# **ASSET INVENTORY REPORT FORM**



## Kentucky Division of Water's Asset Inventory Report, as required by 401 KAR 5:006

In accordance with 401 KAR 5:006, regional planning agencies are required to submit an asset inventory report to the Cabinet, if: (a) It has been ten (10) years since the regional planning agency submitted a regional facility plan or asset inventory report; and (b) the regional planning agency does not meet the requirements established in Section 2(2) of the regulation. The asset inventory report requires regional planning agencies to take inventory of the physical assets of their wastewater system(s), assess their condition, prioritize capital needs, and develop a plan for funding those needs. By incorporating this planning tool into their daily operations, the Cabinet expects regional planning agencies to achieve the following benefits:

a. Reduce overall cost of system operation and maintenance;

- b. Target capital investments toward critical assets;
- c. Improve compliance record and remediate or correct illegal overflows or bypasses;
- d. Acquire a better understanding of treatment and/or collection system components;
- e. Reduce borrowing costs. Funding agencies prefer lending to municipalities which properly manage and operate their assets;
- f. Potentially improve bond credit ratings;
- g. Make a sound case for rate increases to local governing boards and rate payers;
- h. Prolong the useful life of their assets. Knowing the condition of assets allows regional planning agencies to make timely repairs; and
- i. Reduce duplication of efforts and improve the allocation of staff time and other resources.

A complete report consists of this form and copies of supporting documentation. All regional planning agencies that wish to use this report to demonstrate compliance with the requirements of 401 KAR 5:006, Section 4 must complete all seven sections of the report and provide copies of the supporting documentation required under section VI. This report form consists of seven (7) sections:

- I. REGIONAL PLANNING AGENCY DATA
- II. REVENUES AND EXPENSES
- III. ASSET INVENTORY
- IV. PROJECT PRIORITIZATION
- V. FUNDING PLAN
- VI. COPIES OF SUPPORTING DOCUMENTATION
- VII. CERTIFICATION

Most of the information required in the form is self-explanatory. The instructions in some of the sections are given to highlight some of the information that may require interpretation or additional clarification. You may add extra pages for entering additional asset inventory information especially ft you are a regional planning agency with multiple treatment plants. If you need to include additional information, attach the extra pages and put the question number next to your answers and/or copy and paste the asset inventory tables on the additional pages. It's quite likely that all of the details of the asset inventory presented in this report will not apply to every wastewater system. If the parameter does not apply then indicate by entering N/A in the blank or modify the worksheets so they conform to the particular needs of your system. For additional information or assistance, contact the Kentucky Division of Water, Wastewater Planning Section (502) 564-3410.

	ude an organization and an individual. The address can be a mailing uired for treatment plants only. The address should be the physical
1. Regional Planning Agency Information	· · · · · ·
Regional Planning Agency Name	City of South Shore
Mailing Address	P.O. Box 516 69 Narco Dr.
City, State, Zip Code	South Shore, KY 41175
Contact person	Cheryl Moore
Title	Mayor
Telephone number	606-932-6144
Physical Location (if different from mailing address; not P.O. Box)	City of South Shore 60 East Second Avenue
Email Address	cossewer@windstream.net
Fax number	606-932-2513
KPDES and/or KISOP Number	Ky0026131
Name of watershed(s) within the planning area (Hydrological Unit Code [HUC] 11)	Ohio River
	Big Sandy/Little Sandy, Tygarts Basin
List waterbodies within the planning area that are on the 303(d) list of waters not supporting one ore more designated uses reported in the most recent Integrated Report to Congress on Water Quality in	
Kentucky	
	Ohio River Tygarts Creek
	lygans creek
2. Discharge Information. Facilities may have multiple discharge ty to surface waters, reuse). Additionally, one or more facilities may d information carefully. If multiple discharges apply, enter percentage	ischarge to the facility. Please review and enter discharge
Discharge Type	
	Outfall to surface waters
Name of receiving water(s)	
	Ohio River
Milepoint or Latitude & Longitude	
	Milepoint 627.6
Does the treatment works discharge or dispose of its wastewater in another manner (e.g., land application, underground percolation, hydrologic controlled release [HCR], well injection)? If yes, provide the disposal method.	
	No
Does the system discharge to or receive wastewater from other municipalities or service areas (For treatment systems, provide the name(s) KISOP No(s).; For collection systems, provide the name(s) and KPDES No(s).)	
	No

