

Wastewater Asset Management Program

Hillsborough, New Hampshire

Hillsborough Water and Sewer Commission

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1. Introduction

The Hillsborough Water and Sewer Commission (HW&SC) engaged Underwood Engineers, Inc. (UE) to develop an asset management plan (AMP) for their sanitary sewer collection system, pumping stations, and wastewater treatment facility (WWTF) under Engineering Services Request #27 dated December 22, 2020.

The framework of this AMP includes the following core components.

- Asset Inventory and Condition Assessment
 - What sewer assets does the Commission own
 - Which assets are able to serve their purpose and which are beyond their useful life
 - What is their condition
 - What is the relative impact of asset failure
- Criticality
 - Prioritize assets by their probability of failure versus their impact of failure
- Minimum Life Cycle Cost (Practices)
 - Estimate level funded annual budgets required to replace assets over their life cycle
- Long-Term Funding Strategy (Budget)
 - Schedule estimated replacement costs by decade based on the useful life of the assets
 - Provide more detailed description of near term recommended asset replacements identified that may be needed in the next decade

Costs presented in this report are based on present day replacement cost estimates. This allows for the comparison and prioritization of projects. Inflation should be considered during the capital planning process based on when these projects are undertaken. Asset replacement work identified herein is intended to provide the HW&SC with a budgeting framework but is not intended to be a surrogate for detailed Facility Planning. Specific priority/sequencing of identified asset replacements should be refined annually based on available resources and needs.

2. Critical Assets and Priority Project Identification

To allocate scarce financial and physical resources in the most efficient way, it is necessary to systematically prioritize projects. For the purposes of this AMP, assets were ranked by their criticality. Criticality is defined as Probability of Failure (Overall Performance) versus Impact of Failure.

Probability of Failure is evaluated based on numerous factors including functionality, condition, and remaining useful life. For most of the gravity pipes, condition information was available from inspection data and the Probability of Failure score was based on the latest Pipeline Assessment and Certification Program (PACP) rating for each reach. The condition of other assets such as pumps, major equipment, and major components of the pumping stations and WWTF was based on visual observations, operator input and/or remaining useful life.

Table 1. Probability of Failure Scoring

Probability of Failure	
0.000 to 1.999 Excellent (Very Low Risk)	Asset is extremely reliable, condition of asset is excellent. Time to failure is unlikely in the foreseeable future.
2.000 to 2.999 Good (Low Risk)	Failures unlikely, condition of asset is very good. Remaining useful life of 20 years or more.
3.000 to 3.999 Fair (Moderate Risk)	Failure of asset is possible, moderate defects present. Remaining useful life of 10 to 20 years.
4.000 to 4.999 Poor (High Risk)	Asset sometimes fails to meet performance requirements, significant defects noted. Remaining useful life of 5 to 10 years.
5.000 to 5.999 Immediate Attention (Very High Risk)	Asset is likely to fail or has failed to meet performance requirements, serious defects noted. Asset has exceeded its remaining useful life.

An Impact of Failure score was assigned to each component based on the severity of consequences in the event of a break or malfunction. Factors such as the effect on public health, potential number of customers impacted, lack of redundancy, and cost of repair were considered.

Impact of Failure scoring is detailed in **Table 2**.



Table 2. Impact of Failure Scoring

Impact of Failure	
1 Very Low Impact	Public health and safety is very unlikely to be affected in the event of a failure. A small number of single-family residential customers would be inconvenienced. Repair cost is minimal.
2 Low Impact	Public health and safety are unlikely to be affected. A small number of single-family residential or small commercial customers would be inconvenienced. Repair cost is low.
3 Moderate Impact	Public health and safety are moderately likely to be affected. A large number of customers would be inconvenienced, or the impact on the customers affected would be serious. Repair cost is moderate to high.
4 High Impact	Moderate to high potential for public health and safety to be affected. A large number of customers would be inconvenienced, or the impact on the customers affected would be serious. Repair cost is high.
5 Major Impact	High potential for public health and public safety to be affected. A large number of customers would be inconvenienced, or the impact on the customers affected would be serious. Repair cost is very high.

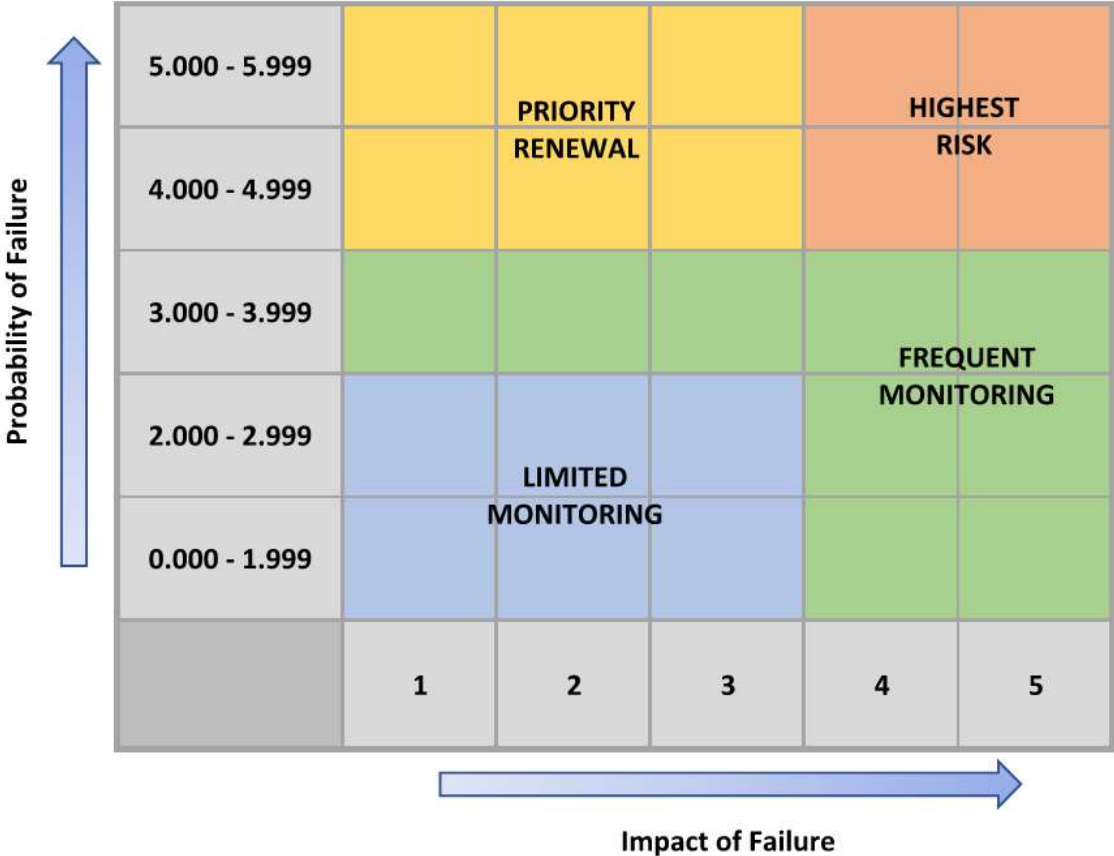
These factors taken together with the condition of the asset form the basis for the criticality of the asset. If an asset is in poor condition (has a high Probability of Failure) but is unlikely to have a significant impact in the event of a failure, then it may be lower on the priority list than an asset in poor condition which would have a major impact in the event of a failure. The impact of failure versus the probability of failure can be generally summarized as follows:

- Highest Risk – high probability of failure and high impact of failure.
- Priority Renewal – high probability of failure and low-to-moderate impact of failure.
- Frequent Monitoring – low-to-moderate probability of failure and low-to-high impact of failure.
- Limited Monitoring – low probability of failure and low-to-moderate impact of failure.

The criticality of an asset can be thought of as a matrix as shown in **Figure 1**.



Figure 1. Criticality Matrix



3. Horizontal Assets

3.1. Horizontal Asset Overview

Assets associated with the collection system, such as sewer manholes, siphons, gravity sewer mains, and force mains, are considered *horizontal assets* for purposes of this report. HW&SC horizontal assets were categorized as follows:

- Approximately 93,300 LF (17.7 miles) of gravity sewer (includes school district sewers)
- Approximately 2,450 LF (~0.5 miles) of force mains
- Approximately 437 sewer structures

The HW&SC collection system piping ranges between 6” and 18” and was mostly constructed during major infrastructure improvements projects in the late 1970s and early 1980s. The HW&SC has gathered condition information about the collection system through closed-circuit television (CCTV) inspections. The majority of the collection system has been CCTV’d and this information was used for this AMP to help prioritize projects and identify critical assets. Note that evaluation/inspection of the HW&SC sewer manholes and force mains has not been performed with the same regularity as mainline CCTV, so limited information was available about the condition of those assets. Evaluating the condition of force mains is difficult and can be expensive to perform so the condition of those assets is typically based on where they are in their useful life cycle. However, sewer manhole inspections are more feasible and an important consideration when considering sewer rehabilitation (such as mainline lining) and will be discussed in later sections of this report.

3.2. Horizontal Asset Inventory

The inventory of horizontal assets can be found in **Appendix A-1** and was based on available GIS and record drawing information provided by the HW&SC. Sewer record drawings provided year of installation for many sewers and the CCTV inspections provided recent pipe condition information. The age of some sewers was not known so ‘existing’ horizontal assets shown on record drawings were assigned 1940 as “Year Installed” as a conservative assumption for planning purposes since they are believed to pre-date the major infrastructure improvements of the late 1970s and early 1980s. Similarly, horizontal assets understood to have been installed after 1979 for which record drawings were unavailable were conservatively assigned 1980 as “Year Installed”. A summary of the estimated useful life of horizontal assets based on material is provided in **Appendix A-2**.

Private sewer assets were not included in this report or inventory. We understand that there are 13 privately-owned sewer manholes, approximately 2,372 LF (~0.5 miles) of privately-owned gravity sewer, and 1,716 LF of school district sewers connected to the HW&SC system. Commission-owned sewer piping is summarized below in **Table 3** and a map showing the HW&SC wastewater collection system by material is provided in **Appendix B-3**.



Table 3. HW&SC Sewer Pipe by Material

Material	Gravity Main Length (LF)	% Collection System Length
AC	2,480.96	2.66%
CI	270.40	0.29%
DI	1,917.77	2.06%
PVC	64,202.39	68.83%
VC	24,406.68	26.17%
Grand Total	93,278.20	100.00%

3.3. Prioritization of Horizontal Asset Replacement

Replacement of horizontal assets was prioritized based on criticality using the methodology described in Section 2 of this report. UE assigned each sewer reach a ‘probability of failure’ and ‘impact of failure score’ using the following criteria.

3.3.1. Probability of Failure

The probability of failure score assigned to each sewer was based on the severity and quantity of structural defects understood to exist in each reach. The majority of HW&SC’s gravity system has been inspected since 2011 by Vortex Companies (formerly Ted Berry Company) who provided inspection logs and database tables to document observed pipe defects. Where multiple CCTV inspection reports were found for a single sewer reach, UE tried to use the most recent inspection report for the condition assessment. The CCTV inspector rated the severity of each defect using the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) standardized 1 through 5 rating system (5 being the most severe defect). The structural Quick Code Ratings (QR) provided from CCTV reports summarizes the number of occurrences for the two highest severity structural defects for each pipe segment and can range from 0000 (no defects) to 5949. For example, if a pipe is noted to have three severity 5 defects, zero severity 4 & 3 defects, and one severity 2 defect, the QR for this reach would be 5321. For purposes of this AMP, this QR was transformed into a decimal version such as 5.321 which was used as the probability of failure for the reach. Refer to **Section 2** and **Table 1** for additional description about the condition rating system used for this report.

Table 4 summarizes the quantities and lengths of gravity main by Probability of Failure.

Table 4. Gravity Main by Probability of Failure

Probability of Failure	Reach Quantity	Sum of Reach Lengths (LF)	% Collection System Length
0.000-1.999	308	60,391.85	64.74%
2.000-2.999	72	15,091.35	16.18%
3.000-3.999	20	4,321.80	4.63%
4.000-4.999	11	2,906.30	3.12%
5.000-5.999	41	10,566.90	11.33%
Grand Total	452	93,278.20	100.00%



The sewer reaches (by street) with the most severe defects (ie. condition scores >4.100) were found on Preston Street, West Main Street, Church Street, Wyman Street, West Mill Street, Whittemore Street, and Bridge Street. Defects with scores of 4.100 or greater observed during the inspections are listed in **Appendix A-3**. A map showing the probability of failure of gravity mains is provided in **Appendix B-6**. The sewer pipes with condition scores of 4.100 to 5.949 have the highest criticality and should be prioritized for replacement.

3.3.2. *Impact of Failure*

The impact of failure score assigned to each sewer reach was based on the criteria described in Section 2 of this report. However, additional consideration was provided for horizontal assets that service key municipal infrastructure such as fire stations, schools, etc. that may serve an important role during emergencies. The impact of failure score for each horizontal sewer asset is mapped in **Appendix B-5**.

3.3.3. *Criticality*

Combining probability of failure and impact of failure, the criticality of replacing each horizontal sewer asset is mapped in **Appendix B-7**.

A summary of gravity main reaches by criticality is provided in **Table 5**. Over time, the goal is to move more of the assets out of the “Highest Risk” and “Priority Renewal” categories into the “Limited Monitoring” and “Frequent Monitoring” categories. A program of regular asset renewal can also help the HW&SC save on annual CCTV costs because less frequent condition monitoring would be required for renewed assets and mitigate the risk of costly emergency repairs. HW&SC wastewater collection system assets with scheduled replacements over the next ten years classified as Highest Risk or Priority Renewal are provided in **Table 6** and **Table 7**.

Table 5. Gravity Main Reaches by Criticality

Criticality	Reach Quantity	Sum of Reach Lengths (LF)	% Collection System Length
Highest Risk	13	3,024.89	3.24%
Priority Renewal	39	10,448.31	11.20%
Frequent Monitoring	174	34,986.03	37.51%
Limited Monitoring	226	44,818.97	48.05%
Grand Total	452	93,278.2	100.00%



Table 6. Highest Risk Gravity Mains

Asset ID	Location	Reach Length (LF)	% Collection System Length
SSGM-5009	School St	143.90	0.15%
SSGM-5019	Central St	60.42	0.06%
SSGM-5052	Myrtle St	299.33	0.32%
SSGM-5093	W Main St	235.67	0.25%
SSGM-5099	Church St	208.52	0.22%
SSGM-5133	Central St	279.63	0.30%
SSGM-5188	Church St	333.11	0.36%
SSGM-5202	W Main St	54.61	0.06%
SSGM-5202A	W Main St	513.82	0.55%
SSGM-5218	School St	309.60	0.33%
SSGM-5305	W Main St	72.66	0.08%
SSGM-5310	Church St	192.41	0.21%
SSGM-5370	W Main St	321.21	0.34%
Grand Total		3,024.89	3.24%



Table 7. Priority Renewal Gravity Mains

Asset ID	Location	Reach Length (LF)	% Collection System Length
SSGM-5012	W Mill St	209.32	0.22%
SSGM-5022	Whittemore St	207.19	0.22%
SSGM-5024	Jackson St	114.30	0.12%
SSGM-5025	Bear Hill Rd	130.50	0.14%
SSGM-5047A	River St	128.69	0.14%
SSGM-5054	Newman St	402.62	0.43%
SSGM-5068	Bridge St	217.95	0.23%
SSGM-5069	John St	254.88	0.27%
SSGM-5109	Park St	238.64	0.26%
SSGM-5111	Union St	315.11	0.34%
SSGM-5125	Cross St	241.80	0.26%
SSGM-5126	Summer St	290.35	0.31%
SSGM-5128	W Mill St	147.83	0.16%
SSGM-5131	Pleasant St	466.33	0.50%
SSGM-5137	Whittemore St	352.47	0.38%
SSGM-5138	Prospect St	468.76	0.50%
SSGM-5139	W Mill St	334.19	0.36%
SSGM-5159	Park St	241.39	0.26%
SSGM-5165	Central St	456.50	0.49%
SSGM-5182	Bridge St	284.03	0.30%
SSGM-5220	Depot St	345.33	0.37%
SSGM-5221	Union St	390.90	0.42%
SSGM-5232	Brown St	140.01	0.15%
SSGM-5241	Jackson St	197.87	0.21%
SSGM-5243	W Mill St	231.02	0.25%
SSGM-5247	Wyman St	81.72	0.09%
SSGM-5271	Wyman St	182.58	0.20%
SSGM-5285	Church St	327.45	0.35%
SSGM-5304	Bridge St	302.28	0.32%
SSGM-5361	Preston St	404.19	0.43%
SSGM-5362	Preston St	237.78	0.25%
SSGM-5371	High St	336.01	0.36%
SSGM-5379	Pearl St	268.51	0.29%
SSGM-5380	Pearl St	158.89	0.17%
SSGM-5396	Whittemore St	245.43	0.26%
SSGM-5408	Hoyt Ln	231.74	0.25%
SSGM-5428	Wyman St	320.52	0.34%
SSGM-5435	Wyman St	352.52	0.38%
SSGM-5436	Preston St	190.71	0.20%
Grand Total		10,448.31	11.20%



3.4. Long-Term Financial Planning

The replacement value of all HW&SC gravity and force mains is estimated to be approximately \$57 million dollars. Replacement cost estimates were based on an all-inclusive number, meaning that both engineering and construction costs (including manholes and services in the ROW) were considered. The unit cost of pipe replacement can vary depending on the size and scope of the project, but for planning purposes a unit cost of \$600 per linear foot was assumed based on the actual costs of the 2018 Bridge Street sewer replacement work. This project was used as a basis for cost projections because it's scale, scope, and complexity appeared to be a good median for other HW&SC sewer replacements. A tabulation of replacement costs for each HW&SC horizontal asset is provided in **Appendix A-1**.

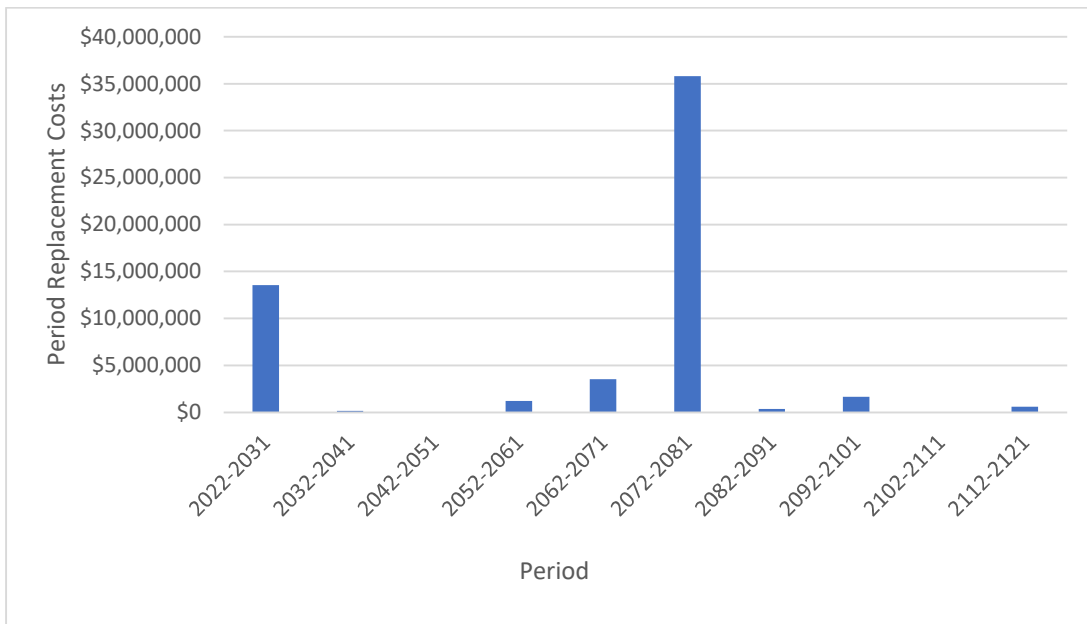
Horizontal asset replacement costs have been scheduled out each decade for the next 100 years to capture the estimated useful life of existing system components. These costs are shown in **Table 8** and **Figure 2**. The annual reserves contribution to level fund these replacement costs would be approximately \$570,000 per year.

Table 8. HW&SC Gravity Main Estimated Replacement Cost – Next 100 Years

Period	Total	% Total 100-Yr Cost
2022-2031	\$13,564,056	23.8%
2032-2041	\$162,240	0.3%
2042-2051		0.0%
2052-2061	\$1,204,866	2.1%
2062-2071	\$3,530,408	6.2%
2072-2081	\$35,821,458	63.0%
2082-2091	\$346,374	0.6%
2092-2101	\$1,645,128	2.9%
2102-2111		0.0%
2112-2121	\$611,226	1.1%
2022-2121	\$56,885,756	100.0%



Figure 2. HW&SC Horizontal Asset Replacement Cost – Next 100 Years



As shown in Figure 2, the horizontal asset replacement costs are not uniformly distributed over the next 100 years. Several large sewer replacement capital ‘slugs’ in 2022-2031 and 2072-2081 correspond to when sewers reach the end of their assumed useful life based on the assumed date they were installed in the model. For example, the first decade (2022-2031) includes replacement of the VC sewers of unknown installation date that were believed to have been installed prior to 1979. UE assumed a conservative 1940 installation date, so these sewers have now exceeded their assumed 80-year useful life for VC sewers in the analysis. These VC sewers represent approximately \$13.5 million of the total \$57 million 100-year replacement cost. It may be possible to refine the modeled replacement date with further desktop investigation into the installation date of these sewers. However, the criticality assessment previously discussed (**Table 6 & Table 7**) is believed to be a better way to prioritize specific replacements and use the condition assessment information the HW&SC has gathered through proactive CCTV. To this end, UE has identified several specific “Short-Term” replacement projects that the HW&SC could consider based on the criticality assessment. However please note that it may be appropriate for the HW&SC to prioritize other areas of similar criticality to align with other infrastructure projects.

3.5. Potential Short-Term Recommended Horizontal Asset Projects (2022-2031)

Based on the criticality assessment, three areas were identified for potential sewer replacement projects in the next decade and are consistent with the previously discussed recommended funding levels for life-cycle asset management. These projects include what we understand as some of the oldest or most defective sewers within the collection system and are mapped in **Appendix B-8**.

Project #1 – West Main Street: This project includes replacing the vitrified clay (VC) gravity main on W. Main Street from just south of Central Street to just south of Wall Street. The probability of failure score for these pipes is very high due to age and condition, and the impact of failure score is high due to their location. However, the typical \$600/ft planning level costs for this



approximately 2,000' project is likely low due to the complexity of this work, so a more detailed estimate is recommended if the HW&SC wishes to pursue this project and a planning level budget of \$800/ft (\$1.6M) may be more appropriate.

Project #2 – Church Street Area: This project includes replacing the 6" VC gravity main around Church Street. The probability of failure score for many of these pipes is either high or very high due to age and condition, and the impact of failure score is high because these pipes service the elementary school. The 6" VC pipe on Church Street in particular should be replaced to match the flow capacity of the upstream 8" pipe carrying wastewater from the elementary school. Other sewers in this area on Newman, Center, Pleasant, and Myrtle Streets also had a high criticality score warranting consideration for replacement and are not good candidates for rehabilitation due to 6" diameter. Pending project scope, a \$600/ft planning level budget would be appropriate for sewer replacement work in this area (\$1.5M +/- pending scope).

Project #3 –Park and Whittemore Street: This project includes replacing the 6" VC sewers on Park and Whittemore Streets. Although these sewers have a relatively low impact of failure score due to their small service area, their high probability of failure score (i.e. condition) raises their criticality for replacement. These sewers are not a good candidate for rehabilitation due to their 6" diameter and we understand that this project may also align with other planned capital projects. Pending project scope, a \$600/ft planning level budget would be appropriate for sewer replacement work in this area (\$1M +/- pending scope).

3.6. Rehabilitation vs. Replacement

The costs assumed in this analysis are based on full replacement of the gravity mains since this is the most reliable method for long-term for asset management. However, sewer rehabilitation can also be used to extend the useful life of gravity sewers. The HW&SC has been using some of these rehabilitation technologies so UE wanted to include a brief discussion about the advantages and disadvantages of sewer rehabilitation compared to sewer replacement as it relates to long-term asset management.

One method of sewer rehabilitation that the HW&SC has used in the past is cured-in-place pipe (CIP) point repairs also sometimes referred to as 'short liners'. Short liners are typically used to repair isolated defects in a main (often around 4' long) from inside the sewer which can be performed without digging up the street. UE identified 10 reaches from the CCTV files that have at least one point repair. Some reaches documented more than one point repair, such as the five repairs noted in the 2020 inspection video of SSGM-5242 on Summer Street. A summary of reaches where UE identified past point repairs are included in **Table 9**.



Table 9. HW&SC Gravity Mains with Known CIPP Repairs

Asset ID	Location	Material	Diameter (in)	Repair Count	Sum of Repair Length	Reach Length	% Reach Repaired
SSGM-5022	Whittemore St	VC	6	3	15	207.19	7.24%
SSGM-5074	Myrtle St	VC	6	2	12	116.9	10.27%
SSGM-5092	Wyman St	VC	6	2	10	309.16	3.23%
SSGM-5118	Briggs St	VC	6	2	11	150.92	7.29%
SSGM-5138	Prospect St	VC	6	1	Unknown	468.76	Unknown
SSGM-5188	Church St	VC	6	4	16	333.11	4.80%
SSGM-5218	School St	VC	6	3	12	209.6	5.73%
SSGM-5242	Summer St	VC	6	5	19	373.26	5.09%
SSGM-5382	Bear Hill Rd	PVC	8	1	4	75.35	5.31%
SSGM-5386	W Mill St	VC	8	1	4	233.17	1.72%

Point repairs help mitigate the risk of imminent emergency failures, but we did not use the presence of point repairs to extend the assumed useful life of the sewer asset in our analysis.

Another method of sewer rehabilitation is CIP lining the entire sewer reach. We have included our understanding of lined reaches in **Table 10**, but this may not be an all-inclusive list for liners installed prior to 2016. Our analysis assumed that the full reach liner extends the sewer main’s useful life (50 years assumed), but it is important to note that this technique is not equivalent to sewer replacement since rehabilitation of sewer manholes and laterals connected to the CIP liner are not included in the rehabilitation. We recommend that the HW&SC inspect the manholes where CIP lining has been performed in the past (if not done already) and include manhole rehabilitation costs in the asset management program if appropriate to extend the asset life (mainline and manhole) for the assumed 50-year life-cycle.

Table 10. HW&SC Gravity Mains with Full Reach Liners

Asset ID	Location	Material	Diameter (in)	Year Lined	Reach Length (LF)	% Collection System
SSGM-5010	Henniker St	AC	10	2016	46.26	0.05%
SSGM-5032	Henniker St	VC	10	2016	143.74	0.15%
SSGM-5078	Preston St	VC	8	2021	338.07	0.36%
SSGM-5110	Preston St	VC	8	2016	327.11	0.35%
SSGM-5113	Bear Hill Rd	VC	8	2021	110.78	0.12%
SSGM-5166	Henniker St	VC	10	2016	258.84	0.28%
SSGM-5171	Bear Hill Rd	VC	10	2021	152.4	0.16%
SSGM-5191	Preston St	VC	8	2021	184.47	0.20%
SSGM-5194	Bear Hill Rd	VC	10	2021	114.2	0.12%
SSGM-5245	Henniker St	VC	10	2016	269.17	0.29%
SSGM-5291	Henniker St	VC	10	2016	470.52	0.50%
SSGM-5296	Bear Hill Rd	VC	10	2016	136.52	0.15%
Grand Total					2,552.08	2.74%



4. Vertical Assets

4.1. Vertical Asset Inventory

Vertical Assets are those associated with pumping stations or the WWTF. A summary of our understanding of the HW&SC vertical assets were categorized as follows:

- Lagoon wastewater treatment facility (WWTF)
 - o Built around 1986 with significant improvements constructed around 2012/2013 to increase the design capacity to 0.6 mgd.
 - o The WWTF includes an approximate 3,400 square foot, concrete block main building (constructed around 1986) that houses the blower room, headworks room, operations/laboratory room, and utility/chlorine room with the associated electrical, HVAC, and mechanical equipment required for operation
 - o 240 kW Generator (cir. 1986)
 - o The WWTF includes an approximate 800 square foot prefabricated chemical building (constructed around 2012) that houses the ferric chloride and sodium hydroxide chemical feed systems used for effluent metals removal
 - o Three (3) Hypalon-lined lagoons (constructed around 1986)
 - Lagoon #1 = Approx. 2.5 acres
 - Lagoon #2 = Approx. 1.3 acres
 - Lagoon #3 = Approx. 1.3 acres
 - o Exterior chlorine contact chambers (constructed around 1986)
 - o Septage receiving facility (not in use)

- West Main Street Pumping Station
 - o Built around 1986 +/- to convey wastewater from the west side of town to the main collection system
 - o Includes an approximate 200 square foot concrete block building with brick façade that houses the 75 kW generator (cir. 2008)
 - o Includes an underground 10'x8' concrete dry pit that houses the pumps and controls (450 gpm each @ 60' TDH)
 - o One 8' diameter concrete wet well
 - o Influent grinder pump in the wetwell (cir. 2021)

- Bear Hill Pumping Station
 - o Constructed around 1986 +/- to lift wastewater from a small collection area on the south side of the Contoocook River
 - o Includes a 6'x6' concrete underground pump control chamber
 - o Includes a 6' diameter concrete wetwell with duplex submerged submersible pumps, rails, and appurtenances
 - o Includes a 1,000 gallon concrete underground overflow tank
 - o Emergency generator (cir. 2020)

Much of the information for the vertical assets was gathered from existing record drawings provided by the Commission. An inventory of vertical assets is provided in **Appendix A-4**.



4.2. Vertical Asset Condition Assessment

On November 3rd, 2021, UE staff conducted a site visit to the two pump stations and WWTF with assistance from HW&SC chief operator Paul Dutton. The assets within these facilities were found to be in serviceable condition and some specific information provided during the visit is as follows.

4.2.1. Wastewater Treatment Facility Site Visit

- Three wastewater lagoons
 - o Lagoon #1 sludge removed around 2003
 - o Lagoon #2 sludge removed around 2013
 - o Lagoon #3 sludge is believed to have never been removed
- The two screw pumps replaced around 2013
- Three blowers replaced around 2012 (with one rebuilt in 2018)
- Installation of floating aeration systems in Lagoons #2 and #3 around 2012
- Replacement of diffusers in Lagoon #1 in 2021 (not observed)

During the site visit, the operator identified the WWTF boiler as a concern. He indicated that the boiler requires maintenance two to three times per year and can take up a lot of maintenance and staff time. Another item of concern was the exterior doors to the headworks section of the building which are rusting and are in poor condition. Another identified item of concern was the unit heaters throughout the Operations Building that were reported to work intermittently and do not provide sufficient heat throughout the entire facility.

Lagoons #1 and #2 were both recently cleaned of sludge. However, Lagoon #3 has no history of being cleaned. The lagoon liners are original to WWTF construction and their condition is unknown. One item of concern that has been identified in the past is that the valves used to isolate/drain lagoons for maintenance do not function properly. These valves are not used during normal WWTF operations so are not a high priority asset replacement. However, valve replacement may be required as part of planned future lagoon capital expenditures (such as liner replacement).

Much of the equipment within the Chemical Building, such as the 3,000-gallon ferric chloride tanks, sodium hydroxide tanks, water heaters, and chemical feed pumps, were installed around 2012 and appeared to be in good condition. No assets in this building were identified to require immediate attention, but the operator expressed concern with the condition of some of the associated chemical feed piping in the yard.

Much of the equipment in the headworks area appear to function but are at or beyond their expected useful life except for the screw pumps which were replaced in 2013.

The WWTF standby generator is reported to be operable, however it is the original from around 1986 and approaching the end of its expected useful life. The WWTF generator is a critical piece of equipment with a high impact of failure if a failure occurs when it is needed.



4.2.2. West Main Street Pumping Station Site Visit

The West Main Street Pumping Station, located at 85 W. Main Street, is a duplex wet well/dry pit-type pumping station constructed around 1986. We understand Pump #1 is original from 1986 and Pump #2 was rebuilt around 1999. No issues with the pumps, panels, heaters, compressors, piping, etc., much of which are original to the station, were identified by the operator but many of these assets are approaching or exceeded the end of their expected useful life. We understand that the generator was rebuilt around 2008 but is original as well. An influent grinder pump was installed in 2021. The operator noted that improvements to the alarm system would improve pumping station operations efficiency.

4.2.3. Bear Hill Pumping Station Site Visit

The Bear Hill Pump Station, located off Bear Hill Road, is a duplex submersible pumping station constructed around 1986. This pumping station includes a concrete wetwell and a buried concrete vault that houses the pump controls and valves. Most equipment, such as the panel and piping, is understood to be the original and although the operator did not identify issues with the equipment it is approaching the end of its useful life. Pumps #1 and #2 and the heater were replaced around 2015 although it is unclear whether Pump #2 has been installed. The generator and propane tank were installed in 2021. The presence of key operational equipment in the underground vault can make pumping station operations more challenging than if the equipment were above grade.

4.3. Long-Term Financial Planning

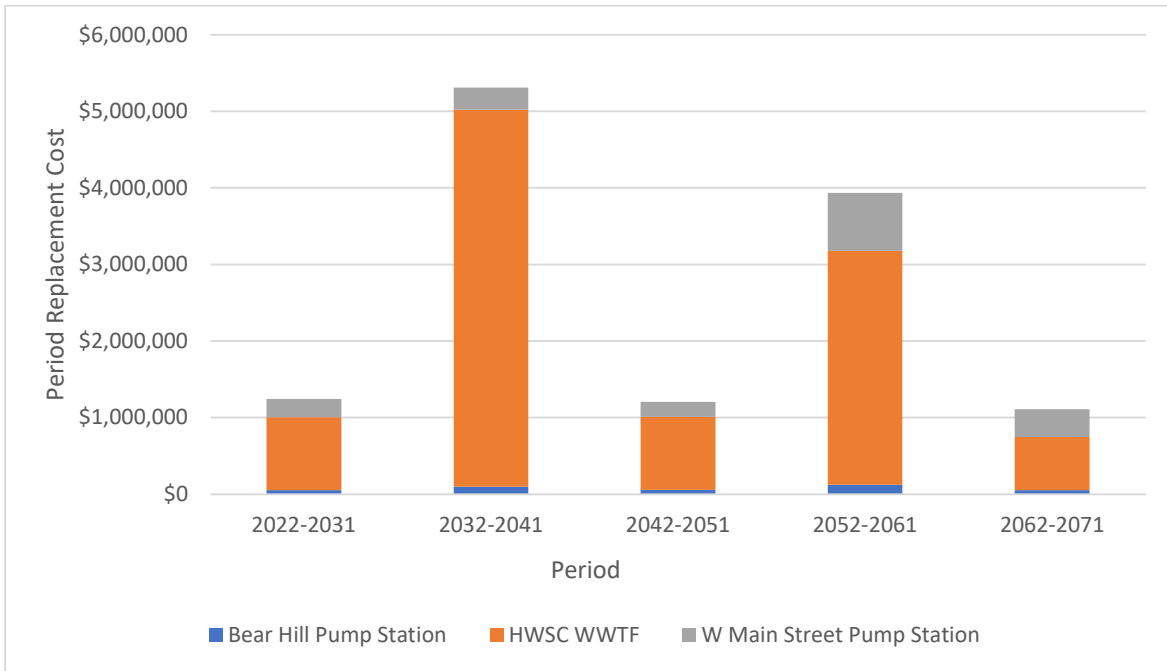
Vertical asset replacement costs were projected for each decade over the next 50 years in **Table 11** and **Figure 3** based on the date of installation and estimated useful life. Average annual level funded replacement costs over this time frame are approximately \$260,000 per year. Replacement costs and replacement years for each vertical asset can be found in **Appendix A-4**. However, forecasting replacement costs beyond one life cycle for most major WWTF components is difficult, as regulatory changes could require more costly upgrades beyond current assets to meet higher treatment standards.

