only; MSD is handling treatment).

#### LAGRANGE WASTEWATER TREATMENT PLANT

LaGrange is the most densely populated and urbanized area of the county. The LaGrange Wastewater Treatment Plant is located within the city limits of LaGrange. They serve 1,445 residential, 249 commercial, 1 industrial, and 5 institutional customers. The average sewer bill for residential usage is \$12.00 per month. The plant was constructed in 1983 and recently improved with construction of a flow equalization lagoon. The treatment plant is an oxidation ditch that has a maximum hydraulic capacity of 2.5 MGD. The plant is using 68 % of average nominal usage. The effluent destination is Curry's Fork.

### GOSHEN WATER/SEWER WORKS

Goshen Wastewater Treatment is privately owned and operated by Lloyd Eades & Al Schneider. This collection and treatment facility has design capacity 424,000, and using 50% of capacity. This system serves 1,199 residential, 7 commercial, 1 industrial, and 2 institutional customers. The dominant characteristics of this area are; small tract subdivisions, horse farms, residential and industrial along the Ohio River. The average monthly sewer bill is \$33.00. The effluent destination is Huckleberry creek and the Ohio River. This sewer system was established in 1959 with major expansion completed in 1998.

#### **OLDHAM COUNTY FISCAL COURT**

Oldham County Fiscal Court and the Louisville and Jefferson County Metropolitan Sewer District(MSD) commissioned PDR Engineers, INC to prepare the Oldham County Action plan (OCAP). The interlocal agreement between OSCD and MSD has been negotiated and finalized this year (1999). The purpose and scope of this plan is to:

• Develop a wastewater management system, construction schedule, and financing alternatives to provide public sanitary sewer service for Oldham County.

- Address stream and groundwater pollution caused by malfunctioning wastewater treatment plants and on-site sewage disposal systems.
- Provide County and City officials, commercial and industrial interests, private developers and the general public with alternatives for wastewater disposal systems.

Regionalization of treated wastewater discharges is currently being initiated with the Crestwood Wastewater System project. Once completed, twelve or more small sewage treatment plants in the Crestwood area will be eliminated. Through the interlocal agreement with MSD, Crestwood and Oldham County Fiscal Court, wastewater treatment will be provided at the MSD Hite Creek Wastewater Treatment Plant. At some time in the future, Oldham County Sewer District may acquire the Crestwood Wastewater System with concurrence of MSD and the City of Crestwood.

#### **ON-SITE TREATMENT SYSTEMS**

Many new subdivisions in Oldham County are being developed on land not suitable for conventional septic systems. Alternative methods for treatment have been employed such as mound, wetland, and spray irrigation systems. There are also many small package plants in this county.

### SHELBY COUNTY

### Shelby County Sewer Service (map)

- Estimated 1999 population of 29,500--50% on public sewer
- Estimated 2020 population of 37,400--50% on public sewer
- Estimated funding needs for public sewer 2000-2005--\$0
- Estimated funding needs for public sewer 2006-2020--\$2,000,000

Shelby County had an estimated population of 29,543 (12,053 households) in 1999 with a projected population of 37,431 (16,186 households) in 2020. Public sewer is provided to about 50 percent of the county's residents. About 6,000 households treat wastewater on site.

### SHELBY COUNTY SEWER PLAN

### Proposed Projects 2000-2005

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
SHELBY							none

### Proposed Projects 2006-2020

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
SHELBY							-
Shelbyville				2,000			2,000
SHELBY COUNTY				2,000			2,000
TOTAL							

Shelby County has approximately 30,000 residents. There are two wastewater treatment systems that serve this county's residents--Shelbyville Municipal Water & Sewer Commission (which was recently merged with Shelbyville Sanitation), and Simpsonville Wastewater.

Population growth in this county should exceed 32,000 by the year 2020. Most of the new residential development will be located south of US 60 and the I-64 area.