3. Facility Effluent Treatment Level. should be selected if the facility is or w the facility will be in operation for all or (45mg/l <bod; eff<br="" in="" process="" the="" which="">primary (process in which chemicals removed); secondary (the effluent mu solids, and pH); and advanced (a leve nonconventional or toxic pollutants pre less than 20 mg/l or the facility has one</bod;>	ill be in operation as of the part of the 10-year period a luent is treated to remove the s are added to further tre- ust meet the minimum rem I of treatment that is more a sent in the facility's effluen	date of report submi after the date of repo floating debris and so eat primary effluent oval standards for Bi stringent than second t; the treatment level	ttal. Projected Trea rt submittal. Treatr olids by screening and increase the ochemical Oxygen dary treatment or p	atment Level should be entered if nent levels include <b>primary</b> and sedimentation); <b>advanced</b> a amount of solid matter Demand, total suspended roduces a significant reduction in				
What levels of treatment are provide	ed? Check all that apply.							
Primary		⊠Secondary						
Advanced Primary		Advanced						
Other Describe:		Other Descr	ibe:					
Projected (Indicate the level of treat 4. Facility Type. Enter all the facility ty separate sewers, interceptor sewers, mark in "Present" column(s) or wheth	pes that apply to the syste and biosolids handling fac	cility. Indicate whether	er the facility is cur	rently used by placing a check				
Facility Type		Present		Projected				
Wastewater treatment plant								
Separate sewer collection								
Biosolids handling facility								
5. Flow and Population Served. Each treatment plants. If applicable, indic has two main components; each mu	ate the projected design ca	apacity for treatment	plants. The popula	ation served information table				
	Present	Projected in 10 Yea	irs					
a. Design flow rate	0.393	0.393		Units (mgd)				
	Two Years Ago	Last Year	<u>This Year</u>					
b. Annual average daily flow rate	0.219	0.217	0.279	Units (mgd)				
	Two Years Ago	Last Year	<u>This Year</u>					
c. Maximum/Peak daily flow rate	0.647	1.304	0.752	Units (mgd)				
d. Average daily flow projected in 10	) vears	0.299		Units (mgd)				
a. Average daily now projected in the	years	0.233		unita (ingu)				

e	. Average Inflow and Infiltration. Estimates should be based on most recent data		
		0.122	Units (mgd)
		Present	Projected in 10 years
	Residential flow contribution (mgd) Commercial/industrial flow contribution(mgd)	0.253	0.273
	(Projected calculations should be based on: 1,000 to 1,500 gallons per day/acre)	0.026	same
f	Population served (Calculations should be based on: Census data specific to the service area or No. of Accounts X 3)	2,607	2,667
	Unserved population in the planning area		

# 6. Treatment Plant Discharge Limits. List the discharge limits for each parameter listed in the most current KPDES permits. If the parameter does not apply to the permits, then indicate by entering N/A in the blank.

Parameter	Monthly Average	Daily Maximum	Daily Minimum
Biological Oxygen Demand (BOD $_5$ ; mg/l) or CBOD $_5$	30	N/A	N/A
Total Suspended Solids (TSS; mg/l)	30	N/A	N/A
Ammonia Nitrogen (mg/l) (Summer and Winter)	20	30	N/A
Dissolved Oxygen (mg/l)	N/A	N/A	2.0
Fecal Coliform (colonies/100 ml)	N/A	N/A	N/A
Escherichia Coli (colonies/100 ml)	130	240	N/A
pH (standard units)	N/A	9.0	6.0
Total Residual Chlorine (mg/l)	0.019	0.019	N/A
Phosphorus (Total; mg/l)	Report	Report	N/A
Total Nitrogen (mg/l)	Report	Report	N/A
Other (Indicate):Cadmium,total recoverable	Report	Report	N/A
Copper, total recoverable	Report	Report	N/A
Hardness, total	Report	Report	N/A
Lead, total recoverable	Report	Report	N/A
Zinc, total recoverable	Report	Report	N/A
<b>Pretreatment</b> . Does the wastewater system have pretre (Circle One)	eatment program?	Yes	No
			·