Table 11. HW&SC Vertical Asset Estimated Replacement Cost – Next 50 Years

Period	Bear Hill Pumping Station	HW&SC WWTF	W Main Street Pumping Station	Grand Total
2022-2031	\$52,000	\$952,000	\$240,000	\$1,244,000
2032-2041	\$98,000	\$4,922,000	\$290,000	\$5,310,000
2042-2051	\$56,000	\$951,000	\$198,000	\$1,205,000
2052-2061	\$123,000	\$3,057,000	\$753,000	\$3,933,000
2062-2071	\$52,000	\$693,000	\$363,000	\$1,108,000
2022-2071	\$381,000	\$10,575,000	\$1,844,000	\$12,800,000



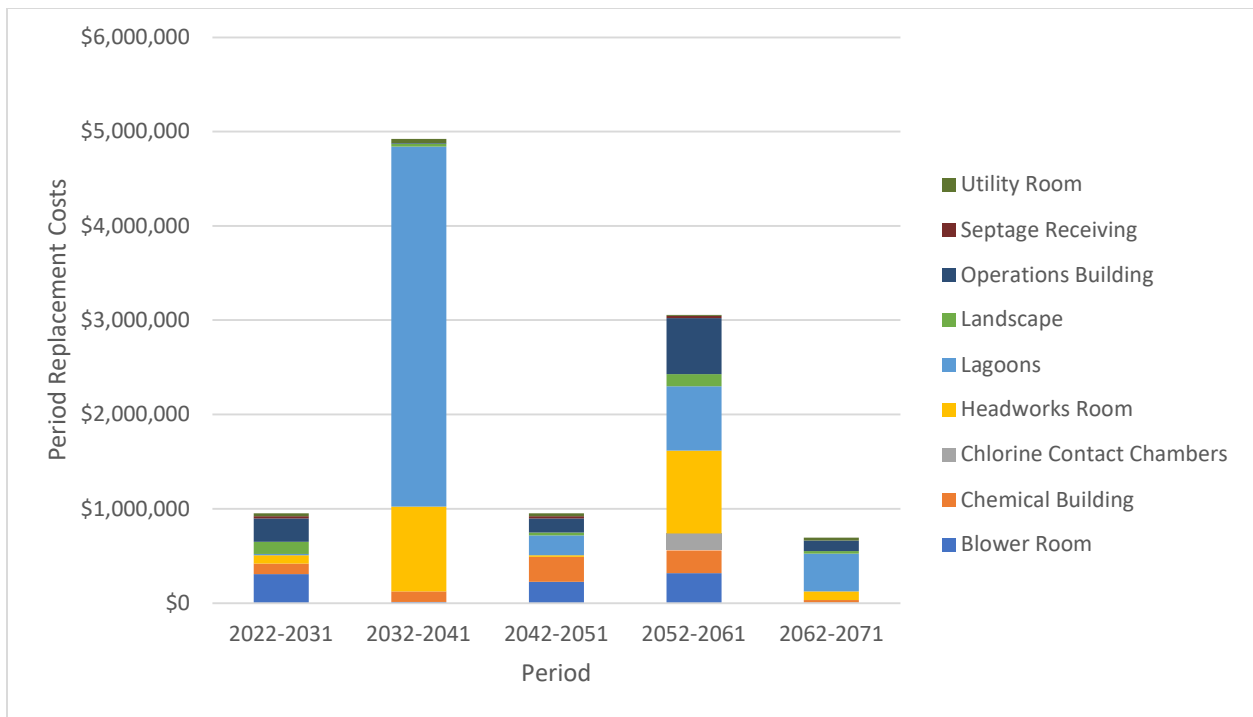
Figure 3. HW&SC Vertical Asset Replacement Cost – Next 50 Years



Asset replacement costs within the WWTF are broken out in **Appendix A-5** and summarized in **Figure 4**. The totals include shorter-lived assets at the WWTF that will need to be replaced multiple times. Full replacement costs for existing WWTF assets are estimated to total approximately \$10.6 million over the next 50 years. Note that forecasted expenditures are not uniform over time there is a large projected WWTF expenditures ‘slug’ in the 2032-2041 timeframe mostly related to anticipated lagoon liner replacement.



Figure 4. HW&SC WWTF Replacement Costs – Next 50 Years



4.4. Short-Term Recommended Vertical Asset Projects (2022-2031)

The following is a description/summary of the \$1.24M vertical asset replacements (WWTF and pumping stations) that were identified for 2022-2031 (Table 11) based on asset conditions observed during site visits and age-based estimated useful life projections included in this analysis.

WWTF Projects:

A total of approximately \$950,000 was identified at the WWTF (Appendix A-4.2). The following is not intended to be an all-inclusive list but highlight some of the major items identified for replacement:

Blower Replacement - \$225,000

This is a critical piece of equipment for proper WWTF operation. These were assumed to have a 15-year useful life based on past issues with one of the blowers.

Generator Replacement - \$80,000

The existing generator is original to 1986 and is beyond its expected 30-year useful life.

WWTF Building Roof Replacement - \$70,000

The roof is understood to be original to 1986 WWTF construction and is believed to be approaching the end of its useful life.



WWTF Exterior Site and Lighting Work - \$150,000

This work includes repairing and relocating the light posts along Lagoon #1, overlaying the paved access drive, and repairing the perimeter fence. Several of the light posts exhibited water damage and had leaking seals and were non-functional at the time of the site visit. The operator noted that the exterior lighting posts were a hazard for truck drivers making chemical deliveries and relocation would be beneficial to site operations. The access drive around the facility, while functional, should be regularly overlaid. The perimeter fence is original, but serviceable so included replacement costs for this item could potentially be deferred to future decades.

Chemical Pumps, Piping, Electrical and Instrumentation - \$150,000

This work includes planning costs for replacing chemical feed pumps, piping, electrical processes and controls associated with those systems that need regular replacement. The operator expressed concern about the longevity of some of the chemical feed piping that is currently in use for these systems.

Grit and Headworks Equipment - \$80,000

This work includes planning costs for replacing mechanical and screening equipment in the headworks since it is understood that it is approaching the end of its expected useful life.

Operations Building Maintenance - \$90,000

This work includes replacing the exterior headworks door, boiler, and HVAC. At the time of the site visit, significant rust was visible on the inside and outside of the headworks door. The operator noted that the boiler needs maintenance several times per year and that the unit heaters do not provide sufficient heat.

West Main Street Pumping Station:

A total of approximately \$240,000 was identified at the West Main Pumping Station (**Appendix A-4.3**). The following is not intended to be an all-inclusive list but highlight some of the major items identified for replacement:

The West Main Street Pumping Station was found to have a high impact of failure. Pump #1, #2, sump pump, and compressors are critical for station operation and these items are approaching the end of their expected useful life. The operator also identified the need to improve the alarm system to improve recognition and response to station alarms and it is anticipated that scheduled electrical and HVAC replacement would be performed as part of this work. Costs for replacing the roof, buried oil tank, and driveway overlay were also identified and included in this planning horizon.

Bear Hill Pumping Station:

A total of approximately \$50,000 was identified at the Bear Hill Pumping Station (**Appendix A-4.1**).

This work includes moving pump controls out of the buried concrete vault to an above ground electrical cabinet, paving the access drive, upgrading electrical components and floats and installing the already purchased Pump #2. Although this asset management plan focuses on replacement of existing assets, we recommend that select equipment at this station be relocated to outside the underground vault instead of replacing in-kind.



5. Overall System Financial Planning and Conclusions

5.1. Long-Term Financial Planning

The overall value of existing horizontal and vertical assets is provided in **Table 12** and **Figure 5**. The values below are the estimated cost to replace each existing asset once. However, some assets may need to be replaced multiple times depending on the planning horizon that is evaluated.

Table 12. HW&SC Horizontal and Vertical Asset Replacement Costs – All Existing Assets

Asset Type	Sum of Replacement Costs	% Total Replacement Costs
Gravity & Force Mains	\$56,886,000	87.0%
Bear Hill Pump Station	\$271,000	0.4%
HW&SC WWTF	\$7,094,000	10.8%
W Main Street Pump Station	\$1,149,000	1.8%
Grand Total	\$65,400,000	100.00%

Figure 5. HW&SC Horizontal and Vertical Asset Replacement Costs – All Existing Assets

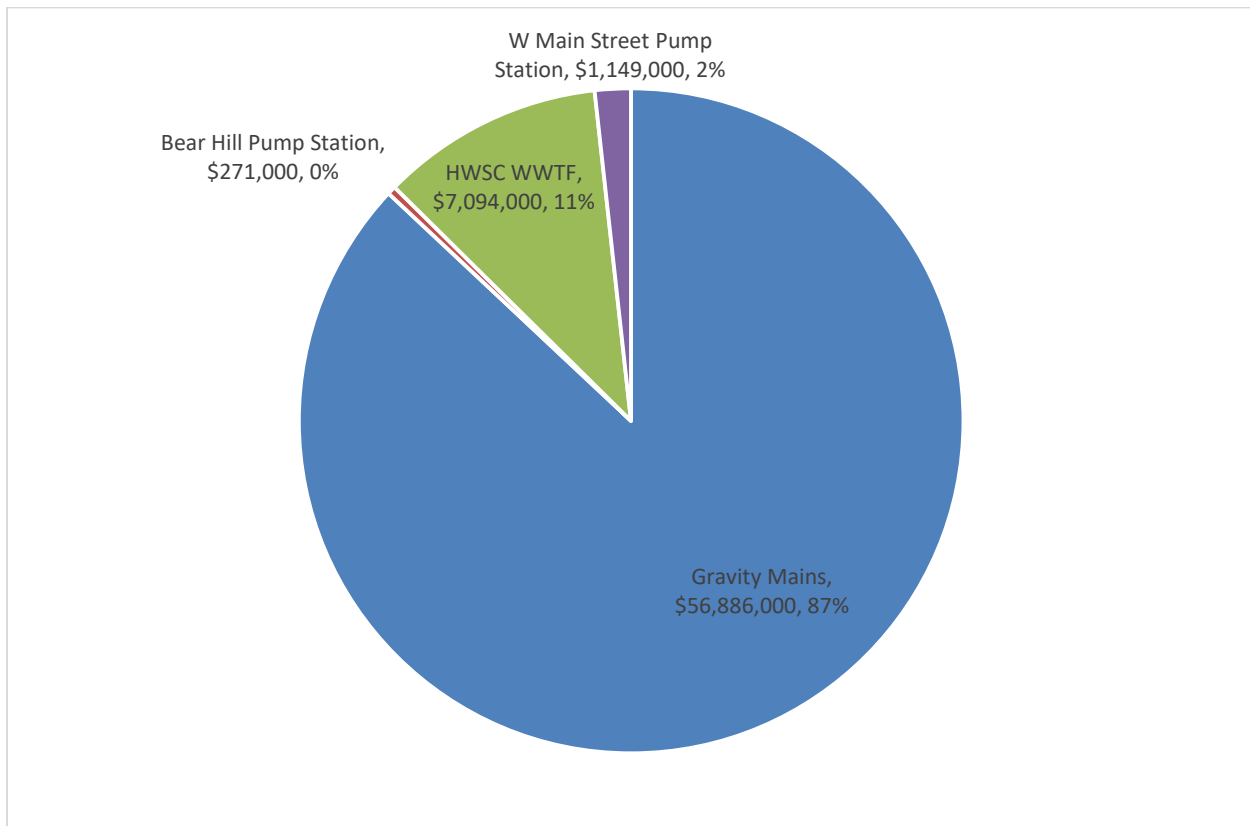


Table 13 summarizes the costs to replace existing assets identified for replacement during the next 50 years by decade totaling approximately \$31.2 million dollars. This cost equates to

approximately **\$625,000/year** present day costs if levelly funded over the 50-year planning horizon. Note that this cost is less than the \$830,000/year that could be extrapolated from previous Sections 3 and 4 of this report (sum of \$570,000/year for horizontal asset and \$260,000/year for vertical assets) due to the different planning time horizons used for horizontal assets (100-years) and vertical assets (50-years) in those sections. The large ‘slug’ of PVC sewer replacement identified for the 2072-2081 decade (**Figure 2**) is outside this 50-year planning window resulting in lower 50-year annual planning costs show in **Table 13**.

Table 13. HW&SC Horizontal and Vertical Asset Replacement Costs – 50 Years

Asset Type	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	Grand Total
Gravity & Force Mains	\$13,564,056	\$162,240		\$1,204,866	\$3,530,408	\$18,461,570
Bear Hill Pump Station	\$52,000	\$98,000	\$56,000	\$123,000	\$52,000	\$381,000
HW&SC WWTF	\$952,000	\$4,922,000	\$951,000	\$3,057,000	\$693,000	\$10,575,000
W Main Street Pump Station	\$240,000	\$290,000	\$198,000	\$753,000	\$363,000	\$1,844,000
Grand Total	\$14,808,056	\$5,472,240	\$1,205,000	\$5,137,866	\$4,638,408	\$31,261,570
50-Yr Annual Reserve Contribution						\$625,000

HW&SC contributed \$125,000 to its reserve funds in 2020 and \$100,000 each year from 2015 to 2019 which is less than the \$625,000/year planning level asset replacement costs identified above. Since the sewer department is almost wholly funded by the users through billing and fees, the shortfall over the long term would have to be made up by increased revenue, although borrowing could be used to help spread the cost of large capital projects over time.

The New Hampshire Water and Wastewater Rates Dashboard is a resource to help communities determine their affordability ratio as well as compare their own rates against the statewide average sewer rates. We understand that the annual sewer bill for a typical household in Hillsborough is \$480 per year which is approximately \$300/year less than the reported \$766 statewide annual average. Median Household Income (MHI) is another metric that is used to evaluate sewer rate affordability within a community. Hillsborough’s \$82,395 MHI reported in the 2019 American Community Survey 5-Year Estimates indicates that current sewer rates represent approximately 0.6% of MHI which lower than the 2% MHI threshold that many agencies use to evaluate sewer rate affordability.

The Water and Wastewater Rates Dashboard can be found at this link:
<https://dashboards.efc.sog.unc.edu/nh>



5.2. Conclusions and Recommendations

The HW&SC sanitary sewer collection system, pumping stations, and wastewater treatment facility are serviceable indicating that the HW&SC has effectively managed those assets over time. However, a higher funding level is recommended for planning purposes based on the findings of this evaluation.

Horizontal assets represent the largest portion of the HW&SC system value and forecasted asset management costs identified in this report. The HW&SC has been very proactive managing that asset through CCTV inspection and we recommend that the HW&SC continue with regular sewer CCTV and include manhole inspections to help further inform planning of horizontal asset projects especially when rehabilitation is being considered. In addition, we recommend that the HW&SC prioritize future CCTV and manhole inspections based on the criticality of the sewer reach. For example, approximately 50% of the sewers were identified for ‘limited monitoring’ (Table 5) so the inspection frequency of those sewers could be reduced to a 20-year inspection cycle at this time. Conversely, we recommend that the inspection frequency of identified ‘highest risk’ (Table 6) and ‘priority renewal’ (Table 7) be performed more frequently (5-year or more frequent inspection cycle). However, this process of inspection priority is dynamic and must be continually updated as sewer conditions change and information becomes available. Similarly, regular inspection will enable the HW&SC to prioritize projects to spread replacement projects/costs over time. We recommend that horizontal asset replacement be prioritized by ‘criticality’ and sewer projects be coordinated with other planned projects (such as drinking water or road reconstruction) to optimize project efficiency.

The vertical assets represent a smaller portion of the HW&SC system value, but many of these assets are critical to the effective function of the sewer system. It was found that these assets currently function as intended, but vertical assets often consist of several inter-related components that have a shorter expected useful life than the horizontal assets. Costs for replacement of these upgrades should be planned for components approaching the end of their estimated useful life before significant issues or emergency situations arise. However, we recognize that some of these replacements (such as lagoon liner or blower replacement) can be significant, but difficult to forecast. The suggested vertical asset replacement sequencing/prioritization provided herein is intended to provide the HW&SC with a budgeting tool, but should not be used as a surrogate for a detailed Facility Planning.

The identified \$625,000/year costs for 50-year asset management planning window are significantly higher than the \$100,000/year to \$125,000/year that the HW&SC has budgeted for capital reserves in recent years. Although a 600% increase in capital reserves to fully fund the asset management program is likely not realistic, we recommend that the HW&SC increase capital reserve annual budgets considering forecasted long-term asset management needs. We understand that this additional revenue would likely need to be generated from user rates and it appears that the HW&SC wastewater rates are lower than the state average. In addition, Hillsborough’s recent MHI suggests that some level of sewer rate increase may be affordable by regulatory standards. We recommend that the HW&SC perform a rate study with the objective to increase revenue to plan for future asset management projects. HW&SC should also continue to increase capital



reserve contributions over time to prepare for increasing emergency repairs as the wastewater collection system ages depending on the level of preventative work.

Asset management programs are never fully complete, as they require continual updating when capital projects are completed, or changes are made to the wastewater systems. HW&SC should implement a process for periodically updating the financial planning spreadsheet and GIS data as inspection, rehabilitation, replacement projects are completed. This will help ensure that data on-hand is useful in both monitoring asset condition and planning future projects.



Appendix A - 1.1

Hillsborough Collection System Pipe Data Table

Asset ID	Asset Type	Sewer Basin	Street	Diameter	Upstream Manhole	Downstream Manhole	Material	Inspected	Year Installed	Year Lined	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Unit	Unit Cost	Length (LF)	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Condition Score	Criticality
SSFM-5337	Force Main	A	W Main St	8 inch diameter	Main Street PS	SSMH-1318	DI	No	1979		85	2064	42	2064	LF	\$375	1458.02	\$546,758	5	2	10	2	Frequent Monitoring
SSFM-5340	Force Main	C	Bear Hill Rd	4 inch diameter	Bear Hill PS	SSMH-1609	DI	No	1979		85	2064	42	2064	LF	\$375	992.21	\$372,079	3	2	6	2	Limited Monitoring
SSGM-5000	Gravity Main	D	Washington Cir	8 inch diameter	SSMH-2185	SSMH-2182	PVC	Yes	1980		100	2080	58	2080	LF	\$600	307.93	\$184,758	1	1	1	1	Limited Monitoring
SSGM-5001	Gravity Main	D	Washington Cir XC	8 inch diameter	SSMH-2164	SSMH-1672	PVC	Yes	1980		100	2080	58	2080	LF	\$600	287.93	\$172,758	2	1	2	1	Limited Monitoring
SSGM-5002	Gravity Main	A	Woodlawn Ave XC	8 inch diameter	SSMH-1699	SSMH-1702	PVC	Yes	1979		100	2079	57	2079	LF	\$600	237.94	\$142,764	4	1	4	1	Frequent Monitoring
SSGM-5003	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2158	SSMH-2155	PVC	Yes	1980		100	2080	58	2080	LF	\$600	294.38	\$176,628	1	3.1	3.1	3.1	Frequent Monitoring
SSGM-5004	Gravity Main	H	Williams Rd	6 inch diameter	SSMH-1294	SSMH-1291	PVC	Yes	1980		100	2080	58	2080	LF	\$600	284.68	\$170,808	1	1	1	1	Limited Monitoring
SSGM-5006	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2161	SSMH-2158	PVC	Yes	1980		100	2080	58	2080	LF	\$600	362.55	\$217,530	1	1	1	1	Limited Monitoring
SSGM-5008	Gravity Main	D	Washington Cir XC	8 inch diameter	SSMH-1672	SSMH-2131	PVC	Yes	1980		100	2080	58	2080	LF	\$600	294.9	\$176,940	2	1	2	1	Limited Monitoring
SSGM-5009	Gravity Main	B	School St	6 inch diameter	SSMH-1399	SSMH-1396	VC	Yes	1940		80	2020	-2	2022	LF	\$600	143.9	\$86,340	4	5.1	20.4	5.1	Highest Risk
SSGM-5010	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1150	SSMH-1180	AC	Yes	1979	2016	50	2066	44	2066	LF	\$600	46.26	\$27,756	3	1	3	1	Limited Monitoring
SSGM-5011	Gravity Main	C	Union St	6 inch diameter	SSMH-1483	SSMH-1480	VC	Yes	1940		80	2020	-2	2022	LF	\$600	339.31	\$203,586	1	2	2	2	Limited Monitoring
SSGM-5012	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1570	SSMH-1576	VC	Yes	1940		80	2020	-2	2022	LF	\$600	209.32	\$125,592	2	5	10	5	Priority Renewal
SSGM-5013	Gravity Main	G	W Main St	12 inch diameter	SSMH-1783A	SSMH-1846	PVC	Yes	1979		100	2079	57	2079	LF	\$600	158.67	\$95,202	5	1	5	1	Frequent Monitoring
SSGM-5014	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2113	SSMH-2116	PVC	No	1980		100	2080	58	2080	LF	\$600	160.92	\$96,552	1	2	2	2	Limited Monitoring
SSGM-5015	Gravity Main	E	Norton Dr	12 inch diameter	SSMH-1033	SSMH-1000	PVC	Yes	1979		100	2079	57	2079	LF	\$600	115.49	\$69,294	5	1	5	1	Frequent Monitoring
SSGM-5016	Gravity Main	B	River St	10 inch diameter	SSMH-1315	SSMH-1312	PVC	Yes	1979		100	2079	57	2079	LF	\$600	97.97	\$58,782	5	1	5	1	Frequent Monitoring
SSGM-5017	Gravity Main	B	Pleasant St	6 inch diameter	SSMH-1390	SSMH-1393	VC	Yes	1940		80	2020	-2	2022	LF	\$600	87.46	\$52,476	2	1	2	1	Limited Monitoring
SSGM-5018	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1051	SSMH-1048	PVC	Yes	1979		100	2079	57	2079	LF	\$600	354.16	\$212,496	3	1	3	1	Limited Monitoring
SSGM-5019	Gravity Main	B	Central St	6 inch diameter	SSMH-1321	SSMH-1318	VC	Yes	1940		80	2020	-2	2022	LF	\$600	60.42	\$36,252	4	5	20	5	Highest Risk
SSGM-5020	Gravity Main	C	High St	6 inch diameter	SSMH-1522	SSMH-1528	VC	Yes	1940		80	2020	-2	2022	LF	\$600	415.8	\$249,480	1	3.1	3.1	3.1	Frequent Monitoring
SSGM-5021	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2131	SSMH-2128	PVC	Yes	1980		100	2080	58	2080	LF	\$600	68.1	\$40,860	3	2.1	6.3	2.1	Limited Monitoring
SSGM-5022	Gravity Main	H	Whittemore St	6 inch diameter	SSMH-1276	SSMH-1267	VC	Yes	1940		80	2020	-2	2022	LF	\$600	207.19	\$124,314	2	5.141	10.282	5.141	Priority Renewal
SSGM-5023	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1867	SSMH-1906	PVC	Yes	1980		100	2080	58	2080	LF	\$600	93.03	\$55,818	2	1	2	1	Limited Monitoring
SSGM-5024	Gravity Main	E	Jackson St	6 inch diameter	SSMH-1126	SSMH-1123	VC	Yes	1940		80	2020	-2	2022	LF	\$600	114.3	\$68,580	1	5.1	5.1	5.1	Priority Renewal
SSGM-5025	Gravity Main	C	Bear Hill Rd	6 inch diameter	SSMH-1597	SSMH-1594	VC	Yes	1940		80	2020	-2	2022	LF	\$600	130.5	\$78,300	2	5.1	10.2	5.1	Priority Renewal
SSGM-5026	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1558	SSMH-1564	VC	Yes	1940		80	2020	-2	2022	LF	\$600	401.09	\$240,654	2	2.2	4.4	2.2	Limited Monitoring
SSGM-5027	Gravity Main	F	Gibson Rd	8 inch diameter	SSMH-1909	SSMH-1903	PVC	Yes	1980		100	2080	58	2080	LF	\$600	268.06	\$160,836	3	1	3	1	Limited Monitoring
SSGM-5028	Gravity Main	A	Woodlawn Ave XC	8 inch diameter	SSMH-1711	SSMH-1633	PVC	Yes	1979		100	2079	57	2079	LF	\$600	159.02	\$95,412	4	1	4	1	Frequent Monitoring
SSGM-5029	Gravity Main	G	W Main St	12 inch diameter	SSMH-1861	SSMH-1864	PVC	No	1979		100	2079	57	2079	LF	\$600	306.44	\$183,864	5	2	10	2	Frequent Monitoring
SSGM-5030	Gravity Main	F	W Main St	12 inch diameter	SSMH-1789	SSMH-1786	PVC	Yes	1979		100	2079	57	2079	LF	\$600	214.37	\$128,622	5	1	5	1	Frequent Monitoring
SSGM-5031	Gravity Main	G	W Main St	12 inch diameter	SSMH-1612	SSMH-1645	PVC	Yes	1979		100	2079	57	2079	LF	\$600	178.7	\$107,220	5	1	5	1	Frequent Monitoring
SSGM-5032	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1156	SSMH-1153	VC	Yes	1940	2016	50	2066	44	2066	LF	\$600	143.74	\$86,244	3	1	3	1	Limited Monitoring
SSGM-5033	Gravity Main	C	High St	6 inch diameter	SSMH-1534	SSMH-1552	VC	Yes	1940		80	2020	-2	2022	LF	\$600	98.85	\$59,310	1	1	1	1	Limited Monitoring
SSGM-5034	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1987	SSMH-1759	PVC	Yes	1980		100	2080	58	2080	LF	\$600	339.39	\$203,634	3	1	3	1	Limited Monitoring
SSGM-5035	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2092	SSMH-2089	PVC	No	1980		100	2080	58	2080	LF	\$600	137.08	\$82,248	1	2	2	2	Limited Monitoring
SSGM-5036	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1756	SSMH-1798	PVC	Yes	1980		100	2080	58	2080	LF	\$600	319.25	\$191,550	2	1	2	1	Limited Monitoring
SSGM-5037	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2035	SSMH-2032	PVC	Yes	1980		100	2080	58	2080	LF	\$600	322.07	\$193,242	3	1	3	1	Limited Monitoring
SSGM-5038	Gravity Main	F	Gibson Rd	8 inch diameter	SSMH-1945	SSMH-1942	PVC	Yes	1980		100	2080	58	2080	LF	\$600	197.69	\$118,614	1	1	1	1	Limited Monitoring
SSGM-5039	Gravity Main	F	Harvey Way	8 inch diameter	SSMH-1885	SSMH-1774	PVC	Yes	1979		100	2079	57	2079	LF	\$600	291.18	\$174,708	1	1	1	1	Limited Monitoring
SSGM-5040	Gravity Main	G	W Main St	8 inch diameter	SSMH-1636	SSMH-1642	PVC	No	1979		100	2079	57	2079	LF	\$600	23.75	\$14,250	4	2	8	2	Frequent Monitoring
SSGM-5041	Gravity Main	G	W Main St	12 inch diameter	SSMH-1852	SSMH-1855	PVC	Yes	1979		100	2079	57	2079	LF	\$600	168.88	\$101,328	5	1	5	1	Frequent Monitoring
SSGM-5042	Gravity Main	A	Butler St	8 inch diameter	SSMH-1669	SSMH-1666	PVC	Yes	1980		100	2080	58	2080	LF	\$600	176.02	\$105,612	2	1	2	1	Limited Monitoring
SSGM-5043	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2059	SSMH-2053	PVC	No	1980		100	2080	58	2080	LF	\$600	274.77	\$164,862	2	2	4	2	Limited Monitoring
SSGM-5044	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2134	SSMH-2131	PVC	Yes	1980		100	2080	58	2080	LF	\$600	286.33	\$171,798	2	1	2	1	Limited Monitoring
SSGM-5045	Gravity Main	I	Hillcat Dr	8 inch diameter	SSMH-1219	SSMH-1216	AC	No	1980		80	2060	38	2060	LF	\$600	305.68	\$183,408	4	2	8	2	Frequent Monitoring
SSGM-5046	Gravity Main	E	Norton Dr Easement	18 inch diameter	SSMH-1177	SSMH-1147	PVC	Yes	1979		100	2079	57	2079	LF	\$600	295.18	\$177,108	5	1	5	1	Frequent Monitoring
SSGM-5047	Gravity Main	B	River St	6 inch diameter	SSMH-1021	SSMH-1024	VC	Yes	1940		80	2020	-2	2022	LF	\$600	119.54	\$71,724	1	3.321	3.321	3.321	Frequent Monitoring
SSGM-5047A	Gravity Main	E	River St	6 inch diameter	SSFT-016	SSMH-1021	VC	Yes	1940		80	2020	-2	2023	LF	\$600	128.69	\$77,214	1	4.132	4.132	4.132	Priority Renewal
SSGM-5048	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2098	SSMH-2095	PVC	No	1980		100	2080	58	2080	LF	\$600	150.57	\$90,342	1	2	2	2	Limited Monitoring
SSGM-5049	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2125	SSMH-2122	PVC	No	1980		100	2080	58	2080	LF	\$600	205.08	\$123,048	3	2	6	2	Limited Monitoring
SSGM-5050	Gravity Main	D	Blair Ave XC	8 inch diameter	SSMH-2146	SSMH-2110	PVC	Yes	1980		100	2080	58	2080	LF	\$600	345.44	\$207,264	4	1	4	1	Frequent Monitoring
SSGM-5052	Gravity Main	B	Myrtle St	8 inch diameter	SSMH-1342	SSMH-1339	VC	Yes	1940		80	2020	-2	2022	LF	\$600	299.33	\$179,598	4	5.221	20.884	5.221	Highest Risk
SSGM-5053	Gravity Main	F	Symonds Rd	8 inch diameter	SSMH-1921	SSMH-1918	PVC	Yes	1980		100	2080	58	2080	LF	\$600	160.18	\$96,108	2	1	2	1	Limited Monitoring
SSGM-5054	Gravity Main	B	Newman St	6 inch diameter	SSMH-1357	SSMH-1354	VC	Yes	1940		80	2020	-2	2022	LF	\$600	402.62	\$241,572	2	5.141	10.282	5.141	Priority Renewal
SSGM-5055	Gravity Main	E	Norton Dr	18 inch diameter	SSMH-1003	SSMH-1996	PVC	Yes	1980		100	2080	58	2080	LF	\$600	158.16	\$94,896	5	1	5	1	Frequent Monitoring
SSGM-5056	Gravity Main	F	McNeil Rd	8 inch diameter	SSMH-1828	SSMH-1825	PVC	Yes	1980		100	2080	58	2080	LF	\$600	62.79	\$37,674	3	1	3	1	Limited Monitoring
SSGM-5057	Gravity Main	F	Childs Way	8 inch diameter	SSMH-1804	SSMH-1795	PVC	Yes	1979		100	2079	57	2079	LF	\$600	270.95	\$162,570	1	1	1	1	Limited Monitoring
SSGM-5058	Gravity Main	E	Cross St	6 inch diameter	SSFT-011	SSMH-1117	VC	Yes	1940		80	2020	-2	2022	LF	\$600	138.86	\$83,316	1	1	1	1	Limited Monitoring
SSGM-5059	Gravity Main	A	Myrtle St Ext	8 inch diameter	SSMH-1738	SSMH-1732	PVC	Yes	1980		100	2080	58	2080	LF	\$600	180.24	\$108,144	1	1	1	1	Limited Monitoring
SSGM-5060	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2044	SSMH-2041	PVC	Yes	1980		100	2080	58	2080	LF	\$600	222.19	\$133,314	3	2.6	7.8	2.6	Limited Monitoring
SSGM-5061	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2143	SSMH-2140	PVC	Yes	1980		100	2080											

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Hillsborough Collection System Pipe Data Table				COST OF ASSET REPLACEMENT - FIRST TEN YEARS										COST OF ASSET REPLACEMENT - NEXT 100 YEARS										100-Yr Replacement Count	
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100		0 - 100
Asset ID	Asset Type	Sewer Basin	Street	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121	
SSFM-5337	Force Main	A	W Main St															\$546,758					\$546,758	1	
SSFM-5340	Force Main	C	Bear Hill Rd															\$372,079						\$372,079	1
SSGM-5000	Gravity Main	D	Washington Cir																\$184,758					\$184,758	1
SSGM-5001	Gravity Main	D	Washington Cir XC																\$172,758					\$172,758	1
SSGM-5002	Gravity Main	A	Woodlawn Ave XC																\$142,764					\$142,764	1
SSGM-5003	Gravity Main	D	Jefferson Dr																\$176,628					\$176,628	1
SSGM-5004	Gravity Main	H	Williams Rd																\$170,808					\$170,808	1
SSGM-5006	Gravity Main	D	Jefferson Dr																\$217,530					\$217,530	1
SSGM-5008	Gravity Main	D	Washington Cir XC																\$176,940					\$176,940	1
SSGM-5009	Gravity Main	B	School St	\$86,340										\$86,340										\$86,340	1
SSGM-5010	Gravity Main	H	Henniker St															\$27,756						\$27,756	1
SSGM-5011	Gravity Main	C	Union St	\$203,586										\$203,586										\$203,586	1
SSGM-5012	Gravity Main	C	W Mill St	\$125,592										\$125,592										\$125,592	1
SSGM-5013	Gravity Main	G	W Main St																\$95,202					\$95,202	1
SSGM-5014	Gravity Main	D	Jefferson Dr																\$96,552					\$96,552	1
SSGM-5015	Gravity Main	E	Norton Dr																\$69,294					\$69,294	1
SSGM-5016	Gravity Main	B	River St																\$58,782					\$58,782	1
SSGM-5017	Gravity Main	B	Pleasant St	\$52,476										\$52,476										\$52,476	1
SSGM-5018	Gravity Main	E	Henniker St																\$212,496					\$212,496	1
SSGM-5019	Gravity Main	B	Central St	\$36,252										\$36,252										\$36,252	1
SSGM-5020	Gravity Main	C	High St	\$249,480										\$249,480										\$249,480	1
SSGM-5021	Gravity Main	D	Jefferson Dr																\$40,860					\$40,860	1
SSGM-5022	Gravity Main	H	Whittemore St	\$124,314										\$124,314										\$124,314	1
SSGM-5023	Gravity Main	F	Bible Hill Rd																\$55,818					\$55,818	1
SSGM-5024	Gravity Main	E	Jackson St	\$68,580										\$68,580										\$68,580	1
SSGM-5025	Gravity Main	C	Bear Hill Rd	\$78,300										\$78,300										\$78,300	1
SSGM-5026	Gravity Main	C	W Mill St	\$240,654										\$240,654										\$240,654	1
SSGM-5027	Gravity Main	F	Gibson Rd																\$160,836					\$160,836	1
SSGM-5028	Gravity Main	A	Woodlawn Ave XC																\$95,412					\$95,412	1
SSGM-5029	Gravity Main	G	W Main St																\$183,864					\$183,864	1
SSGM-5030	Gravity Main	F	W Main St																\$128,622					\$128,622	1
SSGM-5031	Gravity Main	G	W Main St																\$107,220					\$107,220	1
SSGM-5032	Gravity Main	H	Henniker St																\$86,244					\$86,244	1
SSGM-5033	Gravity Main	C	High St	\$59,310										\$59,310										\$59,310	1
SSGM-5034	Gravity Main	F	Bible Hill Rd																\$203,634					\$203,634	1
SSGM-5035	Gravity Main	D	Jefferson Dr																\$82,248					\$82,248	1
SSGM-5036	Gravity Main	F	Bible Hill Rd																\$191,550					\$191,550	1
SSGM-5037	Gravity Main	D	Jefferson Dr XC																\$193,242					\$193,242	1
SSGM-5038	Gravity Main	F	Gibson Rd																\$118,614					\$118,614	1
SSGM-5039	Gravity Main	F	Harvey Way																\$174,708					\$174,708	1
SSGM-5040	Gravity Main	G	W Main St																\$14,250					\$14,250	1
SSGM-5041	Gravity Main	G	W Main St																\$101,328					\$101,328	1
SSGM-5042	Gravity Main	A	Butler St																\$105,612					\$105,612	1
SSGM-5043	Gravity Main	D	Jefferson Dr XC																\$164,862					\$164,862	1
SSGM-5044	Gravity Main	D	Jefferson Dr																\$171,798					\$171,798	1
SSGM-5045	Gravity Main	I	Hillcat Dr													\$183,408								\$183,408	1
SSGM-5046	Gravity Main	E	Norton Dr Easement																\$177,108					\$177,108	1
SSGM-5047	Gravity Main	B	River St	\$71,724										\$71,724										\$71,724	1
SSGM-5047A	Gravity Main	E	River St		\$77,214									\$77,214										\$77,214	1
SSGM-5048	Gravity Main	D	Jefferson Dr																\$90,342					\$90,342	1
SSGM-5049	Gravity Main	D	Jefferson Dr																\$123,048					\$123,048	1
SSGM-5050	Gravity Main	D	Blair Ave XC																\$207,264					\$207,264	1
SSGM-5052	Gravity Main	B	Myrtle St	\$179,598										\$179,598										\$179,598	1
SSGM-5053	Gravity Main	F	Symonds Rd																\$96,108					\$96,108	1
SSGM-5054	Gravity Main	B	Newman St	\$241,572										\$241,572										\$241,572	1
SSGM-5055	Gravity Main	E	Norton Dr																\$94,896					\$94,896	1
SSGM-5056	Gravity Main	F	McNeil Dr																\$37,674					\$37,674	1
SSGM-5057	Gravity Main	F	Childs Way																\$162,570					\$162,570	1
SSGM-5058	Gravity Main	E	Cross St	\$83,316										\$83,316										\$83,316	1
SSGM-5059	Gravity Main	A	Myrtle St Ext																\$108,144					\$108,144	1
SSGM-5060	Gravity Main	D	Jefferson Dr XC																\$133,314					\$133,314	1
SSGM-5061	Gravity Main	D	Jefferson Dr																\$143,904					\$143,904	1
SSGM-5062	Gravity Main	H	Henniker St																\$108,390					\$108,390	1
SSGM-5063	Gravity Main	I	Center Rd													\$115,218								\$115,218	1
SSGM-5064	Gravity Main	B	River St																\$81,288					\$81,288	1
SSGM-5065	Gravity Main	H	Gay Ave	\$256,008										\$256,008										\$256,008	1
SSGM-5066	Gravity Main	E	Henniker St															\$39,498						\$39,498	1
SSGM-5067	Gravity Main	E	Preston St																\$188,226					\$188,226	1
SSGM-5068	Gravity Main	C	Bridge St	\$130,770										\$130,770										\$130,770	1
SSGM-5069	Gravity Main	C	John St	\$152,928										\$152,928										\$152,928	1
SSGM-5070	Gravity Main	A	Church St	\$100,842										\$100,842										\$100,842	1
SSGM-5071	Gravity Main	D	Washington Cir																\$122,118					\$122,118	1
SSGM-5072	Gravity Main	D	Franklin Pierce Hwy XC																\$40,416					\$40,416	1
SSGM-5073	Gravity Main	F	Bible Hill Rd																\$85,968					\$85,968	1
SSGM-5074	Gravity Main	B	Myrtle St	\$70,140										\$70,140										\$70,140	1
SSGM-5075	Gravity Main	E	Preston St XC																\$155,400					\$155,400	1
SSGM-5076	Gravity Main	D	Jefferson Dr																\$73,212					\$73,212	1
SSGM-5077	Gravity Main	E	Henniker St																\$110,826					\$110,826	1
SSGM-5078	Gravity Main	E	Preston St																\$202,842					\$202,842	1
SSGM-5079	Gravity Main	C	River St XC																\$164,298					\$164,298	1
SSGM-5081	Gravity Main	A	Myrtle St																\$29,964					\$29,964	1

