RESOLUTION NO. 2023-19

A RESOLUTION OF THE TOWN OF HILLIARD, FLORIDA, A MUNICIPAL CORPORATION; APPROVING THE TOWN OF HILLIARD WASTEWATER SYSTEM ASSET MANAGEMENT AND FISCAL SUSTAINABILITY PLAN; AUTHORIZING THE TOWN CLERK AND PUBLIC WORKS DIRECTOR TO TAKE ALL ACTIONS NECESSARY TO EFFECTUATE THE INTENT OF THIS RESOLUTION; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Florida Statutes provide for financial assistance to local government agencies to finance construction of the Town and municipal utility system improvements; and

WHEREAS, the Florida Department of Environmental Protection State Revolving Fund (SRF) has designated the Town of Hilliard Wastewater System Improvements, identified in the Asset Management and Fiscal Sustainability Plan, as potentially eligible for available funding; and

WHEREAS, as a condition of obtaining funding from the SRF, the Town is required to implement an Asset Management and Fiscal Sustainability Plan for the Town's Wastewater System Improvements; and

WHEREAS, the Town Council of the Town of Hilliard has determined that approval of the attached Asset Management and Fiscal Sustainability Plan for the proposed improvements, to obtain necessary funding in accordance with SRF guidelines, is in the best interest of the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN OF HILLIARD, TOWN COUNCIL the following:

Section 1. That the Town of Hilliard Town Council hereby approves the Town of Hilliard Wastewater System Asset Management and Fiscal Sustainability Plan, attached hereto and incorporated by reference as a part of this Resolution.

Section 2. That the Town Clerk and Public Works Director are authorized to take all actions necessary to effectuate the intent of this Resolution and to implement the Water System Asset Management and Fiscal Sustainability Plan in accordance with applicable Florida law and Council direction to obtain funding from the SRF.

Section 3. That the Town will annually evaluate existing rates to determine the need for any increase and will increase rates in accordance with the financial recommendations found in the Water System Asset Management and Fiscal Sustainability Plan or in proportion to the Town's needs as determined by the Council in its discretion.

Section 4. That this Resolution shall become effective immediately upon its adoption.

PASSED AND ADOPTED on this 7th day of September, 2023.

Town of Hilliard, Florida

Kenneth A. Sims, Council President

ATTEST:

Lisa Purvis, Town Clerk

APPROVED:

John P. Beasley, Mayor

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June 30, 2023

Mr. John Beasley, Mayor
Town of Hilliard
15859 West CR 108
Hilliard, FL 32046

Dear Mayor Beasley:

The Florida Rural Water Association (FRWA) is pleased to submit the Wastewater System Asset Management and Fiscal Sustainability (AMFS) plan to the Town of Hilliard. FRWA prepared this Plan in partnership with the FDEP Clean Water Drinking Water State Revolving Fund (CWSRF) Program to identify your system's most urgent and critical needs.

A Town's water and wastewater systems represent critical infrastructure designed to protect the public health and the environment. This report assesses the current conditions of your Wastewater fixed capital assets (e.g. Wastewater treatment facilities, collection system, lift stations), and more importantly provides recommendations, procedures and tools to assist with long range asset protection and Wastewater utility reinvestment. FRWA will be available to support the Town of Hilliard's AMFS plan recommendations and implementation.

The following report is considered a living document with tools for your use which must be updated at least annually (quarterly updates are recommended) by the Town of Hilliard utility management. FRWA will provide electronic copies for your use and future modification and will remain available to assist in updating and revising the Town's AMFS plan.

As a valued FRWA member, it is our goal to help make the most effective and efficient use of your limited resources. This tool is an unbiased, impartial, independent review and is solely intended for achievement of Wastewater system fiscal sustainability and maintaining your valuable utility assets. Florida Rural Water Association has enjoyed serving you and wishes your system the best in all its future endeavors.

Sincerely,

Patrick Dangelo
FRWA Utility Asset Management Team

Copy: Michael Chase, CWSRF State Revolving Fund
Gary Williams, Florida Rural Water Association, Executive Director

TOWN OF HILLIARD

WASTEWATER ASSET MANAGEMENT AND FISCAL SUSTAINABILITY PLAN

Prepared for

Town of Hilliard

FL0043079

Prepared by:

FLORIDA RURAL WATER ASSOCIATION

Asset Management Program

In partnership with

Florida Department of Environmental Protection

&

Clean Water State Revolving Fund Program

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Executive Summary

Asset Management Plan Defined

Asset Management Plan (AMP) - The International Infrastructure Management Manual defines an asset management plan as; "a plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques (including technical and financial) over the life cycle of the asset in the most cost effective manner to provide a specific level of service."

Lowest life cycle cost refers to the best appropriate cost for rehabilitating, repairing, or replacing an asset. Asset management is implemented through an asset management program and includes a written asset management plan.

Benefits of an Amp

Implementing and maintaining an active Asset Management Plan: Will provide numerous benefits to the Utility and its Customers:

- Prolonging asset life and aiding in rehabilitation/repair/replacement decisions through informed, efficient and focused operations and maintenance.
- Increased operational efficiencies.
- Informed operational and management decisions.
- Increased knowledge of asset criticality; thus improving the response to emergencies.
- Meeting consumer demands with a focus on system sustainability and improved communication.
- Setting rates based on sound operational and financial planning.
- Budgeting by focusing on activities critical to sustained performance.
- Meeting system service expectations and regulatory requirements.
- Reducing overall costs for both operations and capital expenditures.
- Improving security and safety of assets.
- Capital improvement projects that meet the true needs of the system and community.

State Revolving Fund Requirements

An active Asset Management Plan (AMP) is a requirement for participation in the State Revolving Fund Program (SRF). Asset Management and Fiscal Sustainability (AMFS) program details are identified in the Florida Administrative Code (FAC) 62-503.700(7).

Amp Development Stakeholders

The development of this AMFS plan involved the collective efforts of Hilliard Town Management and Staff, Florida Department of Environmental Protection State Revolving Fund (FDEP-SRF), and Florida Rural Water Association (FRWA). FRWA resources include: Engineers, Certified Operators and Rate Sufficiency Analysts.

Critical Assets and Priority Action List

The Table located below contains a listing of the Town of Hilliard's Critical Assets and Processes that were found to need Capital and/or Operational funding to operate as designed and within

Regulatory Compliance. Please see Section 4 for a detailed description of the asset improvements listed below.

Critical Assets List				
Name	**Installed**	**Design Life**	**Condition**	**Consequence of Failure**
Lift stations (8)	Varies	50	Poor	Moderate
Manholes (48)	Varies	50	Poor/Very Poor	Moderate
Waste activated sludge (WAS) pump #2	1997	25	Poor	Moderate
EQ Basin Pumps 1 & 2	1997	25	Poor	Moderate
Belt Press	1997	25	Average*	Moderate

*Belt Press asset condition is average but due to rising costs of disposal of final sludge it has been placed in the critical action list. Alternative dewatering processes should be explored and evaluated.

Based on the list of Critical Assets and Processes that were found to need Capital and/or Operational funding and the State requirements for participation in the State Revolving Fund Program (SRF), a Priority Action List was developed to help the Town prioritize action items and establish target dates for timely completion. The Priority Action List is found on the following page.

TOWN OF HILLIARD PRIORITY ACTION LIST				
Action Item	**Target Date(s)**	**Cost Type**	**Cost**	**Responsible Party or Parties**
Pass Resolution Adopting AMFS Plan	Within 60 to 90 Days from Receipt of Final Plan	Administrative	No Cost	Board and Town Clerk
Update Energy Audit findings	Every 2 to 3 Years	Administrative	No Cost *	Public Works Director or Designee
Determine Level of Service (LOS) Attributes, Goals, Targets, and Metrics and Prepare LOS Agreement	90 Days after Adoption	Planning	No Cost *	Board, Town Clerk, Staff and Public
Train Staff and Begin Using AMFS Tools (Diamond Maps or similar).	90 Days after Adoption	Administrative	Annual Cost - *	Town Clerk, Public Works Director or Designee
Begin Using RevPlan and complete model.	3 Months after end of FY23	Administrative	No Cost *	Town Clerk or Designee
Explore Alternative options for Dewatering	Within 24 months after adoption	Professional Services	Engineering costs vary by scope	Public Works Director, Engineer
Develop Manhole inspection Program	Within 12 Months after Adoption	Planning	No Cost *	Public Works Director and Staff
Develop Manhole repair Program	Within 12 Months after Adoption	Planning	No Cost *	Public Works Director and Staff
Repair 10 poor or very poor manholes annually	On going beginning in FY 2024	Capital	$15,000	Public Works Director and Staff
Correct Inflow and Infiltration issues in 4 manholes	On- Going beginning in FY 2024	Capital	$10,000	Public Works Director and Staff
Develop smoke testing plan	Within 12 months after Adoption	Planning	Minimal if done through FRWA	Public Works Director and Staff

Explore Financial Assistance Options	On-going beginning in FY 2023	Administrative	No Cost	Town Clerk and Finance Staff
Semi-annual cleaning of lift stations	On-going beginning FY 2024	Capital	No Cost if town owned equipment used	Public Works Director and staff
Digester Cleaning	FY 2024	Operational	$80,000	Public Works Director and staff
Wetland Pumps (2)	FY 2024	Capital	$15,000	Public Works Director and staff
Sewer Line Rehab	FY 2024-2027	Other (grant match)	$320,000	Public Works Director and staff
Line 6 manholes annually	On-going beginning FY 2025	Capital	$50,000	Public Works Director and Staff
Wastewater Collection system improvements (Revplan)	On going FY 2024	Capital	$223,100	Clerk, Public Works Director, and Staff
Document Sewer Line Condition and Develop Replacement Strategy	On-going beginning FY 2023	Planning	No Cost	Public Works Director and Staff
Engage a Registered Engineer to Plan, design, permit Lift station Upgrades (8 lift stations)	Within 24 months of adoption	Professional Services	Professional Service and Construction Cost based on Project Scope	Town Clerk, Public Works Director, and Engineer
Engage a Registered Engineer To Review, Plan, Design, Permit, and Construct Capital Projects	On-going beginning FY 2024	Capital / Planning	Professional Service and Construction Cost based on Project Scope	Town Clerk, Public Works Director, and Engineer

***FRWA can <u>assist</u> with the following items upon adoption of this AMFSP.**

Fiscal Strategy and AMP Process Recommendations.

Based on this asset management and fiscal sustainability study, **specific recommendations** related to capital expenditures and operating expenditures over the next five years found in the Priority Action List are as follows:

1. Adopt this Asset Management and Fiscal Sustainability Plan (AMFS) study in the form of a Resolution. Appendix A contains a sample AMFS Resolution for the Town of Hilliard.

2. Engage a Florida Registered Engineer to support the Utility in review, funding, planning, design, permitting, and construction of critical capital and operational action items as recommended in this AMFS study.

3. Make funding applications to the following programs/agencies in support of Utility System Upgrades/Improvements as recommended by this AMFS study. A synopsis of utility funding programs can be found at the following link: http://www.frwa.net/funding.html.

    a. FDEP-State Revolving Fund (SRF)
    b. Regional Water Management District
    c. Florida Department of Economic Opportunity Community Development Block Grant (CDBG)
    d. USDA Rural Development Direct Loan/Grant (USDA RD)
    e. FDEO Rural Infrastructure Fund Grant (RIF)
    f. Local Funding Initiative Requests

4. Evaluate and Adopt a Utility rate structure that will ensure rate sufficiency as necessary to implement capital improvements.

5. Begin using Diamond Maps for Asset Management Planning (AMP) and Computerized Maintenance Management System (or another CMMS of your choice).

6. Continue to build your asset management program by:
    a. Collecting critical field data and attributes on any new or remaining assets;
    b. Improving on processes which provide cost savings and improved service;
    c. Implementing a checklist of routine maintenance measures;
    d. Benchmarking critical processes annually;
    e. Develop policies that will support funding improvements;
    f. Develop manuals, SOPs and guidelines for critical processes;
    g. Identify responsible persons or groups to implement processes to protect critical assets;
    h. Attend asset management training annually.

1. Introduction

In accordance with FDEP Rule 62-503.700(7), F.A.C., State Revolving Fund (SRF) recipients are encouraged to implement an Asset Management Plan for all funded assets to promote the utility system's long-term sustainability. To be accepted for the ***financing rate adjustment and to be eligible for principal forgiveness/reimbursement***, an asset management plan must:

A. Be adopted by Resolution or Ordinance;
B. Have written procedures in place to implement the plan;
C. Be implemented in a timely manner.

The plan must include each of the following:

1. Identification of all assets within the project sponsor's (utility) system;

2. An evaluation of the utility system assets' current:

    a. Age
    b. Condition
    c. Anticipated useful life of each asset.

3. Current value of utility system assets;

4. Operation and maintenance cost of all utility system assets;

5. A Capital Improvement Program Plan (CIPP) based on a survey of industry standards, life expectancy, life cycle analysis and remaining useful life;

6. An analysis of funding needs;

7. The establishment of an adequate funding rate structure;

8. An asset preservation plan:

    a. Renewal
    b. Replacement
    c. Repair
    d. A risk-benefit analysis to determine optimum renewal or replacement timing.

9. An analysis of population growth and usage demands projections for the utility's planning area and an impact fee model, if applicable, for commercial, industrial and residential rate structures; and

10. A threshold rate set to ensure proper Wastewater system operation and maintenance; if the potential exists for the project sponsor to transfer *any* of the system proceeds to other funds, rates must be set higher than the threshold rate to facilitate the transfer and maintain proper operation of the system.

Fiscal Sustainability represents the accounting and financial planning process needed for proper management of system assets. It assists in determining such things as:

a. Asset maintenance, repair, or replacement cost
b. Accurate and timely capital improvement project budgeting
c. Forecasting near and long-term capital improvement needs
d. Whether the system is equipped for projected growth
e. Whether adequate reserves exist to address emergency operations.