II. REVENUES AND EXPENS system. The information prov						the f	financial conditio	on of the		
1. Current Fiscal Year and F	First Month of the Fi	0.001	Ye	ar		Mor	nth_			
1. Current Fiscal Year and F Year		SCAI	20	12		July	y 2011			
2. Median Household Incom	e (MHI) of the Serv	ica Araa			Ar	noun	<u>t (\$)</u>			
2. Median nousehold incom			\$18,400.00							
					noun	t <u>(\$)</u>				
<ol> <li>Current User Charges Pe (per 4,000 gallons)</li> </ol>	er Month		Re	sidential		Cor	mmercial/Industr	<u>ial</u>		
			<u>\$46.00</u> \$49.50							
			<u>Amount (\$)</u>							
<ol> <li>Projected User Charges</li> <li>(2) Years (per 4,000 galles)</li> </ol>						Cor	nmercial/Industr	ial		
( <u>_</u> )				<u>sidential</u> \$46.00			\$49.50			
		Enter Kn	own	Future Change		nues	<u>ψ+9.5</u> (	<u>,</u>		
5. Annual Revenues				nts in current fi			)			
	Current Year	Year 201		Year	Year		Year	Year		
Total retail user charges	\$485,000.00	\$485,000	<u> </u>							
Total wholesale user charges	.00	.00								
Interest earned	\$250.00	250.00								
Funds drawn from reserves	.00	.00								
Other revenues (e.g., tap-on fees; impact fees, etc.)	\$12,000.00	12,000.0	0							
Total	\$497,250.00	\$497,250	).							
6. Annual Expenses			Future Change ts in current fir	•		)				
	Current Year	Year 201	<u>13</u>	Year	Year		Year	Year		
Salaries, wages, benefits	\$89,000.	\$65,000								
Supplies, equipment, chemicals										
Repairs and parts	\$51,000	\$18,700.								
	<u>Electric</u>	Elec	tric	<u>Electric</u>	Elect	ric	<u>Electric</u>	<u>Electric</u>		
	<u>\$35,000.</u>	<u>\$41,000</u>	) <u>.</u>							
Utilities (electric, gas, water)	Water	Wat	<u>er</u>	<u>Water</u>	Wate	r	<u>Water</u>	<u>Water</u>		
	<u>\$3,100.</u>	\$4,200	) <u>.</u>							
	Gas	Gas		<u>Gas</u>	<u>Gas</u>		<u>Gas</u>	Gas		
	\$1,100.	\$2,400,	1							
Payments to other facilities	\$1,000.	\$2,400	).							
Funds added to reserves	\$30,000.	\$20,000	Э.							
Debt service	\$128,000.	\$129,000	).							
Other expenses	\$47,980	\$138,900	).							
Total	\$456,905	\$481,000	0							

**III. ASSET INVENTORY.** This is the most extensive section of the report and will allow the Division of Water to evaluate the types of assets, anticipated failure and replacement or rehabilitation costs. The data items required should be readily available to most operators or managers. Most systems already have some form of inventory established but not centralized. The following asset inventory is designed to collect data and information into a centralized format. The inventory provides a format where information and data will be listed in the categorized asset tables and include corresponding characteristics, assigned assessment and failure mode ratings, and assigned strategies to renew or maintain the assets. Taking an initial inventory of assets can be a labor intensive job. Systems should start by identifying their critical assets to prepare the initial inventory. The collection of assessment data and information can be done through the direct inspection, observation, repairs, operation and maintenance routines, investigation/ monitoring/reporting, and analysis of data. Because systems need to continue to collect new data and information and build upon initial inventories, an ongoing, organized, and systematic collection of data should be established so the process develops. One of the most important outcomes of the assessments is determining the remaining useful life of an asset. A number of factors can affect the useful life of assets, including routine service and proper maintenance, excessive use, and environmental conditions such as topography, soil, or climate.

- 1. What is the State of My Assets? Assessing the state of assets is one of the core components of developing an asset inventory. It provides the critical information needed to assess condition, performance and reliability of system components. The measure of performance for a wastewater system can be based on four critical areas: customer service level, regulatory compliance, risk to public health and safety, and environmental protection. Conduct assessments on the condition, performance and reliability of current wastewater system assets using the definitions and tables below and assign the ratings to the following tables. Assessments are to be evaluated on a scale of 1 to 5.
  - Current Condition- Rates the condition of the asset. The higher the number the better the condition of the asset.
  - Current Performance- Rates whether the asset meets capacity requirements now and in the future. The higher the number the better the performance of the asset.
  - Current Reliability- Rates the asset based on its frequency of breaking down. The higher the number the better the reliability of the asset.