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Hillsborough Collection System Pipe Data Table

Asset ID	Asset Type	Sewer Basin	Street	Diameter	Upstream Manhole	Downstream Manhole	Material	Inspected	Year Installed	Year Lined	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Unit	Unit Cost	Length (LF)	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Condition Score	Criticality
SSGM-5082	Gravity Main	F	Gibson Rd	8 inch diameter	SSMH-1954	SSMH-1951	PVC	Yes	1980		100	2080	58	2080	LF	\$600	239.61	\$143,766	1	1	1	1	Limited Monitoring
SSGM-5083	Gravity Main	F	Harvey Way	8 inch diameter	SSMH-1897	SSMH-1894	PVC	Yes	1979		100	2079	57	2079	LF	\$600	324.02	\$194,412	1	1	1	1	Limited Monitoring
SSGM-5084	Gravity Main	A	Woodlawn Ave XC	8 inch diameter	SSMH-1705	SSMH-1708	PVC	Yes	1979		100	2079	57	2079	LF	\$600	256.38	\$153,828	4	1	4	1	Frequent Monitoring
SSGM-5085	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2155	SSMH-2152	PVC	Yes	1980		100	2080	58	2080	LF	\$600	242.01	\$145,206	1	1	1	1	Limited Monitoring
SSGM-5086	Gravity Main	F	Boulder Rd	8 inch diameter	SSMH-1840	SSMH-1837	PVC	Yes	1979		100	2079	57	2079	LF	\$600	224.88	\$134,928	1	1	1	1	Limited Monitoring
SSGM-5087	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1180	SSMH-1171	PVC	Yes	1979		100	2079	57	2079	LF	\$600	262.2	\$157,320	5	1	5	1	Frequent Monitoring
SSGM-5088	Gravity Main	F	Symonds Rd	8 inch diameter	SSMH-1930	SSMH-1927	PVC	Yes	1980		100	2080	58	2080	LF	\$600	320.25	\$192,150	2	1	2	1	Limited Monitoring
SSGM-5089	Gravity Main	B	Bridge St	12 inch diameter	SSMH-1420	SSMH-1411	PVC	No	1979		100	2079	57	2079	LF	\$600	307.76	\$184,656	5	2	10	2	Frequent Monitoring
SSGM-5090	Gravity Main	E	Old Henniker St	8 inch diameter	SSMH-1084	SSMH-1081	PVC	Yes	1980		100	2080	58	2080	LF	\$600	267.89	\$160,734	2	1	2	1	Limited Monitoring
SSGM-5091	Gravity Main	C	Bridge St	6 inch diameter	SSMH-1450	SSMH-1447	AC	Yes	1940		80	2020	-2	2022	LF	\$600	325.17	\$195,102	3	1	3	1	Limited Monitoring
SSGM-5092	Gravity Main	C	Wyman St	6 inch diameter	SSMH-1507	SSMH-1498	VC	Yes	1940		80	2020	-2	2022	LF	\$600	309.16	\$185,496	1	1.1	1.1	1.1	Limited Monitoring
SSGM-5093	Gravity Main	A	W Main St	8 inch diameter	SSMH-1654	SSMH-1651	VC	Yes	1940		80	2020	-2	2022	LF	\$600	235.67	\$141,402	4	5.322	21.288	5.322	Highest Risk
SSGM-5094	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1777	SSMH-1780	PVC	Yes	1979		100	2079	57	2079	LF	\$600	297.83	\$178,698	3	1	3	1	Limited Monitoring
SSGM-5095	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2017	SSMH-2014	PVC	Yes	1980		100	2080	58	2080	LF	\$600	120.67	\$72,402	4	1	4	1	Frequent Monitoring
SSGM-5096	Gravity Main	D	Franklin Pierce Hwy XC	8 inch diameter	SSMH-2215	SSMH-2209	PVC	Yes	1980		100	2080	58	2080	LF	\$600	178.92	\$107,352	4	1	4	1	Frequent Monitoring
SSGM-5097	Gravity Main	G	W Main St	12 inch diameter	SSMH-1855	SSMH-1858	PVC	Yes	1979		100	2079	57	2079	LF	\$600	314.44	\$188,664	5	1	5	1	Frequent Monitoring
SSGM-5098	Gravity Main	I	Blair Ave XC	8 inch diameter	SSMH-1195	SSMH-1192	PVC	Yes	1979		100	2079	57	2079	LF	\$600	205.08	\$123,048	4	1.1	4.4	1.1	Frequent Monitoring
SSGM-5099	Gravity Main	B	Church St	6 inch diameter	SSMH-1375	SSMH-1372	VC	Yes	1940		80	2020	-2	2023	LF	\$600	208.52	\$125,112	4	4.121	16.484	4.121	Highest Risk
SSGM-5100	Gravity Main	B	River St XC	12 inch diameter	SSMH-1015	SSMH-1012	PVC	No	1979		100	2079	57	2079	LF	\$600	200.44	\$120,264	5	2	10	2	Frequent Monitoring
SSGM-5101	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1036	SSMH-1030	PVC	Yes	1979		100	2079	57	2079	LF	\$600	200.63	\$120,378	3	1	3	1	Limited Monitoring
SSGM-5102	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1474	SSMH-1426	DI	Yes	1979		85	2064	42	2064	LF	\$600	105.57	\$63,342	3	1	3	1	Limited Monitoring
SSGM-5103	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2083	SSMH-2083A	PVC	No	1980		100	2080	58	2080	LF	\$600	70.26	\$42,156	1	2	2	2	Limited Monitoring
SSGM-5103A	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2083A	SSMH-2083B	PVC	No	1980		100	2080	58	2080	LF	\$600	98.64	\$59,184	1	2	2	2	Limited Monitoring
SSGM-5103B	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2083B	SSMH-2083C	PVC	No	1980		100	2080	58	2080	LF	\$600	217.25	\$130,350	1	2	2	2	Limited Monitoring
SSGM-5103C	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2083C	SSMH-2065	PVC	No	1980		100	2080	58	2080	LF	\$600	132.79	\$79,674	1	2	2	2	Limited Monitoring
SSGM-5104	Gravity Main	D	Washington Cir	8 inch diameter	SSMH-2176	SSMH-2173	PVC	Yes	1980		100	2080	58	2080	LF	\$600	268.44	\$161,064	1	1	1	1	Limited Monitoring
SSGM-5105	Gravity Main	H	Holman St	8 inch diameter	SSMH-1183	SSMH-1273	PVC	Yes	1979		100	2079	57	2079	LF	\$600	189.16	\$113,496	5	1	5	1	Frequent Monitoring
SSGM-5106	Gravity Main	B	School St	Unknown	SSMH-1327	SSMH-1417	PVC	No	1980		100	2080	58	2080	LF	\$600	41.13	\$24,678	5	1	5	1	Frequent Monitoring
SSGM-5107	Gravity Main	G	W Main St	12 inch diameter	SSMH-1735	SSMH-1684	PVC	Yes	1979		100	2079	57	2079	LF	\$600	224.95	\$134,970	5	1	5	1	Frequent Monitoring
SSGM-5108	Gravity Main	B	School St	6 inch diameter	SSMH-1387	SSMH-1393	VC	Yes	1940		80	2020	-2	2022	LF	\$600	286.4	\$171,840	4	2.1	8.4	2.1	Frequent Monitoring
SSGM-5109	Gravity Main	H	Park St	8 inch diameter	UNK-004	SSMH-1282	VC	Yes	1940		80	2020	-2	2022	LF	\$600	238.64	\$143,184	2	5	10	5	Priority Renewal
SSGM-5110	Gravity Main	E	Preston St	8 inch diameter	SSMH-1103	SSMH-1102	VC	Yes	1940	2016	50	2066	44	2066	LF	\$600	327.11	\$196,266	3	1	3	1	Limited Monitoring
SSGM-5111	Gravity Main	C	Union St	6 inch diameter	SSMH-1477	SSMH-1471	VC	Yes	1940		80	2020	-2	2023	LF	\$600	315.11	\$189,066	1	4.133	4.133	4.133	Priority Renewal
SSGM-5112	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2026	SSMH-2023	PVC	Yes	1980		100	2080	58	2080	LF	\$600	250.95	\$150,570	4	1	4	1	Frequent Monitoring
SSGM-5113	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1576	SSMH-1579	VC	Yes	1940	2021	50	2071	49	2071	LF	\$600	110.78	\$66,468	4	1	4	1	Frequent Monitoring
SSGM-5114	Gravity Main	E	Norton Dr	18 inch diameter	SSMH-1996	WWTP	DI	No	1984		85	2069	47	2069	LF	\$600	297.7	\$178,620	5	1	5	1	Frequent Monitoring
SSGM-5115	Gravity Main	G	W Main St	12 inch diameter	SSMH-1876	SSMH-1879	PVC	Yes	1979		100	2079	57	2079	LF	\$600	282.38	\$169,428	5	1	5	1	Frequent Monitoring
SSGM-5116	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1045	SSMH-1042	PVC	Yes	1979		100	2079	57	2079	LF	\$600	405.91	\$243,546	3	1	3	1	Limited Monitoring
SSGM-5117	Gravity Main	C	Bear Hill Rd	6 inch diameter	SSMH-1594	SSMH-1600	PVC	Yes	1980		100	2080	58	2080	LF	\$600	286.22	\$171,732	2	1	2	1	Limited Monitoring
SSGM-5118	Gravity Main	C	Briggs St	6 inch diameter	SSMH-1513	SSMH-1510	VC	Yes	1940		80	2020	-2	2022	LF	\$600	150.92	\$90,552	1	3.4	3.4	3.4	Limited Monitoring
SSGM-5120	Gravity Main	D	Blair Ave XC	8 inch diameter	SSMH-2071	SSMH-2038	PVC	Yes	1980		100	2080	58	2080	LF	\$600	210.81	\$126,486	4	1	4	1	Frequent Monitoring
SSGM-5121	Gravity Main	B	Church St	8 inch diameter	SSMH-2248	SSMH-1378	VC	Yes	1940		80	2020	-2	2022	LF	\$600	123.82	\$74,292	4	1	4	1	Frequent Monitoring
SSGM-5122	Gravity Main	E	Norton Dr Easement	18 inch diameter	SSMH-1066	SSMH-1033	PVC	Yes	1979		100	2079	57	2079	LF	\$600	255.8	\$153,480	5	1	5	1	Frequent Monitoring
SSGM-5123	Gravity Main	H	Holman St	10 inch diameter	SSMH-1180A	SSMH-1180	PVC	Yes	1979		100	2079	57	2079	LF	\$600	127.27	\$76,362	5	1	5	1	Frequent Monitoring
SSGM-5123A	Gravity Main	H	Holman St	10 inch diameter	SSMH-1261	SSMH-1180A	PVC	Yes	1979		100	2079	57	2079	LF	\$600	212.63	\$127,578	5	1	5	1	Frequent Monitoring
SSGM-5124	Gravity Main	A	Willow Rock Rd XC	8 inch diameter	SSMH-2263	SSMH-2260	PVC	Yes	1980		100	2080	58	2080	LF	\$600	202.15	\$121,290	4	1	4	1	Frequent Monitoring
SSGM-5125	Gravity Main	E	Cross St	6 inch diameter	SSMH-1117	SSFT-004	VC	Yes	1940		80	2020	-2	2022	LF	\$600	241.8	\$145,080	2	5.241	10.482	5.241	Priority Renewal
SSGM-5126	Gravity Main	C	Summer St	6 inch diameter	SSMH-1465	SSMH-1438	VC	Yes	1940		80	2020	-2	2022	LF	\$600	290.35	\$174,210	1	5.238	5.238	5.238	Priority Renewal
SSGM-5127	Gravity Main	A	Myrtle St	8 inch diameter	SSMH-1687	SSMH-1699	PVC	Yes	1979		100	2079	57	2079	LF	\$600	195.61	\$117,366	4	1	4	1	Frequent Monitoring
SSGM-5128	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1567	SSMH-1570	VC	Yes	1940		80	2020	-2	2022	LF	\$600	147.83	\$88,698	2	5	10	5	Priority Renewal
SSGM-5129	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2107	SSMH-2113	PVC	No	1980		100	2080	58	2080	LF	\$600	193.16	\$115,896	1	2	2	2	Limited Monitoring
SSGM-5130	Gravity Main	E	Norton Dr	12 inch diameter	SSMH-1027	SSMH-1033	PVC	Yes	1979		100	2079	57	2079	LF	\$600	320.08	\$192,048	5	1	5	1	Frequent Monitoring
SSGM-5131	Gravity Main	B	Pleasant St	6 inch diameter	SSMH-1366	SSMH-1390	VC	Yes	1940		80	2020	-2	2023	LF	\$600	466.33	\$279,798	2	4.334	8.668	4.334	Priority Renewal
SSGM-5132	Gravity Main	F	Harvey Way	8 inch diameter	SSMH-1894	SSMH-1891	PVC	Yes	1979		100	2079	57	2079	LF	\$600	343.87	\$206,322	1	1	1	1	Limited Monitoring
SSGM-5133	Gravity Main	B	Central St	6 inch diameter	SSMH-1324	SSMH-1321	VC	Yes	1940		80	2020	-2	2022	LF	\$600	279.63	\$167,778	4	5	20	5	Highest Risk
SSGM-5136	Gravity Main	G	W Main St	12 inch diameter	SSMH-1846	SSMH-1849	PVC	Yes	1979		100	2079	57	2079	LF	\$600	177.44	\$106,464	5	1	5	1	Frequent Monitoring
SSGM-5137	Gravity Main	H	Whittemore St	6 inch diameter	SSMH-1282	SSMH-1276	VC	Yes	1940		80	2020	-2	2022	LF	\$600	352.47	\$211,482	2	5	10	5	Priority Renewal
SSGM-5138	Gravity Main	C	Prospect St	6 inch diameter	SSMH-1432	SSMH-1597	VC	Yes	1940		80	2020	-2	2022	LF	\$600	468.76	\$281,256	1	5.2	5.2	5.2	Priority Renewal
SSGM-5139	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1555	SSMH-1558	VC	Yes	1940		80	2020	-2	2022	LF	\$600	334.19	\$200,514	2	5	10	5	Priority Renewal
SSGM-5140	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1798	SSMH-1831	PVC	Yes	1980		100	2080	58	2080	LF	\$600	296.58	\$177,948	2	1	2	1	Limited Monitoring
SSGM-5142	Gravity Main	F	McNeil Rd	8 inch diameter	SSMH-1903	SSMH-1900	PVC	Yes	1980		100	2080	58	2080	LF	\$600	102.46	\$61,476	3	1	3	1	Limited Monitoring
SSGM-5143	Gravity Main	F	Windsor Terrace	8 inch diameter	SSMH-1810	SSMH-1807	PVC																

Appendix A - 1.1

Hillsborough Collection System Pipe Data Table				COST OF ASSET REPLACEMENT - FIRST TEN YEARS										COST OF ASSET REPLACEMENT - NEXT 100 YEARS										100-Yr Replacement Count	
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100		0 - 100
Asset ID	Asset Type	Sewer Basin	Street	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121	
SSGM-5082	Gravity Main	F	Gibson Rd																\$143,766					\$143,766	1
SSGM-5083	Gravity Main	F	Harvey Way																\$194,412					\$194,412	1
SSGM-5084	Gravity Main	A	Woodlawn Ave XC																\$153,828					\$153,828	1
SSGM-5085	Gravity Main	D	Jefferson Dr																\$145,206					\$145,206	1
SSGM-5086	Gravity Main	F	Boulder Rd																\$134,928					\$134,928	1
SSGM-5087	Gravity Main	H	Henniker St																\$157,320					\$157,320	1
SSGM-5088	Gravity Main	F	Symonds Rd																\$192,150					\$192,150	1
SSGM-5089	Gravity Main	B	Bridge St																\$184,656					\$184,656	1
SSGM-5090	Gravity Main	E	Old Henniker St																\$160,734					\$160,734	1
SSGM-5091	Gravity Main	C	Bridge St	\$195,102										\$195,102										\$195,102	1
SSGM-5092	Gravity Main	C	Wyman St	\$185,496										\$185,496										\$185,496	1
SSGM-5093	Gravity Main	A	W Main St	\$141,402										\$141,402										\$141,402	1
SSGM-5094	Gravity Main	F	Bible Hill Rd																\$178,698					\$178,698	1
SSGM-5095	Gravity Main	D	Jefferson Dr XC																\$72,402					\$72,402	1
SSGM-5096	Gravity Main	D	Franklin Pierce Hwy XC																\$107,352					\$107,352	1
SSGM-5097	Gravity Main	G	W Main St																\$188,664					\$188,664	1
SSGM-5098	Gravity Main	I	Blair Ave XC																\$123,048					\$123,048	1
SSGM-5099	Gravity Main	B	Church St		\$125,112									\$125,112										\$125,112	1
SSGM-5100	Gravity Main	B	River St XC																\$120,264					\$120,264	1
SSGM-5101	Gravity Main	E	Henniker St																\$120,378					\$120,378	1
SSGM-5102	Gravity Main	C	Bear Hill Rd															\$63,342						\$63,342	1
SSGM-5103	Gravity Main	D	Jefferson Dr																\$42,156					\$42,156	1
SSGM-5103A	Gravity Main	D	Madison Cir																\$59,184					\$59,184	1
SSGM-5103B	Gravity Main	D	Madison Cir																\$130,350					\$130,350	1
SSGM-5103C	Gravity Main	D	Madison Cir																\$79,674					\$79,674	1
SSGM-5104	Gravity Main	D	Washington Cir																\$161,064					\$161,064	1
SSGM-5105	Gravity Main	H	Holman St																\$113,496					\$113,496	1
SSGM-5106	Gravity Main	B	School St																\$24,678					\$24,678	1
SSGM-5107	Gravity Main	G	W Main St																\$134,970					\$134,970	1
SSGM-5108	Gravity Main	B	School St	\$171,840										\$171,840										\$171,840	1
SSGM-5109	Gravity Main	H	Park St	\$143,184										\$143,184										\$143,184	1
SSGM-5110	Gravity Main	E	Preston St																\$196,266					\$196,266	1
SSGM-5111	Gravity Main	C	Union St		\$189,066									\$189,066										\$189,066	1
SSGM-5112	Gravity Main	D	Jefferson Dr XC																\$150,570					\$150,570	1
SSGM-5113	Gravity Main	C	Bear Hill Rd																\$66,468					\$66,468	1
SSGM-5114	Gravity Main	E	Norton Dr																\$178,620					\$178,620	1
SSGM-5115	Gravity Main	G	W Main St																\$169,428					\$169,428	1
SSGM-5116	Gravity Main	E	Henniker St																\$243,546					\$243,546	1
SSGM-5117	Gravity Main	C	Bear Hill Rd																\$171,732					\$171,732	1
SSGM-5118	Gravity Main	C	Briggs St	\$90,552										\$90,552										\$90,552	1
SSGM-5120	Gravity Main	D	Blair Ave XC																\$126,486					\$126,486	1
SSGM-5121	Gravity Main	B	Church St	\$74,292										\$74,292										\$74,292	1
SSGM-5122	Gravity Main	E	Norton Dr Easement																\$153,480					\$153,480	1
SSGM-5123	Gravity Main	H	Holman St																\$76,362					\$76,362	1
SSGM-5123A	Gravity Main	H	Holman St																\$127,578					\$127,578	1
SSGM-5124	Gravity Main	A	Willow Rock Rd XC																\$121,290					\$121,290	1
SSGM-5125	Gravity Main	E	Cross St	\$145,080										\$145,080										\$145,080	1
SSGM-5126	Gravity Main	C	Summer St	\$174,210										\$174,210										\$174,210	1
SSGM-5127	Gravity Main	A	Myrtle St																\$117,366					\$117,366	1
SSGM-5128	Gravity Main	C	W Mill St	\$88,698										\$88,698										\$88,698	1
SSGM-5129	Gravity Main	D	Jefferson Dr																\$115,896					\$115,896	1
SSGM-5130	Gravity Main	E	Norton Dr																\$192,048					\$192,048	1
SSGM-5131	Gravity Main	B	Pleasant St		\$279,798									\$279,798										\$279,798	1
SSGM-5132	Gravity Main	F	Harvey Way																\$206,322					\$206,322	1
SSGM-5133	Gravity Main	B	Central St	\$167,778										\$167,778										\$167,778	1
SSGM-5136	Gravity Main	G	W Main St																\$106,464					\$106,464	1
SSGM-5137	Gravity Main	H	Whittemore St	\$211,482										\$211,482										\$211,482	1
SSGM-5138	Gravity Main	C	Prospect St	\$281,256										\$281,256										\$281,256	1
SSGM-5139	Gravity Main	C	W Mill St	\$200,514										\$200,514										\$200,514	1
SSGM-5140	Gravity Main	F	Bible Hill Rd																\$177,948					\$177,948	1
SSGM-5142	Gravity Main	F	McNeil Rd																\$61,476					\$61,476	1
SSGM-5143	Gravity Main	F	Windsor Terrace																\$213,534					\$213,534	1
SSGM-5144	Gravity Main	G	W Main St																\$149,274					\$149,274	1
SSGM-5145	Gravity Main	F	W Main St																\$115,812					\$115,812	1
SSGM-5146	Gravity Main	G	W Main St																\$223,158					\$223,158	1
SSGM-5147	Gravity Main	D	Jefferson Dr XC																\$189,420					\$189,420	1
SSGM-5148	Gravity Main	D	Jefferson Dr XC																\$106,626					\$106,626	1
SSGM-5149	Gravity Main	H	Henniker St															\$32,880						\$32,880	1
SSGM-5150	Gravity Main	A	Willow Rock Rd																\$98,514					\$98,514	1
SSGM-5151	Gravity Main	F	Meeting Hill Rd																\$92,694					\$92,694	1
SSGM-5152	Gravity Main	A	Myrtle St																\$55,608					\$55,608	1
SSGM-5153	Gravity Main	D	Jefferson Dr XC																\$151,596					\$151,596	1
SSGM-5154	Gravity Main	F	Gibson Rd																\$59,784					\$59,784	1
SSGM-5155	Gravity Main	D	Jefferson Dr																\$154,218					\$154,218	1
SSGM-5156	Gravity Main	F	Meeting Hill Rd																\$156,438					\$156,438	1
SSGM-5157	Gravity Main	B	School St	\$212,508										\$212,508										\$212,508	1
SSGM-5158	Gravity Main	B	River St																\$39,924					\$39,924	1
SSGM-5159	Gravity Main	H	Park St	\$144,834										\$144,834										\$144,834	1
SSGM-5160	Gravity Main	E	Preston St																\$75,792					\$75,792	1
SSGM-5161	Gravity Main	A	Church St	\$177,726										\$177,726										\$177,726	1
SSGM-5162	Gravity Main	D	Jefferson Dr																\$96,552					\$96,552	1

Hillsborough Collection System Pipe Data Table

Asset ID	Asset Type	Sewer Basin	Street	Diameter	Upstream Manhole	Downstream Manhole	Material	Inspected	Year Installed	Year Lined	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Unit	Unit Cost	Length (LF)	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Condition Score	Criticality
SSGM-5163	Gravity Main	D	Franklin Pierce Hwy XC	8 inch diameter	SSMH-2179	SSMH-2146	PVC	Yes	1980		100	2080	58	2080	LF	\$600	306.39	\$183,834	4	1	4	1	Frequent Monitoring
SSGM-5164	Gravity Main	B	Myrtle St	8 inch diameter	SSMH-1345	SSMH-1342	VC	Yes	1940		80	2020	-2	2022	LF	\$600	201.56	\$120,936	4	2.2	8.8	2.2	Frequent Monitoring
SSGM-5165	Gravity Main	B	Central St	6 inch diameter	SSMH-1363	SSMH-1342	VC	Yes	1940		80	2020	-2	2022	LF	\$600	456.5	\$273,900	2	5.121	10.242	5.121	Priority Renewal
SSGM-5166	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1159	SSMH-1156	VC	Yes	1940	2016	50	2066	44	2066	LF	\$600	258.84	\$155,304	3	1	3	1	Limited Monitoring
SSGM-5167	Gravity Main	F	Bible Hill Rd	12 inch diameter	SSMH-1984	SSMH-1987	PVC	Yes	1980		100	2080	58	2080	LF	\$600	142.62	\$85,572	3	1	3	1	Limited Monitoring
SSGM-5168	Gravity Main	E	Depot St	6 inch diameter	SSMH-1111	SSFT-004	VC	Yes	1940		80	2020	-2	2022	LF	\$600	242.69	\$145,614	1	3.313	3.313	3.313	Frequent Monitoring
SSGM-5169	Gravity Main	A	Woodlawn Ave	8 inch diameter	SSMH-1726	SSMH-1702	PVC	Yes	1979		100	2079	57	2079	LF	\$600	150.7	\$90,420	2	1	2	1	Limited Monitoring
SSGM-5170	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1600	SSMH-1603	PVC	Yes	1979		100	2079	57	2079	LF	\$600	133.82	\$80,292	2	1	2	1	Limited Monitoring
SSGM-5171	Gravity Main	C	Bear Hill Rd	10 inch diameter	SSMH-1588	SSMH-1426	VC	Yes	1940	2021	50	2071	49	2071	LF	\$600	152.4	\$91,440	4	1	4	1	Frequent Monitoring
SSGM-5172	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2047	SSMH-2044	PVC	Yes	1980		100	2080	58	2080	LF	\$600	133.2	\$79,920	2	1	2	1	Limited Monitoring
SSGM-5173	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2149	SSMH-2143	PVC	Yes	1980		100	2080	58	2080	LF	\$600	223.89	\$134,334	1	1	1	1	Limited Monitoring
SSGM-5174	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1168	SSMH-1165	PVC	Yes	1979		100	2079	57	2079	LF	\$600	197.73	\$118,638	5	1	5	1	Frequent Monitoring
SSGM-5176	Gravity Main	B	River St	12 inch diameter	SSMH-1408	SSMH-1405	PVC	Yes	1979		100	2079	57	2079	LF	\$600	96.89	\$58,134	5	1	5	1	Frequent Monitoring
SSGM-5177	Gravity Main	F	Symonds Rd	8 inch diameter	SSMH-1918	SSMH-1915	PVC	Yes	1980		100	2080	58	2080	LF	\$600	169.9	\$101,940	2	1	2	1	Limited Monitoring
SSGM-5178	Gravity Main	I	Blair Ave	8 inch diameter	SSMH-1201	SSMH-1198	PVC	Yes	1979		100	2079	57	2079	LF	\$600	252.38	\$151,428	4	1	4	1	Frequent Monitoring
SSGM-5179	Gravity Main	E	Old Henniker St	8 inch diameter	SSMH-1078	SSMH-1075	PVC	Yes	1980		100	2080	58	2080	LF	\$600	206.13	\$123,678	2	1	2	1	Limited Monitoring
SSGM-5180	Gravity Main	F	McNeil Rd	8 inch diameter	SSMH-1825	SSMH-1822	PVC	Yes	1979		100	2079	57	2079	LF	\$600	127.41	\$76,446	3	1	3	1	Limited Monitoring
SSGM-5181	Gravity Main	F	W Main St	12 inch diameter	SSMH-1795	SSMH-1792	PVC	Yes	1979		100	2079	57	2079	LF	\$600	205.14	\$123,084	4	1	4	1	Frequent Monitoring
SSGM-5182	Gravity Main	C	Bridge St	6 inch diameter	SSMH-1444	SSMH-1441	VC	Yes	1940		80	2020	-2	2022	LF	\$600	284.03	\$170,418	3	5.133	15.399	5.133	Priority Renewal
SSGM-5183	Gravity Main	A	Butler St	8 inch diameter	SSMH-1990	SSMH-1666	PVC	Yes	1980		100	2080	58	2080	LF	\$600	87.37	\$52,422	2	1	2	1	Limited Monitoring
SSGM-5184	Gravity Main	C	Wyman St	6 inch diameter	SSMH-1495	SSMH-1489	PVC	Yes	1980		100	2080	58	2080	LF	\$600	39.08	\$23,448	2	1	2	1	Limited Monitoring
SSGM-5185	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2068	SSMH-2065	PVC	Yes	1980		100	2080	58	2080	LF	\$600	273.73	\$164,238	1	1	1	1	Limited Monitoring
SSGM-5186	Gravity Main	D	Franklin Pierce Hwy XC	8 inch diameter	SSMH-2212	SSMH-2206	PVC	Yes	1980		100	2080	58	2080	LF	\$600	436.42	\$261,852	4	2.3	9.2	2.3	Frequent Monitoring
SSGM-5187	Gravity Main	I	Gay Ave XC	8 inch diameter	SSMH-1189	SSMH-1186	PVC	Yes	1979		100	2079	57	2079	LF	\$600	357.35	\$214,410	4	1	4	1	Frequent Monitoring
SSGM-5188	Gravity Main	B	Church St	6 inch diameter	SSMH-1369	SSMH-1351	VC	Yes	1940		80	2020	-2	2023	LF	\$600	333.11	\$199,866	4	4.231	16.924	4.231	Highest Risk
SSGM-5189	Gravity Main	E	Preston St XC	12 inch diameter	SSMH-1009	SSMH-1252	PVC	No	1979		100	2079	57	2079	LF	\$600	236.75	\$142,050	5	2	10	2	Frequent Monitoring
SSGM-5190	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1069	SSMH-1063	PVC	Yes	1979		100	2079	57	2079	LF	\$600	189.59	\$113,754	3	1	3	1	Limited Monitoring
SSGM-5191	Gravity Main	E	Preston St	8 inch diameter	SSMH-1102	SSMH-1096	VC	Yes	1940	2021	50	2071	49	2071	LF	\$600	184.47	\$110,682	3	1	3	1	Limited Monitoring
SSGM-5192	Gravity Main	A	Woodlawn Ave XC	8 inch diameter	SSMH-1708	SSMH-1711	PVC	Yes	1979		100	2079	57	2079	LF	\$600	245.05	\$147,030	4	1	4	1	Frequent Monitoring
SSGM-5193	Gravity Main	C	River St XC	10 inch diameter	SSMH-1006	SSMH-1309	PVC	Yes	1980		100	2080	58	2080	LF	\$600	317.56	\$190,536	5	1	5	1	Frequent Monitoring
SSGM-5194	Gravity Main	C	Bear Hill Rd	10 inch diameter	SSMH-1579	SSMH-1585	VC	Yes	1940	2021	50	2071	49	2071	LF	\$600	114.2	\$68,520	4	1	4	1	Frequent Monitoring
SSGM-5195	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2056	SSMH-2053	PVC	No	1980		100	2080	58	2080	LF	\$600	176.21	\$105,726	1	2	2	2	Limited Monitoring
SSGM-5196	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1906	SSMH-1939	PVC	Yes	1980		100	2080	58	2080	LF	\$600	311.24	\$186,744	3	1	3	1	Limited Monitoring
SSGM-5197	Gravity Main	B	Henniker St	8 inch diameter	SSMH-1414	SSMH-1420	PVC	No	1980		100	2080	58	2080	LF	\$600	68.82	\$41,292	5	2	10	2	Frequent Monitoring
SSGM-5198	Gravity Main	B	School St	8 inch diameter	SSMH-1993	SSMH-1333	VC	Yes	1940		80	2020	-2	2022	LF	\$600	149.96	\$89,976	4	1	4	1	Frequent Monitoring
SSGM-5199	Gravity Main	E	Old Henniker St	8 inch diameter	SSMH-1087	SSMH-1084	PVC	Yes	1980		100	2080	58	2080	LF	\$600	237.13	\$142,278	2	1	2	1	Limited Monitoring
SSGM-5200	Gravity Main	C	Hill St	8 inch diameter	SSMH-1453	SSMH-1450	PVC	Yes	1980		100	2080	58	2080	LF	\$600	274.19	\$164,514	1	1	1	1	Limited Monitoring
SSGM-5201	Gravity Main	A	Church St	6 inch diameter	SSMH-1675	SSFT-001	VC	Yes	1940		80	2020	-2	2022	LF	\$600	24.37	\$14,622	2	1	2	1	Limited Monitoring
SSGM-5202	Gravity Main	A	W Main St	6 inch diameter	SSMH-1657	SSMH-1657A	VC	Yes	1940		80	2020	-2	2022	LF	\$600	54.61	\$32,766	4	5.232	20.928	5.232	Highest Risk
SSGM-5202A	Gravity Main	A	W Main St	6 inch diameter	SSMH-1657A	SSMH-1657A	VC	No	1940		80	2020	-2	2022	LF	\$600	513.82	\$308,292	4	5	20	5	Highest Risk
SSGM-5203	Gravity Main	F	Gibson Rd	8 inch diameter	SSMH-1951	SSMH-1948	PVC	Yes	1980		100	2080	58	2080	LF	\$600	307.8	\$184,680	1	1	1	1	Limited Monitoring
SSGM-5204	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2020	SSMH-2017	PVC	No	1980		100	2080	58	2080	LF	\$600	154.55	\$92,730	4	2	8	2	Frequent Monitoring
SSGM-5205	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2008	SSMH-2215	PVC	Yes	1980		100	2080	58	2080	LF	\$600	153.32	\$91,992	4	1	4	1	Frequent Monitoring
SSGM-5206	Gravity Main	F	Boulder Rd	8 inch diameter	SSMH-1837	SSMH-1834	PVC	Yes	1979		100	2079	57	2079	LF	\$600	231.71	\$139,026	1	1	1	1	Limited Monitoring
SSGM-5207	Gravity Main	F	Symonds Rd	8 inch diameter	SSMH-1927	SSMH-1924	PVC	Yes	1980		100	2080	58	2080	LF	\$600	174.1	\$104,460	2	1	2	1	Limited Monitoring
SSGM-5208	Gravity Main	B	River St	12 inch diameter	SSMH-1018	SSMH-1015	PVC	No	1979		100	2079	57	2079	LF	\$600	182.09	\$109,254	5	2	10	2	Frequent Monitoring
SSGM-5209	Gravity Main	I	Blair Ave	8 inch diameter	SSMH-1210	SSMH-1207	PVC	Yes	1979		100	2079	57	2079	LF	\$600	257.01	\$154,206	4	1	4	1	Frequent Monitoring
SSGM-5210	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1039	SSMH-1036	PVC	Yes	1979		100	2079	57	2079	LF	\$600	326.81	\$196,086	3	1	3	1	Limited Monitoring
SSGM-5211	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1525	SSMH-1474	DI	Yes	1979		85	2064	42	2064	LF	\$600	218.44	\$131,064	3	1	3	1	Limited Monitoring
SSGM-5212	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2086	SSMH-2083	PVC	No	1980		100	2080	58	2080	LF	\$600	181.93	\$109,158	1	2	2	2	Limited Monitoring
SSGM-5214	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1780	SSMH-1783	PVC	Yes	1979		100	2079	57	2079	LF	\$600	106.11	\$63,666	3	1	3	1	Limited Monitoring
SSGM-5214A	Gravity Main	G	W Main St	12 inch diameter	SSMH-1783	SSMH-1783A	PVC	No	1979		100	2079	57	2079	LF	\$600	26.4	\$15,840	5	2	10	2	Frequent Monitoring
SSGM-5215	Gravity Main	D	Washington Cir	8 inch diameter	SSMH-2182	SSMH-2176	PVC	Yes	1980		100	2080	58	2080	LF	\$600	268.81	\$161,286	1	1	1	1	Limited Monitoring
SSGM-5216	Gravity Main	D	Holman St XC	8 inch diameter	SSMH-2005	SSMH-1183	PVC	Yes	1980		100	2080	58	2080	LF	\$600	318.06	\$190,836	4	1	4	1	Frequent Monitoring
SSGM-5217	Gravity Main	B	School St	8 inch diameter	SSMH-1330																		

