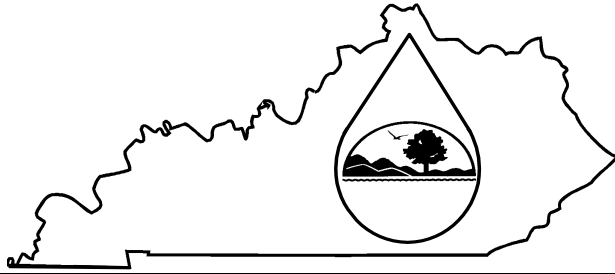


# ASSET INVENTORY REPORT FORM



## 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 if 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.

**I. REGIONAL PLANNING AGENCY DATA.** These seven subsections provide the basic information necessary to identify and characterize the system. The point of contact information must include an organization and an individual. The address can be a mailing address (e.g., P.O. Box). The physical location of the facility is required for treatment plants only. The address should be the physical location of the facility, and not a P.O. Box. Descriptive addresses are acceptable if no physical address exists.

**1. Regional Planning Agency Information**

|   |  |
|---|--|
| Regional Planning Agency Name   | <b>Berea Municipal Utilities</b>   |
| Mailing Address   | <b>200 Harrison Road</b>   |
| City, State, Zip Code   | <b>Berea, Kentucky 40403</b>   |
| Contact person  | <b>Ed Fortner, Jr.</b>   |
| Title   | <b>Utilities Director</b>  |
| Telephone number  | <b>859 986 4391</b>  |
| Physical Location (if different from mailing address; not P.O. Box)   |  |
| Email Address   | <a href="mailto:efortner@bereaky.gov">efortner@bereaky.gov</a>   |
| Fax number  | <b>859 986 5884</b>  |
| KPDES and/or KISOP Number   | <b>KY 0079898 KYR105918</b>  |
| Name of watershed(s) within the planning area (Hydrological Unit Code [HUC] 11)   | <b>05100205090 – Silver Creek<br/>05100205100 – Walnut Meadow</b>  |
| List waterbodies within the planning area that are on the 303(d) list of waters not supporting one or more designated uses reported in the most recent Integrated Report to Congress on Water Quality in Kentucky | <b>None. Silver Creek is listed from 11.1 to 29.8. This portion of Silver Creek is not within the planning area for Berea Municipal Utilities.</b> |

**2. Discharge Information.** Facilities may have multiple discharge types (e.g., discharge to another facility, subsurface discharge, outfall to surface waters, reuse). Additionally, one or more facilities may discharge to the facility. Please review and enter discharge information carefully. If multiple discharges apply, enter percentages which must add to up 100%.

|  |  |
|--|--|
| Discharge Type   | <b>Outfall to surface waters</b>                     |
| Name of receiving water(s)   | <b>Silver Creek</b>                                  |
| Milepoint or Latitude & Longitude  | <b>Mile point 34.8<br/>37d 36' 35"N 84d 17'10" W</b> |
| 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. | <b>No</b>  |
| 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).)          | <b>No</b>  |

**3. Facility Effluent Treatment Level.** Please indicate the level of treatment available at the treatment plant. Current Treatment Level should be selected if the facility is or will be in operation as of the date of report submittal. Projected Treatment Level should be entered if the facility will be in operation for all or part of the 10-year period after the date of report submittal. Treatment levels include **primary** (45mg/l<BOD; process in which the effluent is treated to remove floating debris and solids by screening and sedimentation); **advanced primary** (process in which chemicals are added to further treat primary effluent and increase the amount of solid matter removed); **secondary** (the effluent must meet the minimum removal standards for Biochemical Oxygen Demand, total suspended solids, and pH); and **advanced** (a level of treatment that is more stringent than secondary treatment or produces a significant reduction in nonconventional or toxic pollutants present in the facility's effluent; the treatment level is considered advanced if the BOD permit limit is less than 20 mg/l or the facility has one or more advanced treatment processes).

|   |  |
|---|--|
| What levels of treatment are provided? Check all that apply.    |  |
| <input type="checkbox"/> Primary                                | <input checked="" type="checkbox"/> <b>Secondary</b> |
| <input type="checkbox"/> Advanced Primary                       | <input checked="" type="checkbox"/> <b>Advanced</b>  |
| <input type="checkbox"/> Other Describe:                        | <input type="checkbox"/> Other Describe:             |
| Projected (Indicate the level of treatment and projected date): |  |

**4. Facility Type.** Enter all the facility types that apply to the system. Facility type includes treatment plant, collection (combined sewers, separate sewers, interceptor sewers, and biosolids handling facility). Indicate whether the facility is currently used by placing a check mark in "Present" column(s) or whether it is planned to be used in the future by placing a check mark in "Projected" column(s).

| Facility Type                | Present                             | Projected                |
|------------------------------|-------------------------------------|--------------------------|
| Treatment Plant              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Collection (separate sewers) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Pump Stations                | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|                              | <input type="checkbox"/>            | <input type="checkbox"/> |
|                              | <input type="checkbox"/>            | <input type="checkbox"/> |
|                              | <input type="checkbox"/>            | <input type="checkbox"/> |
|                              | <input type="checkbox"/>            | <input type="checkbox"/> |