a. Current C	Condition Assessment							
Rating	Remaining Useful Life	Maintenance Level						
5	New or Excellent Condition	Normal Preventative Maintenance						
4	Minor Defects Only Normal Preventative Maintenance, Minor Corrective Mainten							
3	Moderate Deterioration	Normal Preventative Maintenance, Major Corrective Maintenance						
2	Signification Deterioration	Major repair, rehabilitate						
1	Beyond Useful Life	Unit Must Be Replaced						
b. Current P	erformance Assessment							
Rating	Description							
5	Exceeds/Meets all Performance Targets							
4	Minor Performance Deficiencies							
3	Considerable Performance Deficiencies							
2	Major Performance Deficiencies							
1	Fails to Meet Performance Targets							
c. Current R	eliability Assessment							
Rating	Remaining Life	Frequency of Failure						
5	New	Almost Negligible						
4	Seldom Breakdown	More than 10 years						
3	Occasional Breakdown	Every 5 Years						
2	Periodic Breakdown	Every 2 Years						
1	Continuous Breakdown	1 Year or Less						

a. Current Condition Assessment

- 2. Which Assets are the Most Critical? Critical assets have high failure risks (old, poor condition, etc.) and/or major consequences if they do fail (major expense, system failure, safety concerns, environmental damage, water quality impacts, etc.). Some components of a system should take precedence for investment based on risk due to age, condition, and importance or consequence. Components found to be in poor condition, or with severe defects and high failure modes, should be addressed as soon as possible after they are discovered. Less severe defects can be prioritized for more frequent inspection or cleaning, repair, rehabilitation, or replacement. Conduct critical rating assessments of current wastewater system assets using the definitions and tables below and assign the ratings to the following tables:
  - Consequence of Failure- Rates the asset based on the consequences of failure. Failure of some assets could be detrimental to the total system or facility components. The lower the number the lower the risk.
  - Probability of Failure- Rates the asset based on the percentage of effective life consumed- as an asset ages the likelihood of failure increases. The lower the number the lower the probability of failure. Enter the percentage shown.
  - Redundancy- Rates the criticality of the assets based on the availability of backup. Available backup reduces risk.

a. Consequ	ence of Failure		
Rating	Description	Percentage (%) Affected	Level
1	Minor Component Failure	0-25%	Asset
2	Major Component Failure	25-50%	Asset
3	Multiple Asset Failure	25-50%	Facility/Sub-system
4	Major Facility Failure	50-100%	Facility
5	Minor Sanitary System Failure	20-40%	Total System
6	Medium Sanitary System Failure	40-60%	Total System
7	Intermediate Sanitary System Failure	60-80%	Total System
8	Significant Sanitary System Failure	80-90%	Total System
9	Total	90-100%	Total System
b. Probabilit	ty of Failure		
Rating	Percentage (%) of Effective Life Consume	<u>:d</u>	
1	20%		
2	40%		
3	60%		
4	80%	>	
5	100%		
c. Current F	Redundancy Assessment		
Rating	Level of Redundancy	Reduce Probability of Failure by:	
1	50% Backup	50%	
2	100% Backup	90%	
3	200% Secondary Backup	98%	

- 3. Renewal and Maintenance Strategy: This asset inventory report will help regional planning agencies acquire a better understanding of their systems and make more informed decisions about future capital investments. An important part of conducting an inventory is determining a strategy of how to manage assets through renewal and maintenance. At some point, continuing to repair the asset will no longer be cost-effective and it will need to be rehabilitated or replaced. A preventive maintenance program will enable you to maximize the useful lives of your assets and can help you avoid problems and cut down or delay replacement costs. Conduct assessments on strategies to renew or maintain assets using the definitions and tables below and assign the options to the following tables:
  - Renewal Strategy- Record decisions on what will be done with each asset.
  - Maintenance Strategy- Record decisions on the type of maintenance tactics to perform based on the selected renewal strategy.
  - Recommended Renewal Date- Renewal date is equivalent to the end of useful life date of an asset per the manufacturer. You may enter a different date based on your renewal strategy. This can be used in calculating the future value of the renewal strategy.
  - Costs of Renewal Option- For this example assume all assets will be replaced. Enter your estimate of what the renewal strategy will cost in today's dollars

a. Renewal	Strategies	
<u>Option</u>	Description	Туре
1	Do Nothing	Non-Capital
2	Continue with Status Quo	Non-Capital
3	Maintain Differently	Non-Capital
4	Operate Differently	Non-Capital
5	Repair	Capital
6	Refurbish/Rehabilitate	Capital
7	Replace Asset with Similar Asset	Capital
8	Replace with a New or Improved Asset	Capital
9	Reduce Levels of Service or Cause of Failure	Non-Asset
b. Maintena	ince Strategy	
<u>Option</u>	Maintenance Tactic	
1	PM - Preventive Maintenance	
2	CBM - Condition based maintenance	
3	UBM - Usage based maintenance	
4	RTF - Run to Failure	
5	CM - Corrective Maintenance	

#### Asset Inventory Table Instructions:

Putting together the inventory requires organization of assets and decisions regarding what level of asset should be included. This format allows for any level of detail desired, and is capable of classifying a great deal of information about the assets. Key points are to (1) organize the asset inventory from large to small units; (2) gather information and insert into the appropriate categories; (3) after basic hierarchy is established, additional information can be added as it is obtained (Refer to the table of Examples of Asset Categories and Category Hierarchy).