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COST OF ASSET REPLACEMENT - FIRST TEN YEARS														COST OF ASSET REPLACEMENT - NEXT 100 YEARS											
Hillsborough Collection System Pipe Data Table				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100	0 - 100	100-Yr Replacement Count
Asset ID	Asset Type	Sewer Basin	Street	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121	
SSGM-5163	Gravity Main	D	Franklin Pierce Hwy XC																\$183,834					\$183,834	1
SSGM-5164	Gravity Main	B	Myrtle St	\$120,936										\$120,936										\$120,936	1
SSGM-5165	Gravity Main	B	Central St	\$273,900										\$273,900										\$273,900	1
SSGM-5166	Gravity Main	H	Henniker St															\$155,304						\$155,304	1
SSGM-5167	Gravity Main	F	Bible Hill Rd																\$85,572					\$85,572	1
SSGM-5168	Gravity Main	E	Depot St	\$145,614										\$145,614										\$145,614	1
SSGM-5169	Gravity Main	A	Woodlawn Ave																\$90,420					\$90,420	1
SSGM-5170	Gravity Main	C	Bear Hill Rd																\$80,292					\$80,292	1
SSGM-5171	Gravity Main	C	Bear Hill Rd															\$91,440						\$91,440	1
SSGM-5172	Gravity Main	D	Jefferson Dr																\$79,920					\$79,920	1
SSGM-5173	Gravity Main	D	Jefferson Dr																\$134,334					\$134,334	1
SSGM-5174	Gravity Main	H	Henniker St																\$118,638					\$118,638	1
SSGM-5176	Gravity Main	B	River St																\$58,134					\$58,134	1
SSGM-5177	Gravity Main	F	Symonds Rd																\$101,940					\$101,940	1
SSGM-5178	Gravity Main	I	Blair Ave																\$151,428					\$151,428	1
SSGM-5179	Gravity Main	E	Old Henniker St																\$123,678					\$123,678	1
SSGM-5180	Gravity Main	F	McNeil Rd																\$76,446					\$76,446	1
SSGM-5181	Gravity Main	F	W Main St																\$123,084					\$123,084	1
SSGM-5182	Gravity Main	C	Bridge St	\$170,418										\$170,418										\$170,418	1
SSGM-5183	Gravity Main	A	Butler St																\$52,422					\$52,422	1
SSGM-5184	Gravity Main	C	Wyman St																\$23,448					\$23,448	1
SSGM-5185	Gravity Main	D	Madison Cir																\$164,238					\$164,238	1
SSGM-5186	Gravity Main	D	Franklin Pierce Hwy XC																\$261,852					\$261,852	1
SSGM-5187	Gravity Main	I	Gay Ave XC																\$214,410					\$214,410	1
SSGM-5188	Gravity Main	B	Church St		\$199,866									\$199,866										\$199,866	1
SSGM-5189	Gravity Main	E	Preston St XC																\$142,050					\$142,050	1
SSGM-5190	Gravity Main	E	Henniker St																\$113,754					\$113,754	1
SSGM-5191	Gravity Main	E	Preston St															\$110,682						\$110,682	1
SSGM-5192	Gravity Main	A	Woodlawn Ave XC																\$147,030					\$147,030	1
SSGM-5193	Gravity Main	C	River St XC																\$190,536					\$190,536	1
SSGM-5194	Gravity Main	C	Bear Hill Rd															\$68,520						\$68,520	1
SSGM-5195	Gravity Main	D	Jefferson Dr																\$105,726					\$105,726	1
SSGM-5196	Gravity Main	F	Bible Hill Rd																\$186,744					\$186,744	1
SSGM-5197	Gravity Main	B	Henniker St																\$41,292					\$41,292	1
SSGM-5198	Gravity Main	B	School St	\$89,976										\$89,976										\$89,976	1
SSGM-5199	Gravity Main	E	Old Henniker St																\$142,278					\$142,278	1
SSGM-5200	Gravity Main	C	Hill St																\$164,514					\$164,514	1
SSGM-5201	Gravity Main	A	Church St	\$14,622										\$14,622										\$14,622	1
SSGM-5202	Gravity Main	A	W Main St	\$32,766										\$32,766										\$32,766	1
SSGM-5202A	Gravity Main	A	W Main St	\$308,292										\$308,292										\$308,292	1
SSGM-5203	Gravity Main	F	Gibson Rd																\$184,680					\$184,680	1
SSGM-5204	Gravity Main	D	Jefferson Dr XC																\$92,730					\$92,730	1
SSGM-5205	Gravity Main	D	Jefferson Dr XC																\$91,992					\$91,992	1
SSGM-5206	Gravity Main	F	Boulder Rd																\$139,026					\$139,026	1
SSGM-5207	Gravity Main	F	Symonds Rd																\$104,460					\$104,460	1
SSGM-5208	Gravity Main	B	River St																\$109,254					\$109,254	1
SSGM-5209	Gravity Main	I	Blair Ave																\$154,206					\$154,206	1
SSGM-5210	Gravity Main	E	Henniker St																\$196,086					\$196,086	1
SSGM-5211	Gravity Main	C	Bear Hill Rd															\$131,064						\$131,064	1
SSGM-5212	Gravity Main	D	Jefferson Dr																\$109,158					\$109,158	1
SSGM-5214	Gravity Main	F	Bible Hill Rd																\$63,666					\$63,666	1
SSGM-5214A	Gravity Main	G	W Main St																\$15,840					\$15,840	1
SSGM-5215	Gravity Main	D	Washington Cir																\$161,286					\$161,286	1
SSGM-5216	Gravity Main	D	Holman St XC																\$190,836					\$190,836	1
SSGM-5217	Gravity Main	B	School St																\$44,088					\$44,088	1
SSGM-5218	Gravity Main	B	School St		\$185,760									\$185,760										\$185,760	1
SSGM-5219	Gravity Main	H	Park St																\$108,786					\$108,786	1
SSGM-5220	Gravity Main	E	Depot St	\$207,198										\$207,198										\$207,198	1
SSGM-5221	Gravity Main	C	Union St	\$234,540										\$234,540										\$234,540	1
SSGM-5222	Gravity Main	D	Jefferson Dr XC																\$124,308					\$124,308	1
SSGM-5223	Gravity Main	D	Jefferson Dr																\$98,808					\$98,808	1
SSGM-5224	Gravity Main	E	Norton Dr																\$167,928					\$167,928	1
SSGM-5225	Gravity Main	G	W Main St	\$165,702										\$165,702										\$165,702	1
SSGM-5226	Gravity Main	B	Walnut St	\$194,604										\$194,604										\$194,604	1
SSGM-5227	Gravity Main	E	Henniker St																\$194,832					\$194,832	1
SSGM-5228	Gravity Main	C	Hill St																\$124,980					\$124,980	1
SSGM-5229	Gravity Main	C	High St	\$42,252										\$42,252										\$42,252	1
SSGM-5230	Gravity Main	A	Butler St																\$142,194					\$142,194	1
SSGM-5231	Gravity Main	D	Jefferson Dr																\$140,886					\$140,886	1
SSGM-5232	Gravity Main	B	Brown St		\$84,006									\$84,006										\$84,006	1
SSGM-5233	Gravity Main	D	Washington Cir																\$69,540					\$69,540	1
SSGM-5234	Gravity Main	A	W Main St XC																\$28,014					\$28,014	1
SSGM-5234A	Gravity Main	A	W Main St XC																\$18,666					\$18,666	1
SSGM-5235	Gravity Main	G	W Main St																\$175,020					\$175,020	1
SSGM-5236	Gravity Main	B	Brown St																\$62,052					\$62,052	1
SSGM-5237	Gravity Main	F	W Main St																\$79,056					\$79,056	1
SSGM-5238	Gravity Main	E	Norton Dr Easement																\$152,964					\$152,964	1
SSGM-5239	Gravity Main	G	W Main St																\$190,560					\$190,560	1
SSGM-5240	Gravity Main	H	Holman St																\$139,740					\$139,740	1
SSGM-5241	Gravity Main	E	Jackson St																\$118,722					\$118,722	1
SSGM-5242	Gravity Main	C	Summer St	\$223,956										\$223,956										\$223,956	1

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Hillsborough Collection System Pipe Data Table

Asset ID	Asset Type	Sewer Basin	Street	Diameter	Upstream Manhole	Downstream Manhole	Material	Inspected	Year Installed	Year Lined	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Unit	Unit Cost	Length (LF)	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Condition Score	Criticality
SSGM-5243	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1564	SSMH-1567	VC	Yes	1940		80	2020	-2	2022	LF	\$600	231.02	\$138,612	2	5	10	5	Priority Renewal
SSGM-5244	Gravity Main	B	Pleasant St	6 inch diameter	SSFT-015	SSMH-1366	VC	Yes	1940		80	2020	-2	2022	LF	\$600	59.36	\$35,616	2	1	2	1	Limited Monitoring
SSGM-5245	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1153	SSMH-1150	VC	Yes	1940	2016	50	2066	44	2066	LF	\$600	269.17	\$161,502	3	1	3	1	Limited Monitoring
SSGM-5246	Gravity Main	B	W Main St	10 inch diameter	SSMH-1423	SSMH-1420	PVC	No	1979		100	2079	57	2079	LF	\$600	251.39	\$150,834	5	2	10	2	Frequent Monitoring
SSGM-5247	Gravity Main	C	Wyman St	6 inch diameter	SSMH-1486	SSMH-1492	VC	Yes	1940		80	2020	-2	2022	LF	\$600	81.72	\$49,032	2	5.1	10.2	5.1	Priority Renewal
SSGM-5248	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1831	SSMH-1867	PVC	Yes	1980		100	2080	58	2080	LF	\$600	278.56	\$167,136	2	1	2	1	Limited Monitoring
SSGM-5249	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1054	SSMH-1051	PVC	Yes	1979		100	2079	57	2079	LF	\$600	231.72	\$139,032	3	1	3	1	Limited Monitoring
SSGM-5250	Gravity Main	F	Harvey Way	8 inch diameter	SSMH-1891	SSMH-1885	PVC	Yes	1979		100	2079	57	2079	LF	\$600	460.34	\$276,204	1	1	1	1	Limited Monitoring
SSGM-5252	Gravity Main	F	Symonds Rd	8 inch diameter	SSMH-1924	SSMH-1921	PVC	Yes	1980		100	2080	58	2080	LF	\$600	273.17	\$163,902	2	1	2	1	Limited Monitoring
SSGM-5253	Gravity Main	C	W Mill St	6 inch diameter	SSFT-006	SSMH-1540	VC	Yes	1940		80	2020	-2	2022	LF	\$600	65.65	\$39,390	1	1	1	1	Limited Monitoring
SSGM-5254	Gravity Main	G	W Main St	12 inch diameter	SSMH-1849	SSMH-1852	PVC	Yes	1979		100	2079	57	2079	LF	\$600	253.34	\$152,004	5	1	5	1	Frequent Monitoring
SSGM-5255	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2032	SSMH-1255	PVC	Yes	1980		100	2080	58	2080	LF	\$600	198.46	\$119,076	3	1	3	1	Limited Monitoring
SSGM-5256	Gravity Main	A	Butler St	8 inch diameter	SSMH-1666	SSMH-1663	PVC	Yes	1980		100	2080	58	2080	LF	\$600	133.34	\$80,004	2	1	2	1	Limited Monitoring
SSGM-5257	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2104	SSMH-2101	PVC	No	1980		100	2080	58	2080	LF	\$600	204.96	\$122,976	1	2	2	2	Limited Monitoring
SSGM-5258	Gravity Main	F	Boulder Rd	8 inch diameter	SSMH-1834	SSMH-1825	PVC	Yes	1979		100	2079	57	2079	LF	\$600	182.49	\$109,494	1	1	1	1	Limited Monitoring
SSGM-5259	Gravity Main	B	Church St	8 inch diameter	SSMH-2254	SSMH-2251	CI	No	1940		100	2040	18	2040	LF	\$600	166.98	\$100,188	4	3	12	3	Frequent Monitoring
SSGM-5260	Gravity Main	E	Norton Dr Easement	18 inch diameter	SSMH-1147	SSMH-1099	PVC	Yes	1979		100	2079	57	2079	LF	\$600	277.18	\$166,308	5	1	5	1	Frequent Monitoring
SSGM-5261	Gravity Main	G	W Main St	12 inch diameter	SSMH-1642	SSMH-1642A	PVC	Yes	1979		100	2079	57	2079	LF	\$600	126.15	\$75,690	5	1	5	1	Frequent Monitoring
SSGM-5261A	Gravity Main	G	W Main St	12 inch diameter	SSMH-1642A	SSMH-1648	PVC	No	1979		100	2079	57	2079	LF	\$600	131.55	\$78,930	5	2	10	2	Frequent Monitoring
SSGM-5262	Gravity Main	F	McNeil Rd	8 inch diameter	SSMH-1900	SSMH-1828	PVC	Yes	1980		100	2080	58	2080	LF	\$600	184.04	\$110,424	3	1	3	1	Limited Monitoring
SSGM-5263	Gravity Main	F	Windsor Terrace	8 inch diameter	SSMH-1807	SSMH-1804	PVC	Yes	1979		100	2079	57	2079	LF	\$600	298.56	\$179,136	1	1	1	1	Limited Monitoring
SSGM-5264	Gravity Main	G	W Main St	12 inch diameter	SSMH-1870	SSMH-1873	PVC	Yes	1979		100	2079	57	2079	LF	\$600	110.91	\$66,546	5	1	5	1	Frequent Monitoring
SSGM-5265	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2095	SSMH-2092	PVC	No	1980		100	2080	58	2080	LF	\$600	140.41	\$84,246	1	2	2	2	Limited Monitoring
SSGM-5266	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2122	SSMH-2119	PVC	No	1980		100	2080	58	2080	LF	\$600	170.35	\$102,210	3	2	6	2	Limited Monitoring
SSGM-5267	Gravity Main	D	Blair Ave XC	8 inch diameter	SSMH-2110	SSMH-2071	PVC	Yes	1980		100	2080	58	2080	LF	\$600	317.02	\$190,212	4	1	4	1	Frequent Monitoring
SSGM-5268	Gravity Main	B	Myrtle St	8 inch diameter	SSMH-1339	SSMH-1336	VC	Yes	1940		80	2020	-2	2022	LF	\$600	210.74	\$126,444	4	2.1	8.4	2.1	Frequent Monitoring
SSGM-5269	Gravity Main	B	Newman St	6 inch diameter	SSMH-1354	SSMH-1345	VC	Yes	1940		80	2020	-2	2022	LF	\$600	74.73	\$44,838	2	1	2	1	Limited Monitoring
SSGM-5270	Gravity Main	B	W Main St	10 inch diameter	SSMH-1318	SSMH-1423	PVC	No	1979		100	2079	57	2079	LF	\$600	58.74	\$35,244	5	2	10	2	Frequent Monitoring
SSGM-5271	Gravity Main	C	Wyman St	6 inch diameter	SSMH-1489	SSMH-1486	VC	Yes	1940		80	2020	-2	2023	LF	\$600	182.58	\$109,548	2	4.1	8.2	4.1	Priority Renewal
SSGM-5272	Gravity Main	A	Myrtle St	8 inch diameter	SSMH-1732	SSMH-1729	PVC	Yes	1980		100	2080	58	2080	LF	\$600	155.74	\$93,444	1	1	1	1	Limited Monitoring
SSGM-5273	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2065	SSMH-2062	PVC	No	1980		100	2080	58	2080	LF	\$600	269	\$161,400	2	2	4	2	Limited Monitoring
SSGM-5274	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2140	SSMH-2137	PVC	Yes	1980		100	2080	58	2080	LF	\$600	217.49	\$130,494	2	1	2	1	Limited Monitoring
SSGM-5275	Gravity Main	I	Center Rd	6 inch diameter	SSMH-1225	SSMH-1228	VC	Yes	1940		80	2020	-2	2022	LF	\$600	94.17	\$56,502	3	1	3	1	Limited Monitoring
SSGM-5276	Gravity Main	B	River St	10 inch diameter	SSMH-1402	SSMH-1360	PVC	Yes	1979		100	2079	57	2079	LF	\$600	100.96	\$60,576	5	1	5	1	Frequent Monitoring
SSGM-5277	Gravity Main	H	Gay Ave	6 inch diameter	SSMH-1291	SSMH-1285	VC	Yes	1940		80	2020	-2	2022	LF	\$600	238.29	\$142,974	2	3.1	6.2	3.1	Frequent Monitoring
SSGM-5278	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1057	SSMH-1054	PVC	Yes	1979		100	2079	57	2079	LF	\$600	164.12	\$98,472	3	1	3	1	Limited Monitoring
SSGM-5279	Gravity Main	C	John St	6 inch diameter	SSFT-006	SSMH-1537	VC	Yes	1940		80	2020	-2	2022	LF	\$600	76.48	\$45,888	1	1	1	1	Limited Monitoring
SSGM-5281	Gravity Main	A	Willow Rock Rd	8 inch diameter	SSMH-2257	SSMH-1729	PVC	Yes	1980		100	2080	58	2080	LF	\$600	230.07	\$138,042	4	2.2	8.8	2.2	Frequent Monitoring
SSGM-5282	Gravity Main	F	W Main St	12 inch diameter	SSMH-1801	SSMH-1795	PVC	Yes	1979		100	2079	57	2079	LF	\$600	289.84	\$173,904	4	1	4	1	Frequent Monitoring
SSGM-5283	Gravity Main	F	Meeting Hill Rd	8 inch diameter	SSMH-1957	SSMH-1954	PVC	Yes	1980		100	2080	58	2080	LF	\$600	211.44	\$126,864	1	1	1	1	Limited Monitoring
SSGM-5284	Gravity Main	A	Woodlawn Ave	8 inch diameter	SSMH-1702	SSMH-1705	PVC	Yes	1979		100	2079	57	2079	LF	\$600	196.01	\$117,606	4	1	4	1	Frequent Monitoring
SSGM-5285	Gravity Main	A	Church St	6 inch diameter	SSMH-1678	SSMH-1675	VC	Yes	1940		80	2020	-2	2023	LF	\$600	327.45	\$196,470	2	4.125	8.25	4.125	Priority Renewal
SSGM-5286	Gravity Main	F	Boulder Rd	8 inch diameter	SSMH-1843	SSMH-1840	PVC	Yes	1980		100	2080	58	2080	LF	\$600	178.38	\$107,028	1	1	1	1	Limited Monitoring
SSGM-5287	Gravity Main	D	Franklin Pierce Hwy XC	8 inch diameter	SSMH-2218	SSMH-2179	PVC	Yes	1980		100	2080	58	2080	LF	\$600	273.4	\$164,040	4	1	4	1	Frequent Monitoring
SSGM-5288	Gravity Main	F	Meeting Hill Rd	8 inch diameter	SSMH-1933	SSMH-1930	PVC	Yes	1980		100	2080	58	2080	LF	\$600	310.77	\$186,462	1	1	1	1	Limited Monitoring
SSGM-5289	Gravity Main	B	Myrtle St	8 inch diameter	SSMH-1348	SSMH-1345	VC	Yes	1940		80	2020	-2	2022	LF	\$600	166.56	\$99,936	4	3.121	12.484	3.121	Frequent Monitoring
SSGM-5290	Gravity Main	E	Preston St XC	18 inch diameter	SSMH-1204	SSMH-1177	PVC	Yes	1979		100	2079	57	2079	LF	\$600	176.76	\$106,056	5	1	5	1	Frequent Monitoring
SSGM-5291	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1162	SSMH-1159	VC	Yes	1940	2016	50	2066	44	2066	LF	\$600	470.52	\$282,312	3	1	3	1	Limited Monitoring
SSGM-5292	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1060	SSMH-1057	PVC	Yes	1979		100	2079	57	2079	LF	\$600	164.64	\$98,784	3	1	3	1	Limited Monitoring
SSGM-5293	Gravity Main	E	Norton Dr XC	8 inch diameter	SSMH-1093	SSMH-1093A	VC	Yes	1940		80	2020	-2	2022	LF	\$600	180.47	\$108,282	3	1	3	1	Limited Monitoring
SSGM-5293A	Gravity Main	E	Norton Dr XC	10 inch diameter	SSMH-1093A	SSMH-2245	DI	Yes	1940		65	2005	-17	2022	LF	\$600	41.53	\$24,918	3	1	3	1	Limited Monitoring
SSGM-5294	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1606	SSMH-1603	PVC	Yes	1979		100	2079	57	2079	LF	\$600	149.12	\$89,472	1	1	1	1	Limited Monitoring
SSGM-5295	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1774	SSMH-1777	PVC	Yes	1979		100	2079	57	2079	LF	\$600	275.24	\$165,144	3	1	3	1	Limited Monitoring
SSGM-5296	Gravity Main	C	Bear Hill Rd	10 inch diameter	SSMH-1585	SSMH-1588	VC	Yes	1940	2021	50	2066	44	2066	LF	\$600	136.52	\$81,912	4	1	4	1	Frequent Monitoring
SSGM-5297	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2050	SSMH-2047	PVC	Yes	1980		100	2080	58	2080	LF	\$600	164.75	\$98,850	2	1	2	1	Limited Monitoring
SSGM-5298	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2152	SSMH-2149	PVC	Yes	1980		100	2080	58	2080	LF	\$600	261.18	\$156,708	1	1	1	1	Limited Monitoring
SSGM-5299	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1171	SSMH-1174	PVC	Yes	1979		100	2079	57	2079	LF	\$600	73.37	\$44,022	5	1	5	1	Frequent Monitoring
SSGM-5300	Gravity Main	I	Holman St XC	8 inch diameter	SSMH-1186	SSMH-1183	PVC	Yes	1979		100	2079	57	2079	LF	\$600	276.39	\$165,834	4	1	4	1	Frequent Monitoring
SSGM-5301	Gravity Main	B	River St	12 inch diameter	SSMH-1411	SSMH-1408	PVC	Yes	1979		100	2079	57	2079	LF	\$600	60.15	\$36,090	5	1	5	1	Frequent Monitoring
SSGM-5302	Gravity Main	I	Blair Ave	8 inch diameter	SSMH-1207	SSMH-1201	PVC	Yes	1979		100	2079	57	2079	LF	\$600	211.51	\$126,906	4	1	4	1	Frequent Monitoring
SSGM-5303	Gravity Main	E	Old Henniker St	8 inch diameter	SSMH-1081	SSMH-1078	PVC	Yes	1980		100	2080	58	2080	LF	\$600	247.62	\$148,572	2	1	2	1	Limited Monitoring
SSGM-5304	Gravity Main	C	Bridge St	6 inch diameter	SSMH-1447	SSMH-1444	VC	Yes	1940		80	2020	-2	2022	LF								

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COST OF ASSET REPLACEMENT - FIRST TEN YEARS														COST OF ASSET REPLACEMENT - NEXT 100 YEARS												
Hillsborough Collection System Pipe Data Table				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100	0 - 100	100-Yr Replacement Count	
Asset ID	Asset Type	Sewer Basin	Street	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121		
SSGM-5243	Gravity Main	C	W Mill St	\$138,612										\$138,612										\$138,612	1	
SSGM-5244	Gravity Main	B	Pleasant St	\$35,616										\$35,616											\$35,616	1
SSGM-5245	Gravity Main	H	Henniker St															\$161,502							\$161,502	1
SSGM-5246	Gravity Main	B	W Main St																\$150,834						\$150,834	1
SSGM-5247	Gravity Main	C	Wyman St	\$49,032										\$49,032											\$49,032	1
SSGM-5248	Gravity Main	F	Bible Hill Rd																\$167,136						\$167,136	1
SSGM-5249	Gravity Main	E	Henniker St																\$139,032						\$139,032	1
SSGM-5250	Gravity Main	F	Harvey Way																\$276,204						\$276,204	1
SSGM-5252	Gravity Main	F	Symonds Rd																\$163,902						\$163,902	1
SSGM-5253	Gravity Main	C	W Mill St	\$39,390										\$39,390											\$39,390	1
SSGM-5254	Gravity Main	G	W Main St																\$152,004						\$152,004	1
SSGM-5255	Gravity Main	D	Jefferson Dr XC																\$119,076						\$119,076	1
SSGM-5256	Gravity Main	A	Butler St																\$80,004						\$80,004	1
SSGM-5257	Gravity Main	D	Jefferson Dr																\$122,976						\$122,976	1
SSGM-5258	Gravity Main	F	Boulder Rd																\$109,494						\$109,494	1
SSGM-5259	Gravity Main	B	Church St																	\$100,188					\$100,188	1
SSGM-5260	Gravity Main	E	Norton Dr Easement																\$166,308						\$166,308	1
SSGM-5261	Gravity Main	G	W Main St																\$75,690						\$75,690	1
SSGM-5261A	Gravity Main	G	W Main St																\$78,930						\$78,930	1
SSGM-5262	Gravity Main	F	McNeil Rd																\$110,424						\$110,424	1
SSGM-5263	Gravity Main	F	Windsor Terrace																\$179,136						\$179,136	1
SSGM-5264	Gravity Main	G	W Main St																\$66,546						\$66,546	1
SSGM-5265	Gravity Main	D	Jefferson Dr																\$84,246						\$84,246	1
SSGM-5266	Gravity Main	D	Jefferson Dr																\$102,210						\$102,210	1
SSGM-5267	Gravity Main	D	Blair Ave XC																\$190,212						\$190,212	1
SSGM-5268	Gravity Main	B	Myrtle St	\$126,444										\$126,444											\$126,444	1
SSGM-5269	Gravity Main	B	Newman St	\$44,838										\$44,838											\$44,838	1
SSGM-5270	Gravity Main	B	W Main St																\$35,244						\$35,244	1
SSGM-5271	Gravity Main	C	Wyman St		\$109,548									\$109,548											\$109,548	1
SSGM-5272	Gravity Main	A	Myrtle St																\$93,444						\$93,444	1
SSGM-5273	Gravity Main	D	Jefferson Dr XC																\$161,400						\$161,400	1
SSGM-5274	Gravity Main	D	Jefferson Dr																\$130,494						\$130,494	1
SSGM-5275	Gravity Main	I	Center Rd	\$56,502										\$56,502											\$56,502	1
SSGM-5276	Gravity Main	B	River St																\$60,576						\$60,576	1
SSGM-5277	Gravity Main	H	Gay Ave	\$142,974										\$142,974											\$142,974	1
SSGM-5278	Gravity Main	E	Henniker St																\$98,472						\$98,472	1
SSGM-5279	Gravity Main	C	John St	\$45,888										\$45,888											\$45,888	1
SSGM-5281	Gravity Main	A	Willow Rock Rd																\$138,042						\$138,042	1
SSGM-5282	Gravity Main	F	W Main St																\$173,904						\$173,904	1
SSGM-5283	Gravity Main	F	Meeting Hill Rd																\$126,864						\$126,864	1
SSGM-5284	Gravity Main	A	Woodlawn Ave																\$117,606						\$117,606	1
SSGM-5285	Gravity Main	A	Church St		\$196,470									\$196,470											\$196,470	1
SSGM-5286	Gravity Main	F	Boulder Rd																\$107,028						\$107,028	1
SSGM-5287	Gravity Main	D	Franklin Pierce Hwy XC																\$164,040						\$164,040	1
SSGM-5288	Gravity Main	F	Meeting Hill Rd																\$186,462						\$186,462	1
SSGM-5289	Gravity Main	B	Myrtle St	\$99,936										\$99,936											\$99,936	1
SSGM-5290	Gravity Main	E	Preston St XC																\$106,056						\$106,056	1
SSGM-5291	Gravity Main	H	Henniker St																\$282,312						\$282,312	1
SSGM-5292	Gravity Main	E	Henniker St																\$98,784						\$98,784	1
SSGM-5293	Gravity Main	E	Norton Dr XC	\$108,282										\$108,282											\$108,282	1
SSGM-5293A	Gravity Main	E	Norton Dr XC	\$24,918										\$24,918						\$24,918					\$24,918	1
SSGM-5294	Gravity Main	C	Bear Hill Rd																\$89,472						\$89,472	1
SSGM-5295	Gravity Main	F	Bible Hill Rd																\$165,144						\$165,144	1
SSGM-5296	Gravity Main	C	Bear Hill Rd																\$81,912						\$81,912	1
SSGM-5297	Gravity Main	D	Jefferson Dr																\$98,850						\$98,850	1
SSGM-5298	Gravity Main	D	Jefferson Dr																\$156,708						\$156,708	1
SSGM-5299	Gravity Main	H	Henniker St																\$44,022						\$44,022	1
SSGM-5300	Gravity Main	I	Holman St XC																\$165,834						\$165,834	1
SSGM-5301	Gravity Main	B	River St																\$36,090						\$36,090	1
SSGM-5302	Gravity Main	I	Blair Ave																\$126,906						\$126,906	1
SSGM-5303	Gravity Main	E	Old Henniker St																\$148,572						\$148,572	1
SSGM-5304	Gravity Main	C	Bridge St	\$181,368										\$181,368											\$181,368	1
SSGM-5305	Gravity Main	A	W Main St	\$43,596										\$43,596											\$43,596	1
SSGM-5307	Gravity Main	D	Jefferson Dr XC																\$93,294						\$93,294	1
SSGM-5308	Gravity Main	D	Franklin Pierce Hwy XC																\$68,094						\$68,094	1
SSGM-5309	Gravity Main	I	Blair Ave XC																\$214,020						\$214,020	1
SSGM-5310	Gravity Main	B	Church St	\$115,446										\$115,446											\$115,446	1
SSGM-5311	Gravity Main	G	W Main St																\$100,518						\$100,518	1
SSGM-5312	Gravity Main	B	River St XC																\$123,960						\$123,960	1
SSGM-5313	Gravity Main	F	Symonds Rd																\$120,942						\$120,942	1
SSGM-5314	Gravity Main	E	Henniker St																\$124,212						\$124,212	1
SSGM-5315	Gravity Main	F	Boulder Rd XC																\$105,078						\$105,078	1
SSGM-5316	Gravity Main	C	River St XC																\$141,144						\$141,144	1
SSGM-5317	Gravity Main	D	Jefferson Dr																\$142,410						\$142,410	1
SSGM-5318	Gravity Main	D	Washington Cir																\$152,214						\$152,214	1
SSGM-5319	Gravity Main	B	Henniker St																\$27,690						\$27,690	1
SSGM-5320	Gravity Main	G	W Main St																\$172,878						\$172,878	1
SSGM-5321	Gravity Main	D	Franklin Pierce Hwy XC																\$24,762						\$24,762	1
SSGM-5322	Gravity Main	H	Park St XC																\$93,396							

Hillsborough Collection System Pipe Data Table

Asset ID	Asset Type	Sewer Basin	Street	Diameter	Upstream Manhole	Downstream Manhole	Material	Inspected	Year Installed	Year Lined	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Unit	Unit Cost	Length (LF)	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Condition Score	Criticality
SSGM-5325	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2023	SSMH-2020	PVC	Yes	1980		100	2080	58	2080	LF	\$600	288.24	\$172,944	4	2.2	8.8	2.2	Frequent Monitoring
SSGM-5326	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-2011	SSMH-2008	PVC	Yes	1980		100	2080	58	2080	LF	\$600	163.9	\$98,340	4	1	4	1	Frequent Monitoring
SSGM-5327	Gravity Main	B	River St	10 inch diameter	SSMH-1312	SSMH-1018	PVC	Yes	1979		100	2079	57	2079	LF	\$600	178.16	\$106,896	5	1	5	1	Frequent Monitoring
SSGM-5328	Gravity Main	I	Blair Ave	8 inch diameter	SSMH-1213	SSMH-1210	PVC	Yes	1979		100	2079	57	2079	LF	\$600	243.72	\$146,232	4	1	4	1	Frequent Monitoring
SSGM-5329	Gravity Main	E	Henniker St	12 inch diameter	SSMH-1042	SSMH-1039	PVC	Yes	1979		100	2079	57	2079	LF	\$600	375.75	\$225,450	3	1	3	1	Limited Monitoring
SSGM-5330	Gravity Main	D	Jefferson Dr	8 inch diameter	SSMH-2089	SSMH-2086	PVC	No	1980		100	2080	58	2080	LF	\$600	173.78	\$104,268	1	2	2	2	Limited Monitoring
SSGM-5331	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1561	SSMH-1525	DI	Yes	1979		85	2064	42	2064	LF	\$600	142.58	\$85,548	3	1	3	1	Limited Monitoring
SSGM-5332	Gravity Main	A	Myrtle St	8 inch diameter	SSMH-1693	SSMH-1687	PVC	Yes	1979		100	2079	57	2079	LF	\$600	356.51	\$213,906	4	1	4	1	Frequent Monitoring
SSGM-5333	Gravity Main	C	Briggs St	6 inch diameter	SSMH-1510	SSMH-1495	VC	Yes	1940		80	2020	-2	2022	LF	\$600	70.82	\$42,492	1	1	1	1	Limited Monitoring
SSGM-5334	Gravity Main	F	Gibson Rd	8 inch diameter	SSMH-1948	SSMH-1945	PVC	Yes	1980		100	2080	58	2080	LF	\$600	298.55	\$179,130	1	1	1	1	Limited Monitoring
SSGM-5335	Gravity Main	D	Blair Ave XC	8 inch diameter	SSMH-2038	SSMH-2005	PVC	Yes	1980		100	2080	58	2080	LF	\$600	323.66	\$194,196	4	1	4	1	Frequent Monitoring
SSGM-5336	Gravity Main	B	Church St	6 inch diameter	SSMH-1378	SSMH-1375	VC	Yes	1940		80	2020	-2	2022	LF	\$600	237.64	\$142,584	4	3.22	12.88	3.22	Frequent Monitoring
SSGM-5339	Gravity Main	D	Jefferson Dr XC	8 inch diameter	SSMH-1255	SSMH-2029	PVC	Yes	1980		100	2080	58	2080	LF	\$600	82.85	\$49,710	3	1	3	1	Limited Monitoring
SSGM-5342	Gravity Main	E	Depot St	6 inch diameter	SSMH-1108	SSMH-1108	VC	Yes	1940		80	2020	-2	2022	LF	\$600	96.46	\$57,876	3	1.2	3.6	1.2	Limited Monitoring
SSGM-5344	Gravity Main	G	Municipal Dr XC	Unknown	UNK-003	SSMH-1882	PVC	No	1980		100	2080	58	2080	LF	\$600	57.2	\$34,320	4	1	4	1	Frequent Monitoring
SSGM-5345	Gravity Main	G	Municipal Dr	Unknown	SSMH-1882	SSMH-1888	PVC	No	1980		100	2080	58	2080	LF	\$600	255.02	\$153,012	4	1	4	1	Frequent Monitoring
SSGM-5346	Gravity Main	D	Lincoln Cir	8 inch diameter	SSMH-2077	SSMH-2074	PVC	Yes	1980		100	2080	58	2080	LF	\$600	245.05	\$147,030	1	1	1	1	Limited Monitoring
SSGM-5347	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2197	SSMH-2194	PVC	Yes	1980		100	2080	58	2080	LF	\$600	311.4	\$186,840	1	1	1	1	Limited Monitoring
SSGM-5348	Gravity Main	I	Blair Ave	8 inch diameter	SSMH-1198	SSMH-1195	PVC	Yes	1979		100	2079	57	2079	LF	\$600	283.94	\$170,364	4	1	4	1	Frequent Monitoring
SSGM-5349	Gravity Main	I	Pine Ridge Rd	8 inch diameter	SSMH-1300	SSMH-1300A	PVC	Yes	1980		100	2080	58	2080	LF	\$600	220.07	\$132,042	1	1	1	1	Limited Monitoring
SSGM-5349A	Gravity Main	I	Pine Ridge Rd	8 inch diameter	SSMH-1300A	SSMH-1303	PVC	Yes	1980		100	2080	58	2080	LF	\$600	199.67	\$119,802	1	1	1	1	Limited Monitoring
SSGM-5350	Gravity Main	E	Preston St	8 inch diameter	SSMH-1120	SSMH-1030	PVC	Yes	1979		100	2079	57	2079	LF	\$600	88.15	\$52,890	3	1	3	1	Limited Monitoring
SSGM-5351	Gravity Main	E	Preston St	6 inch diameter	SSMH-1144	SSMH-1141	VC	Yes	1940		80	2020	-2	2022	LF	\$600	308.13	\$184,878	2	2.1	4.2	2.1	Limited Monitoring
SSGM-5356	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1603	BHPS	PVC	Yes	1979		100	2079	57	2079	LF	\$600	140.44	\$84,264	3	1	3	1	Limited Monitoring
SSGM-5358	Gravity Main	I	Center Rd	8 inch diameter	SSMH-1237	SSMH-1231	PVC	Yes	1979		100	2079	57	2079	LF	\$600	129.75	\$77,850	1	1	1	1	Limited Monitoring
SSGM-5359	Gravity Main	I	Center Rd	8 inch diameter	SSMH-1231	SSMH-1234	AC	Yes	1940		80	2020	-2	2022	LF	\$600	237.62	\$142,572	1	1	1	1	Limited Monitoring
SSGM-5360	Gravity Main	E	Preston St	6 inch diameter	SSMH-1132	SSMH-1129	VC	Yes	1940		80	2020	-2	2022	LF	\$600	151.05	\$90,630	2	1	2	1	Limited Monitoring
SSGM-5361	Gravity Main	E	Preston St	6 inch diameter	SSMH-1135	SSMH-1132	VC	Yes	1940		80	2020	-2	2022	LF	\$600	404.19	\$242,514	2	5.142	10.284	5.142	Priority Renewal
SSGM-5362	Gravity Main	E	Preston St	6 inch diameter	SSMH-1138	SSMH-1135	VC	Yes	1940		80	2020	-2	2022	LF	\$600	237.78	\$142,668	2	5	10	5	Priority Renewal
SSGM-5363	Gravity Main	F	Bradford Cir	8 inch diameter	SSMH-1972	SSMH-1969	PVC	Yes	1980		100	2080	58	2080	LF	\$600	107.81	\$64,686	1	1	1	1	Limited Monitoring
SSGM-5364	Gravity Main	F	Bradford Cir	8 inch diameter	SSMH-1969	SSMH-1966	PVC	Yes	1980		100	2080	58	2080	LF	\$600	130.15	\$78,090	1	1	1	1	Limited Monitoring
SSGM-5365	Gravity Main	F	Bradford Cir	8 inch diameter	SSMH-1966	SSMH-1963	PVC	Yes	1980		100	2080	58	2080	LF	\$600	197.06	\$118,236	1	1	1	1	Limited Monitoring
SSGM-5366	Gravity Main	F	Bradford Cir	8 inch diameter	SSMH-1963	SSMH-1936	PVC	Yes	1980		100	2080	58	2080	LF	\$600	192.9	\$115,740	1	1	1	1	Limited Monitoring
SSGM-5367	Gravity Main	F	Bradford Cir	8 inch diameter	SSMH-1975	SSMH-1972	PVC	Yes	1980		100	2080	58	2080	LF	\$600	117.13	\$70,278	1	1	1	1	Limited Monitoring
SSGM-5368	Gravity Main	F	Bradford Cir	8 inch diameter	SSMH-1978	SSMH-1975	PVC	Yes	1980		100	2080	58	2080	LF	\$600	198.86	\$119,316	1	1	1	1	Limited Monitoring
SSGM-5369	Gravity Main	A	Willow Rock Rd XC	8 inch diameter	SSMH-2266	SSMH-2263	PVC	Yes	1980		100	2080	58	2080	LF	\$600	211.46	\$126,876	4	1	4	1	Frequent Monitoring
SSGM-5370	Gravity Main	G	W Main St	6 inch diameter	SSMH-1630	SSMH-1636	VC	Yes	1940		80	2020	-2	2022	LF	\$600	321.21	\$192,726	4	5.232	20.928	5.232	Highest Risk
SSGM-5371	Gravity Main	C	High St	6 inch diameter	SSMH-1519	SSMH-1516	VC	Yes	1940		80	2020	-2	2023	LF	\$600	336.01	\$201,606	1	4.332	4.332	4.332	Priority Renewal
SSGM-5372	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2188	SSMH-2191	PVC	Yes	1980		100	2080	58	2080	LF	\$600	288.07	\$172,842	1	1	1	1	Limited Monitoring
SSGM-5373	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2191	SSMH-2197	PVC	Yes	1980		100	2080	58	2080	LF	\$600	298.52	\$179,112	1	1	1	1	Limited Monitoring
SSGM-5375	Gravity Main	D	Madison Cir	8 inch diameter	SSMH-2194	SSMH-2068	PVC	Yes	1980		100	2080	58	2080	LF	\$600	137.47	\$82,482	1	1	1	1	Limited Monitoring
SSGM-5378	Gravity Main	I	Pine Ridge Rd XC	8 inch diameter	SSMH-1303	SSMH-1297	PVC	Yes	1980		100	2080	58	2080	LF	\$600	240.33	\$144,198	3	2.1	6.3	2.1	Limited Monitoring
SSGM-5379	Gravity Main	C	Pearl St	6 inch diameter	SSMH-1504	SSMH-1528	VC	Yes	1940		80	2020	-2	2022	LF	\$600	268.51	\$161,106	1	5.121	5.121	5.121	Priority Renewal
SSGM-5380	Gravity Main	C	Pearl St	6 inch diameter	SSMH-1528	SSMH-1531	VC	Yes	1940		80	2020	-2	2023	LF	\$600	158.89	\$95,334	2	4.131	8.262	4.131	Priority Renewal
SSGM-5381	Gravity Main	C	Prospect St	6 inch diameter	SSFT-010	SSMH-1432	VC	Yes	1940		80	2020	-2	2022	LF	\$600	153.75	\$92,250	1	3.1	3.1	3.1	Frequent Monitoring
SSGM-5382	Gravity Main	C	Bear Hill Rd	8 inch diameter	SSMH-1609	SSMH-1561	PVC	Yes	1979		100	2079	57	2079	LF	\$600	75.35	\$45,210	3	1	3	1	Limited Monitoring
SSGM-5383	Gravity Main	C	River St XC	8 inch diameter	SSMH-1429	SSMH-1006	PVC	No	1979		85	2064	42	2064	LF	\$600	266.35	\$159,810	5	2	10	2	Frequent Monitoring
SSGM-5384	Gravity Main	C	Bear Hill Rd	10 inch diameter	SSMH-1426	SSMH-1429	VC	Yes	1979		80	2059	37	2059	LF	\$600	59.17	\$35,502	5	1	5	1	Frequent Monitoring
SSGM-5385	Gravity Main	C	Hill St	8 inch diameter	SSMH-1462	SSMH-1456	PVC	Yes	1980		100	2080	58	2080	LF	\$600	183.88	\$110,328	1	1	1	1	Limited Monitoring
SSGM-5386	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1540	SSMH-1555	VC	Yes	1940		80	2020	-2	2022	LF	\$600	233.17	\$139,902	1	3.1	3.1	3.1	Frequent Monitoring
SSGM-5387	Gravity Main	H	Henniker St	10 inch diameter	SSMH-1174	SSMH-1168	PVC	Yes	1979		100	2079	57	2079	LF	\$600	70.58	\$42,348	5	1	5	1	Frequent Monitoring
SSGM-5396	Gravity Main	H	Whittemore St	6 inch diameter	SSMH-1267	SSMH-1267A	VC	Yes	1940		80	2020	-2	2022	LF	\$600	245.43	\$147,258	2	5	10	5	Priority Renewal
SSGM-5396A	Gravity Main	H	Whittemore St	6 inch diameter	SSMH-1267A	SSMH-1267B	AC	Yes	1940		80	2020	-2	2022	LF	\$600	20.5	\$12,300	2	1	2	1	Limited Monitoring
SSGM-5396B	Gravity Main	H	Whittemore St	8 inch diameter	SSMH-1267B	SSMH-1273	PVC	Yes	1979		100	2079	57	2079	LF	\$600	20.11	\$12,066	2	1	2	1	Limited Monitoring
SSGM-5397	Gravity Main	I	Blair Ave XC	8 inch diameter	SSMH-1297																		