**5. Flow and Population Served.** Each year's data must be based on a 12-month time period. Subcategories a through d apply to treatment plants. If applicable, indicate the projected design capacity for treatment plants. The population served information table has two main components; each must be completed for the present condition and the 10-year projected condition.

|   | Present       | Projected in 10 Years |  |             |
|---|---------------|-----------------------|--|-------------|
| a. Design flow rate                         | 4.312         | 4.312                 |  | Units (mgd) |
|   | Two Years Ago | Last Year             | This Year                                |             |
| b. Annual average daily flow rate           | 2.906         | 3.026                 | 3.026<br>(Anticipated for 2015)          | Units (mgd) |
|   | Two Years Ago | Last Year             | This Year                                |             |
| c. Maximum/Peak daily flow rate             | 12.13         | 12.42                 | 3.438 <b>** (As of January 27, 2015)</b> | Units (mgd) |
| d. Average daily flow projected in 10 years |               | 3.511                 |  | Units (mgd) |

|  |  |                        |                              |                      |
|--|--|------------------------|------------------------------|----------------------|
| e. Average Inflow and Infiltration. Estimates should be based on most recent data  |  | <b>1.63</b>            | Units (mgd)                  |                      |
|  |  | <u>Present</u>         | <u>Projected in 10 years</u> |                      |
| f  | Residential flow contribution (mgd)  | <b>0.63</b>            | <b>0.734</b>                 |                      |
|  | Commercial/industrial flow contribution(mgd)<br>(Projected calculations should be based on: 1,000 to 1,500 gallons per day/acre) | <b>0.763</b>           | <b>0.885</b>                 |                      |
|  | Population served (Calculations should be based on: Census data specific to the service area or No. of Accounts X 3)             | <b>16944</b>           | <b>19662</b>                 |                      |
|  | Unsewered population in the planning area  | <b>1785</b>            | <b>1500</b>                  |                      |
| <b>6. Treatment Plant Discharge Limits.</b> 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. |  |                        |                              |                      |
|  | <u>Parameter</u>   | <u>Monthly Average</u> | <u>Daily Maximum</u>         | <u>Daily Minimum</u> |
|  | Biological Oxygen Demand (BOD <sub>5</sub> ; mg/l) or CBOD <sub>5</sub>  | <b>10</b>              | <b>15</b>                    |                      |
|  | Total Suspended Solids (TSS; mg/l)   | <b>30</b>              | <b>45</b>                    |                      |
|  | Ammonia Nitrogen (mg/l) (Summer and Winter)  | <b>2(S) 10 (W)</b>     | <b>3(S) 15 (W)</b>           |                      |
|  | Dissolved Oxygen (mg/l)  |                        |                              | <b>7.0</b>           |
|  | Fecal Coliform (colonies/100 ml)   | <b>NA</b>              | <b>NA</b>                    |                      |
|  | <i>Escherichia Coli</i> (colonies/100 ml)  | <b>130</b>             | <b>240</b>                   |                      |
|  | pH (standard units)  | <b>6</b>               | <b>9</b>                     |                      |
|  | Total Residual Chlorine (mg/l)   | <b>NA</b>              | <b>NA</b>                    |                      |
|  | Phosphorus (Total; mg/l)   | <b>1.0(S) 2.0 (W)</b>  | <b>1.5(S) 3.0 (W)</b>        |                      |
|  | Total Nitrogen (mg/l)  | <b>Report</b>          | <b>Report</b>                |                      |
|  | Other (Indicate):  |                        |                              |                      |
|  | <u>Chronic Toxicity (Tu<sub>c</sub>)</u>   |                        | <b>1.00</b>                  |                      |
|  |  |                        |                              |                      |
|  |  |                        |                              |                      |
|  |  |                        |                              |                      |
| <b>7.</b>  | <b>Pretreatment.</b> Does the wastewater system have pretreatment program?<br>(Circle One)                                       |                        | <b><u>Yes</u></b>            | No                   |

**II. REVENUES AND EXPENSES.** Data items in this section are necessary to understand the financial condition of the system. The information provided can be estimated or based upon audit reports.