### SIMPSONVILLE WASTEWATER TREATMENT PLANT

Simpsonville is experiencing fast growth in areas just outside the city limits. The Simpsonville Wastewater Treatment Plant has been upgraded and there are no service gaps

# SEWER SERVICE AREAS SHELBY COUNTY Kentucky

### Prepared By: Water Resource Development Commission

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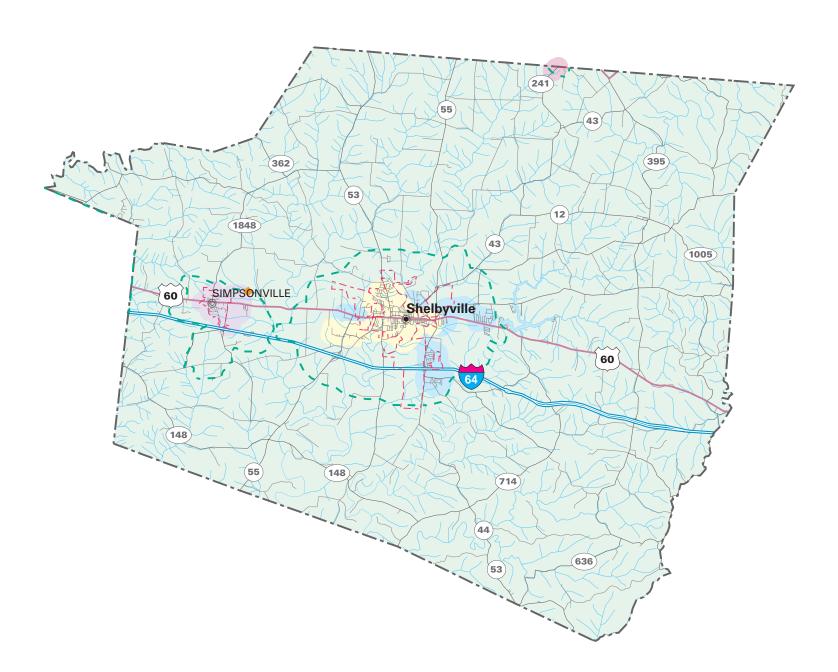


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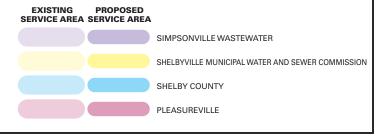
- - - 201k Facility Planning Area

---- Incorporated City Boundary

Sewage Treatment Plant



### **SEWER SERVICE STATUS BY OWNER**



within the city itself. The current monthly sewer bill in Simpsonville is \$20.00. There are 384 residential, 34 commercial, 1 industrial, and 6 institutional customers. The treatment plant has a maximum capacity of 360,000 gpd and they are currently operating at 40% of that capacity. The effluent destination is Big Bull Skin Creek. Any future developments around Simpsonville that require line extension, will be paid for by the developers. The facility does not foresee any need for system or line upgrading at this time. There is however one Subdivision located east of Simpsonville, that has 100 residents in 40 homes who have raw sewage discharging to a ditch.

### SHELBYVILLE MUNICIPAL WATER AND SEWER

Shelbyville Municipal Water and Sewer serves the residents of Shelbyville, the county seat of Shelby County. This facility has a maximum hydraulic capacity of 6 million gpd. The average sewer bill is \$12.50 per month. They are operating at 86% of nominal capacity. This system is a very large system that serves approximately 18,500 people (3,740 residential, 489 commercial, 39 industrial, and 30 institutional. The effluent destination is Clear Creek.

There are no water line extension plans for future needs, but the Superintendent did state that \$2,000,000 would be needed for line and treatment plant upgrade. This would be long term needs.

### SPENCER COUNTY

### Spencer County Sewer Service (map)

- Estimated 1999 population of 10,000--17% on public sewer
- Estimated 2020 population of 18,700--9% on public sewer
- Estimated funding needs for public sewer 2000-2005--\$0
- Estimated funding needs for public sewer 2006-2020--\$0

Spencer County had an estimated population of 10,049 (4,021 households) in 1999 with a projected population of 18,683 (7,654 households) in 2020. Public sewer is provided to about 17 percent of the county's residents. About 3,300 households treat wastewater on site. Projected to be one of the fastest growing counties in the state, there are no proposed sewer projects.