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Hillsborough Collection System Pipe Data Table				COST OF ASSET REPLACEMENT - FIRST TEN YEARS										COST OF ASSET REPLACEMENT - NEXT 100 YEARS										100-Yr Replacement Count		
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100		0 - 100	
Asset ID	Asset Type	Sewer Basin	Street	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121		
SSGM-5325	Gravity Main	D	Jefferson Dr XC																\$172,944					\$172,944	1	
SSGM-5326	Gravity Main	D	Jefferson Dr XC																\$98,340					\$98,340	1	
SSGM-5327	Gravity Main	B	River St																\$106,896					\$106,896	1	
SSGM-5328	Gravity Main	I	Blair Ave																\$146,232					\$146,232	1	
SSGM-5329	Gravity Main	E	Henniker St																\$225,450					\$225,450	1	
SSGM-5330	Gravity Main	D	Jefferson Dr																\$104,268					\$104,268	1	
SSGM-5331	Gravity Main	C	Bear Hill Rd														\$85,548						\$85,548	1		
SSGM-5332	Gravity Main	A	Myrtle St																\$213,906					\$213,906	1	
SSGM-5333	Gravity Main	C	Briggs St	\$42,492										\$42,492										\$42,492	1	
SSGM-5334	Gravity Main	F	Gibson Rd																\$179,130					\$179,130	1	
SSGM-5335	Gravity Main	D	Blair Ave XC																\$194,196					\$194,196	1	
SSGM-5336	Gravity Main	B	Church St	\$142,584										\$142,584										\$142,584	1	
SSGM-5339	Gravity Main	D	Jefferson Dr XC																\$49,710					\$49,710	1	
SSGM-5342	Gravity Main	E	Depot St	\$57,876										\$57,876										\$57,876	1	
SSGM-5344	Gravity Main	G	Municipal Dr XC																\$34,320					\$34,320	1	
SSGM-5345	Gravity Main	G	Municipal Dr																\$153,012					\$153,012	1	
SSGM-5346	Gravity Main	D	Lincoln Cir																\$147,030					\$147,030	1	
SSGM-5347	Gravity Main	D	Madison Cir																\$186,840					\$186,840	1	
SSGM-5348	Gravity Main	I	Blair Ave																\$170,364					\$170,364	1	
SSGM-5349	Gravity Main	I	Pine Ridge Rd																\$132,042					\$132,042	1	
SSGM-5349A	Gravity Main	I	Pine Ridge Rd																\$119,802					\$119,802	1	
SSGM-5350	Gravity Main	E	Preston St																\$52,890					\$52,890	1	
SSGM-5351	Gravity Main	E	Preston St	\$184,878										\$184,878										\$184,878	1	
SSGM-5356	Gravity Main	C	Bear Hill Rd																\$84,264					\$84,264	1	
SSGM-5358	Gravity Main	I	Center Rd																\$77,850					\$77,850	1	
SSGM-5359	Gravity Main	I	Center Rd	\$142,572										\$142,572										\$142,572	1	
SSGM-5360	Gravity Main	E	Preston St	\$90,630										\$90,630										\$90,630	1	
SSGM-5361	Gravity Main	E	Preston St	\$242,514										\$242,514										\$242,514	1	
SSGM-5362	Gravity Main	E	Preston St	\$142,668										\$142,668										\$142,668	1	
SSGM-5363	Gravity Main	F	Bradford Cir																\$64,686					\$64,686	1	
SSGM-5364	Gravity Main	F	Bradford Cir																\$78,090					\$78,090	1	
SSGM-5365	Gravity Main	F	Bradford Cir																\$118,236					\$118,236	1	
SSGM-5366	Gravity Main	F	Bradford Cir																\$115,740					\$115,740	1	
SSGM-5367	Gravity Main	F	Bradford Cir																\$70,278					\$70,278	1	
SSGM-5368	Gravity Main	F	Bradford Cir																\$119,316					\$119,316	1	
SSGM-5369	Gravity Main	A	Willow Rock Rd XC																\$126,876					\$126,876	1	
SSGM-5370	Gravity Main	G	W Main St	\$192,726										\$192,726										\$192,726	1	
SSGM-5371	Gravity Main	C	High St		\$201,606									\$201,606										\$201,606	1	
SSGM-5372	Gravity Main	D	Madison Cir																\$172,842					\$172,842	1	
SSGM-5373	Gravity Main	D	Madison Cir																\$179,112					\$179,112	1	
SSGM-5375	Gravity Main	D	Madison Cir																\$82,482					\$82,482	1	
SSGM-5378	Gravity Main	I	Pine Ridge Rd XC																\$144,198					\$144,198	1	
SSGM-5379	Gravity Main	C	Pearl St	\$161,106										\$161,106										\$161,106	1	
SSGM-5380	Gravity Main	C	Pearl St		\$95,334									\$95,334										\$95,334	1	
SSGM-5381	Gravity Main	C	Prospect St	\$92,250										\$92,250										\$92,250	1	
SSGM-5382	Gravity Main	C	Bear Hill Rd																\$45,210					\$45,210	1	
SSGM-5383	Gravity Main	C	River St XC																\$159,810					\$159,810	1	
SSGM-5384	Gravity Main	C	Bear Hill Rd																\$35,502					\$35,502	1	
SSGM-5385	Gravity Main	C	Hill St																\$110,328					\$110,328	1	
SSGM-5386	Gravity Main	C	W Mill St	\$139,902										\$139,902										\$139,902	1	
SSGM-5387	Gravity Main	H	Henniker St																\$42,348					\$42,348	1	
SSGM-5396	Gravity Main	H	Whittemore St	\$147,258										\$147,258										\$147,258	1	
SSGM-5396A	Gravity Main	H	Whittemore St	\$12,300										\$12,300										\$12,300	1	
SSGM-5396B	Gravity Main	H	Whittemore St																\$12,066					\$12,066	1	
SSGM-5397	Gravity Main	I	Blair Ave XC																\$146,670					\$146,670	1	
SSGM-5398	Gravity Main	G	W Main St																\$169,998					\$169,998	1	
SSGM-5399	Gravity Main	G	W Main St																\$97,698					\$97,698	1	
SSGM-5400	Gravity Main	G	Armory Yard																\$102,546					\$102,546	1	
SSGM-5401	Gravity Main	G	Armory Yard																\$102,186					\$102,186	1	
SSGM-5402	Gravity Main	G	Armory Yard																\$75,240					\$75,240	1	
SSGM-5403	Gravity Main	G	Angus Lea Golf Course XC																\$178,518					\$178,518	1	
SSGM-5404	Gravity Main	G	Angus Lea Golf Course XC																\$191,850					\$191,850	1	
SSGM-5405	Gravity Main	G	W Main St XC																\$117,942					\$117,942	1	
SSGM-5406	Gravity Main	G	W Main St XC																\$158,934					\$158,934	1	
SSGM-5407	Gravity Main	G	W Main St XC																\$200,010					\$200,010	1	
SSGM-5407A	Gravity Main	G	W Main St																\$127,362					\$127,362	1	
SSGM-5408	Gravity Main	B	Hoyt Ln																\$139,044					\$139,044	1	
SSGM-5409	Gravity Main	B	River St																\$10,098					\$10,098	1	
SSGM-5410	Gravity Main	F	W Main St																\$39,642					\$39,642	1	
SSGM-5413	Gravity Main	G	Municipal Dr																\$91,788					\$91,788	1	
SSGM-5417	Gravity Main	E	Depot St	\$95,256										\$95,256										\$95,256	1	
SSGM-5422	Gravity Main	I	Hillcat Dr																\$179,154					\$179,154	1	
SSGM-5423	Gravity Main	I	Hillcat Dr																\$182,454					\$182,454	1	
SSGM-5424	Gravity Main	C	Pearl St	\$52,320										\$52,320										\$52,320	1	
SSGM-5425	Gravity Main	E	Norton Dr																\$81,636					\$81,636	1	
SSGM-5426	Gravity Main	B	School St	\$77,190										\$77,190										\$77,190	1	
SSGM-5427	Gravity Main	B	Myrtle St	\$21,660										\$21,660										\$21,660	1	
SSGM-5427A	Gravity Main	B	School St	\$172,986										\$172,986										\$172,986	1	
SSGM-5428	Gravity Main	C	Wyman St	\$192,312										\$192,312										\$192,312	1	
SSGM-5429	Gravity Main	C	Bridge St																					\$33,558	\$33,558	1
SSGM-5430	Gravity Main	A	Butler St																	\$118,656					\$118,656	1

Hillsborough Collection System Pipe Data Table

Asset ID	Asset Type	Sewer Basin	Street	Diameter	Upstream Manhole	Downstream Manhole	Material	Inspected	Year Installed	Year Lined	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Unit	Unit Cost	Length (LF)	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Condition Score	Criticality
SSGM-5431	Gravity Main	F	Symonds Rd	8 inch diameter	SSMH-1912	SSMH-1909	PVC	Yes	1980		100	2080	58	2080	LF	\$600	137.79	\$82,674	2	1	2	1	Limited Monitoring
SSGM-5432	Gravity Main	D	Lincoln Cir	8 inch diameter	SSMH-2080	SSMH-2077	PVC	Yes	1980		100	2080	58	2080	LF	\$600	150.36	\$90,216	1	1	1	1	Limited Monitoring
SSGM-5433	Gravity Main	I	Center Rd	8 inch diameter	SSMH-1228	SSMH-1213	PVC	Yes	1979		100	2079	57	2079	LF	\$600	84.01	\$50,406	3	1	3	1	Limited Monitoring
SSGM-5434	Gravity Main	A	W Main St	6 inch diameter	SSFT-008	SSMH-1657	VC	Yes	1940		80	2020	-2	2022	LF	\$600	325.84	\$195,504	4	3.12	12.48	3.12	Frequent Monitoring
SSGM-5435	Gravity Main	C	Wyman St	6 inch diameter	SSFT-009	SSMH-1504	VC	Yes	1940		80	2020	-2	2022	LF	\$600	352.52	\$211,512	1	5.111	5.111	5.111	Priority Renewal
SSGM-5436	Gravity Main	E	Preston St	6 inch diameter	SSMH-1105	SSMH-1103	VC	Yes	1940		80	2020	-2	2022	LF	\$600	190.71	\$114,426	3	5.132	15.396	5.132	Priority Renewal
SSGM-5437	Gravity Main	E	Norton Dr	10 inch diameter	SSMH-2245	SSMH-1027	PVC	No	1979		100	2079	57	2079	LF	\$600	6.14	\$3,684	3	2	6	2	Limited Monitoring
SSGM-5438	Gravity Main	I	Center Rd	Unknown	SSMH-1243	SSMH-1240	PVC	No	1979		100	2079	57	2079	LF	\$600	420.85	\$252,510	3	2	6	2	Limited Monitoring
SSGM-5439	Gravity Main	I	Center Rd	Unknown	SSMH-1240	SSMH-1246	PVC	No	1980		100	2080	58	2080	LF	\$600	208.14	\$124,884	3	2	6	2	Limited Monitoring
SSGM-5440	Gravity Main	I	Center Rd	Unknown	SSMH-1246	SSMH-1249	PVC	No	1979		100	2079	57	2079	LF	\$600	91	\$54,600	3	1	3	1	Limited Monitoring
SSGM-5441	Gravity Main	I	Access Rd	8 inch diameter	SSMH-1249	SSMH-1258	PVC	Yes	1980		100	2080	58	2080	LF	\$600	300	\$180,000	3	1	3	1	Limited Monitoring
SSGM-5442	Gravity Main	I	Access Rd	8 inch diameter	SSMH-1258	SSMH-1264	PVC	Yes	1980		100	2080	58	2080	LF	\$600	305	\$183,000	3	1	3	1	Limited Monitoring
SSGM-5443	Gravity Main	I	Access Rd	8 inch diameter	SSMH-1264	SSMH-1270	PVC	Yes	1980		100	2080	58	2080	LF	\$600	135	\$81,000	3	1	3	1	Limited Monitoring
SSGM-5444	Gravity Main	I	Access Rd XC	8 inch diameter	SSMH-1270	SSMH-1279	PVC	Yes	1980		100	2080	58	2080	LF	\$600	220	\$132,000	3	1	3	1	Limited Monitoring
SSGM-5445	Gravity Main	I	Access Rd XC	8 inch diameter	SSMH-1279A	SSMH-1288	PVC	Yes	1980		100	2080	58	2080	LF	\$600	11.48	\$6,888	3	1	3	1	Limited Monitoring
SSGM-5445A	Gravity Main	I	Access Rd XC	8 inch diameter	SSMH-1279	SSMH-1279A	PVC	Yes	1980		100	2080	58	2080	LF	\$600	172.25	\$103,350	3	1	3	1	Limited Monitoring
SSGM-5446	Gravity Main	I	Access Rd XC	8 inch diameter	SSMH-1288	SSMH-1288A	DI	Yes	1980		85	2065	43	2065	LF	\$600	382.92	\$229,752	3	1	3	1	Limited Monitoring
SSGM-5446A	Gravity Main	I	Access Rd XC	8 inch diameter	SSMH-1288A	SSMH-1288B	PVC	Yes	1980		100	2080	58	2080	LF	\$600	18.61	\$11,166	3	1	3	1	Limited Monitoring
SSGM-5446B	Gravity Main	I	Access Rd XC	8 inch diameter	SSMH-1288B	SSMH-1288C	PVC	Yes	1980		100	2080	58	2080	LF	\$600	112.58	\$67,548	3	1	3	1	Limited Monitoring
SSGM-5446C	Gravity Main	I	Access Rd XC	8 inch diameter	SSMH-1288C	SSMH-1288D	PVC	Yes	1980		100	2080	58	2080	LF	\$600	118.44	\$71,064	3	1	3	1	Limited Monitoring
SSGM-5447	Gravity Main	I	Sunnyridge Dr	8 inch diameter	SSMH-1288D	SSMH-1303	PVC	Yes	1980		100	2080	58	2080	LF	\$600	327.53	\$196,518	3	1	3	1	Limited Monitoring
SSGM-5450	Gravity Main	C	Bridge Street	8 inch diameter	SSMH-1492	SSMH-1573	PVC	No	2018		100	2118	96	2118	LF	\$600	280.93	\$168,558	3	1	3	1	Limited Monitoring
SSGM-5451	Gravity Main	C	Bridge Street	8 inch diameter	SSMH-2270	SSMH-1492	PVC	No	2018		100	2118	96	2118	LF	\$600	183.62	\$110,172	3	1	3	1	Limited Monitoring
SSGM-5452	Gravity Main	C	Bridge Street	8 inch diameter	SSMH-2271	SSMH-2270	PVC	No	2018		100	2118	96	2118	LF	\$600	185.95	\$111,570	3	1	3	1	Limited Monitoring
SSGM-5453	Gravity Main	C	Prospect Street	8 inch diameter	SSMH-2272	SSMH-2271	PVC	No	2018		100	2118	96	2118	LF	\$600	20.14	\$12,084	3	1	3	1	Limited Monitoring
SSGM-5454	Gravity Main	C	Prospect Street	8 inch diameter	SSMH-2273	SSMH-2272	PVC	No	2018		100	2118	96	2118	LF	\$600	106.3	\$63,780	1	1	1	1	Limited Monitoring
SSGM-5455	Gravity Main	C	Bridge Street	8 inch diameter	SSMH-1438	SSMH-2271	PVC	No	2018		100	2118	96	2118	LF	\$600	79.49	\$47,694	3	1	3	1	Limited Monitoring
SSGM-5456	Gravity Main	C	Summer Street	8 inch diameter	SSMH-2274	SSMH-1438	PVC	No	2018		100	2118	96	2118	LF	\$600	51.33	\$30,798	2	1	2	1	Limited Monitoring
SSGM-5460	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-1768	SSMH-1771	PVC	No	1999		100	2099	77	2099	LF	\$600	299.73	\$179,838	4	1	4	1	Frequent Monitoring
SSGM-5461	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-1765	SSMH-1768	PVC	No	1999		100	2099	77	2099	LF	\$600	314.99	\$188,994	4	1	4	1	Frequent Monitoring
SSGM-5462	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1762	SSMH-1765	PVC	No	1999		100	2099	77	2099	LF	\$600	55.15	\$33,090	3	1	3	1	Limited Monitoring
SSGM-5463	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1759	SSMH-1762	PVC	No	1999		100	2099	77	2099	LF	\$600	103.77	\$62,262	3	2	6	2	Limited Monitoring
SSGM-5464	Gravity Main	F	Bible Hill Rd XC	8 inch diameter	SSMH-2300	SSMH-2275	PVC	No	1999		100	2099	77	2099	LF	\$600	68.31	\$40,986	3	1	3	0	Limited Monitoring
SSGM-5465	Gravity Main	F	Bible Hill Rd	8 inch diameter	SSMH-1759	SSMH-2300	PVC	No	1979		100	2079	57	2079	LF	\$600	107.98	\$64,788	3	2	6	0	Limited Monitoring
SSGM-5466	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-2301	SSMH-1765	DI	No	1999		85	2084	62	2084	LF	\$600	153.15	\$91,890	4	1	4	0	Frequent Monitoring
SSGM-5467	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-2302	SSMH-2301	PVC	No	1999		100	2099	77	2099	LF	\$600	52.27	\$31,362	4	1	4	0	Frequent Monitoring
SSGM-5468	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-2303	SSMH-2302	PVC	No	1999		100	2099	77	2099	LF	\$600	298.41	\$179,046	4	1	4	0	Frequent Monitoring
SSGM-5469	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-2304	SSMH-2303	DI	No	1999		85	2084	62	2084	LF	\$600	299.09	\$179,454	4	1	4	0	Frequent Monitoring
SSGM-5470	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-2305	SSMH-2304	PVC	No	1999		100	2099	77	2099	LF	\$600	135.86	\$81,516	4	1	4	0	Frequent Monitoring
SSGM-5471	Gravity Main	F	Route 202 Ext	8 inch diameter	SSMH-2306	SSMH-2305	DI	No	1999		85	2084	62	2084	LF	\$600	125.05	\$75,030	4	1	4	0	Frequent Monitoring
SSGM-5472	Gravity Main	F	Route 202 Ext XC	8 inch diameter	SSMH-2307	SSMH-2306	PVC	No	1999		100	2099	77	2099	LF	\$600	66.52	\$39,912	3	1	3	0	Limited Monitoring
SSGM-5473	Gravity Main	F	Route 202 Ext XC	8 inch diameter	SSMH-2308	SSMH-2307	PVC	No	1999		100	2099	77	2099	LF	\$600	104.6	\$62,760	3	1	3	0	Limited Monitoring
SSGM-5474	Gravity Main	F	Route 202 Ext XC	8 inch diameter	SSMH-2309	SSMH-2308	PVC	No	1999		100	2099	77	2099	LF	\$600	295.56	\$177,336	3	1	3	0	Limited Monitoring
SSGM-5475	Gravity Main	F	Route 202 Ext XC	8 inch diameter	SSMH-2310	SSMH-2309	PVC	No	1999		100	2099	77	2099	LF	\$600	304.44	\$182,664	3	1	3	0	Limited Monitoring
SSGM-5476	Gravity Main	F	Route 202 Ext XC	8 inch diameter	SSMH-1939	SSMH-2310	PVC	No	1999		100	2099	77	2099	LF	\$600	320.36	\$192,216	3	1	3	0	Limited Monitoring
SSGM-5477	Gravity Main	F	Route 202 Ext XC	8 inch diameter	SSMH-1816	SSMH-2307	PVC	No	1999		100	2099	77	2099	LF	\$600	202.64	\$121,584	3	1	3	0	Limited Monitoring
SSGM-5478	Gravity Main	F	Route 202 Ext XC	8 inch diameter	SSMH-1813	SSMH-1816	PVC	No	1999		100	2099	77	2099	LF	\$600	119.27	\$71,562	3	1	3	0	Limited Monitoring
SSGM-5480	Gravity Main	G	Municipal Dr	Unknown	SSMH-2325	SSMH-2326	PVC	No	1980		100	2080	58	2080	LF	\$600	82.09	\$49,254	4	2	8	0	Frequent Monitoring
SSGM-5481	Gravity Main	G	Municipal Dr	Unknown	SSMH-2326	SSMH-1876	PVC	No	1980		100	2080	58	2080	LF	\$600	102.98	\$61,788	4	2	8	0	Frequent Monitoring

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Hillsborough Collection System Pipe Data Table				COST OF ASSET REPLACEMENT - FIRST TEN YEARS										COST OF ASSET REPLACEMENT - NEXT 100 YEARS										100-Yr Replacement Count		
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100		0 - 100	
Asset ID	Asset Type	Sewer Basin	Street	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121		
SSGM-5431	Gravity Main	F	Symonds Rd																\$82,674					\$82,674	1	
SSGM-5432	Gravity Main	D	Lincoln Cir																\$90,216					\$90,216	1	
SSGM-5433	Gravity Main	I	Center Rd																\$50,406					\$50,406	1	
SSGM-5434	Gravity Main	A	W Main St	\$195,504										\$195,504										\$195,504	1	
SSGM-5435	Gravity Main	C	Wyman St	\$211,512										\$211,512										\$211,512	1	
SSGM-5436	Gravity Main	E	Preston St	\$114,426										\$114,426										\$114,426	1	
SSGM-5437	Gravity Main	E	Norton Dr																\$3,684					\$3,684	1	
SSGM-5438	Gravity Main	I	Center Rd																\$252,510					\$252,510	1	
SSGM-5439	Gravity Main	I	Center Rd																\$124,884					\$124,884	1	
SSGM-5440	Gravity Main	I	Center Rd																\$54,600					\$54,600	1	
SSGM-5441	Gravity Main	I	Access Rd																\$180,000					\$180,000	1	
SSGM-5442	Gravity Main	I	Access Rd																\$183,000					\$183,000	1	
SSGM-5443	Gravity Main	I	Access Rd																\$81,000					\$81,000	1	
SSGM-5444	Gravity Main	I	Access Rd XC																\$132,000					\$132,000	1	
SSGM-5445	Gravity Main	I	Access Rd XC																\$6,888					\$6,888	1	
SSGM-5445A	Gravity Main	I	Access Rd XC																\$103,350					\$103,350	1	
SSGM-5446	Gravity Main	I	Access Rd XC														\$229,752							\$229,752	1	
SSGM-5446A	Gravity Main	I	Access Rd XC																\$11,166					\$11,166	1	
SSGM-5446B	Gravity Main	I	Access Rd XC																\$67,548					\$67,548	1	
SSGM-5446C	Gravity Main	I	Access Rd XC																\$71,064					\$71,064	1	
SSGM-5447	Gravity Main	I	Sunnyridge Dr																\$196,518					\$196,518	1	
SSGM-5450	Gravity Main	C	Bridge Street																				\$168,558	\$168,558	1	
SSGM-5451	Gravity Main	C	Bridge Street																				\$110,172	\$110,172	1	
SSGM-5452	Gravity Main	C	Bridge Street																				\$111,570	\$111,570	1	
SSGM-5453	Gravity Main	C	Prospect Street																				\$12,084	\$12,084	1	
SSGM-5454	Gravity Main	C	Prospect Street																				\$63,780	\$63,780	1	
SSGM-5455	Gravity Main	C	Bridge Street																				\$47,694	\$47,694	1	
SSGM-5456	Gravity Main	C	Summer Street																				\$30,798	\$30,798	1	
SSGM-5460	Gravity Main	F	Route 202 Ext															\$179,838						\$179,838	1	
SSGM-5461	Gravity Main	F	Route 202 Ext																	\$188,994					\$188,994	1
SSGM-5462	Gravity Main	F	Bible Hill Rd																	\$33,090					\$33,090	1
SSGM-5463	Gravity Main	F	Bible Hill Rd																	\$62,262					\$62,262	1
SSGM-5464	Gravity Main	F	Bible Hill Rd XC																	\$40,986					\$40,986	1
SSGM-5465	Gravity Main	F	Bible Hill Rd																\$64,788						\$64,788	1
SSGM-5466	Gravity Main	F	Route 202 Ext																	\$91,890					\$91,890	1
SSGM-5467	Gravity Main	F	Route 202 Ext																		\$31,362				\$31,362	1
SSGM-5468	Gravity Main	F	Route 202 Ext																		\$179,046				\$179,046	1
SSGM-5469	Gravity Main	F	Route 202 Ext																	\$179,454					\$179,454	1
SSGM-5470	Gravity Main	F	Route 202 Ext																		\$81,516				\$81,516	1
SSGM-5471	Gravity Main	F	Route 202 Ext																	\$75,030					\$75,030	1
SSGM-5472	Gravity Main	F	Route 202 Ext XC																		\$39,912				\$39,912	1
SSGM-5473	Gravity Main	F	Route 202 Ext XC																		\$62,760				\$62,760	1
SSGM-5474	Gravity Main	F	Route 202 Ext XC																		\$177,336				\$177,336	1
SSGM-5475	Gravity Main	F	Route 202 Ext XC																		\$182,664				\$182,664	1
SSGM-5476	Gravity Main	F	Route 202 Ext XC																		\$192,216				\$192,216	1
SSGM-5477	Gravity Main	F	Route 202 Ext XC																		\$121,584				\$121,584	1
SSGM-5478	Gravity Main	F	Route 202 Ext XC																		\$71,562				\$71,562	1
SSGM-5480	Gravity Main	G	Municipal Dr																	\$49,254					\$49,254	1
SSGM-5481	Gravity Main	G	Municipal Dr																	\$61,788					\$61,788	1