Fiscal sustainability analysis requires a thorough understanding of the system's assets' current condition and needs. Therefore, fiscal sustainability follows asset management and is improved by sound asset management. Conversely, asset management requires a healthy fiscal outlook, since servicing and care of current assets is not free. Timely expenditures for proper servicing and care of current assets are relatively small when compared to repair and replacement expenditures that inevitably occur with component failure due to neglect.

Having a solid AMFS plan in place will benefit the Town of Hilliard in determining which assets are to be insured and for what amount, and to more effectively and efficiently identify its capital improvement needs and solutions. Additionally, the State Revolving Fund (SRF) requires a system to adopt and implement an AMFS plan to qualify for loan interest rate reduction if funding is sought. An AMFS helps a system more effectively and efficiently identify its capital improvement needs and solutions.

This AMFSP's intended approach is to assist the Town of Hilliard with conducting a basic inventory and condition assessment of its current assets. It is expected that the Town will periodically re-evaluate the condition of its assets, at least annually, to determine asset remaining useful life. A reminder can be established for staff that a given component is nearing time for servicing, repair, or replacement. Furthermore, major capital improvement needs can be reassessed periodically as they are met or resolved. In short, **this plan is not designed to be set in stone, but is intended to be a living, dynamic, evolving document**. It is recommended that the Town conduct at least an annual plan review and revise it as necessary throughout the year, resulting in a practical and useful tool for staff.

2. Asset Management Plan

Components of Asset Management

Asset Management can be described as 'a process for maintaining a desired level of customer service at the best appropriate cost.' Within that statement, 'a desired level of service' is simply what the utility wants their assets to provide. 'Best appropriate cost' is the lowest cost for an asset throughout its life. The goal is providing safe, reliable service while at the same time being conscious of the costs involved both short and long term.

Asset Management includes building an inventory of the utility's assets, developing and implementing a program that schedules and tracks all maintenance tasks, generally through work orders, and developing a set of financial controls that will help manage budgeted and actual annual expenses and revenue. By performing these tasks, targeting the system's future needs will be much easier.

Asset Management provides documentation that helps the utility understand the assets they have, how long these assets will last, and how much it will cost to maintain or replace these assets. The Plan also provides financial projections which show the utility whether rates and other revenue mechanisms are sufficient to supply the utility's future needs, 5, 10, even 20 years ahead.

Asset Management is made up of five core questions:

1. What is the current status and condition of the utility's assets?
2. What is Level of Service (LOS) required?
3. What assets are considered critical to meeting the required LOS?
4. What are the utility's Capital Improvement Program Plan (CIPP), Operations and maintenance plan (O&M), and asset's Minimum Life Cycle Cost strategies?
5. What is the utility's long term financial strategy?

Implementation

In developing this plan, FRWA has collected information on most of the Wastewater system assets. The information has been entered into Diamond Maps, a cloud based geographical information system (GIS). FRWA, in partnership with FDEP has contracted with Diamond Maps to develop Asset Management software specifically for small systems at an affordable cost. The Town has already setup its account and should continue to collect and update new assets as they are installed or replaced.

The software is easy to use, as it is set up for small communities and for water/wastewater systems. Since Town of Hilliard has around 1200 customers, the cost would be around $35 per month for unlimited users.

Meter Count	Unlimited Use Subscription
250	$15/month
500	$20/month
1,000	$30/month
2,000	$45/month
3,000	$60/month
4,000	$75/month
5,000	$90/month
10,000	$165/month

The Town of Hilliard has already purchased equipment and began services with Diamond Maps. Diamond Maps can be explored at http://diamondmaps.com. Since the Town has decided to use Diamond Maps as their asset management tool, it will be easy to move the data collected by FRWA to the Town's account.

Having an asset management tool to keep data current is essential for tracking the utility's assets into the future, to assist with planning and funding for asset rehabilitation or replacement, to schedule and track asset maintenance by issuing work orders and assigning tasks to personnel who will perform the work and update in the system.

In addition to the CMMS tool, Diamond Maps, the Florida Rural Water Association (FRWA) has partnered with the Florida Department of Environmental Protection (FDEP) State Revolving Loan (SRF) program and Raftelis Financial Consultants to create an online financial tracking and revenue sufficiency modeling tool, RevPlan.

RevPlan is designed to enhance asset and financial management for small/medium Florida water and wastewater utilities. It provides a free-to-member online tool to achieve financial resiliency, and to maintain utility assets for long-term sustainability. Additionally, RevPlan is programmed to populate asset information directly from Diamond Maps.

By inputting your accurate budgetary, operation and maintenance costs, capital improvement plan costs, existing asset and funding information, this tool assists the user in identifying any rate adjustments and/or external funding necessary to meet the utility finance requirements, and the impact rate increases/borrowing may have on customers.

There are a few important elements of a successful RevPlan outcome:

- The tool is only as accurate as the information used.
- One person should be assigned the task of annual RevPlan updates.

- Updating asset information in Diamond Maps is essential.

FRWA staff has entered preliminary data into RevPlan. Due to some financial data being unavailable until the end of the fiscal year a complete model was not able to be created. Once a model is created it is important that each year (or as projects come about) the system is updating RevPlan and using it to help understand the impacts of future projects and plan for rate increases.

Level of Service (LOS)

As a provider of Wastewater services, a utility must decide what Level of Service (LOS) is required for its customers. When setting these goals, most importantly, the utility must decide the level of service it will provide. Ideally, these goals would be conveyed to the utility's customers via a 'Level of Service Agreement'. This document demonstrates the utility's accountability in meeting the customer's needs and its commitment to do so. There are four key elements regarding LOS:

1. Provide safe and reliable water service while meeting regulatory requirements;
2. Budget improvement projects focused on assets critical to sustained performance based on sound operational and financial planning;
3. Maintain realistic rates and adjust as necessary to ensure adequate revenue reserves for targeted asset improvement; and,
4. Ensure long-term system resilience and sustainability.

Targets must be set for individual parameters. Metrics should be created to help the utility direct efforts and resources toward predetermined goals. The established goals must include consideration of costs, budgets, rates, service levels, and level of risk. These goals are set in an agreement between the utility and its customers.

In 2008, a unique coalition representing the "Collaborating Organizations," which include the U.S. Environmental Protection Agency and a growing number of major water sector associations supported an approach developed by water sector leaders for water utility management. The approach is based around the Ten Attributes of an Effectively Managed Utility and Five Keys to Management Success—known as Effective Utility Management (EUM). These Attributes provide a clear set of reference points and are intended to help utilities maintain a balanced focus on all important operational areas rather than reactively moving from one problem to the next or focusing on the "problem of the day."

The Ten Attributes of an Effectively Managed Utility provide useful and concise goals for water sector utility managers seeking to improve organization-wide performance. The Attributes describe desired outcomes that are applicable to all water and wastewater utilities. They comprise a comprehensive framework related to operations, infrastructure, customer satisfaction, community sustainability, natural resource stewardship, and financial performance.

Water and wastewater utilities can use the Attributes to select priorities for improvement, based on each organization's strategic objectives and the needs of the community it serves. The

Attributes are not presented in a particular order, but rather can be viewed as a set of opportunities for improving utility management and operations.

To begin, the utility will assess current conditions by ranking the importance of each Attribute to the utility, based on the utility's vision, goals, and specific needs. The ranking should reflect the interests and considerations of all stakeholders (managers, staff, customers, regulators, elected officials, community interests, and others). Once you have chosen to improve one or more Attributes, the next step is to develop and implement a plan for making the desired improvements. Improvement plans support the implementation of effective practices in your chosen attribute area(s). An effective improvement plan will:

1. Set Near- and Long-term Goals: Set goals as part of the improvement plan to help define what is being worked toward. Near- and long-term goals for the utility should be linked to the strategic business plan, asset management plan, and financial plan. Goals should also be "SMART."

    - **S – Specific**: What exactly will be achieved? Make the goals specific and well defined. Each goal should be clear to anyone with even a basic knowledge of the utility.

    - **M – Measurable**: Can you measure whether you are achieving the objective? You must be able to tell how close you are to achieving the goal. You must also be able to determine when success is achieved
    - **A – Assignable and Attainable**: Can you specify who is responsible for each segment of the objective? Is the goal attainable? Setting a goal to have zero water outages is great, but unrealistic. A better choice might be to set a goal that states no outage will exceed six hours.

    - **R – Realistic**: Do you have the capacity, funding, and other resources available? The staff and resources of the utility must be considered when setting goals. Available personnel, equipment, materials, funds, and time play a role in setting realistic targets.

    - **T – Time-Based**: What is the timeframe for achieving the objective? There must be a deadline for reaching the goal. Adequate time must be included to meet the target. However, too much time can lead to apathy and negatively affect the utility's performance.

2. Identify Effective Practices: Each Attribute area for improvement will be supported by effective practices implemented by the utility. A substantial number of water sector resources exist that detail effective utility practices for each of the Attributes.

3. Identify Resources Available and Resources Needed: For each practice/activity to be implemented as part of the improvement plan, identify resources (financial,

informational, staff, or other) that exist on-hand, and those that are needed, to support implementation.

4. Identify Challenges: For the overall improvement plan and for specific practices/activities to be implemented, identify key challenges that will need to be addressed.

5. Assign Roles and Responsibilities: For each improvement action, identify roles and responsibilities for bringing the implementation to completion.

6. Define a Timeline: Establish start date, milestones, and a completion target for each activity/improvement action.

7. Establish Measures: Establish at least one (or more) measure of performance for items to be implemented under the improvement plan.

More information and resources on Effective Utility Management (EUM) can be found at www.WaterEUM.org.

The idea is to set goals and meet them. Reaching the goals should not be overly easy. Effort should be involved. The goals should target areas where a need exists. If the bar is set too low, the process is pointless. Most importantly, the utility must decide the level of service it will provide. The following table shows examples of what might be included as Level of Service goals. The LOS items for the Town of Hilliard must be specific to the system and ideally, conveyed to the utility's customers via a 'Level of Service Agreement'. This document demonstrates the utility's accountability in meeting the customer's needs and its commitment to do so.

Town of Hilliard (WW) Level of Service Goals Examples			
Attribute and Service Area	**Goal**	**Performance Targets**	**Timeframe/ Reporting**
Service Delivery - Health, Safety and Security	Reduce the number and duration of sewer overflows	Provide employees with training necessary to be proactive in system maintenance and to rapidly and efficiently make emergency system repairs.	Annual report to Council
Infrastructure Stability - Asset Preservation and Condition	Improve system wide preventive maintenance (PM)	Develop a comprehensive Preventive Maintenance weekly schedule for equipment and system components and complete all preventative maintenance tasks as scheduled.	Weekly report to Public Works Director and Monthly report to Manager
Infrastructure Stability - Asset Preservation and Condition	Establish a Predictive Maintenance Schedule (PdMS)	Develop a weekly PdMS to continuously monitor equipment for signs of unexpected problems. Adjust the PdMS as needed.	Weekly report to Public Works Director and Monthly report to Manager

Infrastructure Stability - Asset Preservation and Condition	Develop an Asset Replacement Strategy	Develop an asset replacement strategy to be updated at least annually, including financing options.	Annual report to Manager and Council
Financial Viability - Service Quality and Cost	Assure that the utility is financially self-sustaining.	Perform an annual utilities rate analysis and make any needed rate adjustments every three to five years.	Annual Report to Public Works Director, Manager and Council
Financial Viability – Service Quality and Cost	Enact automatic inflationary rate adjustments	Annual evaluation of the adequacy of inflationary rate adjustments	Annual report to Public Works Director, Manager and Council
Financial Viability - Service Quality and Cost	Minimize Life of Asset Ownership costs	Bi-annual evaluation of unexpected equipment repairs compared to the Preventive Maintenance Schedule (PMS). Adjust the PMS if warranted.	Bi Annual report to Public Works Director and Annual report to Manager
Infrastructure Stability - Conservation, Compliance, Enhancement	Improve reliability of the collection system	Annual evaluation of the collection system, including piping, manholes, and lift stations. Develop a long range plan for replacements and improvements with timelines and funding options.	Annual report to Public Works Director, Manager and Council
Infrastructure Stability - Asset Preservation and Condition	Identify Inflow and Infiltration	Smoke test specific sections of the collection system	Annual report to Public Works Director, Manager and Council

Best Management Practices (BMP)

Utility owners, managers, and operators are expected to be responsible stewards of the system. Every decision must be based on sound judgment. Using Best Management Practices (BMPs) is an excellent tool and philosophy to implement. BMPs can be described as utilizing methods or techniques found to be the most effective and practical means in achieving an objective while making optimum use of the utility's resources.

The purpose of an Asset Management and Fiscal Sustainability plan is to help the utility operate and maintain their system in the most effective and financially sound manner. An AMFS plan is a living document and is not intended to sit on a shelf. It must be maintained, updated, and modified as conditions and situations change. Experience will help the utility fine tune the plan through the years.

3. System Description

Overview

Named after Guyler Walter Hilliard, who co-founded the Hilliard & Bailey Lumber Company in 1881, the Town of Hilliard was incorporated in 1947 and is Nassau County's second largest municipality. Hilliard is home to a Federal Aviation Administration (FAA) Air Traffic Control Center, which coordinates most commercial and civilian air traffic for the southeastern United States. Hilliard is located at 30°41'16"N 81°55'30"W (30.687760, –81.925022). Hilliard is near the Florida-Georgia border, and within the Jacksonville metropolitan area. According to the United States Census Bureau, the town has a total area of 5.5 square miles

Based on the latest estimates Hilliard has a population of 3,263. There are 966 households and 705 families residing in the town. The average household size is 2.58. The median income per household in the Town is $ 57,896 with 85% of the residence above the poverty rate.

The Wastewater collection system is currently comprised of more than 242 manholes that provide access to the Town's Wastewater collection system. The Wastewater is transferred to the Wastewater treatment plant (WWTP) with the use of eight lift stations. According to the most recent operating permit, the WWTP's designed capacity is 0.480 million gallons per day (MGD). The average annual daily flow (AADF) is .267 MGD, utilizing 55.6% of the plants designed capacity.