### SPENCER COUNTY SEWER PLAN

### Proposed Projects 2000-2005

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
SPENCER							none

### Proposed Projects 2006-2020

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
SPENCER							none

Spencer County has a population of approximately 9,000. It is predicted that by the year 2020, the population in this county will double. This county has the fastest growth rate in the state.

### TAYLORSVILLE WASTEWATER TREATMENT PLANT

The Taylorsville Wastewater Treatment Plant, located in the city of Taylorsville, is the sole wastewater treatment facility in the county. The city of Taylorsville has a population of over 900 residents. This wastewater system serves 261 residential, 76 commercial, 2 industrial,

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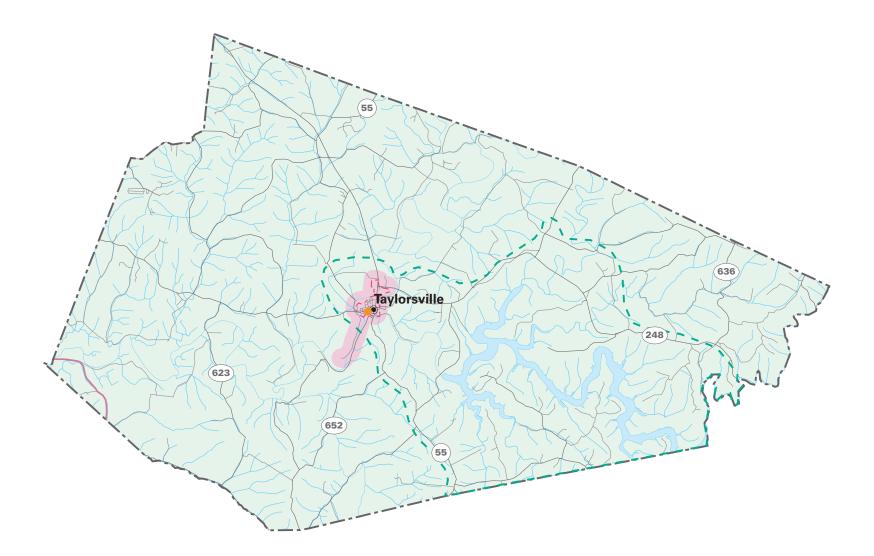


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- - - 201k Facility Planning Area

---- Incorporated City Boundary

Sewage Treatment Plant





EXISTING PROPOSED SERVICE AREA



TAYLORSVILLE WASTEWATER

and 6 institutional customers. The average monthly sewer bill is \$18.50. Most of the future development is outside the city boundaries in areas north and west of Taylorsville.

The Taylorsville Wastewater Treatment facility is presently awaiting a 201 facilities plan from their contracted engineers. The facility has a design capacity of 200,000 and is operating at 80% of nominal capacity. The effluent destination is the Salt River.

### **ON-SITE TREATMENT SYSTEMS**

There are well over 150 homes and trailers that have failing septic systems in the county. Most of the new residential growth will be serviced by small treatment plants, paid for by the developers.

### TRIMBLE COUNTY

### Trimble County Sewer Service (map)

- Estimated 1999 population of 7,500--30% on public sewer
- Estimated 2020 population of 9,050--40% on public sewer
- Proposed projects would connect about 300 new households to public sewer during 2000-2020
- Estimated funding needs for public sewer 2000-2005--\$400,000
- Estimated funding needs for public sewer 2006-2020--\$4,830,000

Trimble County had an estimated population of 7,474 (3,010 households) in 1999 with a projected population of 9,048 (3,840 households) in 2020. Public sewer is provided to about 30 percent of the county's residents. About 2,100 of the county's households treat wastewater on site. About 300 customers could be added to public sewer service through new line extensions in 2000-2020.