List as many assets within each categorized table as you can and as many characteristics of each asset. Characteristics will vary by asset type. Use the assessment and strategy ratings defined above while taking into account the current condition of each asset, its service history, and your experience based on the characteristics of your system (e.g., weather conditions, operation and maintenance routines). Get the best information you can, but use estimates if you need to. For the collection system tables (Tables 4 through 7), grouping of collection lines is recommended. For example, if collection lines were put into place in the same area during the same period of time and are composed of the same diameter and material, then enter the total linear footage of the same group instead of segmenting them (e.g., downtown, 10,000 feet, 8 inch diameter, Cast Iron, circa 1950).

Asset Categories	Asset Category Hierarchy
	Screening- Bar Screens, Screens
Headworks	Grit Removal- Blower, Auger, Grit Pumps, Pipes/Valves
	Electrical- Motor Control
	Pumps- Pump #1, Pump #2, Pipes/Valves
Raw Sewage Pumping	Electrical- Motor Control Center, Generator
	Instrumentation- Flow Meter, Level Sensors
Pump Stations	
Building and Grounds	
Panels- Alarm/Electrical	
Collection Structure	Manholes- Grinder Pumps
Collection Pipe (Ductile Iron, Cast Iron, Steel, RCP, PCCP, Brick, Vetrified Clay Pipe [VCP], Polyvinyl Chloride [PVC], High-density Polyethylene [HDPE])	Gravity Forcemain- Air-Relief Valves
	Pumps- Pump 1,2,3, etc., Valve and Piping
Collection Pump Station	Instrumentation- Flow Meter Electrical- Motor Control, Standby Generator
Treatment Unit Processes	

#### **Examples of Asset Categories and Category Hierarchy**

						40	sessment Rating	c		Failure Rating	IS .		Panawal	and Maintenance Strategy	
Description of Area	Description of Manholes (diameter, material, lid type)	Pipe Length (feet)	Pipe Size (Inches)	Pipe Material	Year Installed	Condition	Performance					Renewal Strategy	Maintenance Strategy	Renewal/Maintenance Date	Estimated Cost of Renewal/Maintena Option
Main Street	33-4' Diameter precast	8,324	8	Vitrified clay	1963	2	2	1	7	4	1	7	4	2063	\$2,006,000
Coney Island	55-4' Diameter precast	11,506	8	Vitrified clay	1963	2	2	1	7	4	1	7	4	2063	\$2,000,000
Overpass	89-4' Diameter precast	19,184	8	Vitrified Clay,PVC, Cast iron	1963	2	2	1	7	4	1	7	4	2063	\$2,000,000
McKell	45-4' Diameter precast	12,236	8	PVC	1993	2	2	1	7	4	1	7	4	2092	\$2,000,000
Forrest Heights	83-4' Diameter precast	21,077	8,10	Vitrified Clay,PVC, Cast iron	1993	3	2	1	7	4	1	7	4	2092	\$2,000,000
Sand Hill	31-4' Diameter precast	8,908	8	PVC	1993	3	2	1	7	4	1	7	4	2092	\$2,000,000
		0,000													