Form of Government

The Mayor and the Town Council serve as the governing body for the Town of Hilliard. These elected officials represent and govern the Town and provide for the needs of our community. The Town of Hilliard takes great pride in the relationship between its local government and its citizens.

The Council meets on the first and third Thursday of each month at Town Hall at 7:00 p.m. in the Council Chambers to conduct Town business and to provide the citizens with an opportunity to contribute their input. Citizens are welcomed and encouraged to attend the meetings and to play an active role in their Town government and community.

Town Government

Town of Hilliard Council	
John Beasley	Mayor
Kenny Sims	Council President/Street Commissioner
Lee Pickett	Council Pro-Tem/Water and Sewer Commissioner
Dallis Hunter	Airpark Commissioner
Joseph Michaels	Parks and Recreation Commissioner
Jared Wollitz	Fire Commissioner

Town Management and Water Staff

The success of the Town of Hilliard Utilities Department results from the partnerships, diverse skills and unselfish contributions of their respective staff members. The Town of Hilliard Utilities Department is staffed by nine full-time employees. FRWA appreciates the assistance of those employees that helped in the preparation of this Plan.

Name	Job Title
Richie Rowe	Public Works Director – License Class C Water Operator & Class C Wastewater Operator
Jason Bergendahl	Lead Water Plant Specialist, Class c water and wastewater Operator, Level 3 water distribution operator, pool and spa operator
Cory Hobbs	Assistant Public Works Director
John Maze	Water Plant Specialist – License Class C Water Operator
Jody Wildes	Wastewater Specialist – License C Wastewater Operator
Dawn Carroll	Public Works Clerk
Justin Tuten	Public Works Trainee
Charles Chavarria	Mosquito Control Officer, License Public Health Applicator
Mark Strickland	Heavy Equipment Operator

4. Current Asset Conditions

Assets Critical to Sustained Performance

The Town's Wastewater utility is composed of ***critical infrastructure***. The utility provides essential services for the community. Proper provision of these services protect the public health and the environment. The Florida Department of Environmental Protection has strict requirements for the proper operation and maintenance of the utility system, and the Town is responsible for meeting these requirements.

Every water and wastewater system is made up of assets. Some you can see, while some you cannot. These are the physical components of the system, such as blowers, pumps, valves, pipes, tanks, motors, manholes, and buildings. Each is important in its own way and serves a function to make the system operate as it should.

One trait common to all assets is that they lose value over time. With age comes deterioration; with deterioration comes a decreased ability to provide the level and type of service the utility should give to its customers. Another trait common to assets is that they must be maintained. Maintenance costs increase as these assets age. Operation costs can rise with age as equipment becomes worn and less efficient. At some point, it is wiser to replace components rather than continue with more frequent and costly repairs. Failed or failing equipment can cause inadequate treatment, customer complaints, damage to private property, negative environmental impacts, permit violations, and regulatory fines.

Another unfortunate reality is that all assets will ultimately fail, and if not properly maintained, some will fail prematurely. How the utility manages the consequences of these failures is vital. Not every asset presents the same failure risk. Not every asset is equally critical to the performance of the utility. Factors that contribute to asset failure are numerous and include age, environment (e.g. weather, corrosive environments), excessive use and improper or inadequate maintenance.

Replacement versus rehabilitation is always a consideration. What is best for the utility? What is best for the customer? The proper decision must be made based on information gleaned from all available resources. Continuing the use of a Computerized Maintenance Management System (CMMS) will ensure the Town's assets last longer, perform better, and provide more reliable service. Utilizing data contained in Diamond Maps, maintenance schedules can be created following both manufacturer's recommendations as well as those of industry professionals. Work orders should be created and scheduled to ensure that work is assigned and completed. Tracking

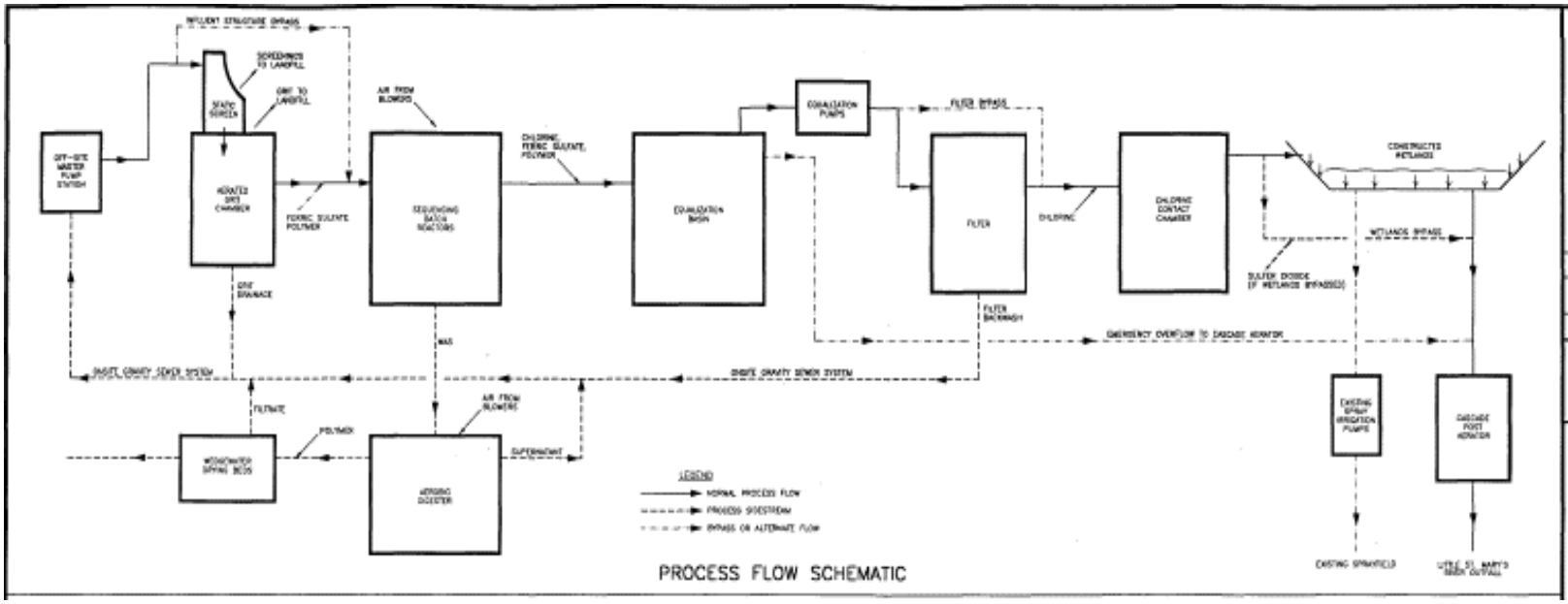
and recording maintenance tasks encourages accountability of staff assigned to maintain the equipment. Diamond Maps can do this for you and is included with an active account. FRWA staff can assist the Town in creating these schedules as well as provide training in Diamond Maps.

Wastewater Treatment Plant

The Wastewater Treatment Plant constructed in 1997 is located at 5th Street & Ruby Drive Hilliard, Florida 32046-0249 Nassau County Latitude: 30° 41' 54.71" N Longitude: 81° 55' 2.45" W. The Town is permitted to operate an existing 0.480 million gallons per day (MGD) average annual daily flow (AADF) permitted capacity domestic wastewater treatment facility (WWTF), which consists of the following treatment units:

- Two influent static screens (1,000 gallon per minute each) with 0.10 inch openings
- A 161,600-gallon trash/grit trap with a surface loading rate (at peak hourly flow) of 1,000 gallons per day
- A 185,500-gallon surge/anoxic tank with a jet mixing system (nine jet nozzles total each)
- Two sequencing batch reactor tanks with a combined volume of approximately 373,000 gallons (186,500 gallons each)
- An effluent equalization tank with an effective volume of 63,440 gallons
- A cloth-media tertiary filtration unit
- A chlorine contact chamber with a volume of approximately 20,000 gallons
- Dechlorination equipment,
- A cascade post aerator
- A 1.0 acre reject storage pond
- A 7.0-acre constructed wetland

Biosolids are treated in an aerobic digester with a volume of approximately 164,500 gallons, dewatered on either a 50-gallon per minute sludge belt filter press or a sludge drying bed with a surface area of 500 square feet, and then transported to a biosolids application site for final disposal.



There have been no notated deficiencies in the collection process for the primary treatment tanks.

Asset Name	Size	Install Year	Replacement Cost	Condition
Digester	75,000	1997	$100,000	Average
SBR 1	186,500	1997	$500,000	Average
SBR 2	186,500	1997	$500,000	Average
Dual Chlorine Contact Chamber	20,000	1997	$100,000	Average
Alum tank	2,000	2011	$3,000	Average
ISAM (integrated surge anoxic mix) tank	161,600	2011	$750,000	Average
SAM (surge anoxic mix) tank	185,500	2011	$750,000	Average
Equalization Basin	63,440	1997	$250,000	Average
Micro C tank	500	1997	$2,000	Average
Reuse hydro tank	500	1998	$3,500	Average

Plant equipment that was assessed include pumps, motors, screens, and other treatment equipment. The overall condition for these were in good to average condition. The assets listed below were found to be in poor or failed condition:

Asset Name	MANUFACTURER	MODEL	Install Year	Replacement Cost	Design Life	Condition	Noted Deficiency

EQ basin pump 2	Gorman Rupp	T6A3-B /F	1997	$3,500	20	Poor	Significant rust
EQ basin pump 1	Gorman Rupp	T6A3-B /F	1997	$2,500	20	Poor	Significant rust
WAS Pump 2	Gorman-Rupp	T4A3-B /F	1997	$3,000	20	Poor	old, deteriorated
WAS pump 2 motor	Reliance Electric	P18S3030-GB	1997	$1,500	20	Poor	old, rusted

Cost to replace poor condition pump assets: $10,500

As equipment deteriorates and is deemed to be in poor or failed condition it should be added to a repair or replacement list as soon as possible to allow for the possibility of long lead times or expensive costs. Routine inspection of the WWTP assets can help determine the current conditions and operability. Regular and routine maintenance can greatly improve life spans.

The dewatering process is adequate for the treatment plant but due to the rising costs of the disposal of the final sludge, the system should explore other dewatering processes that could save the system additional expenses and make the treatment plant run more efficient. An engineering review and assessment could help determine the best alternatives to the current belt press configuration.

As mentioned above, long lead times and short stock of common items and chemicals have been frequent. Supply levels and storage capabilities for chemicals like alum, chlorine, or other chemicals that are crucial to the treatment process should be well stocked and have adequate storage capabilities and redundancy when possible. Having additional storage for Alum and other everyday needed chemicals can help make sure the plant can operate efficiently upon a delivery delay.

Collection System

The collection system originally installed in the 1970’s is in average overall condition. Much of the gravity system is comprised of vitrified clay piping (VCP) and polyvinyl chloride (PVC). Routine smoke testing and cleaning / camera inspections should be done annually to determine deficiencies and inflow and intrusion areas. A repair / replacement plan can address the noted deficiencies found to help fix inflow and infiltration. Unrepaired deficiencies can lead to premature failure of assets, increased runtimes during rain events, and health and safety concerns.

Manholes

FRWA along with Staff from the Town located and assessed 244 manholes with-in the collection system. This information has been recorded and entered into Diamond Maps.

During assessment to determine condition we looked for the following:

- Ensure the proper lid is installed.
- The condition of the ring and ensuring it is installed properly.
- Any signs of inflow and infiltration (I/I) and organic growth.
- Condition of the walls, coatings, bricks, joints, bench and troughs.
- Construction materials.
- Dirt, debris any clogs or any potential material that would cause a blockage in the system.

Most of the manholes with in system appear to be in average or better condition.

To identify any leaks in the collection system FRWA's recommendation is to smoke test the system to identify any open lines or leaks. FRWA can assist with the testing at a low cost to Hilliard. During the assessment of the manholes 4 were found to have visible signs of infiltration. Below is the following manholes and locations:

Name	Condition	Condition Comment	I&I	GPS Latitude	GPS Longitude
wwManH-92	Average	Minor infiltration noted in manhole	Minor	30.6742189	-81.9192385
wwManH-235	Average	Seepage around ring, needs sealed	Moderate	30.6844594	-81.9332019
wwManH-65	Poor	Infiltration around downstream invert	Moderate	30.6896523	-81.927756
wwManH-123	Poor	Needs liner or sealed up around bottom seem. Moderate infiltration of ground water	Moderate	30.6940433	-81.9254513

It is common for sources of infiltration and intrusion to be on the customer's side with open clean outs damaged laterals and such. As a way to keep the I/I out of the system and keep more net gain in the bank, smoke testing the system annually is a cost effective way to protect your investments in the wastewater system.

The overall condition of the 242 manholes assessed are as follows:

- 7 are in good condition
- 187 are in average condition
- 47 are in poor condition
- 1 is in very poor condition

Of the 242 manholes 48 manholes were found to be in the poor to very poor condition. Manholes that were not able to be assessed due to being sealed shut or there was no access were put in the poor condition until further assessment can be done and updated in diamond maps. The manholes listed below were the assets found to be in the poor to very poor condition.