### TRIMBLE COUNTY SEWER PLAN

### Proposed Projects 2000-2005

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
TRIMBLE COUNTY							-
Bedford							-
SX21223004	7	220					220
SX21223005	20	180		•			180
County Total	27	400					400

### Proposed Projects 2006-2020

System	New Customers Served	Cost (\$1000)	Line Upgrade (\$1000)	Treatment Expansion (\$1000)	New Treatment (\$1000)	Lift Stations, and other (\$1000)	Total Costs (\$1000)
TRIMBLE COUNTY							,
Milton							,
SX21223001	100	440					440
SX21223002	50	125					125
SX21223003	100	260					260
Total	250	825					825
Bedford					2,000		2,000
TRIMBLE COUNTY TOTAL	250	825			4,000		4,825

### **MILTON WASTEWATER SYSTEM**

Milton Wastewater System is owned and operated by the city of Milton, which has a population of approximately 2,900 people. The Milton Wastewater Treatment plant was

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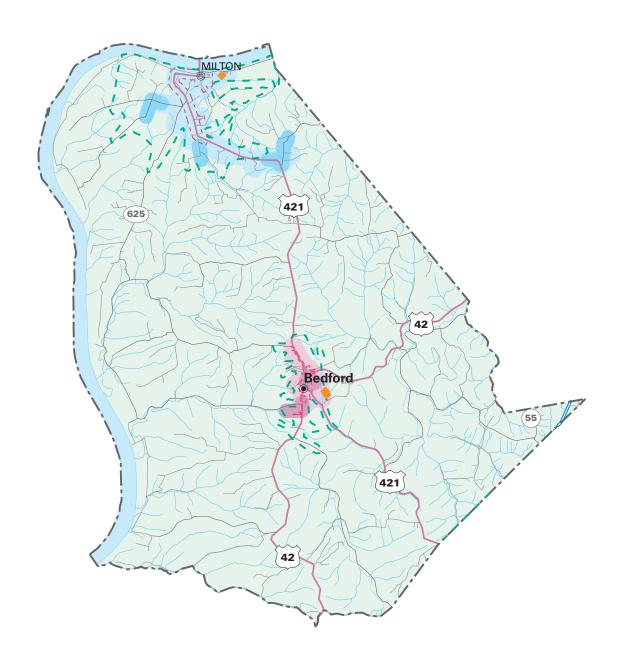


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- - - 201k Facility Planning Area

---- Incorporated City Boundary

Sewage Treatment Plant



### **SEWER SERVICE STATUS BY OWNER**



established in 1950. It serves 1,104 residential and 6 commercial customers. The wastewater utility was established in 1986. They are presently using only 71% of their design capacity 164,000 gpd. Sewer rates average \$32.00 per month for residential usage. The effluent destination is the Ohio River. This is a well-managed system and there does not appear to be any inadequacies. It is not an area that will experience much residential or industrial growth.

### BEDFORD WASTEWATER TREATMENT FACILITY

Bedford Wastewater Treatment Facility is owned an operated by the city of Bedford which is located in the centermost part of Trimble County. This system is meeting its capacity limits. There are 363 residential, 34 commercial, 1 industrial, & 2 institutional customers. The average sewer bill is \$25.00 (based on 4,000 gallon treated). Total population served is about 1,200 people. It is a lagoon system with a design capacity of 360,000 gpd and the facility is using 100% of its capacity.

#### **ON-SITE TREATMENT SYSTEMS**

Bedford has a nursing home with 60 residents and 34 employees. The nursing home is currently served by a package treatment plant.

A mobile home park just outside Bedford on HWY 42, has approximately 70 residents in 15 trailers. Some of these trailers have failing septic systems.

Also in Trimble County, there is an area called Corn Creek, that has approximately 50 residents with no lateral fields for their septic systems. Eventual discharge is to a nearby creek. Treatment is needed to improve the water quality and prevent a health hazard. Starks Lane is near Bedford and has 12 homes in need of sewer service. A sewer line extension could serve this area.