|   |                                |  |                       |                    |                    |                    |
|---|--------------------------------|--|-----------------------|--------------------|--------------------|--------------------|
| 1. Current Fiscal Year and First Month of the Fiscal Year <b>*ANNUAL REVENUE AND EXPENSES AS LISTED BELOW FOR CURRENT YEAR ARE FROM FISCAL YEAR 2013-2014 AUDIT REPORTS</b> |                                | Year   | Month                 |                    |                    |                    |
|   |                                | 2014 - 2015  | July                  |                    |                    |                    |
| 2. Median Household Income (MHI) of the Service Area  |                                | Amount (\$)  |                       |                    |                    |                    |
|   |                                | \$37,249   |                       |                    |                    |                    |
| 3. Current User Charges Per Month (per 4,000 gallons)   |                                | Amount (\$)  |                       |                    |                    |                    |
|   |                                | Residential  | Commercial/Industrial |                    |                    |                    |
|   |                                | \$21.25 per 4,000gal   | \$21.25 per 4,000 gal |                    |                    |                    |
| 4. Projected User Charges Per Month Over Next two (2) Years (per 4,000 gallons)   |                                | Amount (\$)  |                       |                    |                    |                    |
|   |                                | Residential  | Commercial/Industrial |                    |                    |                    |
|   |                                | \$23.80 per 4,000 gal  | \$23.80 per 4,000 gal |                    |                    |                    |
| 5. Annual Revenues  |                                | Enter Known Future Changes in Revenues<br>(Enter amounts in current fiscal year dollars) |                       |                    |                    |                    |
|   | Current Year<br>(FY 2013-2014) | Year<br>(FY 14-15)   | Year<br>(FY 15-16)    | Year<br>(FY 16-17) | Year<br>(FY 17-18) | Year<br>(FY 18-19) |
| Total retail user charges   | 2,321,500                      | 2,367,930  | 2,652,080             | 2,705,125          | 2,759,225          | 2,814,410          |
| Total wholesale user charges  | N/A                            | N/A  | N/A                   | N/A                | N/A                | N/A                |
| Interest earned   | 12,000                         | 12,240   | 12,485                | 12,735             | 13,000             | 13,250             |
| Funds drawn from reserves   | 86,000                         | 0  | 0                     | 0                  | 0                  | 0                  |
| Other revenues (e.g., tap-on fees; impact fees, etc.)   | 64,630                         | 65,920   | 73,830                | 75,310             | 76,820             | 78,350             |
| Total   | 2,484,130                      | 2,446,090  | 2,738,395             | 2,793,170          | 2,849,045          | 2,906,010          |
| 6. Annual Expenses  |                                | Enter Known Future Changes in Expenses<br>(Enter amounts in current fiscal year dollars) |                       |                    |                    |                    |
|   | Current Year<br>(FY 2013-2014) | Year<br>(FY 14-15)   | Year<br>(FY 15-16)    | Year<br>(FY 16-17) | Year<br>(FY 17-18) | Year<br>(FY 18-19) |
| Salaries, wages, benefits   | 546,000                        | 556,920  | 568,060               | 579,420            | 591,010            | 602,828            |
| Supplies, equipment, chemicals  | 71,100                         | 72,522   | 73,970                | 75,450             | 76,960             | 78,500             |
| Repairs and parts   | 146,000                        | 148,920  | 151,900               | 154,940            | 158,035            | 161,200            |
| Utilities (electric, gas, water)  | Electric                       | Electric   | Electric              | Electric           | Electric           | Electric           |
|   | 177,200                        | 180,745  | 184,360               | 188,050            | 191,810            | 195,645            |
|   | Water                          | Water  | Water                 | Water              | Water              | Water              |
|   | 350                            | 357  | 365                   | 372                | 379                | 387                |
|   | Gas                            | Gas  | Gas                   | Gas                | Gas                | Gas                |
|   | 7,500                          | 7,650  | 7,800                 | 7,960              | 8,120              | 8,280              |
| Payments to other facilities  | 0                              | 0  | 0                     | 0                  | 0                  | 0                  |
| Funds added to reserves   | 86,000                         | 0  | 0                     | 0                  | 0                  | 0                  |
| Debt service  | 288,800                        | 290,000  | 290,000               | 290,000            | 290,000            | 290,000            |
| Other expenses  | 1,331,800                      | 1,358,440  | 1,385,600             | 1,413,320          | 1,441,580          | 1,470,415          |
| Total   | 2,654,750                      | 2,615,554  | 2,662,055             | 2,709,512          | 2,757,894          | 2,807,255          |

**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 Condition Assessment

| <u>Rating</u> | <u>Remaining Useful Life</u> | <u>Maintenance Level</u>                                      |
|---------------|------------------------------|---|
| 5             | New or Excellent Condition   | Normal Preventative Maintenance                               |
| 4             | Minor Defects Only           | Normal Preventative Maintenance, Minor Corrective Maintenance |
| 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 Performance Assessment

| <u>Rating</u> | <u>Description</u>                    |
|---------------|---------------------------------------|
| 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 Reliability Assessment

| <u>Rating</u> | <u>Remaining Life</u> | <u>Frequency of Failure</u> |
|---------------|-----------------------|-----------------------------|
| 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              |

**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. Consequence of Failure

| <u>Rating</u> | <u>Description</u>                   | <u>Percentage (%) Affected</u> | <u>Level</u>        |
|---------------|--------------------------------------|--------------------------------|---------------------|
| 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. Probability of Failure

| <u>Rating</u> | <u>Percentage (%) of Effective Life Consumed</u> |
|---------------|--|
| 1             | 20%  |
| 2             | 40%  |
| 3             | 60%  |
| 4             | 80%  |
| 5             | 100%   |

c. Current Redundancy Assessment

| <u>Rating</u> | <u>Level of Redundancy</u> | <u>Reduce Probability of Failure by:</u> |
|---------------|----------------------------|--|
| 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> | <u>Description</u>                           | <u>Type</u> |
|---------------|--|-------------|
| 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. Maintenance Strategy

| <u>Option</u> | <u>Maintenance Tactic</u>         |
|---------------|-----------------------------------|
| 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).