Name	Install Year	Condition	Replacement Cost	Condition Comment	COF	GPS Latitude	GPS Longitude
wwManH-2	1974	Poor	3,500	Could not assess = poor	Moderate	n/a	n/a
wwManH-3	1975	Poor	3,500	could not assess = poor	Moderate	n/a	n/a
wwManH-19	1975	Poor	5000	Sealed shut	Moderate	30.6945862	-81.9200916
wwManH-23	1974	Poor	5000	Sealed shut	Moderate	30.6917099	-81.9165864
wwManH-25	1975	Poor	3500	Needs cleaned	Moderate	30.6903925	-81.9156904
wwManH-44	1974	Poor	5500	Unable to open	Moderate	30.686668	-81.9356116
wwManH-49	1975	Poor	5000	Manhole needs cleaned and riser bricks sealed	Moderate	30.6877611	-81.9322289
wwManH-52	1975	Poor	4500	Unable to open	Moderate	30.6887932	-81.9276933
wwManH-54	1974	Poor	4500	Unable to open	Moderate	30.6887248	-81.9299757
wwManH-59	1975	Poor	4500	Unable to open	Moderate	30.6885063	-81.9357049

wwManH-61	1975	Poor	3500	Unable to open	Moderate	30.6883814	-81.9389361
wwManH-64	1975	Poor	4500	Unable to open due to lid and ring stuck together. Ring will come out with lid if removed with separating	Moderate	30.6896731	-81.9288592
wwManH-65	1975	Poor	4500	Infiltration around down stream invert	Moderate	30.6896523	-81.927756
wwManH-88	2002	Poor	7500	unable to access	Moderate	30.6728665	-81.9189785
wwManH-101	1995	Poor	4100	Unable to open	Moderate	30.6996469	-81.9286114
wwManH-109	1974	Poor	7000	Unable to open	Moderate	30.6960588	-81.9278938

wwManH-118	1995	Poor	3900	Heavy buildup of hydrogen sulfide	Moderate	30.6944457	-81.9276167
wwManH-123	1995	Poor	5900	Needs liner or sealed up around bottom seem. Moderate infiltration of ground water	Moderate	30.6940433	-81.9254513
wwManH-136	1975	Poor	6000	Sealed shut	Moderate	30.6876074	-81.9211726
wwManH-139	1975	Poor	7000	Sealed shut	Moderate	30.6859562	-81.9243657
wwManH-141	1975	Poor	7000	Sealed shut	Moderate	30.6891513	-81.9230994
wwManH-144	1974	Poor	9000	Sealed shut	Moderate	30.6910252	-81.9243805
wwManH-148	1975	Poor	5000	Sealed shut	Moderate	30.6870828	-81.9234215
wwManH-151	1975	Poor	7200	Sealed shut	Moderate	30.686093	-81.9256115
wwManH-153	1975	Poor	7500	Sealed shut	Moderate	30.6851484	-81.9263254

wwManH-154	1975	Poor	6800	Sealed shut	Moderate	30.6851967	-81.9252103
wwManH-155	1975	Poor	4000	Sealed shut	Moderate	30.6850252	-81.9237284
wwManH-156	1975	Poor	5500	Sealed shut	Moderate	30.6852359	-81.9238811
wwManH-157	1975	Poor	5900	Buried	Moderate	30.6842623	-81.9263726
wwManH-158	1975	Poor	7500	Sealed shut	Moderate	30.6842763	-81.9252258
wwManH-160	1975	Poor	9500	Inverts are not set right. Needs bench poured. Minor I&I around seem	Moderate	30.6838431	-81.9220657
wwManH-172	1980	Poor	6900	Debris on top couldn't access	Moderate	30.6838124	-81.9163073

wwManH-177	1970	Poor	7500	Unable to access, overgrown	Moderate	30.6888102	-81.9171729
wwManH-180	1975	Poor	4500	Unable to open, partially buried and sealed shut	Moderate	30.6830608	-81.9138508
wwManH-183	1975	Poor	4500	Hole in floor.	Moderate	30.6838628	-81.9125852
wwManH-211	1975	Poor	8500	Sealed shut under limerock	Moderate	30.6961582	-81.9215583
wwManH-212	1975	Poor	9000	Sealed shut	Moderate	30.6950336	-81.9207689
wwManH-215	1975	Poor	6000	Sealed shut	Moderate	30.69057	-81.9213752

wwManH-217	1975	Poor	6000	Sealed shut	Moderate	30.6878511	-81.9255502
wwManH-227	1975	Poor	5900	Sealed shut	Moderate	30.6867769	-81.9215028
wwManH-228	1975	Poor	6000	Unable to open	Moderate	30.6841726	-81.9297313
wwManH-229	1975	Poor	6500	Unable to open, asphalt covered	Moderate	30.6814498	-81.9218416
wwManH-230	1975	Poor	6500	Sealed Shut	Moderate	30.6837402	-81.9219774
wwManH-231	1975	Poor	6500	Sealed shut	Moderate	30.6860363	-81.9264753
wwManH-232	1975	Poor	6500	Lid is buried, unable to access	Moderate	30.6842867	-81.9384723
wwManH-239	1980	Poor	6500	Sealed shut	Moderate	30.6723587	-81.9017348
wwManH-242	2000	Poor	8500	Unable to open , partially buried	Moderate	30.6757605	-81.90464

wwManH-28	1975	Very Poor	25000	Lid has sewage standing on top and constantly backs up. Needs resolution asap	Moderate	30.6864077	-81.9143554

The replacement cost for the poor and very poor manholes could cost in excess of $300,000. Repairs can be made to significantly lower that cost. A detailed repair and replacement strategy should be created and implemented in Fiscal Year 2024.

Lift Stations

The Towns owns and operates eight lift stations collecting sewage throughout the town and pumping it back to the plant for treatment. These key pieces of the collection system are some of the most valuable due to their designed function. As sanitary spills cannot be 100% avoidable, proper maintenance and upkeep of these assets can greatly reduce the possibility. The eight assessed lift stations showed signs of needing repair and/or replacement. The following table shows noted deficiencies at or inside each of the lift stations.

Asset Name	Pipe Condition	Condition	Condition Comments	Estimated Repair Cost	COF
Lift Station 1(Mill St) wet well	Poor	Average	Coating failed	$50,000	Moderate
Lift Station 2 (US 1 North) wet well	Average	Very Poor	Severely corroded and deteriorated walls	$75,000	Moderate
Lift Station 3 (US 1 South) wet well	Average	Very Poor	Very heavy deterioration of walls	$75,000	Moderate

Lift Station 4 (Oxford St) wet well	Average	Poor	Coating failing in sections. Rock showing thru. Surface rust on piping	$75,000	Moderate
Lift Station 5 (108) wet well	Poor	Poor	Walls deteriorated, rock showing thru, piping badly deteriorated	$50,000	Moderate
Lift Station 6 wet well	Poor	Poor	Piping rusted and corroded; walls deteriorated	$50,000	Moderate
Lift Station 7 (Lorena Dr.) Wet well	Poor	Poor	Coating has failed. Walls deteriorated, piping corroded	$50,000	Moderate
Lift Station 8 (Lake Dr) wet well	Average	Average	Surface rust on piping, coating spotty	$50,000	Moderate

At the time of the assessment there were no notated deficiencies on the electrical panels or pumps at the lift stations. The town should create a plan to rehabilitate each of the lift stations. This plan should include making repairs of the following items:

- Structural repairs and coatings
- Replacement of standpipes
- Adding bypass hookups and or gensets.
- Adding or replacing failed auto dialer system
- Annual drawdown tests
- Fencing for security
- Any other repairs

The numbers listed above are for budgeting and not actual repair or replacement costs that may be required. An engineering assessment would be needed to identify specific project and upgrade costs.

5. Operations and Maintenance Strategies (O&M)

O&M consists of preventive and emergency / reactive maintenance. In this section, the strategy for O&M varies by the asset, criticality, condition and operating history. All assets have a certain risk associated with them. This risk must be used as the basis for establishing a maintenance program to make sure that the utility addresses the highest risk assets. In addition, the maintenance program should address the level of service performance objectives to ensure that the utility is running at a level acceptable to the customer. Unexpected incidents could require changing the maintenance schedule for some assets. This is because corrective action must be taken in response to unexpected incidents, including those found during routine inspections and O&M activities. Utility staff will record condition assessments when maintenance is performed and during scheduled inspections. As an asset is repaired or replaced, its condition will improve and therefore reduce the overall risk of asset failure. The maintenance strategy will be revisited annually.

Preventive Maintenance

Preventive maintenance is the day-to-day work necessary to keep assets operating properly, which includes the following:

- Regular and ongoing annual tasks necessary to keep the assets at their required service level.
- Day-to-day and general upkeep designed to keep the assets operating at the required levels of service.
- Tasks that provide for the normal care and attention of the asset including repairs and minor replacements
- The base level of preventative maintenance is defined in the equipment owner's manual.

These preventive maintenance guidelines are supplemented by industry accepted best management practices. Equipment must be maintained according to manufacturer's recommendations to achieve maximum return on investment. By simply following the manufacturer's suggested preventive maintenance the useful life of equipment can be increased 2 to 3 times when compared to run until failure mode of operation. Communities that have implemented preventive maintenance practices from their operating budget can achieve positive returns from a relatively small additional investment. Deferred maintenance tasks that have not historically been performed because of inadequate funding or staffing must be projected into future operating budgets to achieve life expectancy projected by the manufacturer and engineer.

The table below is a sample O&M Program and is based on BMPs, manufacturers' recommended service intervals, staff experience, and other sources. Town staff based on their historical knowledge and information gleaned from plant O&M Manuals and other sources must create the true schedule. Input from Town operations and maintenance staff is vital.

Diamond Maps can be used to schedule maintenance tasks. Recurring items (such as annual flow meter calibrations for instance) can be set up in advance. In fact, all maintenance activities can be coordinated in Diamond Maps using its work order feature.

Performing the work is important. Tracking the work is just as important. Being able to easily check on when specific maintenance tasks were performed or are scheduled will make the utility run more efficiently.

Proactive vs Reactive Maintenance

Reactive maintenance is often carried out because of customer requests or sudden asset failures. The required service and maintenance to fix the customers issue(s) or asset failure is identified by staff inspection and corrective action is then taken.

Proactive maintenance consists of preventive and predictive maintenance. Assets are monitored frequently and routine maintenance is performed to increase asset longevity and prevent failure.

Upon adoption of this Asset Management Plan or any DEP-approved WW AMP, FRWA intends to transfer Hilliard's asset data definition file, pre-populated with field data, to Hilliard's own Diamond Maps account, as described in the Implementation Section of this Plan. The appropriate Town personnel will be trained on Diamond Maps functionality and can immediately begin using it for scheduling and tracking WWS asset routine and preventive maintenance.

Staff Training

Utility maintenance is unique. It can involve one or a combination of water and sewer main repairs, customer service issues, lift station troubleshooting and repair, blower and motor repairs, and even tank repairs and other technical work. This skill set is not common. Training staff, whether they are new or long-term employees, is very important. It is recommended that Hilliard initiate a training program for its employees. In addition to technical training, safety training is also necessary. Treatment plants and distribution/collection systems can be dangerous places to work. Electrical safety, troubleshooting panel boxes, trenching and shoring, confined space entry, etc. are just a few of the topics that could benefit the Town and its staff.

FRWA staff may provide some of the training needed by Town personnel. Training services that we offer to members are listed on our website http://www.frwa.net/ under the Training Tab. Contact your local FRWA circuit rider as well for other training opportunities.

There is no such thing as too much training. The more your staff knows, the more capable, safe, and professional they become. This enhanced sense of professionalism will improve the quality of overall service and accountability to the community.

6. Capital Improvement Plan (CIP)

Hilliard should continue to enhance their Capital Improvement Plan efforts. This is a short-range plan, typically 5 to 10 years, which identifies future capital projects. Capital improvement projects generally create a new asset that previously did not exist or upgrades/improves an existing component's capacity.

The projects can result from growth or environmental needs, such as:

- Any expenditure that purchases or creates a new asset or in any way improves an asset beyond its original design capacity.
- Any upgrades that increase asset capacity.
- Any construction designed to produce an improvement in an asset's standard operation beyond its present capacity.

Capital improvement projects, such as epoxy coating tank walls, lift station asset re-investment/upgrades, and others mentioned previously, will populate this list.

Renewal expenditures are anything that does not increase the asset's design capacity but restores an existing asset to its original capacity. Any improvement projects that require simply restoring an asset to its original capacity are deemed a renewal project, such as:

- Any activities that do not increase the capacity of the asset. (i.e., activities that do not upgrade and enhance the asset but merely restore them to their original size, condition and capacity)
- Any rehabilitation involving improvements and realignment or anything that restores the assets to a new or fresh condition.

In making renewal decisions, the utility should consider several categories other than the normally recognized physical, failure or breakage. Such renewal decisions include the following:

- Structural
- Capacity
- Level of service failures
- Outdated functionality
- Cost or economic impact

The utility staff and management typically know of potential assets that need to be repaired or rehabilitated. Reminders in the Diamond Maps task calendar let the staff members know when the condition of an asset begins to decline according to the manufacturer's life cycle recommendations. Because the anticipated needs of the utility will change each year, the CIP is typically updated annually to reflect those changes. The table below is the adopted CIP for the Town. The findings and recommendations in this plan should be added to the CIP as funds and grants become available.