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-1000	Sewer Manhole	E	Norton Drive	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1003	Sewer Manhole	E	Norton Drive	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1006	Siphon Outlet	C	River Street XC	1980	75	2055	33	2055		\$25,000	5	2	10	Frequent Monitoring
SSMH-1009	Sewer Manhole	B	River Street XC	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1012	Sewer Manhole	B	River Street XC	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1015	Sewer Manhole	B	River Street XC	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1018	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1021	Sewer Manhole	B	River Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1024	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1027	Sewer Manhole	E	Norton Drive	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1030	Sewer Manhole	E	Norton Drive	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1033	Sewer Manhole	E	Norton Drive	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1036	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1039	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1042	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1045	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1048	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1051	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1054	Sewer Manhole	E	Henniker Street	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1057	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1060	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1063	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1066	Sewer Manhole	E	Norton Drive Easement	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1069	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1072	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1075	Sewer Manhole	E	Henniker Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1078	Sewer Manhole	E	Henniker Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1081	Sewer Manhole	E	Henniker Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1084	Sewer Manhole	E	Henniker Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1087	Sewer Manhole	E	Henniker Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1090	Sewer Manhole	E	Henniker Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1093	Sewer Manhole	E	Norton Drive XC	1940	75	2015	-7	2022	SSGM-5078	\$0	3	5	15	Priority Renewal
SSMH-1093A	Sewer Manhole	E	Norton Drive XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1096	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022	SSGM-5078 & SSGM-5191	\$0	3	5	15	Priority Renewal
SSMH-1099	Sewer Manhole	E	Norton Drive Easement	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1102	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022	SSGM-5191 & SSGM-5110	\$0	3	5	15	Priority Renewal
SSMH-1103	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022	SSGM-5110	\$0	3	5	15	Priority Renewal
SSMH-1105	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	3	5	15	Priority Renewal
SSMH-1108	Sewer Manhole	E	Depot Street	1940	75	2015	-7	2022		\$0	3	5	15	Priority Renewal
SSMH-1111	Sewer Manhole	E	Depot Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1114	Sewer Manhole	E	Depot Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1117	Sewer Manhole	E	Cross Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1120	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	3	5	15	Priority Renewal
SSMH-1123	Sewer Manhole	E	Jackson Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1126	Sewer Manhole	E	Jackson Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1129	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1132	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1135	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1138	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1141	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1144	Sewer Manhole	E	Preston Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1147	Sewer Manhole	E	Norton Drive Easement	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1150	Sewer Manhole	H	Henniker Street	1940	75	2015	-7	2022	SSGM-5010 & SSGM-5245	\$0	3	5	15	Priority Renewal
SSMH-1153	Sewer Manhole	H	Henniker Street	1940	75	2015	-7	2022	SSGM-5245 & SSGM-5032	\$0	3	5	15	Priority Renewal
SSMH-1156	Sewer Manhole	H	Henniker Street	1940	75	2015	-7	2022	SSGM-5032 & SSGM-5166	\$0	3	5	15	Priority Renewal
SSMH-1159	Sewer Manhole	H	Henniker Street	1940	75	2015	-7	2022	SSGM-5166 & SSGM-5291	\$0	3	5	15	Priority Renewal
SSMH-1162	Sewer Manhole	H	Henniker Street	1980	75	2055	33	2055	SSGM-5291	\$0	3	2	6	Limited Monitoring
SSMH-1165	Sewer Manhole	H	Henniker Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1168	Sewer Manhole	H	Henniker Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1171	Sewer Manhole	H	Henniker Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1174	Sewer Manhole	H	Henniker Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-1177	Sewer Manhole	E	Norton Drive Easement	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1180	Sewer Manhole	H	Henniker Street	1979	75	2054	32	2054	SSGM-5010	\$0	5	2	10	Frequent Monitoring
SSMH-1180A	Sewer Manhole	H	Holman Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1183	Sewer Manhole	H	Holman Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1186	Sewer Manhole	I	Holman Street XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1189	Sewer Manhole	I	Gay Avenue XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1192	Sewer Manhole	I	Blair Avenue XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1195	Sewer Manhole	I	Blair Avenue	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1198	Sewer Manhole	I	Blair Avenue	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1201	Sewer Manhole	I	Blair Avenue	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1204	Sewer Manhole	E	Norton Drive Easement	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1207	Sewer Manhole	I	Blair Avenue	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1210	Sewer Manhole	I	Blair Avenue	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1213	Sewer Manhole	I	School Street	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1216	Sewer Manhole	I	Hillcat Drive	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1219	Sewer Manhole	I	Hillcat Drive	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1222	Sewer Manhole	I	Hillcat Drive	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1225	Sewer Manhole	I	Center Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1228	Sewer Manhole	I	Center Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1231	Sewer Manhole	I	Center Road	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1234	Sewer Manhole	I	Center Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1237	Sewer Manhole	I	Center Road	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1240	Sewer Manhole	I	Center Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1243	Sewer Manhole	I	Center Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1246	Sewer Manhole	I	Center Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1249	Sewer Manhole	I	Access Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1252	Sewer Manhole	E	River Street XC	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1255	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1258	Sewer Manhole	I	Access Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1261	Sewer Manhole	H	Holman Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1264	Sewer Manhole	I	Access Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1267	Sewer Manhole	H	Whittemore Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1267A	Sewer Manhole	H	Whittemore Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1267B	Sewer Manhole	H	Whittemore Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1270	Sewer Manhole	I	Access Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1273	Sewer Manhole	H	Holman Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1276	Sewer Manhole	H	Whittemore Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1279	Sewer Manhole	I	Access Road XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1279A	Sewer Manhole	I	Access Road XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1282	Sewer Manhole	H	Whittemore Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1285	Sewer Manhole	H	Park Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1288	Sewer Manhole	I	Access Road XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1288A	Sewer Manhole	I	Access Road XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1288B	Sewer Manhole	I	Access Road XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1288C	Sewer Manhole	I	Access Road XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1288D	Sewer Manhole	I	Sunny Ridge Drive	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1291	Sewer Manhole	H	Gay Avenue	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1294	Sewer Manhole	H	Williams Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1297	Sewer Manhole	I	Blair Avenue XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1300	Sewer Manhole	I	Pine Ridge Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1300A	Sewer Manhole	I	Pine Ridge Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1303	Sewer Manhole	I	Pine Ridge Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1306	Sewer Manhole	H	Gay Avenue	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1309	Sewer Manhole	C	River Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1312	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1315	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1318	Sewer Manhole	B	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1321	Sewer Manhole	B	Central Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1324	Sewer Manhole	B	Central Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1327	Sewer Manhole	B	School Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1330	Sewer Manhole	B	School Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-1333	Sewer Manhole	B	School Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1336	Sewer Manhole	B	Myrtle Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1339	Sewer Manhole	B	Myrtle Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1342	Sewer Manhole	B	Myrtle Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1345	Sewer Manhole	B	Myrtle Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1348	Sewer Manhole	B	Myrtle Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1351	Sewer Manhole	B	Myrtle Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1354	Sewer Manhole	B	Newman Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1357	Sewer Manhole	B	Newman Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1360	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1363	Sewer Manhole	B	Central Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1366	Sewer Manhole	B	Pleasant Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1369	Sewer Manhole	B	Church Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1372	Sewer Manhole	B	Church Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1375	Sewer Manhole	B	Church Street	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1378	Sewer Manhole	B	Church Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1381	Sewer Manhole	B	Brown Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1384	Sewer Manhole	B	Walnut Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1387	Sewer Manhole	B	School Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1390	Sewer Manhole	B	Pleasant Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1393	Sewer Manhole	B	School Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1396	Sewer Manhole	B	School Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1399	Sewer Manhole	B	School Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1402	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1405	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1408	Sewer Manhole	B	River Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1411	Sewer Manhole	B	Bridge Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1414	Sewer Manhole	B	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1417	Sewer Manhole	B	School Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1420	Sewer Manhole	B	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1423	Sewer Manhole	B	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1426	Sewer Manhole	C	Bear Hill Road	1979	75	2054	32	2054	SSGM-5171	\$0	5	2	10	Frequent Monitoring
SSMH-1429	Siphon Inlet	C	River Street XC	1979	75	2054	32	2054		\$25,000	5	2	10	Frequent Monitoring
SSMH-1432	Sewer Manhole	C	Prospect Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1438	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	3	1	3	Limited Monitoring
SSMH-1441	Sewer Manhole	C	Bridge Street	1940	75	2015	-7	2022		\$0	3	5	15	Priority Renewal
SSMH-1444	Sewer Manhole	C	Bridge Street	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1447	Sewer Manhole	C	Bridge Street	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1450	Sewer Manhole	C	Bridge Street	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1453	Sewer Manhole	C	Hill Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1456	Sewer Manhole	C	Hill Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1459	Sewer Manhole	C	Hill Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1462	Sewer Manhole	C	Hill Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1465	Sewer Manhole	C	Summer Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1468	Sewer Manhole	C	Summer Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1471	Sewer Manhole	C	Union Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1474	Sewer Manhole	C	Bear Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1477	Sewer Manhole	C	Union Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1480	Sewer Manhole	C	Union Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1483	Sewer Manhole	C	Union Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1486	Sewer Manhole	C	Wyman Street	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1489	Sewer Manhole	C	Wyman Street	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1492	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	3	1	3	Limited Monitoring
SSMH-1495	Sewer Manhole	C	Wyman Street	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1498	Sewer Manhole	C	Wyman Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1504	Sewer Manhole	C	Pearl Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1507	Sewer Manhole	C	Wyman Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1510	Sewer Manhole	C	Briggs Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1513	Sewer Manhole	C	Briggs Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1516	Sewer Manhole	C	High Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1519	Sewer Manhole	C	High Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-1522	Sewer Manhole	C	High Street	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1525	Sewer Manhole	C	Bear Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1528	Sewer Manhole	C	Pearl Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1531	Sewer Manhole	C	Pearl Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1534	Sewer Manhole	C	High Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1537	Sewer Manhole	C	John Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1540	Sewer Manhole	C	West Mill Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1552	Sewer Manhole	C	High Street	1940	75	2015	-7	2022		\$0	1	5	5	Priority Renewal
SSMH-1555	Sewer Manhole	C	West Mill Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1558	Sewer Manhole	C	West Mill Street	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1561	Sewer Manhole	C	Bear Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1564	Sewer Manhole	C	West Mill Street	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1567	Sewer Manhole	C	West Mill Street	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1570	Sewer Manhole	C	West Mill Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1573	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	3	1	3	Limited Monitoring
SSMH-1576	Sewer Manhole	C	Bear Hill Road	2018	75	2093	71	2093	SSGM-5113	\$0	4	1	4	Frequent Monitoring
SSMH-1579	Sewer Manhole	C	Bear Hill Road	1940	75	2015	-7	2022	SSGM-5113 & SSGM-5194	\$0	4	5	20	Highest Risk
SSMH-1585	Sewer Manhole	C	Bear Hill Road	1940	75	2015	-7	2022	SSGM-5194 & SSGM-5296	\$0	4	5	20	Highest Risk
SSMH-1588	Sewer Manhole	C	Bear Hill Road	1940	75	2015	-7	2022	SSGM-5296 & SSGM-5171	\$0	4	5	20	Highest Risk
SSMH-1594	Sewer Manhole	C	Bear Hill Road	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1597	Sewer Manhole	C	Bear Hill Road	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1600	Sewer Manhole	C	Bear Hill Road	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1603	Sewer Manhole	C	Bear Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1606	Sewer Manhole	C	Bear Hill Road	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1609	Sewer Manhole	C	Bear Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1612	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1615	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1618	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1621	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1624	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1627	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1627A	Sewer Manhole	G	West Main Street XC	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1630	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1633	Sewer Manhole	A	West Main Street XC	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1636	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1639	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1642	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1642A	Sewer Manhole	G	West Main Street XC	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1645	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1648	Sewer Manhole	A	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1651	Sewer Manhole	A	West Main Street	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1654	Sewer Manhole	A	West Main Street	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1657	Sewer Manhole	A	West Main Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1657A	Sewer Manhole	A	West Main Street	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1660	Sewer Manhole	A	Butler Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1663	Sewer Manhole	A	Butler Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1666	Sewer Manhole	A	Butler Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1669	Sewer Manhole	A	Butler Avenue	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1672	Sewer Manhole	D	Washington Circle XC	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1675	Sewer Manhole	A	Church Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1678	Sewer Manhole	A	Church Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1681	Sewer Manhole	A	Church Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1684	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1687	Sewer Manhole	A	Myrtle Street Ext	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1690	Sewer Manhole	A	Myrtle Street Ext	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1693	Sewer Manhole	A	Myrtle Street Ext	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1699	Sewer Manhole	A	Myrtle Street XC	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1702	Sewer Manhole	A	Woodlawn Avenue XC	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1705	Sewer Manhole	A	Woodlawn Avenue XC	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1708	Sewer Manhole	A	Woodlawn Avenue XC	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1711	Sewer Manhole	A	Woodlawn Avenue XC	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-1726	Sewer Manhole	A	Woodlawn Avenue	1979	75	2054	32	2054		\$0	2	2	4	Limited Monitoring
SSMH-1729	Sewer Manhole	A	Myrtle Street Ext	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1732	Sewer Manhole	A	Myrtle Street Ext	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1735	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1738	Sewer Manhole	A	Myrtle Street Ext	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1741	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1744	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1747	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1750	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1753	Sewer Manhole	G	West Main Street XC	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1756	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1759	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1762	Sewer Manhole	F	Route 202 Ext XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1765	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring
SSMH-1768	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring
SSMH-1771	Sewer Manhole	F	West Main Street	1999	75	2074	52	2074		\$0	5	1	5	Frequent Monitoring
SSMH-1774	Sewer Manhole	F	Bible Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1777	Sewer Manhole	F	Bible Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1780	Sewer Manhole	F	Bible Hill Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1783	Sewer Manhole	F	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1783A	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1786	Sewer Manhole	F	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1789	Sewer Manhole	F	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1792	Sewer Manhole	F	West Main Street	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1795	Sewer Manhole	F	West Main Street	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1798	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1801	Sewer Manhole	F	West Main Street	1979	75	2054	32	2054		\$0	4	2	8	Frequent Monitoring
SSMH-1804	Sewer Manhole	F	Windsor Terrace	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1807	Sewer Manhole	F	Windsor Terrace	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1810	Sewer Manhole	F	Windsor Terrace	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1813	Sewer Manhole	F	Boulder Road XC	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1816	Sewer Manhole	F	Route 202 Ext XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1822	Sewer Manhole	F	Boulder Road XC	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1825	Sewer Manhole	F	McNeil Road	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-1828	Sewer Manhole	F	McNeil Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1831	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1834	Sewer Manhole	F	Boulder Road	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1837	Sewer Manhole	F	Boulder Road	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1840	Sewer Manhole	F	Boulder Road	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1843	Sewer Manhole	F	Boulder Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1846	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1849	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1852	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1855	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1858	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1861	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1864	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1867	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1870	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1873	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1876	Sewer Manhole	G	West Main Street	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1879	Sewer Manhole	G	West Main Street	1979	75	2054	32	2054		\$0	5	2	10	Frequent Monitoring
SSMH-1882	Sewer Manhole	G	Municipal Drive	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1885	Sewer Manhole	F	Harvey Way	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1888	Sewer Manhole	G	Municipal Drive	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-1891	Sewer Manhole	F	Harvey Way	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1894	Sewer Manhole	F	Harvey Way	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1897	Sewer Manhole	F	Harvey Way	1979	75	2054	32	2054		\$0	1	2	2	Limited Monitoring
SSMH-1900	Sewer Manhole	F	McNeil Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1903	Sewer Manhole	F	McNeil Road XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1906	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-1909	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1912	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1915	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1918	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1921	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1924	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1927	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1930	Sewer Manhole	F	Meeting Hill Road	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-1933	Sewer Manhole	F	Meeting Hill Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1936	Sewer Manhole	F	Meeting Hill Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1939	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1942	Sewer Manhole	F	Symonds Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1945	Sewer Manhole	F	Gibson Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1948	Sewer Manhole	F	Gibson Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1951	Sewer Manhole	F	Gibson Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1954	Sewer Manhole	F	Meeting Hill Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1957	Sewer Manhole	F	Meeting Hill Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1960	Sewer Manhole	F	Meeting Hill Road	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1963	Sewer Manhole	F	Bradford Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1966	Sewer Manhole	F	Bradford Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1969	Sewer Manhole	F	Bradford Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1972	Sewer Manhole	F	Bradford Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1975	Sewer Manhole	F	Bradford Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1978	Sewer Manhole	F	Bradford Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-1981	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1984	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1987	Sewer Manhole	F	Bible Hill Road	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-1990	Sewer Manhole	A	Butler Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-1993	Sewer Manhole	B	School Street	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-1996	Sewer Manhole	E	Norton Drive	1980	75	2055	33	2055		\$0	5	2	10	Frequent Monitoring
SSMH-1999	Sewer Manhole	A	Church Street	1940	75	2015	-7	2022		\$0	2	5	10	Priority Renewal
SSMH-2005	Sewer Manhole	D	Blair Avenue XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2008	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2011	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2014	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2017	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2020	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2023	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2026	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2029	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2032	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2035	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2038	Sewer Manhole	D	Blair Avenue XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2041	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2044	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2047	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2050	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2053	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2056	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2059	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2062	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2065	Sewer Manhole	D	Jefferson Drive XC	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2068	Sewer Manhole	D	Madison Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2071	Sewer Manhole	D	Blair Avenue XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2074	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2077	Sewer Manhole	D	Lincoln Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2080	Sewer Manhole	D	Lincoln Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2083	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2083A	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2083B	Sewer Manhole	D	Madison Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2083C	Sewer Manhole	D	Madison Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-2086	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2089	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2092	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2095	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2098	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2101	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2104	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2107	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2110	Sewer Manhole	D	Blair Avenue XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2113	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2116	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2119	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2122	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2125	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2128	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2131	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	3	2	6	Limited Monitoring
SSMH-2134	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2137	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2140	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2143	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2146	Sewer Manhole	D	Blair Avenue XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2149	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2152	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2155	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2158	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2161	Sewer Manhole	D	Jefferson Drive	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2164	Sewer Manhole	D	Washington Circle	1980	75	2055	33	2055		\$0	2	2	4	Limited Monitoring
SSMH-2167	Sewer Manhole	D	Washington Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2170	Sewer Manhole	D	Washington Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2173	Sewer Manhole	D	Washington Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2176	Sewer Manhole	D	Washington Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2179	Sewer Manhole	D	Franklin Pierce Highway XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2182	Sewer Manhole	D	Washington Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2185	Sewer Manhole	D	Washington Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2188	Sewer Manhole	D	Madison Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2191	Sewer Manhole	D	Madison Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2194	Sewer Manhole	D	Madison Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2197	Sewer Manhole	D	Madison Circle	1980	75	2055	33	2055		\$0	1	2	2	Limited Monitoring
SSMH-2203	Sewer Manhole	D	Franklin Pierce Highway XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2206	Sewer Manhole	D	Franklin Pierce Highway XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2209	Sewer Manhole	D	Franklin Pierce Highway XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2212	Sewer Manhole	D	Franklin Pierce Highway XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2215	Sewer Manhole	D	Franklin Pierce Highway XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2218	Sewer Manhole	D	Franklin Pierce Highway XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2245	Sewer Manhole	E	Norton Drive	1979	75	2054	32	2054		\$0	3	2	6	Limited Monitoring
SSMH-2248	Sewer Manhole	B	Church Street XC	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-2251	Sewer Manhole	B	Hillcat Drive	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-2254	Sewer Manhole	B	Hillcat Drive	1940	75	2015	-7	2022		\$0	4	5	20	Highest Risk
SSMH-2257	Sewer Manhole	A	Myrtle Street Ext	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2260	Sewer Manhole	A	Myrtle Street Ext	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2263	Sewer Manhole	A	Myrtle Street Ext XC	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2266	Sewer Manhole	A	Hillcat Drive	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2270	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	3	1	3	Limited Monitoring
SSMH-2271	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	3	1	3	Limited Monitoring
SSMH-2272	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	1	1	1	Limited Monitoring
SSMH-2273	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	1	1	1	Limited Monitoring
SSMH-2274	Sewer Manhole	C	Bridge Street	2018	75	2093	71	2093		\$0	1	1	1	Limited Monitoring
SSMH-2275	Sewer Manhole	F	Route 202 Ext XC	1999	75	2074	52	2074		\$0	3	1	3	Limited Monitoring
SSMH-2300	Sewer Manhole	F	Bible Hill Rd	1999	75	2074	52	2074		\$0	3	1	3	Limited Monitoring
SSMH-2301	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring
SSMH-2302	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring

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Hillsborough Sewer Structure Data Table

Asset ID	Asset Type	Sewer Basin	Street	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Connected to Lined Pipe	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSMH-2303	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring
SSMH-2304	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring
SSMH-2305	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring
SSMH-2306	Sewer Manhole	F	Route 202 Ext	1999	75	2074	52	2074		\$0	4	1	4	Frequent Monitoring
SSMH-2307	Sewer Manhole	F	Route 202 Ext XC	1999	75	2074	52	2074		\$0	3	1	3	Limited Monitoring
SSMH-2308	Sewer Manhole	F	Route 202 Ext XC	1999	75	2074	52	2074		\$0	3	1	3	Limited Monitoring
SSMH-2309	Sewer Manhole	F	Route 202 Ext XC	1999	75	2074	52	2074		\$0	3	1	3	Limited Monitoring
SSMH-2310	Sewer Manhole	F	Route 202 Ext XC	1999	75	2074	52	2074		\$0	3	1	3	Limited Monitoring
SSMH-2325	Sewer Manhole	G	Municipal Dr	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring
SSMH-2326	Sewer Manhole	G	Municipal Dr	1980	75	2055	33	2055		\$0	4	2	8	Frequent Monitoring

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Pipe Material		Estimated Useful Life
AC	Asbestos Cement	80 Years
CI	Cast Iron	100 Years
DI	Ductile Iron	65 Years (pre-1976)
		85 Years (post-1976)
PVC	Polyvinyl Chloride	100 Years
VC	Vitrified Clay	80 Years

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Hillsborough Highest Risk & Priority Renewal Pipe Table

Asset ID	Asset Type	Sewer Basin	Street	Diameter	Upstream Manhole	Downstream Manhole	Material	Inspected	Year Installed	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Unit	Unit Cost	Length (LF)	Replacement Cost	Impact of Failure	Probability of Failure	Risk Score	Criticality
SSGM-5009	Gravity Main	B	School St	6 inch diameter	SSMH-1399	SSMH-1396	VC	Yes	1940	80	2020	-2	2022	LF	\$600	143.90	\$86,340	4.00	5.1	20.4	Highest Risk
SSGM-5012	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1570	SSMH-1576	VC	Yes	1940	80	2020	-2	2022	LF	\$600	209.32	\$125,592	2.00	5	10	Priority Renewal
SSGM-5019	Gravity Main	B	Central St	6 inch diameter	SSMH-1321	SSMH-1318	VC	Yes	1940	80	2020	-2	2022	LF	\$600	60.42	\$36,252	4.00	5	20	Highest Risk
SSGM-5022	Gravity Main	H	Whittemore St	6 inch diameter	SSMH-1276	SSMH-1267	VC	Yes	1940	80	2020	-2	2022	LF	\$600	207.19	\$124,314	2.00	5.141	10.282	Priority Renewal
SSGM-5024	Gravity Main	E	Jackson St	6 inch diameter	SSMH-1126	SSMH-1123	VC	Yes	1940	80	2020	-2	2022	LF	\$600	114.30	\$68,580	1.00	5.1	5.1	Priority Renewal
SSGM-5025	Gravity Main	C	Bear Hill Rd	6 inch diameter	SSMH-1597	SSMH-1594	VC	Yes	1940	80	2020	-2	2022	LF	\$600	130.50	\$78,300	2.00	5.1	10.2	Priority Renewal
SSGM-5047A	Gravity Main	E	River St	6 inch diameter	SSFT-016	SSMH-1021	VC	Yes	1940	80	2020	-2	2023	LF	\$600	128.69	\$77,214	1.00	4.132	4.132	Priority Renewal
SSGM-5052	Gravity Main	B	Myrtle St	8 inch diameter	SSMH-1342	SSMH-1339	VC	Yes	1940	80	2020	-2	2022	LF	\$600	299.33	\$179,598	4.00	5.221	20.884	Highest Risk
SSGM-5054	Gravity Main	B	Newman St	6 inch diameter	SSMH-1357	SSMH-1354	VC	Yes	1940	80	2020	-2	2022	LF	\$600	402.62	\$241,572	2.00	5.141	10.282	Priority Renewal
SSGM-5068	Gravity Main	C	Bridge St	6 inch diameter	SSMH-1441	SSMH-1438	VC	Yes	1940	80	2020	-2	2022	LF	\$600	217.95	\$130,770	3.00	5.142	15.426	Priority Renewal
SSGM-5069	Gravity Main	C	John St	6 inch diameter	SSMH-1552	SSMH-1537	VC	Yes	1940	80	2020	-2	2022	LF	\$600	254.88	\$152,928	1.00	5.1	5.1	Priority Renewal
SSGM-5093	Gravity Main	A	W Main St	8 inch diameter	SSMH-1654	SSMH-1651	VC	Yes	1940	80	2020	-2	2022	LF	\$600	235.67	\$141,402	4.00	5.322	21.288	Highest Risk
SSGM-5099	Gravity Main	B	Church St	6 inch diameter	SSMH-1375	SSMH-1372	VC	Yes	1940	80	2020	-2	2023	LF	\$600	208.52	\$125,112	4.00	4.121	16.484	Highest Risk
SSGM-5109	Gravity Main	H	Park St	8 inch diameter	UNK-004	SSMH-1282	VC	Yes	1940	80	2020	-2	2022	LF	\$600	238.64	\$143,184	2.00	5	10	Priority Renewal
SSGM-5111	Gravity Main	C	Union St	6 inch diameter	SSMH-1477	SSMH-1471	VC	Yes	1940	80	2020	-2	2023	LF	\$600	315.11	\$189,066	1.00	4.133	4.133	Priority Renewal
SSGM-5125	Gravity Main	E	Cross St	6 inch diameter	SSMH-1117	SSFT-004	VC	Yes	1940	80	2020	-2	2022	LF	\$600	241.80	\$145,080	2.00	5.241	10.482	Priority Renewal
SSGM-5126	Gravity Main	C	Summer St	6 inch diameter	SSMH-1465	SSMH-1438	VC	Yes	1940	80	2020	-2	2022	LF	\$600	290.35	\$174,210	1.00	5.238	5.238	Priority Renewal
SSGM-5128	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1567	SSMH-1570	VC	Yes	1940	80	2020	-2	2022	LF	\$600	147.83	\$88,698	2.00	5	10	Priority Renewal
SSGM-5131	Gravity Main	B	Pleasant St	6 inch diameter	SSMH-1366	SSMH-1390	VC	Yes	1940	80	2020	-2	2023	LF	\$600	466.33	\$279,798	2.00	4.334	8.668	Priority Renewal
SSGM-5133	Gravity Main	B	Central St	6 inch diameter	SSMH-1324	SSMH-1321	VC	Yes	1940	80	2020	-2	2022	LF	\$600	279.63	\$167,778	4.00	5	20	Highest Risk
SSGM-5137	Gravity Main	H	Whittemore St	6 inch diameter	SSMH-1282	SSMH-1276	VC	Yes	1940	80	2020	-2	2022	LF	\$600	352.47	\$211,482	2.00	5	10	Priority Renewal
SSGM-5138	Gravity Main	C	Prospect St	6 inch diameter	SSMH-1432	SSMH-1597	VC	Yes	1940	80	2020	-2	2022	LF	\$600	468.76	\$281,256	1.00	5.2	5.2	Priority Renewal
SSGM-5139	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1555	SSMH-1558	VC	Yes	1940	80	2020	-2	2022	LF	\$600	334.19	\$200,514	2.00	5	10	Priority Renewal
SSGM-5159	Gravity Main	H	Park St	6 inch diameter	SSMH-1285	SSMH-1282	VC	Yes	1940	80	2020	-2	2022	LF	\$600	241.39	\$144,834	2.00	5	10	Priority Renewal
SSGM-5165	Gravity Main	B	Central St	6 inch diameter	SSMH-1363	SSMH-1342	VC	Yes	1940	80	2020	-2	2022	LF	\$600	456.50	\$273,900	2.00	5.121	10.242	Priority Renewal
SSGM-5182	Gravity Main	C	Bridge St	6 inch diameter	SSMH-1444	SSMH-1441	VC	Yes	1940	80	2020	-2	2022	LF	\$600	284.03	\$170,418	3.00	5.133	15.399	Priority Renewal
SSGM-5188	Gravity Main	B	Church St	6 inch diameter	SSMH-1369	SSMH-1351	VC	Yes	1940	80	2020	-2	2023	LF	\$600	333.11	\$199,866	4.00	4.231	16.924	Highest Risk
SSGM-5202	Gravity Main	A	W Main St	6 inch diameter	SSMH-1657	SSMH-1657A	VC	Yes	1940	80	2020	-2	2022	LF	\$600	54.61	\$32,766	4.00	5.232	20.928	Highest Risk
SSGM-5202A	Gravity Main	A	W Main St	6 inch diameter	SSMH-1657A	SSMH-1654	VC	No	1940	80	2020	-2	2022	LF	\$600	513.82	\$308,292	4.00	5	20	Highest Risk
SSGM-5218	Gravity Main	B	School St	6 inch diameter	SSMH-1396	SSMH-1387	VC	Yes	1940	80	2020	-2	2023	LF	\$600	309.60	\$185,760	4.00	4.1	16.4	Highest Risk
SSGM-5220	Gravity Main	E	Depot St	6 inch diameter	SSMH-1108	SSMH-1105	VC	Yes	1940	80	2020	-2	2022	LF	\$600	345.33	\$207,198	3.00	5.134	15.402	Priority Renewal
SSGM-5221	Gravity Main	C	Union St	6 inch diameter	SSMH-1480	SSMH-1477	VC	Yes	1940	80	2020	-2	2022	LF	\$600	390.90	\$234,540	1.00	5	5	Priority Renewal
SSGM-5232	Gravity Main	B	Brown St	6 inch diameter	SSMH-1381	SSMH-1378	VC	Yes	1940	80	2020	-2	2023	LF	\$600	140.01	\$84,006	2.00	4.234	8.468	Priority Renewal
SSGM-5241	Gravity Main	E	Jackson St	6 inch diameter	SSMH-1123	SSMH-1117	VC	Yes	1979	80	2059	37	2059	LF	\$600	197.87	\$118,722	1.00	5.132	5.132	Priority Renewal
SSGM-5243	Gravity Main	C	W Mill St	8 inch diameter	SSMH-1564	SSMH-1567	VC	Yes	1940	80	2020	-2	2022	LF	\$600	231.02	\$138,612	2.00	5	10	Priority Renewal
SSGM-5247	Gravity Main	C	Wyman St	6 inch diameter	SSMH-1486	SSMH-1492	VC	Yes	1940	80	2020	-2	2022	LF	\$600	81.72	\$49,032	2.00	5.1	10.2	Priority Renewal
SSGM-5271	Gravity Main	C	Wyman St	6 inch diameter	SSMH-1489	SSMH-1486	VC	Yes	1940	80	2020	-2	2023	LF	\$600	182.58	\$109,548	2.00	4.1	8.2	Priority Renewal
SSGM-5285	Gravity Main	A	Church St	6 inch diameter	SSMH-1678	SSMH-1675	VC	Yes	1940	80	2020	-2	2023	LF	\$600	327.45	\$196,470	2.00	4.125	8.25	Priority Renewal
SSGM-5304	Gravity Main	C	Bridge St	6 inch diameter	SSMH-1447	SSMH-1444	VC	Yes	1940	80	2020	-2	2022	LF	\$600	302.28	\$181,368	3.00	5.131	15.393	Priority Renewal
SSGM-5305	Gravity Main	A	W Main St	8 inch diameter	SSMH-1651	SSMH-1648	VC	Yes	1940	80	2020	-2	2022	LF	\$600	72.66	\$43,596	4.00	5.112	20.448	Highest Risk
SSGM-5310	Gravity Main	B	Church St	6 inch diameter	SSMH-1372	SSMH-1369	VC	Yes	1940	80	2020	-2	2022	LF	\$600	192.41	\$115,446	4.00	5.334	21.336	Highest Risk
SSGM-5361	Gravity Main	E	Preston St	6 inch diameter	SSMH-1135	SSMH-1132	VC	Yes	1940	80	2020	-2	2022	LF	\$600	404.19	\$242,514	2.00	5.142	10.284	Priority Renewal
SSGM-5362	Gravity Main	E	Preston St	6 inch diameter	SSMH-1138	SSMH-1135	VC	Yes	1940	80	2020	-2	2022	LF	\$600	237.78	\$142,668	2.00	5	10	Priority Renewal
SSGM-5370	Gravity Main	G	W Main St	6 inch diameter	SSMH-1630	SSMH-1636	VC	Yes	1940	80	2020	-2	2022	LF	\$600	321.21	\$192,726	4.00	5.232	20.928	Highest Risk
SSGM-5371	Gravity Main	C	High St	6 inch diameter	SSMH-1519	SSMH-1516	VC	Yes	1940	80	2020	-2	2023	LF	\$600	336.01	\$201,606	1.00	4.332	4.332	Priority Renewal
SSGM-5379	Gravity Main	C	Pearl St	6 inch diameter	SSMH-1504	SSMH-1528	VC	Yes	1940	80	2020	-2	2022	LF	\$600	268.51	\$161,106	1.00	5.121	5.121	Priority Renewal
SSGM-5380	Gravity Main	C	Pearl St	6 inch diameter	SSMH-1528	SSMH-1531	VC	Yes	1940	80	2020	-2	2023	LF	\$600	158.89	\$95,334	2.00	4.131	8.262	Priority Renewal
SSGM-5396	Gravity Main	H	Whittemore St	6 inch diameter	SSMH-1267	SSMH-1267A	VC	Yes	1940	80	2020	-2	2022	LF	\$600	245.43	\$147,258	2.00	5	10	Priority Renewal
SSGM-5408	Gravity Main	B	Hoyt Ln	4 inch diameter	SSFT-013	SSFT-014	PVC	Yes	1980	75	2055	33	2055	LF	\$600	231.74	\$139,044	2.00	5.1	10.2	Priority Renewal
SSGM-5428	Gravity Main	C	Wyman St	6 inch diameter	SSMH-1498	SSMH-1495	VC	Yes	1940	80	2020	-2	2022	LF	\$600	320.52	\$192,312	1.00	5.133	5.133	Priority Renewal
SSGM-5435	Gravity Main	C	Wyman St	6 inch diameter	SSFT-009	SSMH-1504	VC	Yes	1940	80	2020	-2	2022	LF	\$600	352.52	\$211,512	1.00	5.111	5.111	Priority Renewal
SSGM-5436	Gravity Main	E	Preston St	6 inch diameter	SSMH-1105	SSMH-1103	VC	Yes	1940	80	2020	-2	2022	LF	\$600	190.71	\$114,426	3.00	5.132	15.396	Priority Renewal

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Hillsborough Bear Hill Pump Station Asset Data Table

Facility Name	Process	Asset Description	Estimated Year Installed	Replacement Cost	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Impact of Failure	Condition Score	Probability of Failure	Risk Score	Criticality
Bear Hill Pump Station	Electrical	Alarm control box	1982	\$2,000	15	1997	-25	2022	3	2	2	6	Limited Monitoring
Bear Hill Pump Station	Electrical	Electrical panel	1982	\$15,000	40	2022	0	2022	5	2	2	10	Frequent Monitoring
Bear Hill Pump Station	Electrical	Pump controls	1982	\$10,000	40	2022	0	2022	5	2	2	10	Frequent Monitoring
Bear Hill Pump Station	HVAC	Heater	2015	\$3,000	20	2035	13	2035	1	1	1	1	Limited Monitoring
Bear Hill Pump Station	Mechanical	Ventallation Blower and piping	1982	\$5,000	15	1997	-25	2022	5	3	3	15	Frequent Monitoring
Bear Hill Pump Station	Mechanical	Sump pump and piping	1982	\$2,000	20	2002	-20	2022	2	2	2	4	Limited Monitoring
Bear Hill Pump Station	Mechanical	Generator	2020	\$30,000	30	2050	28	2050	4	1	1	4	Frequent Monitoring
Bear Hill Pump Station	Mechanical	Propane tank	2020	\$6,000	30	2050	28	2050	4	1	1	4	Frequent Monitoring
Bear Hill Pump Station	Process	Switches and Floats	1982	\$3,000	10	1992	-30	2023	1	4	4	4	Priority Renewal
Bear Hill Pump Station	Process	Process piping and valves	1982	\$50,000	50	2032	10	2032	5	3	3	15	Frequent Monitoring
Bear Hill Pump Station	Process	Pump #1	2015	\$15,000	20	2035	13	2035	5	2	2	10	Frequent Monitoring
Bear Hill Pump Station	Process	Pump #2	2015	\$15,000	20	2022	0	2022	5	5	5	25	Highest Risk
Bear Hill Pump Station	Process	Emergency Overflow Storage Tank	1982	\$20,000	75	2057	35	2057	1	0	2	2	Limited Monitoring
Bear Hill Pump Station	Site	Chain link fence	1982	\$15,000	50	2032	10	2032	1	1	1	1	Limited Monitoring
Bear Hill Pump Station	Site	Paved access drive	1982	\$5,000	50	2032	10	2032	1	2	2	2	Limited Monitoring
Bear Hill Pump Station	Structural	Precast chamber and wetwell	1982	\$75,000	75	2057	35	2057	5	2	2	10	Frequent Monitoring

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COST OF ASSET REPLACEMENT - FIRST TEN YEARS

Hillsborough Bear Hill Pump Station Asset Data Table			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Facility Name	Process	Asset Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Bear Hill Pump Station	Electrical	Alarm control box	\$2,000									
Bear Hill Pump Station	Electrical	Electrical panel	\$15,000									
Bear Hill Pump Station	Electrical	Pump controls	\$10,000									
Bear Hill Pump Station	HVAC	Heater										
Bear Hill Pump Station	Mechanical	Ventallation Blower and piping	\$5,000									
Bear Hill Pump Station	Mechanical	Sump pump and piping	\$2,000									
Bear Hill Pump Station	Mechanical	Generator										
Bear Hill Pump Station	Mechanical	Propane tank										
Bear Hill Pump Station	Process	Switches and Floats		\$3,000								
Bear Hill Pump Station	Process	Process piping and valves										
Bear Hill Pump Station	Process	Pump #1										
Bear Hill Pump Station	Process	Pump #2	\$15,000									
Bear Hill Pump Station	Process	Emergency Overflow Storage Tank										
Bear Hill Pump Station	Site	Chain link fence										
Bear Hill Pump Station	Site	Paved access drive										
Bear Hill Pump Station	Structural	Precast chamber and wetwell										

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			COST OF ASSET REPLACEMENT - NEXT 100 YEARS											
Hillsborough Bear Hill Pump Station Asset Data Table			0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100	0 - 100	
Facility Name	Process	Asset Description	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121	100-Yr Replacement Count
Bear Hill Pump Station	Electrical	Alarm control box	\$2,000	\$2,000		\$2,000	\$2,000		\$2,000	\$2,000		\$2,000	\$8,000	7
Bear Hill Pump Station	Electrical	Electrical panel	\$15,000				\$15,000				\$15,000		\$30,000	3
Bear Hill Pump Station	Electrical	Pump controls	\$10,000				\$10,000				\$10,000		\$20,000	3
Bear Hill Pump Station	HVAC	Heater		\$3,000		\$3,000		\$3,000		\$3,000		\$3,000	\$6,000	5
Bear Hill Pump Station	Mechanical	Ventallation Blower and piping	\$5,000	\$5,000		\$5,000	\$5,000		\$5,000	\$5,000		\$5,000	\$20,000	7
Bear Hill Pump Station	Mechanical	Sump pump and piping	\$2,000		\$2,000		\$2,000		\$2,000		\$2,000		\$6,000	5
Bear Hill Pump Station	Mechanical	Generator			\$30,000			\$30,000			\$30,000		\$30,000	3
Bear Hill Pump Station	Mechanical	Propane tank			\$6,000			\$6,000			\$6,000		\$6,000	3
Bear Hill Pump Station	Process	Switches and Floats	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$15,000	10
Bear Hill Pump Station	Process	Process piping and valves		\$50,000					\$50,000				\$50,000	2
Bear Hill Pump Station	Process	Pump #1		\$15,000		\$15,000		\$15,000		\$15,000		\$15,000	\$30,000	5
Bear Hill Pump Station	Process	Pump #2	\$15,000		\$15,000		\$15,000		\$15,000		\$15,000		\$45,000	5
Bear Hill Pump Station	Process	Emergency Overflow Storage Tank				\$20,000							\$20,000	1
Bear Hill Pump Station	Site	Chain link fence		\$15,000					\$15,000				\$15,000	2
Bear Hill Pump Station	Site	Paved access drive		\$5,000					\$5,000				\$5,000	2
Bear Hill Pump Station	Structural	Precast chamber and wetwell				\$75,000							\$75,000	1

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Hillsborough WWTF Asset Data Table