Project Description/ Description of Area     Project Description/ Number of New Manholes     Pipe Length (feet)     Pipe Size (Inches)     Pipe Material     Pipe Year Planned     Manufacturer's Predicted Life     Estimated Project C       ewer System Rehabilitation     Within city limits     177     18,958     8     PVC     2013-2014     2114     \$2,006,000       ewer System Rehabilitation     United Size     21,077     Size     PVC     2114     \$2,000,000								If Know	vn
week System RehabilitationWithin dy linits17718.9588PVC2013-20142114\$2000.00ognade Forest Heights Collecton LineForest Heights Collecton LineForest Heights Collecton LineS211.0778PVC2013-2014211.4\$200.000ognade Forest Heights Collecton LineForest Heights Collecton LineForest Heights Collecton LineSSS2013-2014211.4\$200.000ognade Forest Heights Collecton LineForest Heights Collecton LineForest Heights Collecton LineSSS<	Proposed Projects	Project Description/ Description of Area	Number of New Manholes	Length (feet)	Size	Pipe Material	Year Planned		Estimated Project Cos
pgrade Forrest Heights Callection Lines     Forrest Heights Area     83     8     PVC     2013 2014       Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines       Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image: Solution Lines     Image:	ewer System Rehabilitation	Within city limits	177	18,958	8	PVC	2013-2014	2114	\$2,006,000
	pgrade Forrest Heights Collection Lines	Forrest Heights Area	83	21,077	8	PVC	2013-2014	2114	\$2,000,000
Image:									
Image: Sector System Gravity Pipes and Manholes information here:									
Image:									
ter any additional Collection System Gravity Pipes and Manholes information here:									
Image: Sector of the sector									
Image: Constraint of the sector of the se								_	
Image: Sector System Gravity Pipes and Manholes information here:									
ter any additional Collection System Gravity Pipes and Manholes information here:									
Image: Sector System Gravity Pipes and Manholes information here:									
ter any additional Collection System Gravity Pipes and Manholes information here:									
Iter any additional Collection System Gravity Pipes and Manholes information here:									
nter any additional Collection System Gravity Pipes and Manholes information here:									
	nter any additional Collection System	Gravity Pipes and Manholes informat	don here:						
Y Contraction of the second									

						As	sessment Rating	S	1	ailure Rating	s		Renewal	and Maintenance Strategy	
Description of Area	Description of Air Release Valves (size, type)	Pipe Length (feet)	Pipe Size (Inches)	Pipe Material	Year Installed	Condition			Consequence			Renewal Strategy	Maintenance Strategy	Renewal/ Maintenance Date	Estimated Cost of Renewa Maintenance Opti
Main Street	1	1,500	6	CIP	1963	3	3	3	5	3	1	7	4	2063	\$100,000
Coney Island		1,800	6	CIP	1963	3	3	3	5	3	1	7	4	2063	\$100,000
Overpass		400	6	CIP	1963	3	3	3	5	3	1	7	4	2063	\$100,000
McKell	1-vacuum	1,600	8	PE	1993	3	3	3	5	3	1	7	4	2093	\$100,000
Forrest Heights		750	6	PVC	1993	3	3	3	5	3	1	7	4	2093	\$100,000
Sand Hill		1,500	4	PVC	1993	3	3	3	5	3	1	7	4	2093	\$100,000
		.,													<b>,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

7. Pressure Line/Force Mains and Air-Release Valves - Proposed Projects. Proposed projects should be categorized into the following descriptions: No Change- There are no planned modifications; New- A new type
asset will no longer be used or will be demolished in the future; Rehabilitation- Restoring or repairing parts of existing combined or separate sewer systems and municipal separate storm sewer systems; Replacement- A
and a new asset is constructed. Expansion- Increasing the service area of an existing sewer system.

			Dine			
Proposed Projects	Project Description/ Description of Area	Pipe Length (feet)	Pipe Size (Inches)	Pipe Material	Year Planned	Manufact

Enter any additional Pressure Line/Force Mains and Air-Release Valves information here:

e is being proposed or imp n existing asset is consider	lemented; Abandonment- The ed obsolete and is demolished,
If Know	n
cturer's Predicted Life	Estimated Project Cost

8. Pump Stations- Existing								-						
			Total		Ass	sessment Rating	gs	F	Failure Rating	as		Renewal	and Maintenance Strategy	
Project Description/ Pump Station Name	Type (e.g. submersible, Centrifugal, etc.)	Capacity (MGD)	Dynamic Head (feet)	Year Installed	Condition			Consequence			Renewal Strategy	Maintenance Strategy	Renewal/ Maintenance Date	Estimated Cost of Renewal/ Maintenance Option
Main Street	submersible	0.72	62	2011	5	5	5	7	1	3	1	1	2021	\$200,000
Coney Island	submersible	0.360	40	2011	5	5	5	7	1	3	1	1	2021	\$200,000
Overpass	submersible	0.387	33	2011	5	5	5	7	1	3	1	1	2021	\$200,000
McKell Road	centrifugal	Not found	Not found	1993	2	1	1	7	5	3	8	4	2014	\$235,000
Forest Heights	centrifugal	0.45	36	1993	2	1	1	7	5	3	8	4	2014	\$235,000
Sand Hill	centrifugal	0.36	32	1993	2	1	1	7	5	3	8	4	2014	\$235,000