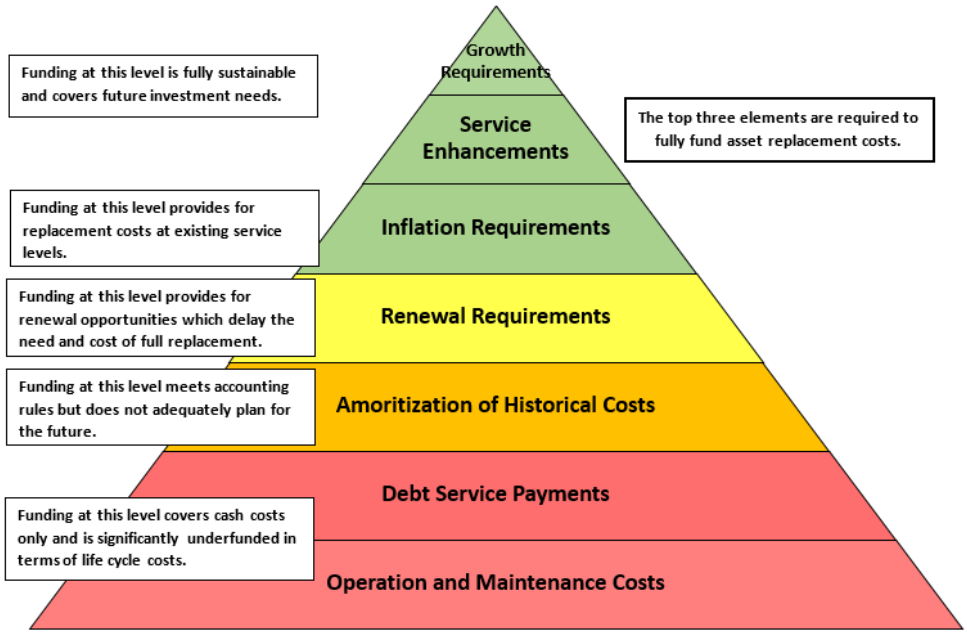
Town of Hilliard CIP FY2023											
Description	**Funding Source**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
Sewer line rehab	Other	$0	$100,000	$100,000	$100,000	$20,000	$0	$0	$0	$0	$0
Digester cleaning	Wastewater Revenues	$80,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
5a land WWTP	Wastewater Revenues	$27,500	$0	$0	$0	$0	$0	$0	$0	$0	$0
2 wetland pumps	Wastewater Revenues	$15,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Jet Rig	Wastewater Revenues	$60,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wastewater Collection	Wastewater Revenues	$223,100	$223,100	$223,100	$223,100	$223,100	$223,100	$223,100	$223,100	$223,100	$223,100
	Funding Source	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
	Total	**$405,600**	**$323,100**	**$323,100**	**$323,100**	**$243,100**	**$223,100**	**$223,100**	**$223,100**	**$223,100**	**$223,100**

7. Financial

Budget/Financial Sufficiency

In order for an Asset Management Plan to be effectively put into action, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow the Town of Hilliard to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service, and projected growth requirements.

The pyramid below depicts the various cost elements and resulting funding levels that should be incorporated into Asset Plans that are based on best practices.

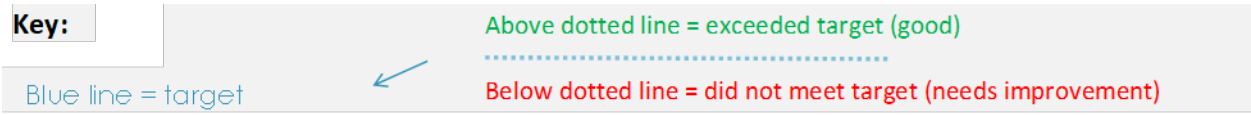


This report, with the assistance of RevPlan, helps identify a financial plan by presenting a current scenario for consideration and culminating with final recommendations.

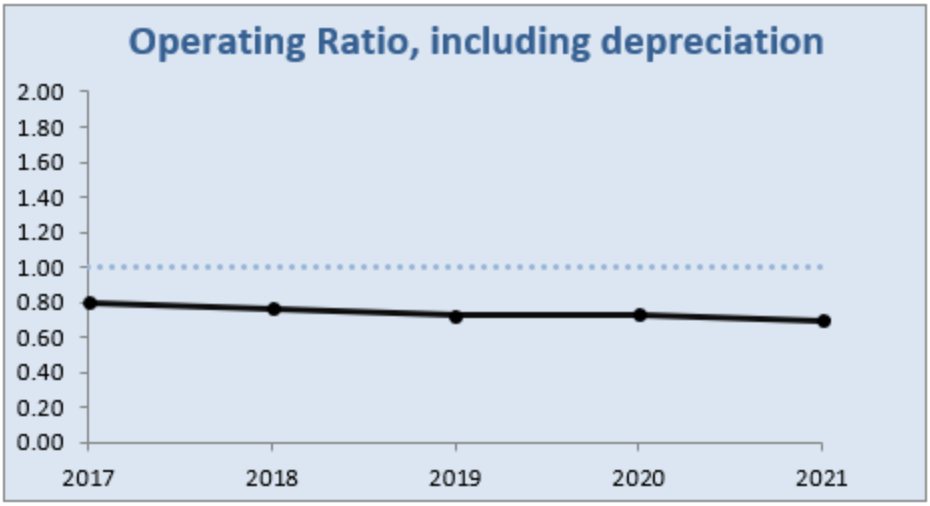
Financial Performance

Financial data available from the annual financial statements were copied into a Financial Health Checkup tool provided by the Environmental Finance Center at the University of Chapel Hill. This free tool assists in the assessment of the financial performance of a water utility fund by computing key financial indicators that measure a variety of important metrics. Each metric is compared against targets and demonstrates the financial strengths and weaknesses of the utility fund in the past five years.

As indicated by the Snapshot chart, the Town of Hilliard met three out of the six financial targets indicating the need to strengthen the utility fund.

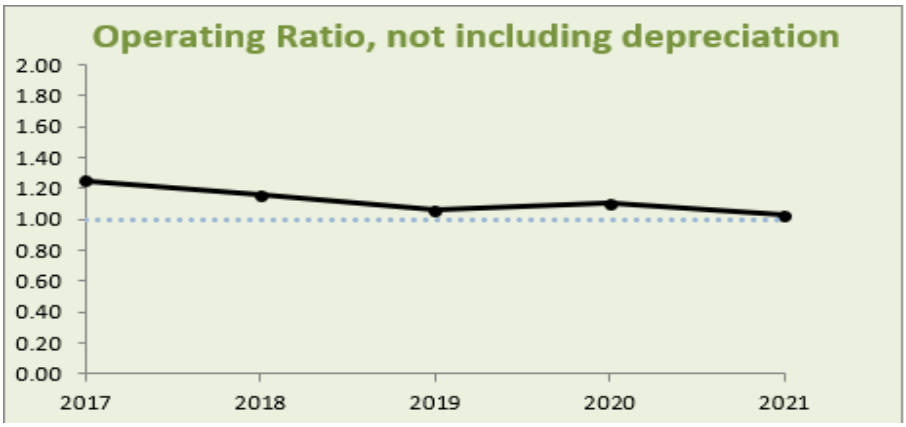


Operating Ratio (including depreciation): Did the system generate the revenue needed to pay for O&M and a little for capital? Benchmark is 1.0.



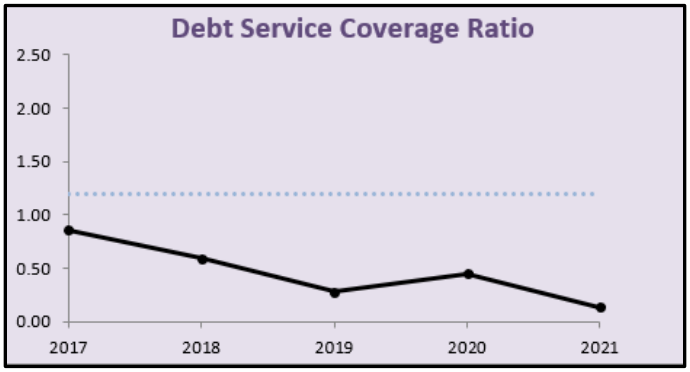
Value for Town of Hilliard in Fiscal Year 2021:	0.69
Did you meet your target?	✗
Did you improve since the previous year?	↓

Operating Ratio (not including depreciation): Did the system generate the revenues to pay for O&M by itself? Benchmark is 1.0 although recommended is 1.5



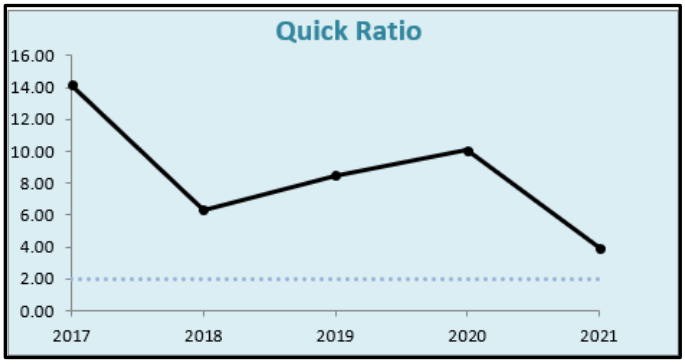
Value for Town of Hilliard in Fiscal Year 2021:	1.03
Did you meet your target in Fiscal Year 2021?	✓
Did you improve since the previous year?	↓

Debt Service Coverage: Did the system generate the revenues needed to pay for O&M and existing debt service? Benchmark is >1.2.



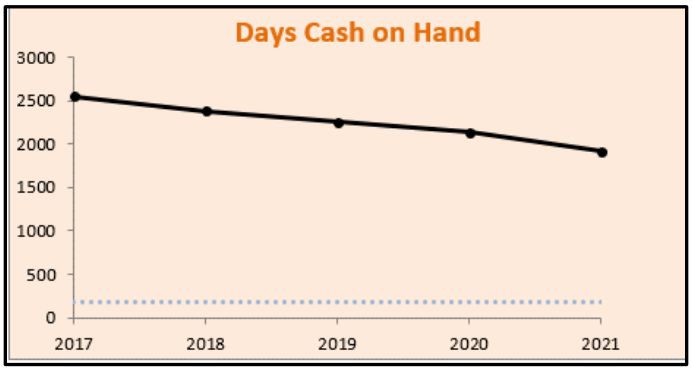
Value for Town of Hilliard in Fiscal Year 2021:	0.13
Did you meet your target in Fiscal Year 2021?	✗
Did you improve since the previous year?	↓

Quick Ratio: Did you have enough liquidity to pay your current liabilities at the end of the year? Benchmark is at least 2.0.



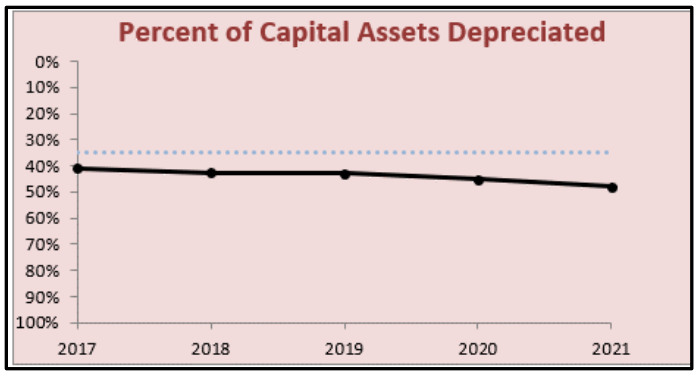
Value for Town of Hilliard in Fiscal Year 2021:	3.9
Did you meet your target in Fiscal Year 2021?	✓
Did you improve since the previous year?	↓

Days Cash on Hand: How many days could you continue to operate the utility with the cash levels available? Benchmark is 270 days.



Value for Town of Hilliard in Fiscal Year 2021:	1918
Did you meet your target in Fiscal Year 2021?	✓
Did you improve since the previous year?	↓

Percent of Capital Assets Depreciated: How much have your utility's assets depreciated (nearing the end of their lives)? Benchmark is staying away from 100%.



Value for Town of Hilliard in Fiscal Year 2021:	48%
Did you meet your target in Fiscal Year 2021?	✗
Did you improve since the previous year?	↓

Based on the results of the key financial indicators it is recommended that the Town of Hilliard continue strengthening their utility fund to have enough funds to cover daily expenses, debt service, capital replacement costs, emergencies, and unexpected revenue shortfalls. As the Wastewater system ages and the percent of assets depreciated increases each year, it is

important for the proprietary fund to become fully sustainable by securing funding levels that provide for renewal opportunities, the full replacement costs of assets, service enhancements and growth requirements. Upon completion of the fiscal year a RevPlan model would help to determine what increases are needed to be able to make sure that the system can reach the requirements to be self-sustainable and meet its growing obligations.

Asset Statistics

The table below summarizes the asset information from the Town collected by FRWA and found in RevPlan:

Town of Hilliard Wastewater System	
Total Replacement Cost of Water System	$ 7,023,850.56
Percent of Assets Needing Replacement	9.99%
Cost of Replacing All Assets Needing Replacement	$ 701,951.09
Annual Replacement Cost of System	$ 223,134.35

Please note that the $7 million dollar replacement cost of the water system documented above, along with the annual replacement cost of $223,134.35 for the system is low. These figures do not include certain assets such as large equipment, vehicles, sewer mains and some property improvements normally associated with maintaining a utility system. As a result, any proposed rate adjustments suggested by FRWA should be considered a minimum or a starting point for review and consideration by the Town.

Based on the findings of the Asset Management Plan, it is important for Town of Hilliard to start setting aside reserves for the replacement of its assets, to make sure that the base charge is adequately covering fixed costs and that its usage charges are sufficient to fund its variable costs.

Reserves

Reserve balances for utility systems are funds set aside for a specific cash flow requirement, financial need, project, task, or legal covenant. All types of reserves can play a significant role in addressing current and future challenges facing utility systems, such as demand volatility, water supply costs, large capital requirements, asset replacements, natural disasters and potential liabilities from system failures associated with aged infrastructure. All utilities should establish formal financial policies relative to reserves. Such policies should articulate how these balances are established, their use, and how the adequacy of each respective reserve fund balance is determined. Once reserve targets are established, they should be reviewed annually during the budgeting process.

In the Town of Hilliard, the unrestricted cash available at end of FY 2021 was $810,021, with annual operating expenses (without depreciation) of approximately $1,025,227 in FY 2021 giving the Town 288 days of cash on hand according to the Audited Budget. Please note that these figures are from the last audited budget and may not reflect current amounts or past trends like listed above in the cash on hand chart. The chart above is a historic trend and not current amounts.

For planning purposes and without a stated reserve policy from the Town, FRWA builds the financial model by ensuring the annual unrestricted reserve funding is adequate to 270 days of the current year operation and maintenance budget. While there is not a one size fits all approach to building reserves, FRWA cautions utilities about dropping below 90 days and encourages them to work towards a balance of cash on hand equal to or greater than 270 days. Cash reserves are essential to ensure a utility's long-term financial sustainability and resiliency. Each utility system has its own unique circumstances and considerations that should be factored into the selection of the types of reserves and corresponding policies that best meet its needs and objectives.