**Examples of Asset Categories and Category Hierarchy**

| <b>Asset Categories</b>   | <b>Asset Category Hierarchy</b>                       |
|---|---|
| Headworks   | Screening- Bar Screens, Screens                       |
|   | Grit Removal- Blower, Auger, Grit Pumps, Pipes/Valves |
|   | Electrical- Motor Control                             |
| Raw Sewage Pumping  | Pumps- Pump #1, Pump #2, Pipes/Valves                 |
|   | 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                          |
| Collection Pump Station   | Pumps- Pump 1,2,3, etc., Valve and Piping             |
|   | Instrumentation- Flow Meter                           |
|   | Electrical- Motor Control, Standby Generator          |
| Treatment Unit Processes  |   |

| 4. Collection System Gravity Pipes and Manholes- Existing |  |                    |                    |               |                |                    |             |             |                 |             |            |                                  |                      |                          |  |
|---|--|--------------------|--------------------|---------------|----------------|--------------------|-------------|-------------|-----------------|-------------|------------|----------------------------------|----------------------|--------------------------|--|
| Description of Area                                       | Description of Manholes (diameter, material, lid type) | Pipe Length (feet) | Pipe Size (Inches) | Pipe Material | Year Installed | Assessment Ratings |             |             | Failure Ratings |             |            | Renewal and Maintenance Strategy |                      |                          |  |
|   |  |                    |                    |               |                | Condition          | Performance | Reliability | Consequence     | Probability | Redundancy | Renewal Strategy                 | Maintenance Strategy | Renewal/Maintenance Date | Estimated Cost of Renewal/Maintenance Option |
| <b>Terrill Branch Sewershed</b>                           |  |                    |                    |               |                |                    |             |             |                 |             |            |                                  |                      |                          |  |
| Manholes  | 360 Total Manholes                                     |                    |                    |               |                |                    |             |             |                 |             |            |                                  |                      |                          |  |
|   | 90 Brick manholes                                      | -                  | -                  | -             | 1950-1990      | 3                  | 3           | 3           | 2               | 3           | 1          | 8                                | 2                    | 2016-2035                | \$500,000                                    |
|   | 270 Precast manholes                                   | -                  | -                  | -             | 1990-Present   | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
| Pipe  | Total Piping   | 91,879             |                    |               |                |                    |             |             |                 |             |            |                                  |                      |                          |  |
|   |  | 47,533             | 8                  | Clay          | 1950-1990      | 3                  | 3           | 3           | 2               | 3           | 1          | 8                                | 2                    | 2016-2035                | 4,000,000                                    |
|   |  | 32,158             | 8                  | PVC           | 1990-Present   | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
|   |  | 5,513              | 12                 | Concrete      | 1950-1970      | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
|   |  | 919                | 18                 | Concrete      | 1950-1970      | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
|   |  | 1,378              | 24                 | Concrete      | 1950-1970      | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
|   |  | 1,378              | 27                 | Concrete      | 1950-1970      | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
| Woodford Avenue   |  | 2,400              | 8                  | Clay          | 1950-1970      | 2                  | 2           | 2           | 3               | 4           | 1          | 8                                | 2                    | Summer/Fall 2015         | \$100,000                                    |
| Van Winkle Grove  |  | 1,000              | 8                  | Clay          | 1950-1970      | 2                  | 2           | 2           | 3               | 4           | 1          | 8                                | 2                    | Fall 2016-Spring 2017    | \$75,000                                     |
| <b>Stoney Creek Sewershed</b>                             |  |                    |                    |               |                |                    |             |             |                 |             |            |                                  |                      |                          |  |
| Manholes  | 193 Total Manholes                                     |                    |                    |               |                |                    |             |             |                 |             |            |                                  |                      |                          |  |
|   | 10 Brick Manholes                                      | -                  | -                  | -             | 1950-1990      | 3                  | 3           | 3           | 2               | 3           | 1          | 8                                | 2                    | 2016-2035                | \$50,000                                     |
|   | 183 Precast manholes                                   | -                  | -                  | -             | 1990-Present   | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
| Pipe  | Total pipe   | 59,046             |                    |               |                |                    |             |             |                 |             |            |                                  |                      |                          |  |
|   |  | 2,952              | 8                  | Clay          | 1950-1990      | 3                  | 3           | 3           | 2               | 3           | 1          | 8                                | 2                    | 2016-2035                | \$225,00                                     |
|   |  | 20,666             | 8                  | PVC           | 1990-Present   | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |
|   |  | 1,771              | 10                 | Concrete      | 1950-1970      | 4                  | 4           | 4           | 1               | 1           | 1          | 2                                | 3                    | n/a                      | n/a  |