Pump Stations - Proposed Project nolished in the future; Rehabilitatior size of pumps; Instrumentation/ Ele						If Know	'n
Proposed Projects	Pump Station Name	Type (e.g., submersible, centrifugal, etc.)	Capacity (MGD)	Total Dynamic Head (feet)	Year Planned	Manufacturer's Predicted Life	Estimated Project Cos
grade Lift Stations 4, 5, and 6	McKell, Forest Heights, Sand Hill	N/A	N/A	N/A	2015-2017		\$750,000
r any additional Pressure Line/F	Force Mains and Air-Release Valves inform	ation here:					

Treatment Units				Ass	sessment Rating	js	I	ailure Rating	s	Renewal	Renewal Maintenance	and Maintenance Strategy Renewal/ Maintenance	Estimated Cost of Renewal/
	Unit Process	No. of Units	Year Installed	Condition	Performance	Reliability	Consequence	Probability	Redundancy	Strategy	Strategy	Date	Maintenance Option
Headworks (preliminary)	Bar screens	2	1992	3	4	3	1	3	1	1	1	2042	\$5,000
Carrousell	secondary	1	1992	3	3	3	4	3	1	1	1	2042	\$1,000,000
Splitter box	secondary	1	1992	3	3	3	4	3	1	1	1	2042	\$200,000
clarifiers	secondary	2	1992	3	3	3	4	3	1	1	1	2042	\$1,000,000
ligester	biosolids	1	1992	3	3	3	4	3	1	1	1	2042	\$500,000
Solids press	biosolids	1	1992	3	3	3	4	3	1	1	1	2042	\$200,000
RAS/WAS pump	secondary	2	1992	3	3	3	4	3	2	1	1	2042	\$50,000
Chlorine contact basin	disinfection	1	1992	3	3	3	4	3	1	1	1	2042	\$100,000
	disinfection		1992	5	5		4	5		1		2042	\$100,000

11. Treatment Units - Proposed Projects. Proposed projects should be categorized into the following descriptions: No Change- There are no planned modifications; New- A new type is being proposed or implemented; At type will no longer be used or will be demolished in the future.; Increase Capacity- Increasing the treatment capacity for existing treatment plants, and biosolids handling facilities, with respect to flow or tonnage; Increase Lee This refers to any improvement in unit processes that improves the effluent quality. The addition of nutrient removal is considered to be an improvement in effluent quality (e.g., secondary effluent with nutrient removal represe without nutrient removal); Rehabilitation- Restoring or repairing parts of existing treatment plants, and biosolids handling facilities with no increase in capacity or level of treatment.; Replacement- An existing facility is considered to plant; Process Improvement on a facility that does not increase the capacity, increase the level of change for existing treatment plants, and biosolids handling facilities. Instrumentation/ Electrical/ Laboratory- Adding new or modifying existing instrumentation systems (e.g., SCADA), electrical systems, or laboratory facilities.

			, , , , ,	
Proposed projects	Treatment Unit	No. of Units	Year Planned	Manufact
Wastewater treatment plant rehab	Process improvement	N/A	2013	

Enter any additional Treatment Units information here:

Abandonment All unit processes that make up the facility
evel of Treatment- Improving the degree of treatment.
esents higher-quality effluent than secondary effluent
dered obsolete and is demolished, and a new facility is
f treatment, expand the service area, or make a similar
ties at an existing facility of any type.

If Knowi	ņ
sturer's Dradistad Life	Fatimated Draiget Cost
cturer's Predicted Life 2033	Estimated Project Cost \$2,000,000
2000	\$2,000,000

### IV. Project Prioritization and Fund Plan Table Instructions:

Preparing the asset inventory report allows regional planning agencies to prioritize rehabilitation and replacement projects. The estimated cost of rehabilitation and replacement activities associated with your highest priority assets are required for completing the funding plan worksheet. Gather information on all of the costs associated with the rehabilitation or replacement of an asset and provide a citation for the source of the estimate. Costs should only account for funds you will need to replace or rehabilitate your capital assets, and should not include routine operation and maintenance costs. To determine what a rehabilitation or replacement project might cost, you can:

- 1. Consult with your engineer;
- 2. Ask local contractors for estimated costs;
- 3. Contact equipment manufacturers; and
- 4. Talk to other systems about the cost of their rehabilitations or replacements.

It is important that you update this worksheet every year, and as new information becomes available, because your system's priorities and finances may change. Costs of new assets or rehabilitations may also change. Updating your worksheet annually and setting aside the required reserve amount will help ensure that you have enough money to cover the cost of future rehabilitation and replacement projects.