Rates

A 'rule of thumb' FRWA subscribes to regarding rates is that base charges pay for fixed expenses and usage charges fund the variable expenses. Rates should generate sufficient revenue to cover the full cost of operating a water system. By charging customers the full cost of water, small water systems send a message that water is a valued commodity that must be used wisely and not wasted. When rates are set to cover the full cost of production, water systems are more likely to have financial stability and security.

The current residential and commercial rate structure is as follows:

Sewer Base Rates Inside Town	Outside Town
Residential - $19.52	$29.28 (150% of residential)
Commercial -$ 45.21	$67.82 (150% of residential)
Eastwood Oak- $22.44	

Sewer Usage Rates	Inside Town	Outside Town
0 to 2,000 Gallons	$ 2.60	$ 3.90
2,001 to 10,000 Gallons	$ 5.20	$ 7.80
10,001 and above (per thousand)	$6.49	$9.74

Rate Recommendation:

Due to problems with new billing software for the last fiscal year, an accurate RevPlan model was not able to be created. Rate recommendations will need to be established after a completed model is available. Completion of the model in Revplan should be done no later than 3 months after the end of the 2023 fiscal year. The Town of Hilliard has taken proactive steps with its current utility rates by implementing an automatic rate increase following the Municipal Cost index. Raising the rates each year by the Municipal Cost Index will help the Town of Hilliard's residents gradually experience water and sewer rate increases instead of absorbing the costs all at once.

8. Energy Management

Energy costs often make up twenty-five to thirty percent of a utility's total operation and maintenance costs. They also represent the largest controllable cost of providing water and wastewater services. EPA's "Ensuring a Sustainable Future: An Energy Management Guidebook for Wastewater and Water Utilities" provides details to support utilities in energy management and cost reduction by using the steps described in this guidebook. The Guidebook takes utilities through a series of steps to analyze their current energy usage, use energy audits to identify ways to improve efficiency and measure the effectiveness of energy projects.

Energy Conservation Measures

The Town should ensure all assets, not just those connected to a power source, are evaluated for energy efficiency. It is highly recommended that staff conduct an energy assessment or audit. The following are common energy management initiatives the Town should implement going forward:

Load management
Replace weather-stripping and insulation on buildings.
Installation of insulated metal roofing over energy inefficient shingle roofing
On-demand water heaters
Variable frequency driven pumps and electrical equipment
Energy efficient infrastructure
LED lighting
Meg electric motors
MCC electrical lug thermal investigation
Flag underperforming assets for rehabilitation or replacement

The above 10 energy saving initiatives are just a start and most can be accomplished in-house. A more comprehensive energy audit, conducted by an energy consultant/professional, is recommended to evaluate how much energy is consumed system-wide and identify measures that can be taken to utilize energy more efficiently.

With the cost of electricity rising, the reduction of energy use should be a priority for municipalities. A key deliverable of an energy audit is a thorough analysis of the effect of overdesign on energy efficiency. Plants are designed to perform at maximum flow and loading conditions. Unfortunately, most plants are not efficient at average conditions. Aging infrastructure is another source of inefficient usage of energy in WWTPs across the country. The justification for addressing aging infrastructure related energy waste is also included in the energy audit process.

The table below provides typical water and wastewater high-use energy operations and associated potential energy saving measures.

High Energy Operations	Energy Saving Measures
Lighting	Motion Sensors T5 low and high bay fixtures Pulse start metal halide Indirect fluorescent Super-efficient T8s Comprehensive control for large buildings
Heating, Ventilation, Air Conditioning (HVAC)	Water source heat pumps Prescriptive incentives for remote telemetry Custom incentives for larger units occupancy controls

Energy Audit Approach

An energy audit is intended to evaluate how much energy is consumed and identify measures that can be taken to utilize energy more efficiently. The primary goal is reducing power consumption and cost through physical and operational changes.

Each system will have unique opportunities to reduce energy use or cost depending on system specific changes and opportunities within the power provider's rate schedules. For example, an audit of an individual wastewater treatment plant (WWTP) will attempt to pinpoint wasted or unneeded facility energy consumption. It is recommended to perform an energy audit every two to three years to analyze a return on investment.

A wastewater system energy audit approach checklist, similar to the one below, can be a useful tool to identify areas of potential concern and to develop a plan of action to resolve them. The FRWA offers Energy Assessments to our members and SRF recipients that are participating in the AMFSP program. Please contact FRWA circuit rider for more information.

Energy Audit Approach

Minimum Equipment Information to Gather	Additional Information to Gather	Conditions to Consider
Pump Style	Pump manufacturer's pump curves	Maintenance records
Number of Pump Stages	Actual pump curve	Consistently throttled valves
Pump and Motor Speed	Power factor	Excessive noise or vibrations
Pump Rated Head (name plate)	Load profile	Evidence of wear or cavitation on pump impellers or pump bearings
Motor rated power and voltage (name plate)	Analysis of variable frequency drives (vfd's) if present	Out-of-alignment conditions
Rated and actual pump discharge	Pipe sizes	Significant flow rate/pressure variations
Operation schedules	Motor current	Active by-pass piping
	Discharge pressure	Restrictions in pipes or pumps
	Water level (source)	Restrictive/leaking pump shaft packing
	Pump suction pressure	

9.Conclusions

It has been a real pleasure to work with Hilliard's staff and Associates. The creation of this asset management plan would not have been possible without the hard work of the Public Works Director, Public Works staff, along with the rest of the staff from Hilliard.

Our conclusions are based on our observations during the data collection procedure, discussions with staff, regulatory inspection data, and our experience related to similar assets.

Collection System

- Smoke test collection system to identify leaks and possible areas of inflow and infiltration.
- Clean and camera areas of concern or certain sections of collection system.
- Routine cleaning of mains
- Document line condition and depths in diamond maps when applicable.

Manholes

- Repair areas of Inflow and Infiltration inside of manholes (4)
- Rehabilitate manholes that were found be in poor or very poor condition (48) in upcoming Projects or 10 per year.
- Develop and Implement a manhole lining program.
- Annual assessment of manholes in diamond maps

Lift Stations

- Develop a rehabilitation plan for lift stations.
- Daily recording of all lift station hour meters and determine pump runtimes.
- Daily visual checks of the wet wells for irregularities.
- Run any lift station generators weekly, (Monday mornings).
- Maintenance program with manufacturer for lift station and WWTP generators.
- Monthly test conducted on the lift station's visual and audible alarms. (Done by manually pumping the station down to a low- level alarm condition and observing).
- Semiannual pumping of all list station wet wells to remove debris and fats.

Wastewater Treatment Plant

- Develop routine and preventative maintenance plans.
- Engage an engineer to review dewatering process and alternatives.
- Analyze chemical and material inventory / storage.
- Replace or Repair poor assets detailed in section 4.

General

- An AM and CMMS program must begin to maintain assets efficiently and effectively.
- Staff training on maintenance, safety, and use of the AM/CMMS tool must be completed. (Diamond Maps can do this for you)
- Rates must be monitored to ensure adequate funding for operations and system improvements.
- Energy Management is recommended as well. Even small changes in energy use can result in large savings.
- The Asset Management Plan must be adopted by resolution or ordinance. This demonstrates the utility's commitment to the plan. After adoption, implementation of the AMP must occur.

Implementing this Asset Management and Fiscal Sustainability Plan

Implementing an Asset Management and Fiscal Sustainability Plan requires several items:

1. **Assign specific personnel** to oversee and perform the tasks of Asset Management.

2. **Develop and use a Computerized Maintenance Management System (CMMS) program**. The information provided in this FSAMP plan will give the utility a good starting point to begin. Properly maintaining assets will ensure their useful life is extended and will ultimately save money. Asset maintenance tasks are scheduled and tracked, new assets are captured, and assets removed from service are retired properly using CMMS. Transitioning from reactive to preventive and predictive maintenance philosophies will net potentially large savings for the utility. Diamond Maps is one example among many options that are available. FRWA can help with set up and implementation.

3. **Develop specific Level of Service items**. Create a Level of Service (LOS) Agreement and inform customers of the Utility's commitment to providing the stated LOS. Successes can be shared with customers. This can dramatically improve customer relations. This also gives utility employees goals to strive for and can positively impact morale. We have included a draft LOS list in Section 2 – Level of Service.

4. **Develop specific Change Out/Repair/Replacement Programs**. The City budgets for Repair and Replacement and should continue to evaluate the system to adjust the annual budgeted amounts accordingly. An example includes budgeting for a certain number of stepped system refurbishments each year.

5. **Modify the existing rate structure.** Continue to make sure adequate funds are available to properly operate and maintain the facilities. Rate increases, when required, can be

accomplished in a stepped fashion rather than an 'all now' approach to lessen the resulting customer impact.

6. **Explore financial assistance options.** Financial assistance is especially useful in the beginning stages of Asset Management since budget shortfalls likely exist and high cost items may be needed quickly. For a table of common funding sources, see Funding Sources for Water and Wastewater Systems.

7. **Revisit the AMFS plan annually.** An Asset Management Plan is a living document. It can be revised at any time but must be revisited and evaluated at least once each year. Common updates or revisions include:

    - Changes to your asset management team;
    - Updates to the asset inventory;
    - Updates to asset condition and criticality ranking charts;
    - Updates to asset condition and criticality assessment procedures
    - Updates to operation and maintenance activities;
    - Changes to financial strategies and long-term funding plans.

    The annual review should begin by asking yourself:

    "What changes have occurred since our last AMFS plan update?"

Funding Sources for Water and Wastewater Systems

Below is a table of common funding sources, including web links and contact information. All municipal systems should be making the effort to secure funding, which can be in the form of low or no interest loans or grants or a combination.

Agency/Program	Website	Contact
FDEP Drinking Water State Revolving Fund Program (DWSRF)	https://floridadep.gov/wra/srf/content/dwsrf-program	Eric Meyers eric.v.meyers@floridadep.gov 850-245-2991
FDEP Clean Water State Revolving Fund Loan Program (CWSRF)	https://floridadep.gov/wra/srf/content/cwsrf-program	Mike Chase Michael.Chase@FloridaDEP.gov 850-245-2969
USDA Rural Development- Water and Wastewater Direct Loans and Grants	https://www.rd.usda.gov/programs-services/rural-economic-development-loan-grant-program https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program	Jeanie Isler jeanie.isler@fl.usda.gov 352-338-3440
Economic Development Administration- Public Works and Economic Adjustment Assistance Programs	https://www.eda.gov/resources/economic-development-directory/states/fl.htm https://www.grants.gov/web/grants/view-opportunity.html?oppId=294771	Greg Vaday gvaday@eda.gov 404-730-3009
National Rural Water Association- Revolving Loan Fund	https://nrwa.org/initiatives/revolving-loan-fund/	Gary Williams Gary.Williams@frwa.net 850-668-2746
Florida Department of Economic Opportunity- Florida Small Cities Community Development Block Grant Program	http://www.floridajobs.org/community-planning-and-development/assistance-for-governments-and-organizations/florida-small-cities-community-development-block-grant-program	Roger Doherty roger.doherty@deo.myflorida.com 850-717-8417
Northwest Florida Water Management Town - Cooperative Funding Initiative (CFI)	https://www.nwfwater.com/Water-Resources/Funding-Programs	Christina Coger Christina.Coger@nwfwater.com 850-539-5999

10. Closing

This Asset Management and Fiscal Sustainability plan is presented to the Town of Hilliard Council for adoption. Its creation would not be possible without the cooperation of the Public Works staff, and the Florida Department of Environmental Protection State Revolving Fund (FDEP-SRF). It has been a real pleasure working with the dedicated, hardworking and motivated staff from Hilliard. The dedication of the staff here shows in the condition of your Wastewater System. The overall condition of your system is in good / average shape and with the staff you have it will be for years to come. They truly are providing the very best service for the citizens and visitors of Hilliard. FRWA appreciates the input, assistance and full cooperation from the Town and will be available to help assist with all stages of implementation.

Appendix A: Example Resolution

RESOLUTION NO. 2023-_____

A RESOLUTION OF THE TOWN OF HILLIARD, FLORIDA, APPROVING THE TOWN OF HILLIARD WASTEWATER SYSTEM ASSET MANAGEMENT AND FISCAL SUSTAINABILITY PLAN; AUTHORIZING THE TOWN CLERK AND PUBLIC WORKS DIRECTOR TO TAKE ALL ACTIONS NECESSARY TO EFFECTUATE THE INTENT OF THIS RESOLUTION; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Florida Statutes provide for financial assistance to local government agencies to finance construction of the Town and municipal utility system improvements; and

WHEREAS, the Florida Department of Environmental Protection State Revolving Fund (SRF) has designated the Town of Hilliard Wastewater System Improvements, identified in the Asset Management and Fiscal Sustainability Plan, as potentially eligible for available funding; and

WHEREAS, as a condition of obtaining funding from the SRF, the Town is required to implement an Asset Management and Fiscal Sustainability Plan for the Town's Wastewater System Improvements; and

WHEREAS, the Town Council of the Town of Hilliard has determined that approval of the attached Asset Management and Fiscal Sustainability Plan for the proposed improvements, in order to obtain necessary funding in accordance with SRF guidelines, is in the best interest of the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN OF HILLIARD BOARD OF COMMISSIONERS the following:

Section 1. That the Town of Hilliard Town Council hereby approves the Town of Hilliard Wastewater System Asset Management and Fiscal Sustainability Plan, attached hereto and incorporated by reference as a part of this Resolution.

Section 2. That the Town Clerk and Public Works Director are authorized to take all actions necessary to effectuate the intent of this Resolution and to implement the Water System Asset Management and Fiscal Sustainability Plan in accordance with applicable Florida law and Council direction in order to obtain funding from the SRF.

Section 3. That the Town will annually evaluate existing rates to determine the need for any increase and will increase rates in accordance with the financial recommendations found in the Water System Asset Management and Fiscal Sustainability Plan or in proportion to the Town's needs as determined by the Board in its discretion.

Section 4. That this Resolution shall become effective immediately upon its adoption.