|                                |                      |         |    |          |              |   |   |   |   |   |   |   |   |                  |             |
|--------------------------------|----------------------|---------|----|----------|--------------|---|---|---|---|---|---|---|---|------------------|-------------|
|                                |                      | 22,615  | 12 | Concrete | 1950-1970    | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
|                                |                      | 1,771   | 27 | Concrete | 1950-1970    | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
|                                |                      | 1,771   | 30 | Concrete | 1950-1970    | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
| Brooklyn Blvd                  |                      | 7,500   | 12 | PVC      | 1950-1970    | 4 | 4 | 4 | 1 | 1 | 1 | 7 | 2 | 2018-2019        | \$1,000,000 |
| <b>Brushy Fork Sewershed</b>   |                      |         |    |          |              |   |   |   |   |   |   |   |   |                  |             |
| Manholes                       | 607 Total Manholes   |         |    |          |              |   |   |   |   |   |   |   |   |                  |             |
|                                | 395 Brick Manholes   | -       | -  | --       | 1950-1990    | 3 | 3 | 3 | 2 | 3 | 1 | 8 | 2 | 2016-2035        | \$2,000,000 |
|                                | 212 Precast Manholes | -       | -  | -        | 1990-Present | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
| Pipe                           | Total Pipe           | 141,959 |    |          |              |   |   |   |   |   |   |   |   |                  |             |
|                                |                      | 91,323  | 8  | Clay     | 1950-1990    | 3 | 3 | 3 | 2 | 3 | 1 | 8 | 2 | 2016-2035        | \$7,000,000 |
|                                |                      | 49,686  | 8  | PVC      | 1990-Present | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
| Cherry Road                    |                      | 950     | 8  | Clay     | 1950-1970    | 2 | 2 | 2 | 3 | 4 | 1 | 8 | 2 | Summer-fall 2016 | \$75,000    |
| <b>Big Hill Sewershed</b>      |                      |         |    |          |              |   |   |   |   |   |   |   |   |                  |             |
| Manholes                       | 126 Manholes         |         |    |          |              |   |   |   |   |   |   |   |   |                  |             |
|                                | 76 Brick Manholes    | -       | -  | -        | 1950-1990    | 3 | 3 | 3 | 2 | 3 | 1 | 8 | 2 | 2016-2035        | \$400,000   |
|                                |                      |         |    |          | 1990-Present | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
| Pipe                           | Total Pipe           | 41,501  |    |          |              |   |   |   |   |   |   |   |   |                  |             |
|                                |                      | 24,901  | 8  | Clay     | 1950-1990    | 3 | 3 | 3 | 2 | 3 | 1 | 8 | 2 | 2016-2035        | \$2,000,000 |
|                                |                      | 16,600  | 8  | PVC      | 1990-Present | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
| <b>Walnut Meadow Sewershed</b> |                      |         |    |          |              |   |   |   |   |   |   |   |   |                  |             |
| Manholes                       | 567 Total Manholes   |         |    |          |              |   |   |   |   |   |   |   |   |                  |             |
|                                | 198 Brick Manholes   | -       | -  | -        | 1950-1990    | 3 | 3 | 3 | 2 | 3 | 1 | 8 | 2 | 2016-2035        | \$1,000,000 |
|                                | 369 Precast Manholes | -       | -  | -        | 1990-Present | 4 | 4 | 4 | 1 | 1 | 1 | 2 | 3 | n/a              | n/a         |
| Pipe                           | Total Pipe Length    | 144,861 |    |          |              |   |   |   |   |   |   |   |   |                  |             |
|                                |                      | 76,674  | 8  | Clay     | 1950-1990    | 3 | 3 | 3 | 2 | 3 | 1 | 8 | 2 | 2016-2035        | \$6,000,000 |



**5. Collection System Gravity Pipes and Manholes- 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; Abandonment- The 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- An existing asset is considered obsolete and is demolished, and a new asset is constructed on the same site. Expansion- Increasing the service area of an existing sewer system.

| Proposed Projects   | Project Description/<br>Description of Area   | Number of New<br>Manholes                 | Pipe<br>Length (feet) | Pipe<br>Size<br>(Inches) | Pipe<br>Material | Year Planned     | If Known                      |                        |
|---|---|---|-----------------------|--------------------------|------------------|------------------|-------------------------------|------------------------|
|   |   |   |                       |                          |                  |                  | Manufacturer's Predicted Life | Estimated Project Cost |
| Parallel Trunk Sewer at Terrill Branch                          | Portion of Trunk Sewer to WWTP has current capacity issues, a parallel trunk needs to be installed along the current 27" line | Approximately 22 (from MH 1059 – MH 1010) | Approximately 8000 LF | 27                       | Concrete         | 2020             | 40 years                      | \$2,500,000            |
| Woodford Avenue 8" Sewer replace                                | Slip lining of old VCP pipe in Woodford Avenue Area   | 13  | 2400 LF               | 8                        | VCP              | 2015             | 40 years                      | \$100,000              |
| Sanitary Sewer Evaluation                                       | Locate, GPS, inspect all manholes. CCTV, inventory and smoke test pipelines   | N/A                                       | N/A                   | N/A                      | N/A              | Start 2016- 2019 | Not Applicable                | \$75,000               |
| Replace line at Brooklyn Blvd and Central Park                  | Upsize 12" to 16" line from Walnut Meadow to US 25 along Bybass   | 25  | 7500 LF               | 12                       | Concrete         | 2018-2019        | 40 years                      | \$1,000,000            |
| Van Winkle Grove 8" sewer replacement                           | Slip line of sewer line and replace manholes  | 9   | 1000 LF               | 8                        | VCP              | 2016-2017        | 40 years                      | \$75,000               |
| Burchwood Drive and Walnut Meadow Branch Area sewer replacement | Replace manholes and upsize 12" VCP to 16" PVC  | 18  | 5000 LF               | 8                        | PVC              | 2017             | 40 years                      | \$500,000              |
| Replace line at Holly Hill Drive                                | Replace 8" clay pipe with 8" PVC and replace  | 10  | 2000LF                | 8                        | VCP              | 2015-2016        | 40 years                      | \$250,000              |
| Rehab sewer line from Cherry Road to Broadway                   | Slip line existing pipe and replace manholes  | 10  | 1000LF                | 8                        | VCP              | 2016             | 40 years                      | \$75,000               |
|   |   |   |                       |                          |                  |                  |                               |                        |
|   |   |   |                       |                          |                  |                  |                               |                        |
|   |   |   |                       |                          |                  |                  |                               |                        |
|   |   |   |                       |                          |                  |                  |                               |                        |
|   |   |   |                       |                          |                  |                  |                               |                        |
|   |   |   |                       |                          |                  |                  |                               |                        |
|   |   |   |                       |                          |                  |                  |                               |                        |