It may be overwhelming to see how much money you should be saving each year to fund the replacement and rehabilitation of your assets. You can fund capital improvements by saving the total per year cost of replacements in a reserve account. Alternatively, you can use the money you already have more efficiently and put the savings towards replacing and rehabilitating your assets. Here are some strategies that could help you use your current resources more efficiently or raise additional funds:

- 1. Form partnerships with other wastewater systems to reduce operating costs. This may allow you to simplify management and obtain bulk purchasing agreements.
- 2. Consider increasing rates to raise revenue.
- Apply for financial assistance. Banks and government funding agencies can help fund infrastructure projects such as treatment system upgrades and collection line repairs. For large projects, you may want to research funding options such as state and federal clean water grant and loan programs.

Key decision makers (for example, the board of directors, elected officials of the community, or owners of manufactured housing associations) make critical decisions about the finances of wastewater systems. For this reason, they need to understand the financial needs related to the rehabilitation and replacement of the system's equipment and assets. The information compiled in this report should be presented to key decision makers and incorporated into the annual budget. This information should be reviewed annually and modified as necessary. The decision makers can also present this information to the public at board meetings.

IV. PROJECT PRIORITIZATION					
This section of the report shall identify projects chrono	ologically over a projected 10-year period. Each project should i	include a project title, location, brief description, schedu	lle and cost estimate. <b>*Each projec</b>	t cost estimate should provide the source of t	he estimate.
Project Title	Location	Brief Description	Schedule (Estimated Start and End Date)	*Cost Estimate (\$)	Source
Sewer System Rehabilitation	Within city limits	Replace collection system lines.	2013-2014	\$2,006,000	НМВ
Wastewater Treatment Plant Rehabilitation	South Shore wastewater treatment plant	New maintenance building, inline grinder for head works, equalization basin, WAS/RAS pumps, SCADA system.	2013-2014	\$2,000,000	НМВ
Upgrade Lift Stations 4, 5, & 6	McKell school, Forest Heights, Sand Hill	New pumps, new control boxes, new wet wells.	2015-2017	\$750,000	FIVCO
Unarada Faraat Unichta Collection Linco		Deplace collection system lines	2013-2014		
Upgrade Forest Heights Collection Lines	Forest Heights area	Replace collection system lines.	2013-2014	unknown	

### V. FUNDING PLAN

This section of the report shall outline a funding p	blan, indicating sources of revenue from rate payers,	grants, bonds, loans and other funding sources to f	inance projects. A five-year financial plan is requir	ed, but ten-year
Project Title	Overall Project Budget (\$)	Available Funding Amount (\$)	Available Funding Source	
Sewer System Rehabilitation	\$2,006,000	\$1,006,000	SRF	\$1,000,000
Wastewater Treatment Plant Rehabilitation	\$2,000,000	Not funded	SRF	
	φ2,000,000			
Upgrade Lift Stations 4, 5, & 6	\$707,500	Not funded	SRF	
Upgrade Forest Heights Collection Lines	unknown	Not funded	unknown	

ar plans are recommended.
Unfunded Amount (\$)
00

VI. COPIES OF SUPPORTING DOCUMENTATION
All regional planning agencies must provide copies of the supporting documentation listed below. Copies should be attached to this form.
1. Regional planning agency organization chart (including names of members)
2. Sewer use ordinance
3. Current user rate schedule
4. Wastewater system maps- (a) One (1) up-to-date map, suitable for photocopying, should indicate the planning area boundary, service area boundary, watershed boundaries, county boundaries, adjacent populated places, cities and/or towns, surface waterbodies, drinking water supply areas; (b) Up-to-date map(s), suitable for photocopying, including locations of wastewater treatment facilities (including package treatment plant(s)), discharge location(s), collection lines (gravity, force main, interceptors), and pump stations.
5. A list of wastewater systems studies since the last planning update (e.g., Infiltration& inflow reports, CSO reports, sewer system evaluation studies, on-site/cluster system reports, other relevant reports.)
VII. CERTIFICATION. Signature requirements guarantee the validity of the data.
This section must be certified by an elected official (e.g. Mayor, County Judge Executive) <b>AND</b> a designated official representing the regional planning agency (e.g. Kentucky licensed professional engineer employed by or under contract with the regional planning agency, Public Works Director, General Manager, Superintendent)
Local Elected Official
I certify that the information entered in this form is accurate to the best of my knowledge.
Name:
Title:
Signature: Date:
Designated Official
I certify that the information entered in this form is accurate to the best of my knowledge.
Name:
Title:
Signature: Date:
SEND COMPLETED FORMS TO:
Division of Water Wastewater Planning Section 200 Fair Oaks Lane Frankfort, Kentucky 40601
For additional information, call (502) 564-3410.