Facility Name	Category	Process	Asset Description	Estimated Year Installed	Replacement Cost	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Impact of Failure	Condition Score	Probability of Failure	Risk Score	Criticality
HWSC WWTF	Blower Room	Mechanical	Grit aeration tank blower	1986	\$0	10	1996	-26	2022	4	0	5	20	Highest Risk
HWSC WWTF	Blower Room	Mechanical	Generator	1986	\$80,000	30	2016	-6	2022	4	2	2	8	Frequent Monitoring
HWSC WWTF	Blower Room	Site	Fuel Tank	1986	\$4,000	40	2026	4	2026	1	2	2	2	Limited Monitoring
HWSC WWTF	Blower Room	Mechanical	Blower #1	2012	\$75,000	15	2027	5	2027	5	2	2	10	Frequent Monitoring
HWSC WWTF	Blower Room	Mechanical	Blower #2	2012	\$75,000	15	2027	5	2027	5	2	2	10	Frequent Monitoring
HWSC WWTF	Blower Room	Mechanical	Blower #3	2012	\$75,000	15	2027	5	2027	5	2	2	10	Frequent Monitoring
HWSC WWTF	Blower Room	HVAC	Unit heater	2012	\$12,000	20	2032	10	2032	1	3	3	3	Frequent Monitoring
HWSC WWTF	Chemical Building	Electrical	Electrical and Instrumentation	2012	\$90,000	15	2027	5	2027	5	2	2	10	Frequent Monitoring
HWSC WWTF	Chemical Building	Mechanical	Peristaltic pump, 4	2012	\$20,000	15	2027	5	2027	5	1	1	5	Frequent Monitoring
HWSC WWTF	Chemical Building	HVAC	On-demand water heaters, 2	2012	\$30,000	20	2032	10	2032	1	1	1	1	Limited Monitoring
HWSC WWTF	Chemical Building	HVAC	Vents and HVAC	2012	\$35,000	20	2032	10	2032	2	1	1	2	Limited Monitoring
HWSC WWTF	Chemical Building	Mechanical	Deep containment sump and coating	2012	\$30,000	20	2032	10	2032	2	0	4	8	Priority Renewal
HWSC WWTF	Chemical Building	Miscellaneous	Eyewash station	2012	\$16,000	20	2032	10	2032	1	1	1	1	Limited Monitoring
HWSC WWTF	Chemical Building	Process	Ferric chloride tank	2012	\$55,000	30	2042	20	2042	2	1	1	2	Limited Monitoring
HWSC WWTF	Chemical Building	Process	Magnesium hydroxide tank	2012	\$80,000	30	2042	20	2042	3	1	1	3	Limited Monitoring
HWSC WWTF	Chemical Building	Structural	Windows	2012	\$20,000	30	2042	20	2042	1	1	1	1	Limited Monitoring
HWSC WWTF	Chemical Building	Structural	Doors	2012	\$20,000	40	2052	30	2052	1	1	1	1	Limited Monitoring
HWSC WWTF	Chemical Building	Structural	Roof	2012	\$30,000	50	2062	40	2062	3	1	1	3	Limited Monitoring
HWSC WWTF	Chemical Building	Structural	Concrete foundation and floor	2012	\$80,000	75	2087	65	2087	3	1	1	3	Limited Monitoring
HWSC WWTF	Chemical Building	Structural	Pre-fab structure	2012	\$120,000	75	2087	65	2087	3	1	1	3	Limited Monitoring
HWSC WWTF	Chlorine Contact Chambers	Structural	Concrete chamber #1	1986	\$60,000	75	2061	39	2061	5	2	2	10	Frequent Monitoring
HWSC WWTF	Chlorine Contact Chambers	Structural	Concrete chamber #2	1986	\$60,000	75	2061	39	2061	5	2	2	10	Frequent Monitoring
HWSC WWTF	Chlorine Contact Chambers	Structural	Distribution box chlorine contact tank #2	1986	\$60,000	75	2061	39	2061	3	2	2	6	Limited Monitoring
HWSC WWTF	Headworks Room	Mechanical	Grit screw conveyer	1986	\$24,000	15	2001	-21	2022	4	3	3	12	Frequent Monitoring
HWSC WWTF	Headworks Room	HVAC	Unit heater	1986	\$12,000	20	2006	-16	2022	1	3	3	3	Frequent Monitoring
HWSC WWTF	Headworks Room	Mechanical	Influent meter	2003	\$5,000	10	2013	-9	2022	2	2	2	4	Limited Monitoring
HWSC WWTF	Headworks Room	Mechanical	Grit washing unit	2003	\$12,000	15	2018	-4	2022	3	2	2	6	Limited Monitoring
HWSC WWTF	Headworks Room	Mechanical	Grit strainer	2007	\$6,000	15	2022	0	2022	3	2	2	6	Limited Monitoring
HWSC WWTF	Headworks Room	Mechanical	Grit collector	2007	\$12,000	15	2022	0	2022	3	2	2	6	Limited Monitoring
HWSC WWTF	Headworks Room	Process	Bar rack	1986	\$18,000	40	2026	4	2026	4	3	3	12	Frequent Monitoring
HWSC WWTF	Headworks Room	Mechanical	Screw Pump #1	2013	\$400,000	20	2033	11	2033	5	2	2	10	Frequent Monitoring
HWSC WWTF	Headworks Room	Mechanical	Screw Pump #2	2013	\$400,000	20	2033	11	2033	5	2	2	10	Frequent Monitoring
HWSC WWTF	Headworks Room	Process	Process piping and valves	1986	\$40,000	50	2036	14	2036	5	3	3	15	Frequent Monitoring
HWSC WWTF	Headworks Room	Process	Parshall flume	1995	\$20,000	60	2055	33	2055	2	1	1	2	Limited Monitoring
HWSC WWTF	Headworks Room	Mechanical	Grit aeration tank	1986	\$0	75	2061	39	2061	4	2	2	8	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Floating baffle lagoon #1	2012	\$12,000	15	2027	5	2027	5	2	2	10	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #2	2012	\$170,000	20	2032	10	2032	5	2	2	10	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #3	2012	\$100,000	20	2032	10	2032	5	2	2	10	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #1	2003	\$400,000	30	2033	11	2033	3	1	1	3	Limited Monitoring
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #3	1986	\$200,000	50	2036	14	2036	3	3	3	9	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #1	1986	\$1,250,000	50	2036	14	2036	2	3	3	6	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #2	1986	\$650,000	50	2036	14	2036	2	3	3	6	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #3	1986	\$650,000	50	2036	14	2036	2	3	3	6	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #1	2021	\$400,000	20	2041	19	2041	5	2	2	10	Frequent Monitoring
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #2	2013	\$200,000	30	2043	21	2043	3	1	1	3	Limited Monitoring
HWSC WWTF	Landscape	Site	Paved access drive overlay	1986	\$30,000	10	1996	-26	2022	1	2	2	2	Limited Monitoring
HWSC WWTF	Landscape	Site	Perimeter fence	1986	\$100,000	30	2016	-6	2022	1	2	2	2	Limited Monitoring
HWSC WWTF	Operations Building	HVAC	Air conditioning system	1986	\$6,000	10	1996	-26	2022	1	3	3	3	Frequent Monitoring
HWSC WWTF	Operations Building	Electrical	Exterior lighting	1986	\$24,000	20	2006	-16	2023	1	4	4	4	Priority Renewal
HWSC WWTF	Operations Building	HVAC	Boiler	1986	\$24,000	20	2006	-16	2023	1	4	4	4	Priority Renewal
HWSC WWTF	Operations Building	Miscellaneous	Bathroom and Fixtures	1986	\$20,000	20	2006	-16	2022	1	3	3	3	Frequent Monitoring
HWSC WWTF	Operations Building	HVAC	Exhaust vent	1986	\$6,000	25	2011	-11	2022	2	3	3	6	Frequent Monitoring
HWSC WWTF	Operations Building	Structural	Roof	1986	\$68,000	25	2011	-11	2022	3	1	1	3	Limited Monitoring
HWSC WWTF	Operations Building	Miscellaneous	Sink and Laboratory Equipment	1986	\$40,000	30	2016	-6	2022	1	3	3	3	Frequent Monitoring
HWSC WWTF	Operations Building	Structural	Windows	1986	\$24,000	30	2016	-6	2022	1	3	3	3	Frequent Monitoring
HWSC WWTF	Operations Building	Electrical	Interior lighting	1986	\$24,000	40	2026	4	2026	1	3	3	3	Frequent Monitoring
HWSC WWTF	Operations Building	Structural	Exterior doors	1986	\$12,000	40	2026	4	2023	1	4	4	4	Priority Renewal
HWSC WWTF	Operations Building	Structural	Concrete block walls, foundation, floor	1986	\$510,000	75	2061	39	2061	3	1	1	3	Limited Monitoring
HWSC WWTF	Operations Building	Structural	Interior doors	1986	\$12,000	75	2061	39	2061	1	3	3	3	Frequent Monitoring
HWSC WWTF	Septage Receiving	Electrical	PLC Panel #2	2012	\$24,000	15	2027	5	2027	5	2	2	10	Frequent Monitoring
HWSC WWTF	Septage Receiving	Structural	Concrete tank septage receiving	1986	\$0	75	2061	39	2061	1	2	2	2	Limited Monitoring
HWSC WWTF	Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #1	1986	\$6,000	10	1996	-26	2022	5	3	3	15	Frequent Monitoring
HWSC WWTF	Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #2	1986	\$6,000	10	1996	-26	2022	5	2	2	10	Frequent Monitoring
HWSC WWTF	Utility Room	HVAC	Unit heater	1986	\$12,000	20	2006	-16	2023	1	4	4	4	Priority Renewal
HWSC WWTF	Utility Room	Mechanical	Plant water pump	1990	\$6,000	20	2010	-12	2022	2	3	3	6	Frequent Monitoring
HWSC WWTF	Utility Room	Process	Plant water pressure tank	1986	\$12,000	50	2036	14	2036	2	2	2	4	Limited Monitoring
HWSC WWTF	Utility Room	Process	Sodium Hypochlorite Tank	1986	\$20,000	50	2036	14	2036	3	2	2	6	Limited Monitoring

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COST OF ASSET REPLACEMENT - FIRST TEN YEARS

Hillsborough WWTF Asset Data Table				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Facility Name	Category	Process	Asset Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
HWSC WWTF	Blower Room	Mechanical	Grit aeration tank blower										
HWSC WWTF	Blower Room	Mechanical	Generator	\$80,000									
HWSC WWTF	Blower Room	Site	Fuel Tank					\$4,000					
HWSC WWTF	Blower Room	Mechanical	Blower #1						\$75,000				
HWSC WWTF	Blower Room	Mechanical	Blower #2						\$75,000				
HWSC WWTF	Blower Room	Mechanical	Blower #3						\$75,000				
HWSC WWTF	Blower Room	HVAC	Unit heater										
HWSC WWTF	Chemical Building	Electrical	Electrical and Instrumentation						\$90,000				
HWSC WWTF	Chemical Building	Mechanical	Peristaltic pump, 4						\$20,000				
HWSC WWTF	Chemical Building	HVAC	On-demand water heaters, 2										
HWSC WWTF	Chemical Building	HVAC	Vents and HVAC										
HWSC WWTF	Chemical Building	Mechanical	Deep containment sump and coating										
HWSC WWTF	Chemical Building	Miscellaneous	Eyewash station										
HWSC WWTF	Chemical Building	Process	Ferric chloride tank										
HWSC WWTF	Chemical Building	Process	Magnesium hydroxide tank										
HWSC WWTF	Chemical Building	Structural	Windows										
HWSC WWTF	Chemical Building	Structural	Doors										
HWSC WWTF	Chemical Building	Structural	Roof										
HWSC WWTF	Chemical Building	Structural	Concrete foundation and floor										
HWSC WWTF	Chemical Building	Structural	Pre-fab structure										
HWSC WWTF	Chlorine Contact Chambers	Structural	Concrete chamber #1										
HWSC WWTF	Chlorine Contact Chambers	Structural	Concrete chamber #2										
HWSC WWTF	Chlorine Contact Chambers	Structural	Distribution box chlorine contact tank #2										
HWSC WWTF	Headworks Room	Mechanical	Grit screw conveyer	\$24,000									
HWSC WWTF	Headworks Room	HVAC	Unit heater	\$12,000									
HWSC WWTF	Headworks Room	Mechanical	Influent meter	\$5,000									
HWSC WWTF	Headworks Room	Mechanical	Grit washing unit	\$12,000									
HWSC WWTF	Headworks Room	Mechanical	Grit strainer	\$6,000									
HWSC WWTF	Headworks Room	Mechanical	Grit collector	\$12,000									
HWSC WWTF	Headworks Room	Process	Bar rack					\$18,000					
HWSC WWTF	Headworks Room	Mechanical	Screw Pump #1										
HWSC WWTF	Headworks Room	Mechanical	Screw Pump #2										
HWSC WWTF	Headworks Room	Process	Process piping and valves										
HWSC WWTF	Headworks Room	Process	Parshall flume										
HWSC WWTF	Headworks Room	Mechanical	Grit aeration tank										
HWSC WWTF	Lagoons	Process	Floating baffle lagoon #1						\$12,000				
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #2										
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #3										
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #1										
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #3										
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #1										
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #2										
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #3										
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #1										
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #2										
HWSC WWTF	Landscape	Site	Paved access drive overlay	\$30,000									
HWSC WWTF	Landscape	Site	Perimeter fence	\$100,000									
HWSC WWTF	Operations Building	HVAC	Air conditioning system	\$6,000									
HWSC WWTF	Operations Building	Electrical	Exterior lighting		\$24,000								
HWSC WWTF	Operations Building	HVAC	Boiler		\$24,000								
HWSC WWTF	Operations Building	Miscellaneous	Bathroom and Fixtures	\$20,000									
HWSC WWTF	Operations Building	HVAC	Exhaust vent	\$6,000									
HWSC WWTF	Operations Building	Structural	Roof	\$68,000									
HWSC WWTF	Operations Building	Miscellaneous	Sink and Laboratory Equipment	\$40,000									
HWSC WWTF	Operations Building	Structural	Windows	\$24,000									
HWSC WWTF	Operations Building	Electrical	Interior lighting					\$24,000					
HWSC WWTF	Operations Building	Structural	Exterior doors		\$12,000								
HWSC WWTF	Operations Building	Structural	Concrete block walls, foundation, floor										
HWSC WWTF	Operations Building	Structural	Interior doors										
HWSC WWTF	Septage Receiving	Electrical	PLC Panel #2						\$24,000				
HWSC WWTF	Septage Receiving	Structural	Concrete tank septage receiving										
HWSC WWTF	Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #1	\$6,000									
HWSC WWTF	Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #2	\$6,000									
HWSC WWTF	Utility Room	HVAC	Unit heater		\$12,000								
HWSC WWTF	Utility Room	Mechanical	Plant water pump	\$6,000									
HWSC WWTF	Utility Room	Process	Plant water pressure tank										
HWSC WWTF	Utility Room	Process	Sodium Hypochlorite Tank										

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				COST OF ASSET REPLACEMENT - NEXT 100 YEARS											
Hillsborough WWTF Asset Data Table				0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100	0 - 100	100-Yr Replacement
Facility Name	Category	Process	Asset Description	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121	Count
HWSC WWTF	Blower Room	Mechanical	Grit aeration tank blower												0
HWSC WWTF	Blower Room	Mechanical	Generator	\$80,000			\$80,000			\$80,000			\$80,000	\$160,000	4
HWSC WWTF	Blower Room	Site	Fuel Tank	\$4,000				\$4,000				\$4,000		\$8,000	3
HWSC WWTF	Blower Room	Mechanical	Blower #1	\$75,000		\$75,000	\$75,000		\$75,000	\$75,000			\$75,000	\$225,000	7
HWSC WWTF	Blower Room	Mechanical	Blower #2	\$75,000		\$75,000	\$75,000		\$75,000	\$75,000			\$75,000	\$225,000	7
HWSC WWTF	Blower Room	Mechanical	Blower #3	\$75,000		\$75,000	\$75,000		\$75,000	\$75,000			\$75,000	\$225,000	7
HWSC WWTF	Blower Room	HVAC	Unit heater		\$12,000		\$12,000		\$12,000		\$12,000		\$12,000	\$24,000	5
HWSC WWTF	Chemical Building	Electrical	Electrical and Instrumentation	\$90,000		\$90,000	\$90,000		\$90,000	\$90,000			\$90,000	\$270,000	7
HWSC WWTF	Chemical Building	Mechanical	Peristaltic pump, 4	\$20,000		\$20,000	\$20,000		\$20,000	\$20,000			\$20,000	\$60,000	7
HWSC WWTF	Chemical Building	HVAC	On-demand water heaters, 2		\$30,000		\$30,000		\$30,000		\$30,000		\$30,000	\$60,000	5
HWSC WWTF	Chemical Building	HVAC	Vents and HVAC		\$35,000		\$35,000		\$35,000		\$35,000		\$35,000	\$70,000	5
HWSC WWTF	Chemical Building	Mechanical	Deep containment sump and coating		\$30,000		\$30,000		\$30,000		\$30,000		\$30,000	\$60,000	5
HWSC WWTF	Chemical Building	Miscellaneous	Eyewash station		\$16,000		\$16,000		\$16,000		\$16,000		\$16,000	\$32,000	5
HWSC WWTF	Chemical Building	Process	Ferric chloride tank			\$55,000			\$55,000			\$55,000		\$55,000	3
HWSC WWTF	Chemical Building	Process	Magnesium hydroxide tank			\$80,000			\$80,000			\$80,000		\$80,000	3
HWSC WWTF	Chemical Building	Structural	Windows			\$20,000			\$20,000			\$20,000		\$20,000	3
HWSC WWTF	Chemical Building	Structural	Doors				\$20,000				\$20,000			\$20,000	2
HWSC WWTF	Chemical Building	Structural	Roof					\$30,000					\$30,000	\$30,000	2
HWSC WWTF	Chemical Building	Structural	Concrete foundation and floor							\$80,000				\$0	1
HWSC WWTF	Chemical Building	Structural	Pre-fab structure							\$120,000				\$0	1
HWSC WWTF	Chlorine Contact Chambers	Structural	Concrete chamber #1				\$60,000							\$60,000	1
HWSC WWTF	Chlorine Contact Chambers	Structural	Concrete chamber #2				\$60,000							\$60,000	1
HWSC WWTF	Chlorine Contact Chambers	Structural	Distribution box chlorine contact tank #2				\$60,000							\$60,000	1
HWSC WWTF	Headworks Room	Mechanical	Grit screw conveyer	\$24,000	\$24,000		\$24,000	\$24,000		\$24,000	\$24,000		\$24,000	\$96,000	7
HWSC WWTF	Headworks Room	HVAC	Unit heater	\$12,000		\$12,000		\$12,000		\$12,000		\$12,000		\$36,000	5
HWSC WWTF	Headworks Room	Mechanical	Influent meter	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000	10
HWSC WWTF	Headworks Room	Mechanical	Grit washing unit	\$12,000	\$12,000		\$12,000	\$12,000		\$12,000	\$12,000		\$12,000	\$48,000	7
HWSC WWTF	Headworks Room	Mechanical	Grit strainer	\$6,000	\$6,000		\$6,000	\$6,000		\$6,000	\$6,000		\$6,000	\$24,000	7
HWSC WWTF	Headworks Room	Mechanical	Grit collector	\$12,000	\$12,000		\$12,000	\$12,000		\$12,000	\$12,000		\$12,000	\$48,000	7
HWSC WWTF	Headworks Room	Process	Bar rack	\$18,000				\$18,000				\$18,000		\$36,000	3
HWSC WWTF	Headworks Room	Mechanical	Screw Pump #1		\$400,000		\$400,000		\$400,000		\$400,000		\$400,000	\$800,000	5
HWSC WWTF	Headworks Room	Mechanical	Screw Pump #2		\$400,000		\$400,000		\$400,000		\$400,000		\$400,000	\$800,000	5
HWSC WWTF	Headworks Room	Process	Process piping and valves		\$40,000					\$40,000				\$40,000	2
HWSC WWTF	Headworks Room	Process	Parshall flume				\$20,000						\$20,000	\$20,000	2
HWSC WWTF	Headworks Room	Mechanical	Grit aeration tank				\$0							\$0	1
HWSC WWTF	Lagoons	Process	Floating baffle lagoon #1	\$12,000		\$12,000	\$12,000		\$12,000	\$12,000		\$12,000	\$12,000	\$36,000	7
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #2		\$170,000		\$170,000		\$170,000		\$170,000		\$170,000	\$340,000	5
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #3		\$100,000		\$100,000		\$100,000		\$100,000		\$100,000	\$200,000	5
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #1		\$400,000			\$400,000			\$400,000			\$800,000	3
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #3		\$200,000				\$200,000					\$200,000	2
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #1		\$1,250,000				\$1,250,000					\$1,250,000	2
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #2		\$650,000				\$650,000					\$650,000	2
HWSC WWTF	Lagoons	Process	Lagoon Liner Replacement #3		\$650,000				\$650,000					\$650,000	2
HWSC WWTF	Lagoons	Process	Floating aeration system lagoon #1		\$400,000		\$400,000		\$400,000		\$400,000		\$400,000	\$800,000	5
HWSC WWTF	Lagoons	Process	Sludge removal lagoon #2			\$200,000			\$200,000			\$200,000		\$200,000	3
HWSC WWTF	Landscape	Site	Paved access drive overlay	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$150,000	10
HWSC WWTF	Landscape	Site	Perimeter fence	\$100,000			\$100,000			\$100,000			\$100,000	\$200,000	4
HWSC WWTF	Operations Building	HVAC	Air conditioning system	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$30,000	10
HWSC WWTF	Operations Building	Electrical	Exterior lighting	\$24,000		\$24,000		\$24,000		\$24,000		\$24,000		\$72,000	5
HWSC WWTF	Operations Building	HVAC	Boiler	\$24,000		\$24,000		\$24,000		\$24,000		\$24,000		\$72,000	5
HWSC WWTF	Operations Building	Miscellaneous	Bathroom and Fixtures	\$20,000		\$20,000		\$20,000		\$20,000		\$20,000		\$60,000	5
HWSC WWTF	Operations Building	HVAC	Exhaust vent	\$6,000		\$6,000			\$6,000		\$6,000			\$12,000	4
HWSC WWTF	Operations Building	Structural	Roof	\$68,000		\$68,000			\$68,000		\$68,000			\$136,000	4
HWSC WWTF	Operations Building	Miscellaneous	Sink and Laboratory Equipment	\$40,000			\$40,000			\$40,000			\$40,000	\$80,000	4
HWSC WWTF	Operations Building	Structural	Windows	\$24,000			\$24,000			\$24,000			\$24,000	\$48,000	4
HWSC WWTF	Operations Building	Electrical	Interior lighting	\$24,000				\$24,000				\$24,000		\$48,000	3
HWSC WWTF	Operations Building	Structural	Exterior doors	\$12,000				\$12,000				\$12,000		\$24,000	3
HWSC WWTF	Operations Building	Structural	Concrete block walls, foundation, floor				\$510,000							\$510,000	1
HWSC WWTF	Operations Building	Structural	Interior doors				\$12,000							\$12,000	1
HWSC WWTF	Septage Receiving	Electrical	PLC Panel #2	\$24,000		\$24,000	\$24,000		\$24,000	\$24,000		\$24,000	\$24,000	\$72,000	7
HWSC WWTF	Septage Receiving	Structural	Concrete tank septage receiving				\$0							\$0	1
HWSC WWTF	Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #1	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$30,000	10
HWSC WWTF	Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #2	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$30,000	10
HWSC WWTF	Utility Room	HVAC	Unit heater	\$12,000		\$12,000		\$12,000		\$12,000		\$12,000		\$36,000	5
HWSC WWTF	Utility Room	Mechanical	Plant water pump	\$6,000		\$6,000		\$6,000		\$6,000		\$6,000		\$18,000	5
HWSC WWTF	Utility Room	Process	Plant water pressure tank		\$12,000					\$12,000				\$12,000	2
HWSC WWTF	Utility Room	Process	Sodium Hypochlorite Tank		\$20,000					\$20,000				\$20,000	2

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Hillsborough W. Main Street Pump Station Asset Data Table

Facility Name	Process	Asset Description	Estimated Year Installed	Replacement Cost	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	Impact of Failure	Condition Score	Probability of Failure	Risk Score	Criticality
W Main Street Pump Station	Electrical	Alarms and Controls	1986	\$24,000	15	2001	-21	2022	5	2	2	10	Frequent Monitoring
W Main Street Pump Station	Electrical	Liquid level control	1986	\$10,000	40	2026	4	2026	2	2	2	4	Limited Monitoring
W Main Street Pump Station	Electrical	Telemetry control panels	1986	\$15,000	40	2026	4	2026	2	3	3	6	Frequent Monitoring
W Main Street Pump Station	Electrical	Transfer panel and Electrical	1986	\$24,000	40	2026	4	2026	4	2	2	8	Frequent Monitoring
W Main Street Pump Station	HVAC	Dehumidifier	1986	\$1,000	10	1996	-26	2022	2	2	2	4	Limited Monitoring
W Main Street Pump Station	HVAC	Unit heater #1	1986	\$3,000	20	2006	-16	2022	1	2	2	2	Limited Monitoring
W Main Street Pump Station	HVAC	Unit heater #2	1986	\$3,000	20	2006	-16	2022	1	2	2	2	Limited Monitoring
W Main Street Pump Station	HVAC	Unit heater #3	1986	\$3,000	20	2006	-16	2022	1	2	2	2	Limited Monitoring
W Main Street Pump Station	HVAC	Unit heater #4	1986	\$3,000	20	2006	-16	2022	1	2	2	2	Limited Monitoring
W Main Street Pump Station	Mechanical	Compressor #1	1986	\$12,000	10	1996	-26	2022	5	2	2	10	Frequent Monitoring
W Main Street Pump Station	Mechanical	Compressor #2	1986	\$12,000	10	1996	-26	2022	5	2	2	10	Frequent Monitoring
W Main Street Pump Station	Mechanical	Generator	2008	\$48,000	30	2038	16	2038	4	2	2	8	Frequent Monitoring
W Main Street Pump Station	Mechanical	Inline exhaust fan	1986	\$6,000	10	1996	-26	2022	2	2	2	4	Limited Monitoring
W Main Street Pump Station	Mechanical	Pump #1	1999	\$24,000	20	2019	-3	2022	5	2	2	10	Frequent Monitoring
W Main Street Pump Station	Mechanical	Pump #2	1986	\$24,000	20	2006	-16	2022	5	2	2	10	Frequent Monitoring
W Main Street Pump Station	Mechanical	Sump pump and piping	1986	\$6,000	20	2006	-16	2022	2	1	1	2	Limited Monitoring
W Main Street Pump Station	Process	Flow meter	1986	\$6,000	10	1996	-26	2022	2	1	1	2	Limited Monitoring
W Main Street Pump Station	Process	Influent Grinder Pump	2021	\$91,000	15	2036	14	2036	1	1	1	1	Limited Monitoring
W Main Street Pump Station	Process	Process piping and valves	1986	\$80,000	50	2036	14	2036	5	2	2	10	Frequent Monitoring
W Main Street Pump Station	Site	Buried fiberglass oil tank	1986	\$48,000	40	2026	4	2026	3	1	1	3	Limited Monitoring
W Main Street Pump Station	Site	Paved access drive	1986	\$10,000	50	2036	14	2036	1	3	3	3	Frequent Monitoring
W Main Street Pump Station	Structural	Brick Building	1986	\$30,000	75	2061	39	2061	3	1	1	3	Limited Monitoring
W Main Street Pump Station	Structural	Concrete Wetwell	1986	\$250,000	75	2061	39	2061	5	1	1	5	Frequent Monitoring
W Main Street Pump Station	Structural	Underground Dry Pit	1986	\$400,000	75	2061	39	2061	5	1	1	5	Frequent Monitoring
W Main Street Pump Station	Structural	Doors	1986	\$12,000	30	2016	-6	2022	1	2	2	2	Limited Monitoring
W Main Street Pump Station	Structural	Roof	1986	\$4,000	25	2011	-11	2022	3	1	1	3	Limited Monitoring

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COST OF ASSET REPLACEMENT - FIRST TEN YEARS

Hillsborough W. Main Street Pump Station Asset Data Table			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Facility Name	Process	Asset Description	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
W Main Street Pump Station	Electrical	Alarms and Controls	\$24,000									
W Main Street Pump Station	Electrical	Liquid level control					\$10,000					
W Main Street Pump Station	Electrical	Telemetry control panels					\$15,000					
W Main Street Pump Station	Electrical	Transfer panel and Electrical					\$24,000					
W Main Street Pump Station	HVAC	Dehumidifier	\$1,000									
W Main Street Pump Station	HVAC	Unit heater #1	\$3,000									
W Main Street Pump Station	HVAC	Unit heater #2	\$3,000									
W Main Street Pump Station	HVAC	Unit heater #3	\$3,000									
W Main Street Pump Station	HVAC	Unit heater #4	\$3,000									
W Main Street Pump Station	Mechanical	Compressor #1	\$12,000									
W Main Street Pump Station	Mechanical	Compressor #2	\$12,000									
W Main Street Pump Station	Mechanical	Generator										
W Main Street Pump Station	Mechanical	Inline exhaust fan	\$6,000									
W Main Street Pump Station	Mechanical	Pump #1	\$24,000									
W Main Street Pump Station	Mechanical	Pump #2	\$24,000									
W Main Street Pump Station	Mechanical	Sump pump and piping	\$6,000									
W Main Street Pump Station	Process	Flow meter	\$6,000									
W Main Street Pump Station	Process	Influent Grinder Pump										
W Main Street Pump Station	Process	Process piping and valves										
W Main Street Pump Station	Site	Buried fiberglass oil tank					\$48,000					
W Main Street Pump Station	Site	Paved access drive										
W Main Street Pump Station	Structural	Brick Building										
W Main Street Pump Station	Structural	Concrete Wetwell										
W Main Street Pump Station	Structural	Underground Dry Pit										
W Main Street Pump Station	Structural	Doors	\$12,000									
W Main Street Pump Station	Structural	Roof	\$4,000									

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Hillsborough W. Main Street Pump Station Asset Data Table														COST OF ASSET REPLACEMENT - NEXT 100 YEARS										
			0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100	0 - 100	100-Yr Replacement Count										
Facility Name	Process	Asset Description	2022-2031	2032-2041	2042-2051	2052-2061	2062-2071	2072-2082	2082-2091	2092-2101	2102-2111	2112-2121	2022-2121											
W Main Street Pump Station	Electrical	Alarms and Controls	\$24,000	\$24,000		\$24,000	\$24,000		\$24,000	\$24,000		\$24,000	\$96,000	7										
W Main Street Pump Station	Electrical	Liquid level control	\$10,000				\$10,000				\$10,000		\$20,000	3										
W Main Street Pump Station	Electrical	Telemetry control panels	\$15,000				\$15,000				\$15,000		\$30,000	3										
W Main Street Pump Station	Electrical	Transfer panel and Electrical	\$24,000				\$24,000				\$24,000		\$48,000	3										
W Main Street Pump Station	HVAC	Dehumidifier	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000	10										
W Main Street Pump Station	HVAC	Unit heater #1	\$3,000		\$3,000		\$3,000		\$3,000		\$3,000		\$9,000	5										
W Main Street Pump Station	HVAC	Unit heater #2	\$3,000		\$3,000		\$3,000		\$3,000		\$3,000		\$9,000	5										
W Main Street Pump Station	HVAC	Unit heater #3	\$3,000		\$3,000		\$3,000		\$3,000		\$3,000		\$9,000	5										
W Main Street Pump Station	HVAC	Unit heater #4	\$3,000		\$3,000		\$3,000		\$3,000		\$3,000		\$9,000	5										
W Main Street Pump Station	Mechanical	Compressor #1	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$60,000	10										
W Main Street Pump Station	Mechanical	Compressor #2	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$60,000	10										
W Main Street Pump Station	Mechanical	Generator		\$48,000			\$48,000			\$48,000			\$96,000	3										
W Main Street Pump Station	Mechanical	Inline exhaust fan	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$30,000	10										
W Main Street Pump Station	Mechanical	Pump #1	\$24,000		\$24,000		\$24,000		\$24,000		\$24,000		\$72,000	5										
W Main Street Pump Station	Mechanical	Pump #2	\$24,000		\$24,000		\$24,000		\$24,000		\$24,000		\$72,000	5										
W Main Street Pump Station	Mechanical	Sump pump and piping	\$6,000		\$6,000		\$6,000		\$6,000		\$6,000		\$18,000	5										
W Main Street Pump Station	Process	Flow meter	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$30,000	10										
W Main Street Pump Station	Process	Influent Grinder Pump		\$91,000	\$91,000		\$91,000	\$91,000		\$91,000	\$91,000		\$273,000	6										
W Main Street Pump Station	Process	Process piping and valves		\$80,000					\$80,000				\$80,000	2										
W Main Street Pump Station	Site	Buried fiberglass oil tank	\$48,000				\$48,000				\$48,000		\$96,000	3										
W Main Street Pump Station	Site	Paved access drive		\$10,000					\$10,000				\$10,000	2										
W Main Street Pump Station	Structural	Brick Building				\$30,000							\$30,000	1										
W Main Street Pump Station	Structural	Concrete Wetwell				\$250,000							\$250,000	1										
W Main Street Pump Station	Structural	Underground Dry Pit				\$400,000							\$400,000	1										
W Main Street Pump Station	Structural	Doors	\$12,000			\$12,000			\$12,000			\$12,000	\$24,000	4										
W Main Street Pump Station	Structural	Roof	\$4,000		\$4,000			\$4,000		\$4,000			\$8,000	4										