**Enter any additional Collection System Gravity Pipes and Manholes information here:**









**9. Pump Stations - 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; Abandonment- The asset will no longer be used or will be demolished in the future; Rehabilitation- Restoring or upgrading existing pump stations; Replacement- An existing asset is considered obsolete and is demolished, and a new asset is constructed; Process Improvement- Replacing pumps in a pump station; Expansion- Increasing the size of pumps; Instrumentation/ Electrical/ Laboratory- Adding new or modifying existing instrumentation systems (e.g., SCADA), electrical systems, or laboratory facilities at an existing asset of any type.

| Proposed Projects                                    | Pump Station Name        | Type (e.g., submersible, centrifugal, etc.) | Capacity (MGD) | Total Dynamic Head (feet) | Year Planned | If Known                      |                        |
|--|--------------------------|---|----------------|---------------------------|--------------|-------------------------------|------------------------|
|  |                          |   |                |                           |              | Manufacturer's Predicted Life | Estimated Project Cost |
| Upgrade of Highway 595 Pump Station (rehabilitation) | Highway 595 Pump Station | Submersible                                 | 10 HP Pump     | Unknown                   | 2023         | 20 years                      | \$500,000              |
| Upgrade of Lower Oaks Pump Station (rehabilitation)  | Lower Oaks Pump Station  | Submersible                                 | 5 HP Pump      | Unknown                   | 2025         | 20 years                      | \$250,000              |
|  |                          |   |                |                           |              |                               |                        |
|  |                          |   |                |                           |              |                               |                        |
|  |                          |   |                |                           |              |                               |                        |
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|  |                          |   |                |                           |              |                               |                        |
|  |                          |   |                |                           |              |                               |                        |
|  |                          |   |                |                           |              |                               |                        |

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

| 10. Treatment Units (Preliminary, Secondary, Disinfection, Advanced, Biosolids Handling)- Existing |              |              |                |                    |             |             |                 |             |            |                                  |                      |                           |   |
|--|--------------|--------------|----------------|--------------------|-------------|-------------|-----------------|-------------|------------|----------------------------------|----------------------|---------------------------|---|
| Treatment Units  | Unit Process | No. of Units | Year Installed | Assessment Ratings |             |             | Failure Ratings |             |            | Renewal and Maintenance Strategy |                      |                           |   |
|  |              |              |                | Condition          | Performance | Reliability | Consequence     | Probability | Redundancy | Renewal Strategy                 | Maintenance Strategy | Renewal/ Maintenance Date | Estimated Cost of Renewal/ Maintenance Option |
| Screw Pumps  |              | 4            | 2005           | 4                  | 5           | 2           | 9               | 2           | 2          | 6                                | 1                    | 2020                      | \$1,000,000                                   |
| Mechanical Screens   |              | 2            | 2005           | 4                  | 5           | 4           | 5               | 2           | 2          | 2                                | 1                    | 2025                      | n/a   |
| Manual Screens   |              | 1            | 2005           | 4                  | 5           | 5           | 5               | 2           | n/a        | 2                                | 1                    | 2025                      | n/a   |
| Grit Removal System  |              | 2            | 2005           | 4                  | 5           | 4           | 3               | 2           | 2          | 2                                | 1                    | 2025                      | n/a   |
| Grit Pumps   |              | 2            | 1986           | 3                  | 5           | 4           | 2               | 5           | 2          | 7                                | 2                    | 2016-2018                 | \$30,000                                      |
| Grit Concentrator  |              | 1            | 2005           | 4                  | 5           | 4           | 2               | 2           | n/a        | 2                                | 1                    | 2025                      | n/a   |
| Screen and Grit Conveyor   |              | 1            | 2005           | 4                  | 5           | 4           | 2               | 2           | n/a        | 2                                | 1                    | 2025                      | n/a   |
| Aerators   |              | 4            | 2005           | 4                  | 5           | 4           | 9               | 2           | 3          | 6                                | 1                    | 2015-2018                 | \$80,000/each                                 |
| Clarifiers   |              | 2            | 2005           | 4                  | 5           | 4           | 8               | 2           | 2          | 2                                | 1                    | 2025                      | n/a   |
| RAS/WAS Pumps  |              | 3            | 2005           | 4                  | 5           | 4           | 8               | 2           | 2          | 2                                | 1                    | 2025                      | n/a   |
| UV Disinfection  |              | 2            | 2005           | 3                  | 5           | 2           | 9               | 2           | 2          | 2                                | 1                    | 2025                      | n/a   |
| Thickeners   |              | 2            | 1988 or 1986   | 3                  | 4           | 3           | 4               | 5           | 2          | 2                                | 1                    | 2020                      | n/a   |
| Sludge Pumps   |              | 2            | 2008           | 4                  | 5           | 5           | 4               | 2           | 2          | 2                                | 1                    | 2025                      | n/a   |
| Belt Filter Presses  |              | 2            | 2005           | 4                  | 5           | 4           | 4               | 2           | 2          | 2                                | 1                    | 2025                      | n/a   |
| Pressed Sludge Conveyor  |              | 1            | 2005           | 4                  | 5           | 4           | 3               | 2           | n/a        | 2                                | 1                    | 2025                      | n/a   |
| Alum. Feed System  |              | 1            | 2005           | 4                  | 4           | 4           | 3               | 2           | 2          | 8                                | 2                    | 2025                      | n/a   |
| Plant Water Pumps  |              | 3            | 2011           | 4                  | 5           | 3           | 2               | 1           | 2          | 2                                | 1                    | 2031                      | n/a   |
| Polymer Equipment  |              | 2            | 2008           | 4                  | 5           | 4           | 3               | 4           | 2          | 2                                | 1                    | 2018                      | n/a   |
|  |              |              |                |                    |             |             |                 |             |            |                                  |                      |                           |   |
|  |              |              |                |                    |             |             |                 |             |            |                                  |                      |                           |   |
|  |              |              |                |                    |             |             |                 |             |            |                                  |                      |                           |   |
|  |              |              |                |                    |             |             |                 |             |            |                                  |                      |                           |   |
|  |              |              |                |                    |             |             |                 |             |            |                                  |                      |                           |   |