PASSED AND ADOPTED on this _____ day of_____, 2023.

Town of Hilliard, Florida

_____
Mayor

ATTEST:

_____
Town Clerk

APPROVED AS TO FORM:

_____
Town Attorney

Master Asset List

Town of Hilliard Asset Master List						
Buildings						
Asset Name	**Install Year**	**Design Life**	**Condition**	**COF**	**Age EOL**	**Replacement Cost**
Office / lab / control / blower building	1997	50	Average	Moderate	2047	75,000
Maintenance / parts / office	1997	50	Average	Moderate	2047	40,000
Chemical Feed Building	1997	50	Average	Moderate	2047	25,000
SBR blower / pump building	1997	50	Average	Moderate	2047	30,000
Belt Press structure	1997	50	Average	Moderate	2047	75,000
Covered Storage	1997	50	Average	Moderate	2047	20,000
Pole barn	1997	50	Good	Moderate	2047	30,000
Cover	2020	50	Good	Moderate	2070	4,000

Town of Hilliard Asset Master List						
Dry Wells						
Asset Name	Install Year	Design Life	Condition	COF	Age EOL	Replacement Cost
Lift Station 1 (Mill St) valve pit	2000	50	Average	Moderate	2050	4,000
Lift Station 5 (108) valve pit	2005	50	Average	Moderate	2055	7,500
Lift Station 4 (Oxford St) valve pit	2016	50	Poor	Moderate	2066	4,000
Lift Station 8 (Lake Dr) valve pit	1999	50	Average	Moderate	2049	5,000
Lift Station 7 (Lorena Dr.) Valve pit	2015	50	Average	Moderate	2065	4,000
Lift Station 6 (Cody Circle) valve pit	2013	50	Average	Moderate	2063	4,000
Lift Station 3 (US 1 South) valve pit	2018	50	Average	Moderate	2068	4,000
Lift Station 2 (US 1 North) valve pit	2002	50	Average	Moderate	2052	5,000

Town of Hilliard Asset Master List						
Wet Wells						
Asset Name	**Install Year**	**Design Life**	**Condition**	**COF**	**Condition EOL**	**Replacement Cost**
Lift Station 1(Mill St) wet well	1970	50	Average	Moderate	2047	50,000
Lift Station 5 (108) wet well	1970	50	Poor	Moderate	2037	50,000
Lift Station 4 (Oxford St) wet well	1970	50	Poor	Moderate	2037	75,000
Lift Station 8 (Lake Dr) wet well	1970	50	Average	Moderate	2047	50,000
Lift Station 7 (Lorena Dr.) Wet well	1970	50	Poor	Moderate	2037	50,000
Lift Station 6 wet well	1999	50	Poor	Moderate	2037	50,000
Lift Station 3 (US 1 South) wet well	1970	50	Very Poor	Moderate	2027	75,000
Lift Station 2 (US 1 North) wet well	1970	50	Very Poor	Moderate	2027	75,000

Town of Hilliard Asset Master List						
Pumps (Wastewater)						
Asset Name	**Install Year**	**Design Life**	**Condition**	**COF**	**Condition EOL**	**Replacement Cost**
Trash pump yellow frame	1997	20	Average	Moderate	2032	1,000
Diaphragm pump	1997	20	Average	Moderate	2032	1,500
Reuse pump 1	1998	20	Average	Moderate	2032	1,000
Reuse pump 2	1998	20	Average	Moderate	2032	1,000
Wetlands pump 1	2011	20	Average	Moderate	2032	3,500
Wetlands pump 2	2011	20	Average	Moderate	2032	3,500
EQ basin pump 2	1997	20	Poor	Moderate	2028	3,500
EQ basin pump 1	1997	20	Poor	Moderate	2028	2,500
WAS Pump 2	1997	20	Poor	Moderate	2028	3,000
WAS Pump 1	1997	20	Average	Moderate	2032	3,000
SAM Pump 1	2011	20	Average	Moderate	2032	5,000
SAM pump 2	2011	20	Average	Moderate	2032	5,000
Digester Motive Pump	2020	20	Average	Moderate	2032	3,000
SBR pump 2	2020	20	Average	Moderate	2032	3,000
SBR pump 1	2020	20	Average	Moderate	2032	3,000
Lift Station 1 (Mill St) pump 1	2000	20	Average	Moderate	2032	3,000
Lift Station 1 (Mill St) pump 2	2000	20	Average	Moderate	2032	3,000
Lift Station 5 (108) pump 1	2020	20	Average	Moderate	2032	5,000
Lift Station 5 (108) pump 2	2005	20	Average	Moderate	2032	5,000
Lift Station 4 (Oxford St) pump 1	2019	20	Average	Moderate	2032	3,000

Town of Hilliard Asset Master List						
Pumps (Wastewater)						
Asset Name	Install Year	Design Life	Condition	COF	Condition EOL	Replacement Cost
Lift Station 4 (Oxford St) pump 2	2016	20	Average	Moderate	2032	3,000
Lift Station 8 (Lake Dr) pump 1	1999	20	Average	Moderate	2032	3,000
Lift Station 8 (Lake Dr) pump 2	1999	20	Average	Moderate	2032	3,000
Lift Station 7 (Lorena Dr.) Pump 1	2021	20	Average	Moderate	2032	2,500
Lift Station 7 pump 2	2019	20	Average	Moderate	2032	2,500
Lift Station 6 (Cody Circle) pump 1	2013	20	Average	Moderate	2032	5,000
Lift Station 6 (Cody Circle) pump 2	2013	20	Average	Moderate	2032	5,000
Lift Station 3 (US 1 South)	2018	20	Average	Moderate	2032	4,000
Lift Station 3 (US 1 South)	2018	20	Average	Moderate	2032	4,000
Lift Station 2 pump 1	2022	20	Average	Moderate	2032	5,000
Lift Station 2 (US 1 North) pump 2	2002	20	Average	Moderate	2032	5,000

Town of Hilliard Asset Master List						
Pumps (Wastewater)						
Name	Install Year	Design Life	Condition	COF	Condition EOL	Replacement Cost
Genset	2011	20	Good	Moderate	2036	60,000
Belt Press control panel	2011	20	Average	Moderate	2032	15,000
Main Electrical panel	2011	20	Good	Moderate	2036	10,000
Belt Press panel	2011	20	Average	Moderate	2032	5,000
Transfer switch	2011	20	Good	Moderate	2036	7,500
SAM control panel	2011	20	Good	Moderate	2036	20,000
SBR control panel	2011	20	Good	Moderate	2036	20,000
Auto dialer	2011	20	Good	Moderate	2036	1,200
Digester blower 01 turbo filter	2012	20	Good	Moderate	2036	5,000
Digester blower 02 turbo filter	2012	20	Good	Moderate	2036	5,000
Office bldg blower room transformer	2011	20	Average	Moderate	2032	750
Office bldg Motor Control Center	2011	20	Good	Moderate	2036	50,000
Office bldg blower room breaker panel	2011	20	Average	Moderate	2032	500
Office blower room older motor control center	2011	20	Average	Moderate	2032	30,000
Alum room breaker panel	2011	20	Average	Moderate	2032	500
Alum room control panel	2011	20	Average	Moderate	2032	7,500
Reuse pump control panel	1998	20	Average	Moderate	2032	7,500
Wetlands influent pump panel	2011	20	Average	Moderate	2032	7,500

Town of Hilliard Asset Master List						
Pumps (Wastewater)						
Name	Install Year	Design Life	Condition	COF	Condition EOL	Replacement Cost
Wetlands pump 2 high temp panel	2011	20	Average	Moderate	2032	500
Wetlands pump 1 high tempo panel	2011	20	Average	Moderate	2032	500
EQ basin pump control panel	1997	20	Average	Moderate	2032	7,500
Unknown disconnect	2011	20	Average	Moderate	2032	750
WAS pump panel	2011	20	Average	Moderate	2032	7,500
SAM control panel	2011	20	Average	Moderate	2032	10,000
SAM pump 1 high temp panel	2011	20	Average	Moderate	2032	1,000
SAM pump 2 high temp panel	2011	20	Average	Moderate	2032	1,000
Digester Motive Pump Control Panel	1997	20	Average	Moderate	2032	7,500
SBR blower control panel	2011	20	Poor	Moderate	2028	20,000
SBR control panel	2011	20	Average	Moderate	2032	20,000
Lift Station 1 (Mill St) genset	2000	20	Good	Moderate	2036	40,000
Lift Station 1 (Mill St) transfer switch	2000	20	Average	Moderate	2032	6,000
Lift Station 1 (Mill St) control panel	2000	20	Average	Moderate	2032	7,500
Lift Station 1 (Mill St) main disconnect	2000	20	Average	Moderate	2032	500
Lift Station 1 (Mill St) secondary disconnect switch	2000	20	Average	Moderate	2032	500
Lift Station 5 (108) control panel	2005	20	Average	Moderate	2032	10,000
Lift Station 4 (Oxford St) control panel	2016	20	Good	Moderate	2036	7,500
Lift Station 8 (Lake Dr) control panel	1999	20	Average	Moderate	2032	7,500
Lift Station 8 (Lake Dr) disconnect switch	1999	20	Average	Moderate	2032	300
Lift Station 7 (Lorena Dr) disconnect	2015	20	Average	Moderate	2032	300
Lift Station 7 (Lorena Dr.) Control panel	2015	20	Good	Moderate	2036	10,000
Lift Station 7 sub panel	2015	20	Good	Moderate	2036	5,000
Lift Station 6 (Cody Cir.) Main disconnect	2013	20	Average	Moderate	2032	500
Lift Station 6 (Cody Cir) control panel	2013	20	Average	Moderate	2032	10,000
Lift Station 6 transformer	2013	20	Average	Moderate	2032	1,500
Lift Station 3 (US 1 South) main disconnect	2018	20	Average	Moderate	2032	500
Lift Station 3 (US 1 South) control panel	2018	20	Good	Moderate	2036	10,000
Lift Station 2 (US 1 North) main disconnect	2002	20	Average	Moderate	2032	300
Lift Station 2 (US 1 North) control panel	2002	20	Average	Moderate	2032	10,000
Lift station 4 control panel	2022	20	Good	Moderate	2036	50000
Lift Station 2 control panel	2022	20	Good	Moderate	2036	6000

Town of Hilliard Asset Master List						
Motors (Wastewater)						
Asset Name	**Install Year**	**Design Life**	**Condition**	**COF**	**Replace Year**	**Replacement Cost**
Alum feed pump 1 motor	2011	20	Average	Moderate	2032	750
Alum feed pump 2 motor	2011	20	Average	Moderate	2032	750
Micro C feed pump 1 motor	2011	20	Average	Moderate	2032	750
Micro C feed pump 2 motor	2011	20	Average	Moderate	2032	750
Reuse pump 1 motor	2020	20	Average	Moderate	2032	1,000
Reuse pump 2 motor	2021	20	Average	Moderate	2032	1,000
Wetlands pump 2 motor	2011	20	Average	Moderate	2032	3,500
Wetlands pump 1 motor	2020	20	Good	Moderate	2036	3,500
EQ basin pump 2 motor	2021	20	Good	Moderate	2036	1,500
EQ basin pump 1 motor	2021	20	Good	Moderate	2036	1,500
WAS pump 2 motor	2020	20	Poor	Moderate	2028	1,500
WAS pump 1 motor	1997	20	Average	Moderate	2032	1,500
SAM blower 2 motor	1997	20	Average	Moderate	2032	2,500
SAM Blower 1 motor	1997	20	Average	Moderate	2032	2,500
SAM pump 1 motor	2011	20	Average	Moderate	2032	4,000
SAM pump 2 motor	2011	20	Average	Moderate	2032	4,000
Digester Motive Pump Motor	2020	20	Average	Moderate	2032	2,500
SBR pump 2 motor	2020	20	Average	Moderate	2032	3,000
SBR pump 1 motor	2020	20	Average	Moderate	2032	3,000
SBR Blower 1 motor	2011	20	Average	Moderate	2032	3,000
SBR Blower 2 motor	2011	20	Average	Moderate	2032	3,000
SBR blower 3 motor	2011	20	Average	Moderate	2032	3,000

Town of Hilliard Asset Master List						
Manholes						
Name	**Install Year**	**Design life**	**Condition**	**COF**	**Condition EOL**	**Replacement Cost**
wwManH-1	1973	50	Average	Moderate	2047	3,300
wwManH-2	1974	50	Poor	Moderate	2037	3,500
wwManH-3	1975	50	Poor	Moderate	2037	3,500
wwManH-4	1900	50	Good	Moderate	2057	5,500
wwManH-5	1074	50	Good	Moderate	2057	5,600
wwManH-6	1974	50	Average	Moderate	2047	6,950
wwManH-7	2021	50	Good	Moderate	2057	8,150

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-8	1900	50	Good	Moderate	2057	6,700
wwManH-9	2020	50	Good	Moderate	2057	6,350
wwManH-10	1970	50	Average	Moderate	2047	7500
wwManH-11	1974	50	Average	Moderate	2047	5500
wwManH-12	1974	50	Average	Moderate	2047	8500
wwManH-13	1974	50	Average	Moderate	2047	8500
wwManH-14	1974	50	Average	Moderate	2047	8500
wwManH-15	1974	50	Average	Moderate	2047	3500
wwManH-16	1974	50	Average	Moderate	2047	3500
wwManH-17	1974	50	Average	Moderate	2047	3500
wwManH-18	1974	50	Average	Moderate	2047	5500
wwManH-19	1975	50	Poor	Moderate	2037	5000
wwManH-20	1975	50	Average	Moderate	2047	8500
wwManH-21	1975	50	Average	Moderate	2047	3500
wwManH-22	1974	50	Average	Moderate	2047	3500
wwManH-23	1974	50	Poor	Moderate	2037	5000
wwManH-24	1974	50	Average	Moderate	2047	3500
wwManH-25	1975	50	Poor	Moderate	2037	3500
wwManH-26	1975	50	Average	Moderate	2047	7500
wwManH-27	1975	50	Average	Moderate	2047	3500
wwManH-28	1975	50	Very Poor	Moderate	2027	25000
wwManH-29	1975	50	Average	Moderate	2047	4500
wwManH-30	1975	50	Average	Moderate	2047	5500
wwManH-31	1975	50	Average	Moderate	2047	4000
wwManH-32	1975	50	Average	Moderate	2047	4000
wwManH-33	1975	50	Average	Moderate	2047	4000
wwManH-34	1975	50	Average	Moderate	2047	4000
wwManH-35	1975	50	Average	Moderate	2047	4000
wwManH-36	1974	50	Average	Moderate	2047	5000
wwManH-37	1975	50	Average	Moderate	2047	5200
wwManH-38	1975	50	Average	Moderate	2047	5500
wwManH-39	1975	50	Average	Moderate	2047	5500
wwManH-40	1974	50	Average	Moderate	2047	5500
wwManH-41	1975	50	Average	Moderate	2047	5500
wwManH-42	1975	50	Average	Moderate	2047	5500

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-43	2018	50	Average	Moderate	2047	5500
wwManH-44	1974	50	Poor	Moderate	2037	5500
wwManH-45	2018	50	Good	Moderate	2057	5000
wwManH-46	1975	50	Average	Moderate	2047	3500
wwManH-47	1975	50	Average	Moderate	2047	4500
wwManH-48	1975	50	Average	Moderate	2047	4500
wwManH-49	1975	50	Poor	Moderate	2037	5000
wwManH-50	1975	50	Average	Moderate	2047	4000
wwManH-51	1975	50	Average	Moderate	2047	5000
wwManH-52	1975	50	Poor	Moderate	2037	4500
wwManH-53	1974	50	Average	Moderate	2047	4500
wwManH-54	1974	50	Poor	Moderate	2037	4500
wwManH-55	1975	50	Average	Moderate	2047	4000
wwManH-56	1975	50	Average	Moderate	2047	4000
wwManH-57	1974	50	Average	Moderate	2047	4000
wwManH-58	1975	50	Average	Moderate	2047	4500
wwManH-59	1975	50	Poor	Moderate	2037	4500
wwManH-60	1975	50	Average	Moderate	2047	3500
wwManH-61	1975	50	Poor	Moderate	2037	3500
wwManH-62	1975	50	Average	Moderate	2047	5000
wwManH-63	1975	50	Average	Moderate	2047	4000
wwManH-64	1975	50	Poor	Moderate	2037	4500
wwManH-65	1975	50	Poor	Moderate	2037	4500
wwManH-66	1975	50	Average	Moderate	2047	4500
wwManH-67	1975	50	Average	Moderate	2047	3500
wwManH-68	1980	50	Average	Moderate	2047	5000
wwManH-69	1980	50	Average	Moderate	2047	5000
wwManH-70	1975	50	Average	Moderate	2047	4200
wwManH-71	1975	50	Average	Moderate	2047	5500
wwManH-72	1975	50	Average	Moderate	2047	4000
wwManH-73	1975	50	Average	Moderate	2047	6500
wwManH-74	1980	50	Average	Moderate	2047	4000
wwManH-75	1980	50	Average	Moderate	2047	4200
wwManH-76	1980	50	Average	Moderate	2047	5000
wwManH-77	1980	50	Average	Moderate	2047	5200

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-78	1980	50	Average	Moderate	2047	4000
wwManH-79	1980	50	Average	Moderate	2047	4000
wwManH-80	1980	50	Average	Major	2047	12000
wwManH-81	1980	50	Average	Major	2047	15000
wwManH-82	1980	50	Average	Moderate	2047	3800
wwManH-83	1980	50	Average	Moderate	2047	4300
wwManH-84	2002	50	Average	Moderate	2047	4000
wwManH-85	2002	50	Average	Moderate	2047	4000
wwManH-86	2002	50	Average	Moderate	2047	4200
wwManH-87	2002	50	Average	Moderate	2047	3900
wwManH-88	2002	50	Poor	Moderate	2037	7500
wwManH-89	2002	50	Average	Moderate	2047	7500
wwManH-90	2002	50	Average	Moderate	2047	4400
wwManH-91	2002	50	Average	Moderate	2047	4800
wwManH-92	2002	50	Average	Moderate	2047	4900
wwManH-93	2002	50	Average	Moderate	2047	3400
wwManH-94	2002	50	Average	Moderate	2047	5200
wwManH-95	1975	50	Average	Moderate	2047	8500
wwManH-96	1975	50	Average	Moderate	2047	4000
wwManH-97	1990	50	Average	Moderate	2047	3500
wwManH-98	1995	50	Average	Moderate	2047	3500
wwManH-99	1974	50	Average	Moderate	2047	3900
wwManH-100	1995	50	Average	Moderate	2047	3950
wwManH-101	1995	50	Poor	Moderate	2037	4100
wwManH-102	1995	50	Average	Moderate	2047	4100
wwManH-103	1995	50	Average	Moderate	2047	4000
wwManH-104	1995	50	Average	Moderate	2047	6800
wwManH-105	1995	50	Average	Moderate	2047	7700
wwManH-106	1995	50	Average	Moderate	2047	3900
wwManH-107	1995	50	Average	Moderate	2047	4300

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-108	1974	50	Average	Moderate	2047	4100
wwManH-109	1974	50	Poor	Moderate	2037	7000
wwManH-110	1995	50	Average	Moderate	2047	4100
wwManH-111	1974	50	Average	Moderate	2047	4800
wwManH-112	1975	50	Average	Moderate	2047	3800
wwManH-113	1995	50	Average	Moderate	2047	6200
wwManH-114	1995	50	Average	Moderate	2047	5800
wwManH-115	1995	50	Average	Moderate	2047	5200
wwManH-116	1995	50	Average	Moderate	2047	3900
wwManH-117	1995	50	Average	Moderate	2047	5100
wwManH-118	1995	50	Poor	Moderate	2037	3900
wwManH-119	1995	50	Average	Moderate	2047	3200
wwManH-120	1995	50	Average	Moderate	2047	7200
wwManH-121	1995	50	Average	Moderate	2047	4200
wwManH-122	1995	50	Average	Moderate	2047	4400
wwManH-123	1995	50	Poor	Moderate	2037	5900
wwManH-124	1995	50	Average	Moderate	2047	4800
wwManH-125	1995	50	Average	Moderate	2047	8500
wwManH-126	1995	50	Average	Moderate	2047	10,000
wwManH-127	1995	50	Average	Moderate	2047	10,000
wwManH-128	1995	50	Average	Moderate	2047	9500

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-129	1975	50	Average	Moderate	2047	8500
wwManH-130	1975	50	Average	Moderate	2047	7500
wwManH-131	1995	50	Average	Moderate	2047	8500
wwManH-132	1975	50	Average	Moderate	2047	8500
wwManH-133	1975	50	Average	Moderate	2047	6000
wwManH-134	1975	50	Average	Moderate	2047	4500
wwManH-135	1975	50	Average	Moderate	2047	4800
wwManH-136	1975	50	Poor	Moderate	2037	6000
wwManH-137	1975	50	Average	Moderate	2047	5900
wwManH-138	1975	50	Average	Moderate	2047	5900
wwManH-139	1975	50	Poor	Moderate	2037	7000
wwManH-140	1974	50	Average	Moderate	2047	18000
wwManH-141	1975	50	Poor	Moderate	2037	7000
wwManH-142	1975	50	Average	Moderate	2047	14000
wwManH-143	1974	50	Average	Moderate	2047	8500
wwManH-144	1974	50	Poor	Moderate	2037	9000
wwManH-145	1974	50	Average	Moderate	2047	3500
wwManH-146	1974	50	Average	Moderate	2047	10,000
wwManH-147	1975	50	Average	Moderate	2047	12000
wwManH-148	1975	50	Poor	Moderate	2037	5000
wwManH-149	1975	50	Average	Moderate	2047	4500

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-150	1975	50	Average	Moderate	2047	14,000
wwManH-151	1975	50	Poor	Moderate	2037	7200
wwManH-152	1975	50	Average	Moderate	2047	15300
wwManH-153	1975	50	Poor	Moderate	2037	7500
wwManH-154	1975	50	Poor	Moderate	2037	6800
wwManH-155	1975	50	Poor	Moderate	2037	4000
wwManH-156	1975	50	Poor	Moderate	2037	5500
wwManH-157	1975	50	Poor	Moderate	2037	5900
wwManH-158	1975	50	Poor	Moderate	2037	7500
wwManH-159	1975	50	Average	Moderate	2047	4300
wwManH-160	1975	50	Poor	Moderate	2037	9500
wwManH-161	1975	50	Average	Moderate	2047	18000
wwManH-162	1980	50	Average	Moderate	2047	6200
wwManH-163	1980	50	Average	Moderate	2047	5500
wwManH-164	1980	50	Average	Moderate	2047	6300
wwManH-165	1980	50	Average	Moderate	2047	4500
wwManH-166	1980	50	Average	Moderate	2047	4500
wwManH-167	1980	50	Average	Moderate	2047	5900
wwManH-168	1980	50	Average	Moderate	2047	5900
wwManH-169	1980	50	Average	Moderate	2047	5950
wwManH-170	1980	50	Average	Moderate	2047	4500

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-171	1980	50	Average	Moderate	2047	5900
wwManH-172	1980	50	Poor	Moderate	2037	6900
wwManH-173	2010	50	Average	Moderate	2047	14000
wwManH-174	1975	50	Average	Moderate	2047	4500
wwManH-175	1975	50	Average	Moderate	2047	4500
wwManH-176	1975	50	Average	Moderate	2047	4500
wwManH-177	1970	50	Poor	Moderate	2037	7500
wwManH-178	1975	50	Average	Moderate	2047	4500
wwManH-179	1876	50	Average	Moderate	2047	4500
wwManH-180	1975	50	Poor	Moderate	2037	4500
wwManH-181	1970	50	Average	Moderate	2047	4500
wwManH-182	1975	50	Average	Moderate	2047	4500
wwManH-183	1975	50	Poor	Moderate	2037	4500
wwManH-184	1975	50	Average	Moderate	2047	5500
wwManH-185	1975	50	Average	Moderate	2047	5600
wwManH-186	1975	50	Average	Moderate	2047	8500
wwManH-187	1975	50	Average	Moderate	2047	6500
wwManH-188	1975	50	Average	Moderate	2047	6800
wwManH-189	2022	50	Good	Moderate	2057	10000
wwManH-190	1975	50	Average	Moderate	2047	4500
wwManH-191	1975	50	Average	Moderate	2047	4500

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-192	1975	50	Average	Moderate	2047	4500
wwManH-193	1975	50	Average	Moderate	2047	4500
wwManH-194	1975	50	Average	Moderate	2047	5100
wwManH-195	1975	50	Average	Moderate	2047	5300
wwManH-196	1975	50	Average	Moderate	2047	4500
wwManH-197	1975	50	Average	Moderate	2047	4500
wwManH-198	1975	50	Average	Moderate	2047	4000
wwManH-199	1975	50	Average	Moderate	2047	5200
wwManH-200	1975	50	Average	Moderate	2047	4200
wwManH-201	1974	50	Average	Moderate	2047	7800
wwManH-202	1974	50	Average	Moderate	2047	7800
wwManH-203	1974	50	Average	Moderate	2047	8000
wwManH-204	1975	50	Average	Moderate	2047	8300
wwManH-205	1975	50	Average	Moderate	2047	8300
wwManH-206	1975	50	Average	Moderate	2047	7900
wwManH-207	1974	50	Average	Moderate	2047	6000
wwManH-208	1975	50	Average	Moderate	2047	5300
wwManH-209	1975	50	Average	Moderate	2047	8500
wwManH-210	1975	50	Average	Moderate	2047	8500
wwManH-211	1975	50	Poor	Moderate	2037	8500
wwManH-212	1975	50	Poor	Moderate	2037	9000

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-213	1975	50	Average	Moderate	2047	4500
wwManH-214	1975	50	Average	Moderate	2047	7500
wwManH-215	1975	50	Poor	Moderate	2037	6000
wwManH-216	1975	50	Average	Moderate	2047	10000
wwManH-217	1975	50	Poor	Moderate	2037	6000
wwManH-218	1975	50	Average	Moderate	2047	13000
wwManH-219	1975	50	Average	Moderate	2047	12500
wwManH-220	1975	50	Average	Moderate	2047	6300
wwManH-221	1975	50	Average	Moderate	2047	6000
wwManH-222	1975	50	Average	Moderate	2047	6000
wwManH-223	1975	50	Average	Moderate	2047	7200
wwManH-224	1975	50	Average	Moderate	2047	6300
wwManH-225	1975	50	Average	Moderate	2047	6000
wwManH-226	1975	50	Average	Moderate	2047	4900
wwManH-227	1975	50	Poor	Moderate	2037	5900
wwManH-228	1975	50	Poor	Moderate	2037	6000
wwManH-229	1975	50	Poor	Moderate	2037	6500
wwManH-230	1975	50	Poor	Moderate	2037	6500
wwManH-231	1975	50	Poor	Moderate	2037	6500
wwManH-232	1975	50	Poor	Moderate	2037	6500
wwManH-233	1975	50	Average	Moderate	2047	5500

Town of Hilliard Asset Master List						
Manholes						
Name	Install Year	Design life	Condition	COF	Condition EOL	Replacement Cost
wwManH-234	1975	50	Average	Moderate	2047	6500
wwManH-235	1975	50	Average	Moderate	2047	6500
wwManH-236	1975	50	Average	Moderate	2047	7500
wwManH-237	1975	50	Average	Moderate	2047	6500
wwManH-238	1980	50	Average	Moderate	2048	6500
wwManH-239	1980	50	Poor	Moderate	2038	6500
wwManH-240	1980	50	Average	Moderate	2048	7500
wwManH-241	1980	50	Average	Moderate	2048	6800
wwManH-242	2000	50	Poor	Moderate	2038	8500