**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; Abandonment- - All unit processes that make up the facility 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 Level of Treatment- Improving the degree of treatment. 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 represents higher-quality effluent than secondary effluent 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 obsolete and is demolished, and a new facility is constructed. For treatment plants, this generally implies the same degree of treatment as the demolished plant; Process Improvement- Any improvement to a facility that does not increase the capacity, increase the level of treatment, expand the service area, or make a similar 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 at an existing facility of any type.

| Proposed projects  | Treatment Unit          | No. of Units | Year Planned | If Known                      |                        |
|--|-------------------------|--------------|--------------|-------------------------------|------------------------|
|  |                         |              |              | Manufacturer's Predicted Life | Estimated Project Cost |
| Replacement of screw pumps with submersible pump station (new) | Influent Pump           | 3            | 2020         | 20 years                      | \$1,000,000            |
| Rebuild aerator motors (1 each year) (Rehabilitation)          | Aerators                | 4            | 2015 – 2018  | 20 years                      | \$80,000/year          |
| Replace Belts on Belt Press (Rehabilitation)                   | Sludge Press            | 2            | 2016-2017    | 8 years                       | \$25,000               |
| Replace both grit pumps (New)                                  | Grit Pumps              | 2            | 2016-2018    | 20 years                      | \$30,000 for both      |
| Press Conveyor Belt Replacement                                | Pressed Sludge Conveyor | 1            | 2015-2016    | 10 years                      | \$35,000               |
| Grit Auger Replacement   | Grit Concentrator       | 1            | 2020         | 15 years                      | \$10,000               |
| Sludge Auger Replacement                                       | Pressed Sludge Conveyor | 1            | 2015-2016    | 15 years                      | \$30,000               |
|  |                         |              |              |                               |                        |
|  |                         |              |              |                               |                        |
|  |                         |              |              |                               |                        |
|  |                         |              |              |                               |                        |
|  |                         |              |              |                               |                        |
|  |                         |              |              |                               |                        |
|  |                         |              |              |                               |                        |

Enter any additional Treatment Units information here:

#### **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.
3. 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 chronologically over a projected 10-year period. Each project should include a project title, location, brief description, schedule and cost estimate. **\*Each project cost estimate should provide the source of the estimate.**

| Project Title                             | Location                                    | Brief Description  | Schedule<br>(Estimated Start and End Date) | *Cost Estimate (\$) | Source                |
|---|---|--|--|---------------------|-----------------------|
| Sewer Line Rehab                          | Woodford Avenue and Clay Drive              | Slip line existing pipe and replacement manholes                       | Summer 2015-Fall 2015                      | \$100,000           | Contractor's estimate |
| Sanitary Sewer Evaluation                 | System Wide                                 | GPS, Inspect, inventory, flow test, smoke test existing system         | Summer 2015- Summer 2016                   | \$75,000            | Vendor Estimate       |
| Aerator Motor Rebuild                     | WWTP  | Rebuild existing aerator motors and gearboxes                          | 2015-2018 (one per year)                   | \$80,000 per year   | Vendor Actual Cost    |
| Screen Press Conveyor Belt Replacement    | WWTP  | Replace conveyor belts   | 2015-2016                                  | \$35,000            | Vendor Estimate       |
| Sludge Grinder Replacement                | WWTP  | Replace sludge grinder   | 2015-2016                                  | \$30,000            | Vendor Estimate       |
| Sewer Line Replacement                    | Holly Hill Drive                            | Replace 2000LF of 8" Clay pipe with 8" PVC                             | Fall 2015-Spring 2016                      | \$250,000           | Contractor Estimate   |
| Sewer Line Rehabilitation                 | Van Winkle Grove                            | Slip line 1000LF existing pipe and replace manholes                    | Fall 2016-Spring 2017                      | \$75,000            | Engineer's Estimate   |
| Sewer Line Rehabilitation                 | Cherry Road to Broadway                     | Slip line 1000LF of existing pipe and replace manholes                 | Summer 2016-fall 2016                      | \$75,000            | Contractor Estimate   |
| Belt Press Rehab                          | WWTP  | Replace belts on belt press  | 2016-2017                                  | \$25,000 total      | Vendor Estimate       |
| Grit Pump Replacement                     | WWTP  | Rebuild/replace grit pumps   | 2016-2018                                  | \$30,000 total      | Vendor Estimate       |
| Sewer Line Rehabilitation                 | Burchwood and Walnut Meadow Branch          | Upsize 5000 LF of existing pipe and replace manholes                   | Spring 2017-Summer 2017                    | \$250,000           | Engineer's Estimate   |
| Sewer Line Upsize                         | Brooklyn Blvd.                              | Upsize existing 12" line from Walnut Meadow to highway US 25           | 2018-2019                                  | \$1,000,000         | Engineer's Estimate   |
| Parallel Trunk Sewer along Terrill Branch | Old US 25 and HWY 1016 along Terrill Branch | Install parallel trunk line to ease capacity concern                   | 2020                                       | \$2,500,000         | Engineer's Estimate   |
| Install Pump Station                      | WWTP  | Replace existing screw pumps at the WWTP with submersible pump station | 2020                                       | \$1,000,000         | Engineer's Estimate   |
| Grit Auger Replacement                    | WWTP  | Replace grit auger   | 2020                                       | \$10,000            | Vendor Estimate       |
| Pump Station Upgrade                      | 595 Pump Station                            | Complete rebuild of structures and replacement of all pumps            | 2023-2024                                  | \$500,00            | Engineer's Estimate   |
| Pump Station Upgrade                      | Lower Oaks Station                          | Complete rebuild of structures and replacement of all pumps            | 2025-2026                                  | \$250,00            | Engineer's Estimate   |
| Force Main Upgrade                        | Walnut Meadow Pump Station                  | Upsize 4400 LF of 10" force main                                       | 2025                                       | 575,000             | Engineer's Estimate   |
|   |   |  |  |                     |                       |

**V. FUNDING PLAN**

This section of the report shall outline a funding plan, indicating sources of revenue from rate payers, grants, bonds, loans and other funding sources to finance projects. A five-year financial plan is required, but ten-year plans are recommended.

| Project Title   | Overall Project Budget (\$) | Available Funding Amount (\$) | Available Funding Source        | Unfunded Amount (\$) |
|---|-----------------------------|-------------------------------|---------------------------------|----------------------|
| Sewer Line Rehab (Woodford Avenue and Clay Drive)                         | \$100,000                   | \$25,000/BMU Revenue          | Apply for CDBG/KIA Grants/Loans | \$75,000             |
| Sanitary Sewer Evaluation   | \$75,000                    | \$75,000                      | BMU                             | \$0.00               |
| Aerator Motor Rebuild   | \$80,000/year               | \$80,000/Year (BMU Revenue)   | BMU                             | \$0.00               |
| Press Conveyor Belt Replacement   | \$35,000                    | \$35,000                      | BMU                             | \$0.00               |
| Sludge Auger Replacement  | \$30,000                    | \$30,000                      | BMU                             | \$0.00               |
| Sewer Line Replacement (Holly Hill Drive)                                 | \$250,000                   | \$0.00                        | Apply for CDBG/KIA Grants/Loans | \$250,00             |
| Sewer Line Rehabilitation (Van Winkle Grove)                              | \$75,000                    | \$30,000/ BMU Revenue         | Apply for CDBG/KIA Grants/Loans | \$45,000             |
| Sewer Line Rehabilitation (Cherry Road to Broadway)                       | \$75,000                    | \$30,000/BMU Revenue          | Apply for CDBG/KIA Grants/Loans | \$45,000             |
| Belt Press Rehab  | \$25,000                    | \$25,000/BMU Revenue          | BMU                             | \$0.00               |
| Grit Pump Replacement   | \$30,000                    | \$30,000                      | BMU                             | \$0.00               |
| Sewer Line Rehabilitation (Burchwood and Walnut Meadow Branch)            | \$250,000                   | \$91,000/BMU Revenue          | Apply for CDBG/KIA Grants/Loans | \$159,000            |
| Sewer Line Upsize (Brooklyn Blvd.)  | \$1,000,000                 | \$100,000/ BMU Revenue        | Apply for CDBG/KIA Grants/Loans | \$900,00             |
| Parallel Trunk Sewer along Terrill Branch                                 | \$2,500,000                 | \$50,000/BMU Revenue          | Apply for CDBG/KIA Grants/Loans | \$2,450,000          |
| Install Pump Station (replace screw pumps at WWTP with submersible pumps) | \$1,000,000                 | \$50,000/ BMU Revenue         | Apply for CDBG/KIA Grants/Loans | \$950,000            |
| Grit Auger Replacement  | \$10,000                    | \$10,000                      | BMU                             | \$0.00               |

**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) **AND** 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.**