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Hillsborough WWTF 50-Year Asset Replacement Schedule										COST OF ASSET REPLACEMENT - NEXT 50 YEARS						50-Yr Replacement Count
Category	Process	Asset Description	Estimated Year Installed	Replacement Cost	Useful Life	End Useful Life	Remaining Useful Life	Replacement Year	0 - 10	11 - 20	21 - 30	31 - 40	41 - 50	0 - 50		
Blower Room	HVAC	Unit heater	2012	\$12,000	20	2032	10	2032		\$12,000				\$24,000	2	
Blower Room	Mechanical	Blower #1	2012	\$75,000	15	2027	5	2027	\$75,000			\$75,000		\$225,000	3	
Blower Room	Mechanical	Blower #2	2012	\$75,000	15	2027	5	2027	\$75,000			\$75,000		\$225,000	3	
Blower Room	Mechanical	Blower #3	2012	\$75,000	15	2027	5	2027	\$75,000			\$75,000		\$225,000	3	
Blower Room	Mechanical	Generator	1986	\$80,000	30	2016	-6	2022	\$80,000			\$80,000		\$160,000	2	
Blower Room	Mechanical	Grit aeration tank blower	1986	\$0	10	1996	-26	2022						\$0	0	
Blower Room	Site	Fuel Tank	1986	\$4,000	40	2026	4	2026	\$4,000				\$4,000	\$8,000	2	
Chemical Building	Electrical	Electrical and Instrumentation	2012	\$90,000	15	2027	5	2027	\$90,000			\$90,000		\$270,000	3	
Chemical Building	HVAC	On-demand water heaters, 2	2012	\$30,000	20	2032	10	2032		\$30,000		\$30,000		\$60,000	2	
Chemical Building	HVAC	Vents and HVAC	2012	\$35,000	20	2032	10	2032		\$35,000		\$35,000		\$70,000	2	
Chemical Building	Mechanical	Deep containment sump and coating	2012	\$30,000	20	2032	10	2032		\$30,000		\$30,000		\$60,000	2	
Chemical Building	Mechanical	Peristaltic pump, 4	2012	\$20,000	15	2027	5	2027	\$20,000			\$20,000		\$60,000	3	
Chemical Building	Miscellaneous	Eyewash station	2012	\$16,000	20	2032	10	2032		\$16,000		\$16,000		\$32,000	2	
Chemical Building	Process	Ferric chloride tank	2012	\$55,000	30	2042	20	2042				\$55,000		\$55,000	1	
Chemical Building	Process	Magnesium hydroxide tank	2012	\$80,000	30	2042	20	2042				\$80,000		\$80,000	1	
Chemical Building	Structural	Concrete foundation and floor	2012	\$80,000	75	2087	65	2087						\$0	0	
Chemical Building	Structural	Doors	2012	\$20,000	40	2052	30	2052				\$20,000		\$20,000	1	
Chemical Building	Structural	Pre-fab structure	2012	\$120,000	75	2087	65	2087						\$0	0	
Chemical Building	Structural	Roof	2012	\$30,000	50	2062	40	2062					\$30,000	\$30,000	1	
Chemical Building	Structural	Windows	2012	\$20,000	30	2042	20	2042				\$20,000		\$20,000	1	
Chlorine Contact Chambers	Structural	Concrete chamber #1	1986	\$60,000	75	2061	39	2061				\$60,000		\$60,000	1	
Chlorine Contact Chambers	Structural	Concrete chamber #2	1986	\$60,000	75	2061	39	2061				\$60,000		\$60,000	1	
Chlorine Contact Chambers	Structural	Distribution box chlorine contact tank #2	1986	\$60,000	75	2061	39	2061				\$60,000		\$60,000	1	
Headworks Room	HVAC	Unit heater	1986	\$12,000	20	2006	-16	2022	\$12,000			\$12,000		\$36,000	3	
Headworks Room	Mechanical	Grit aeration tank	1986	\$0	75	2061	39	2061				\$0		\$0	0	
Headworks Room	Mechanical	Grit screw conveyer	1986	\$24,000	15	2001	-21	2022	\$24,000	\$24,000		\$24,000	\$24,000	\$96,000	4	
Headworks Room	Mechanical	Grit strainer	2007	\$6,000	15	2022	0	2022	\$6,000	\$6,000		\$6,000	\$6,000	\$24,000	4	
Headworks Room	Mechanical	Grit washing unit	2003	\$12,000	15	2018	-4	2022	\$12,000	\$12,000		\$12,000	\$12,000	\$48,000	4	
Headworks Room	Mechanical	Grit collector	2007	\$12,000	15	2022	0	2022	\$12,000	\$12,000		\$12,000	\$12,000	\$48,000	4	
Headworks Room	Mechanical	Influent meter	2003	\$5,000	10	2013	-9	2022	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000	5	
Headworks Room	Mechanical	Screw Pump #1	2013	\$400,000	20	2033	11	2033	\$400,000	\$400,000		\$400,000		\$800,000	2	
Headworks Room	Mechanical	Screw Pump #2	2013	\$400,000	20	2033	11	2033	\$400,000	\$400,000		\$400,000		\$800,000	2	
Headworks Room	Process	Process piping and valves	1986	\$40,000	50	2036	14	2036		\$40,000				\$40,000	1	
Headworks Room	Process	Bar rack	1986	\$18,000	40	2026	4	2026	\$18,000				\$18,000	\$36,000	2	
Headworks Room	Process	Parshall flume	1995	\$20,000	60	2055	33	2055				\$20,000		\$20,000	1	
Lagoons	Process	Floating aeration system lagoon #1	2021	\$400,000	20	2041	19	2041		\$400,000		\$400,000		\$800,000	2	
Lagoons	Process	Floating baffle lagoon #1	2012	\$12,000	15	2027	5	2027	\$12,000		\$12,000	\$12,000		\$36,000	3	
Lagoons	Process	Sludge removal lagoon #1	2003	\$400,000	30	2033	11	2033		\$400,000		\$400,000	\$400,000	\$800,000	2	
Lagoons	Process	Floating aeration system lagoon #2	2012	\$170,000	20	2032	10	2032		\$170,000		\$170,000		\$340,000	2	
Lagoons	Process	Sludge removal lagoon #2	2013	\$200,000	30	2043	21	2043			\$200,000			\$200,000	1	
Lagoons	Process	Floating aeration system lagoon #3	2012	\$100,000	20	2032	10	2032		\$100,000		\$100,000		\$200,000	2	
Lagoons	Process	Sludge removal lagoon #3	1986	\$200,000	50	2036	14	2036		\$200,000				\$200,000	1	
Lagoons	Process	Lagoon Liner Replacement #1	1986	\$1,250,000	50	2036	14	2036		\$1,250,000				\$1,250,000	1	
Lagoons	Process	Lagoon Liner Replacement #2	1986	\$650,000	50	2036	14	2036		\$650,000				\$650,000	1	
Lagoons	Process	Lagoon Liner Replacement #3	1986	\$650,000	50	2036	14	2036		\$650,000				\$650,000	1	
Landscape	Site	Paved access drive overlay	1986	\$30,000	10	1996	-26	2022	\$30,000	\$30,000		\$30,000	\$30,000	\$150,000	5	
Landscape	Site	Perimeter fence	1986	\$100,000	30	2016	-6	2022	\$100,000			\$100,000		\$200,000	2	
Operations Building	Electrical	Exterior lighting	1986	\$24,000	20	2006	-16	2023	\$24,000			\$24,000		\$72,000	3	
Operations Building	Electrical	Interior lighting	1986	\$24,000	40	2026	4	2026	\$24,000			\$24,000		\$48,000	2	
Operations Building	HVAC	Air conditioning system	1986	\$6,000	10	1996	-26	2022	\$6,000	\$6,000		\$6,000	\$6,000	\$30,000	5	
Operations Building	HVAC	Boiler	1986	\$24,000	20	2006	-16	2023	\$24,000			\$24,000		\$72,000	3	
Operations Building	HVAC	Exhaust vent	1986	\$6,000	25	2011	-11	2022	\$6,000		\$6,000			\$12,000	2	
Operations Building	Miscellaneous	Sink and Laboratory Equipment	1986	\$40,000	30	2016	-6	2022	\$40,000			\$40,000		\$80,000	2	
Operations Building	Miscellaneous	Bathroom and Fixtures	1986	\$20,000	20	2006	-16	2022	\$20,000		\$20,000		\$20,000	\$60,000	3	
Operations Building	Structural	Concrete block walls, foundation, floor	1986	\$510,000	75	2061	39	2061				\$510,000		\$510,000	1	
Operations Building	Structural	Exterior doors	1986	\$12,000	40	2026	4	2023	\$12,000				\$12,000	\$24,000	2	
Operations Building	Structural	Interior doors	1986	\$12,000	75	2061	39	2061				\$12,000		\$12,000	1	
Operations Building	Structural	Roof	1986	\$68,000	25	2011	-11	2022	\$68,000		\$68,000			\$136,000	2	
Operations Building	Structural	Windows	1986	\$24,000	30	2016	-6	2022	\$24,000			\$24,000		\$48,000	2	
Septage Receiving	Electrical	PLC Panel #2	2012	\$24,000	15	2027	5	2027	\$24,000			\$24,000		\$72,000	3	
Septage Receiving	Structural	Concrete tank septage receiving	1986	\$0	75	2061	39	2061				\$0		\$0	0	
Utility Room	HVAC	Unit heater	1986	\$12,000	20	2006	-16	2023	\$12,000			\$12,000		\$36,000	3	
Utility Room	Mechanical	Plant water pump	1990	\$6,000	20	2010	-12	2022	\$6,000			\$6,000		\$18,000	3	
Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #1	1986	\$6,000	10	1996	-26	2022	\$6,000	\$6,000		\$6,000	\$6,000	\$30,000	5	
Utility Room	Mechanical	Sodium Hypochlorite Metering Pump #2	1986	\$6,000	10	1996	-26	2022	\$6,000	\$6,000		\$6,000	\$6,000	\$30,000	5	
Utility Room	Process	Plant water pressure tank	1986	\$12,000	50	2036	14	2036		\$12,000				\$12,000	1	
Utility Room	Process	Sodium Hypochlorite Tank	1986	\$20,000	50	2036	14	2036		\$20,000				\$20,000	1	

Appendix A - 6.1

HWSC Gravity Main to Replace Within 10 Years			
Material	Asset ID	Main	
		Length (LF)	Replacement Cost
AC			
6 inch diameter	SSGM-5065	426.68	\$256,008
	SSGM-5091	325.17	\$195,102
	SSGM-5226	324.34	\$194,604
	SSGM-5396A	20.50	\$12,300
8 inch diameter	SSGM-5359	237.62	\$142,572
DI			
10 inch diameter	SSGM-5293A	41.53	\$24,918
VC			
6 inch diameter	SSGM-5009	143.90	\$86,340
	SSGM-5011	339.31	\$203,586
	SSGM-5017	87.46	\$52,476
	SSGM-5019	60.42	\$36,252
	SSGM-5020	415.80	\$249,480
	SSGM-5022	207.19	\$124,314
	SSGM-5024	114.30	\$68,580
	SSGM-5025	130.50	\$78,300
	SSGM-5033	98.85	\$59,310
	SSGM-5047	119.54	\$71,724
	SSGM-5047A	128.69	\$77,214
	SSGM-5054	402.62	\$241,572
	SSGM-5058	138.86	\$83,316
	SSGM-5068	217.95	\$130,770
	SSGM-5069	254.88	\$152,928
	SSGM-5070	168.07	\$100,842
	SSGM-5074	116.90	\$70,140
	SSGM-5092	309.16	\$185,496
	SSGM-5099	208.52	\$125,112
	SSGM-5108	286.40	\$171,840
	SSGM-5111	315.11	\$189,066
	SSGM-5118	150.92	\$90,552
	SSGM-5125	241.80	\$145,080
	SSGM-5126	290.35	\$174,210
	SSGM-5131	466.33	\$279,798
	SSGM-5133	279.63	\$167,778
	SSGM-5137	352.47	\$211,482
	SSGM-5138	468.76	\$281,256
	SSGM-5159	241.39	\$144,834
	SSGM-5161	296.21	\$177,726
	SSGM-5165	456.50	\$273,900
	SSGM-5168	242.69	\$145,614
SSGM-5182	284.03	\$170,418	
SSGM-5188	333.11	\$199,866	
SSGM-5201	24.37	\$14,622	
SSGM-5202	54.61	\$32,766	
SSGM-5202A	513.82	\$308,292	
SSGM-5218	309.60	\$185,760	
SSGM-5220	345.33	\$207,198	
SSGM-5221	390.90	\$234,540	
SSGM-5229	70.42	\$42,252	
SSGM-5232	140.01	\$84,006	
SSGM-5242	373.26	\$223,956	

HWSC Gravity Main to Replace Within 10 Years

Appendix A - 6.1

HWSC Gravity Main to Replace Within 10 Years				
Material	Asset ID	Main		
		Length (LF)	Replacement Cost	
6 inch diameter	SSGM-5244	59.36	\$35,616	
	SSGM-5247	81.72	\$49,032	
	SSGM-5253	65.65	\$39,390	
	SSGM-5269	74.73	\$44,838	
	SSGM-5271	182.58	\$109,548	
	SSGM-5275	94.17	\$56,502	
	SSGM-5277	238.29	\$142,974	
	SSGM-5279	76.48	\$45,888	
	SSGM-5285	327.45	\$196,470	
	SSGM-5304	302.28	\$181,368	
	SSGM-5310	192.41	\$115,446	
	SSGM-5333	70.82	\$42,492	
	SSGM-5336	237.64	\$142,584	
	SSGM-5342	96.46	\$57,876	
	SSGM-5351	308.13	\$184,878	
	SSGM-5360	151.05	\$90,630	
	SSGM-5361	404.19	\$242,514	
	SSGM-5362	237.78	\$142,668	
	SSGM-5370	321.21	\$192,726	
	SSGM-5371	336.01	\$201,606	
	SSGM-5379	268.51	\$161,106	
	SSGM-5380	158.89	\$95,334	
	SSGM-5381	153.75	\$92,250	
	SSGM-5396	245.43	\$147,258	
	SSGM-5417	158.76	\$95,256	
	SSGM-5424	87.20	\$52,320	
	SSGM-5428	320.52	\$192,312	
	SSGM-5434	325.84	\$195,504	
	SSGM-5435	352.52	\$211,512	
	SSGM-5436	190.71	\$114,426	
	8 inch diameter	SSGM-5012	209.32	\$125,592
		SSGM-5026	401.09	\$240,654
		SSGM-5052	299.33	\$179,598
SSGM-5093		235.67	\$141,402	
SSGM-5109		238.64	\$143,184	
SSGM-5121		123.82	\$74,292	
SSGM-5128		147.83	\$88,698	
SSGM-5139		334.19	\$200,514	
SSGM-5157		354.18	\$212,508	
SSGM-5164		201.56	\$120,936	
SSGM-5198		149.96	\$89,976	
SSGM-5243		231.02	\$138,612	
SSGM-5268		210.74	\$126,444	
SSGM-5289		166.56	\$99,936	
SSGM-5293		180.47	\$108,282	
SSGM-5305		72.66	\$43,596	
SSGM-5386		233.17	\$139,902	
SSGM-5426		128.65	\$77,190	
SSGM-5427		36.10	\$21,660	
SSGM-5427A		288.31	\$172,986	
Unknown	SSGM-5225	276.17	\$165,702	
Grand Total		22,606.76	\$13,564,056	

HWSC Gravity Main to Replace Within 10 Years

Appendix A - 6.2

HWSC Vertical Assets to Replace Within 10 Years					
Asset Type	2022	2023	2026	2027	2041
Bear Hill Pump Station					
Pump Station					
Alarm control box	\$2,000				
Electrical panel	\$15,000				
Pump #2	\$15,000				
Pump controls	\$10,000				
Sump pump and piping	\$2,000				
Switches and Floats		\$3,000			
Ventallation Blower and piping	\$5,000				
HWSC WWTF					
Blower Room					
Blower #1				\$75,000	
Blower #2				\$75,000	
Blower #3				\$75,000	
Fuel Tank			\$4,000		
Generator	\$80,000				
Grit aeration tank blower	\$0				
Chemical Building					
Electrical and Instrumentation				\$90,000	
Peristaltic pump, 4				\$20,000	
Headworks Room					
Bar rack			\$18,000		
Grit collector	\$12,000				
Grit screw conveyer	\$24,000				
Grit strainer	\$6,000				
Grit washing unit	\$12,000				
Influent meter	\$5,000				
Unit heater	\$12,000				
Lagoons					
Floating aeration system lagoon #1					\$400,000
Floating baffle lagoon #1				\$12,000	
Landscape					
Paved access drive overlay	\$30,000				
Perimeter fence	\$100,000				
Operations Building					
Air conditioning system	\$6,000				
Bathroom and Fixtures	\$20,000				
Boiler		\$24,000			
Exhaust vent	\$6,000				
Exterior doors		\$12,000			
Exterior lighting		\$24,000			
Interior lighting			\$24,000		
Roof	\$68,000				
Sink and Laboratory Equipment	\$40,000				
Windows	\$24,000				
Septage Receiving					
PLC Panel #2				\$24,000	
Utility Room					
Plant water pump	\$6,000				
Sodium Hypochlorite Metering Pump #1	\$6,000				
Sodium Hypochlorite Metering Pump #2	\$6,000				
Unit heater		\$12,000			
W Main Street Pump Station					
Pump Station					

Appendix A - 6.2

HWSC Vertical Assets to Replace Within 10 Years					
Asset Type	2022	2023	2026	2027	2041
Alarms and Controls	\$24,000				
Buried fiberglass oil tank			\$48,000		
Compressor #1	\$12,000				
Compressor #2	\$12,000				
Dehumidifier	\$1,000				
Doors	\$12,000				
Flow meter	\$6,000				
Inline exhaust fan	\$6,000				
Liquid level control			\$10,000		
Pump #1	\$24,000				
Pump #2	\$24,000				
Roof	\$4,000				
Sump pump and piping	\$6,000				
Telemetry control panels			\$15,000		
Transfer panel and Electrical			\$24,000		
Unit heater #1	\$3,000				
Unit heater #2	\$3,000				
Unit heater #3	\$3,000				
Unit heater #4	\$3,000				
Grand Total	\$655,000	\$75,000	\$143,000	\$371,000	\$400,000

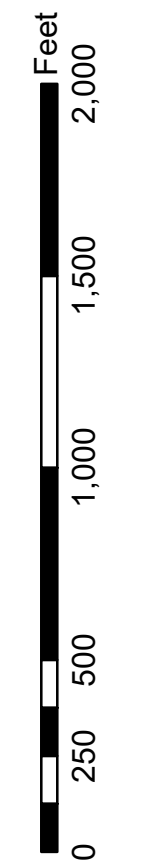
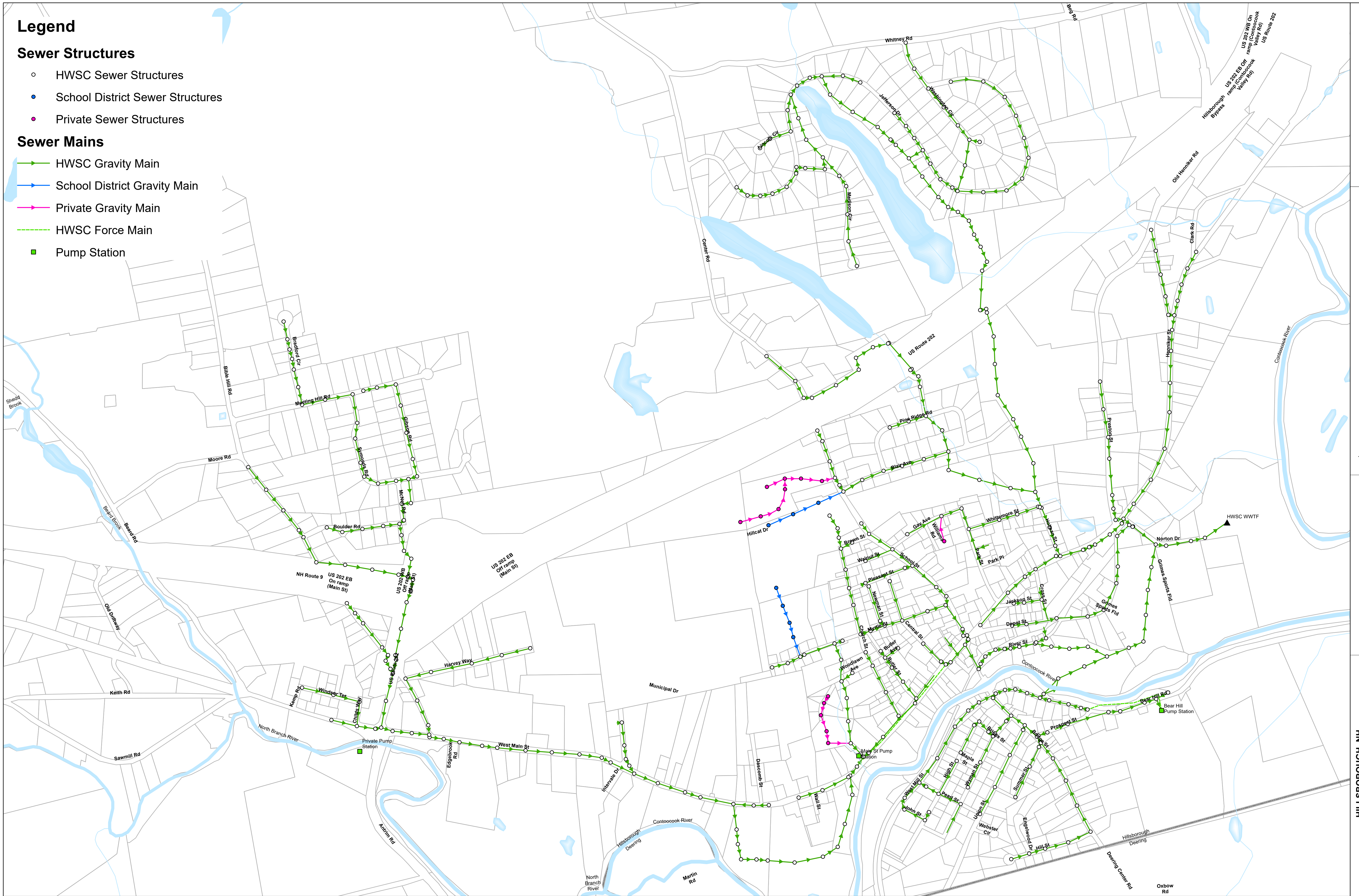
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Sewer Structures

- HWSC Sewer Structures
- School District Sewer Structures
- Private Sewer Structures

Sewer Mains

- HWSC Gravity Main
- School District Gravity Main
- Private Gravity Main
- HWSC Force Main
- Pump Station



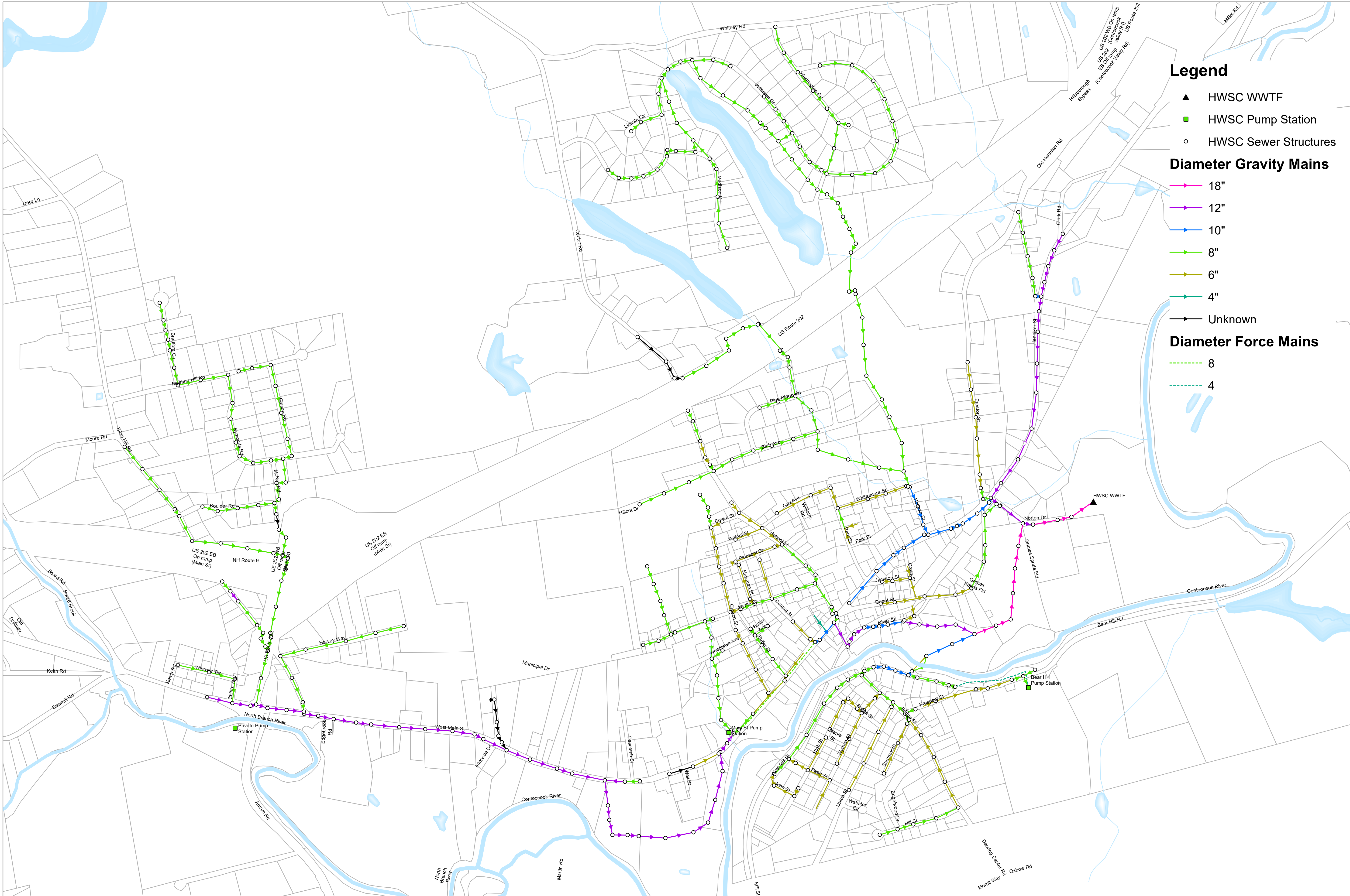
1 inch = 494 feet

99 N. State Street
Concord, N.H. 03301
Tel: 603-251-5889
Fax: 603-251-5889

25 Vaughan Mall
Portsmouth, N.H. 03801
Tel: 603-431-4733
Fax: 603-431-4733

Date: April 2022

Project No. 2634



Legend

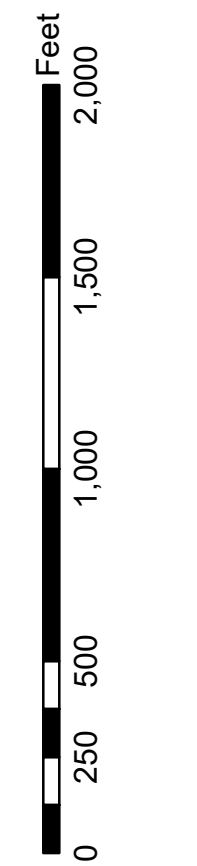
- ▲ HWSC WWTf
- HWSC Pump Station
- HWSC Sewer Structures

Diameter Gravity Mains

- 18" (Pink arrow)
- 12" (Purple arrow)
- 10" (Blue arrow)
- 8" (Green arrow)
- 6" (Yellow arrow)
- 4" (Teal arrow)
- Unknown (Black arrow)

Diameter Force Mains

- 8 (Dashed green line)
- 4 (Dashed teal line)



1 inch = 500 feet

99 N. State Street
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Fax: 603-230-5899

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Portsmouth, N.H. 03801
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Fax: 603-431-4733

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WASTEWATER
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Date: April 2022

Project No. 2634

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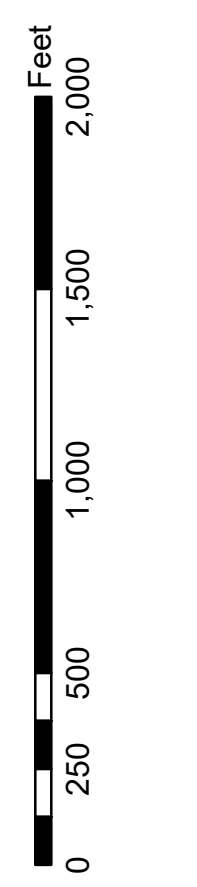
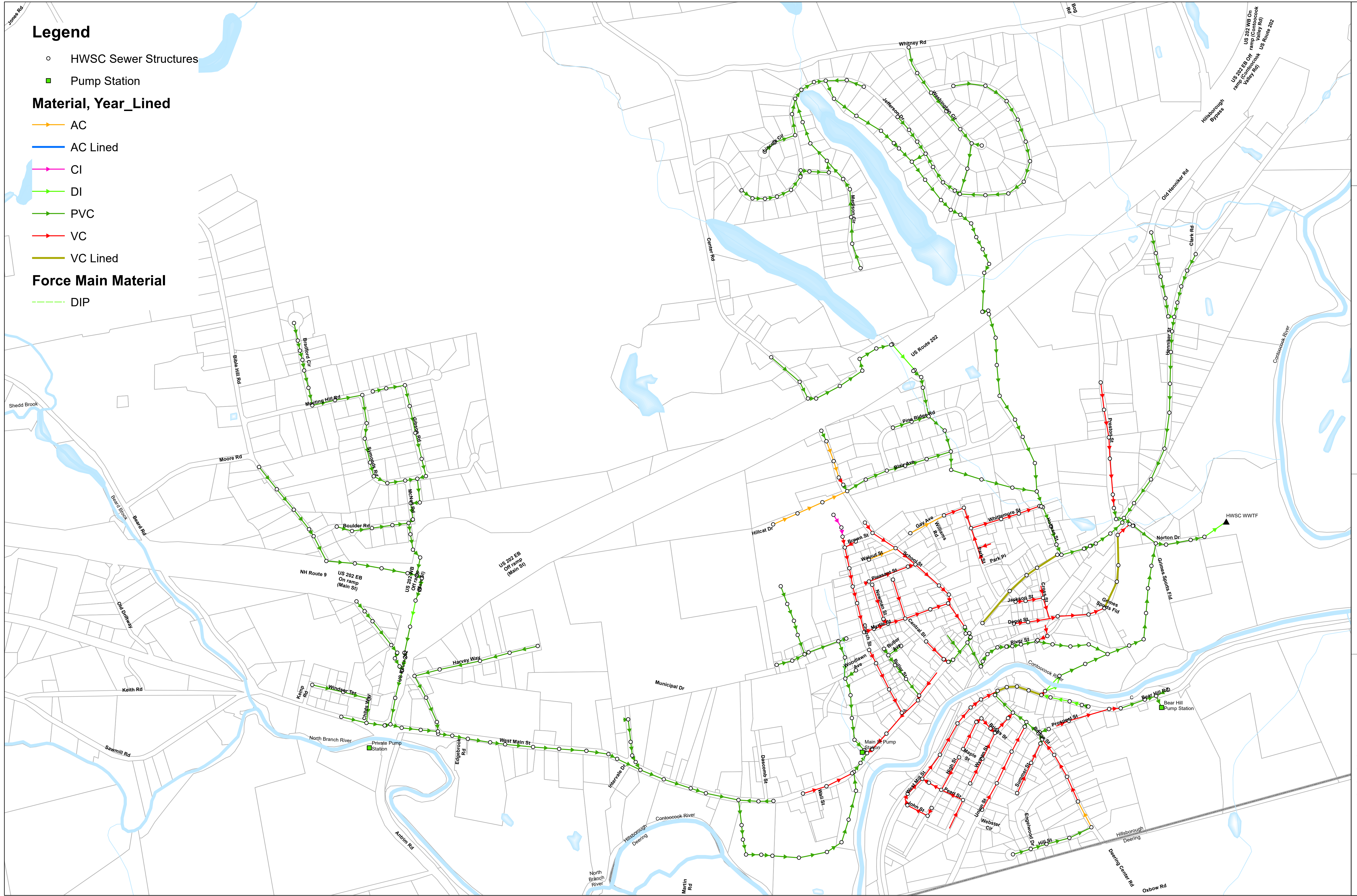
- HWSC Sewer Structures
- Pump Station

Material, Year_Lined

- AC
- AC Lined
- CI
- DI
- PVC
- VC
- VC Lined

Force Main Material

- DIP



1 inch = 500 feet

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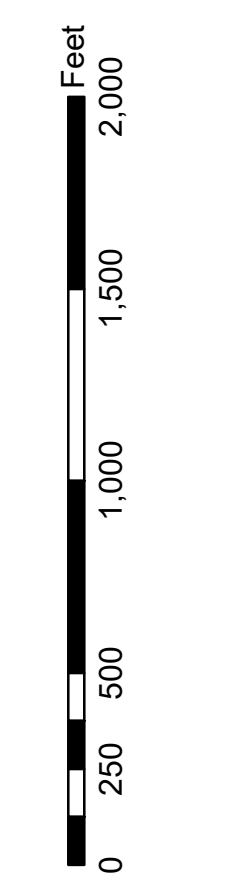
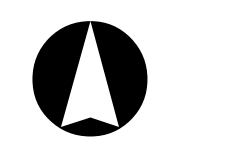
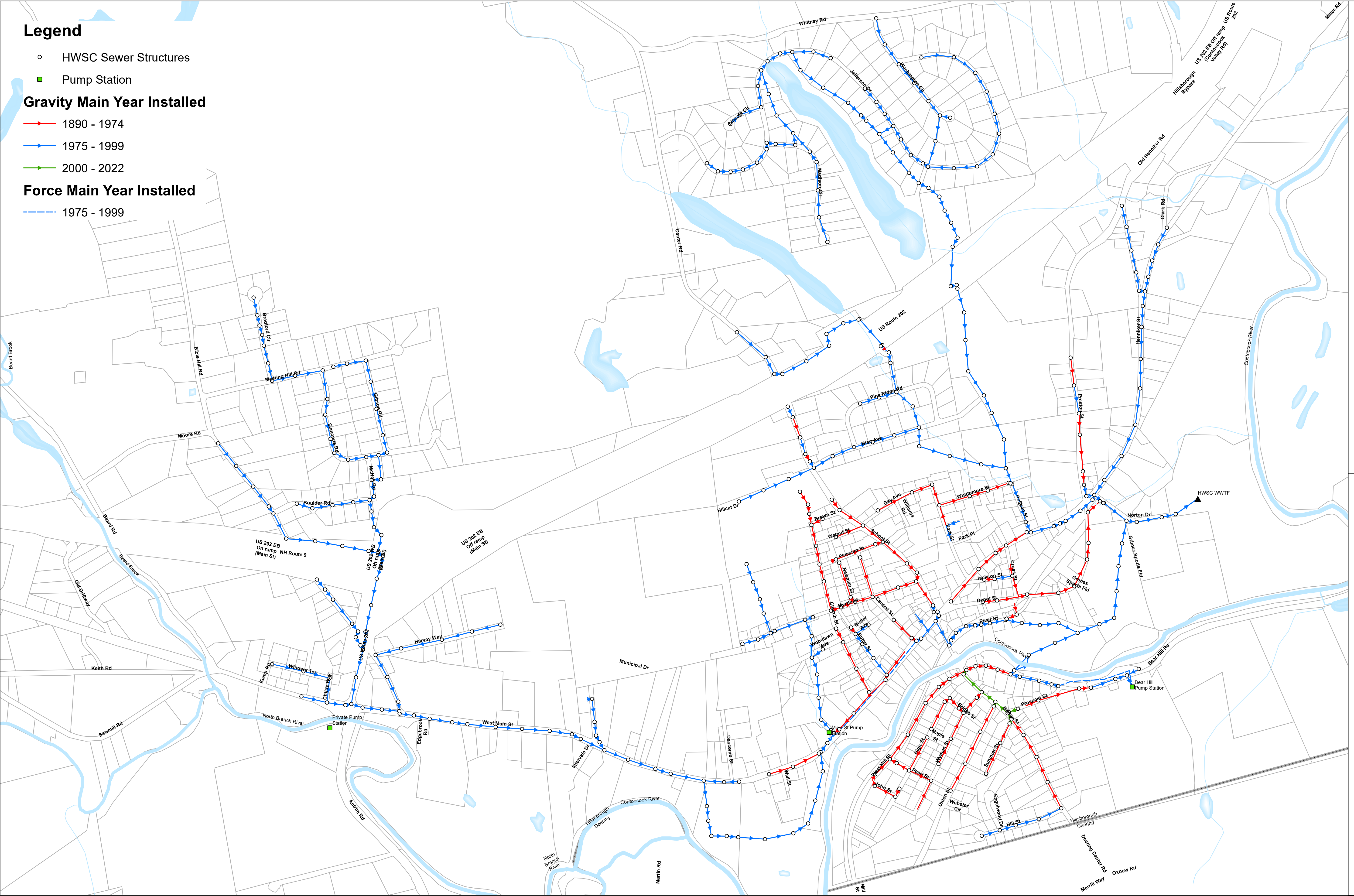
- HWSC Sewer Structures
- Pump Station

Gravity Main Year Installed

- 1890 - 1974
- 1975 - 1999
- 2000 - 2022

Force Main Year Installed

- 1975 - 1999



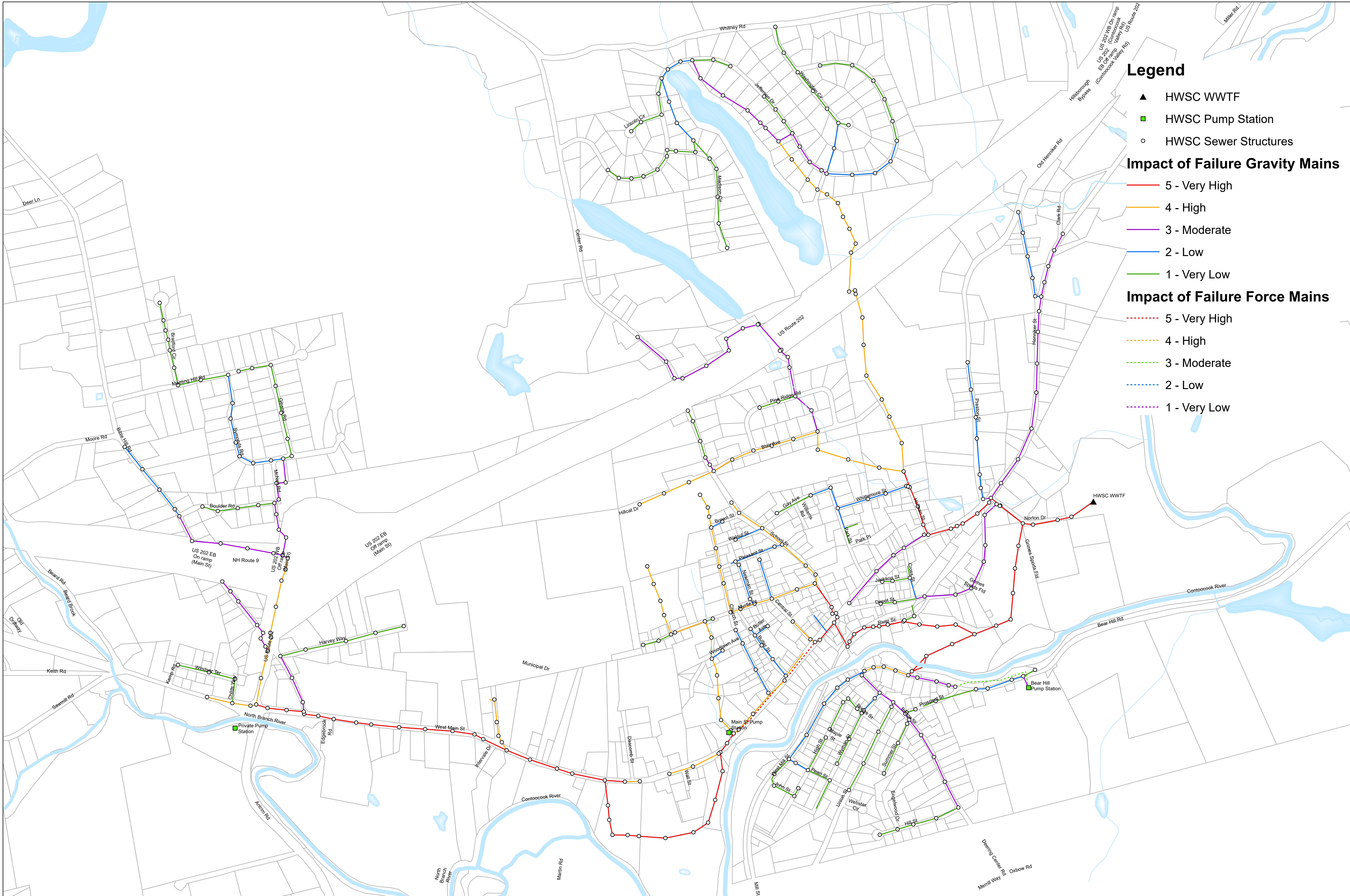
1 inch = 494 feet

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 Portsmouth, N.H. 03801
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 Fax: 603-230-5889

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 Portsmouth, N.H. 03801
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 Fax: 603-431-4733

Date: April 2022

Project No. 2634



Legend

- ▲ HWSC WWTF
- HWSC Pump Station
- HWSC Sewer Structures

Impact of Failure Gravity Mains

- 5 - Very High
- 4 - High
- 3 - Moderate
- 2 - Low
- 1 - Very Low

Impact of Failure Force Mains

- - - 5 - Very High
- - - 4 - High
- - - 3 - Moderate
- - - 2 - Low
- - - 1 - Very Low



1 inch = 500 feet

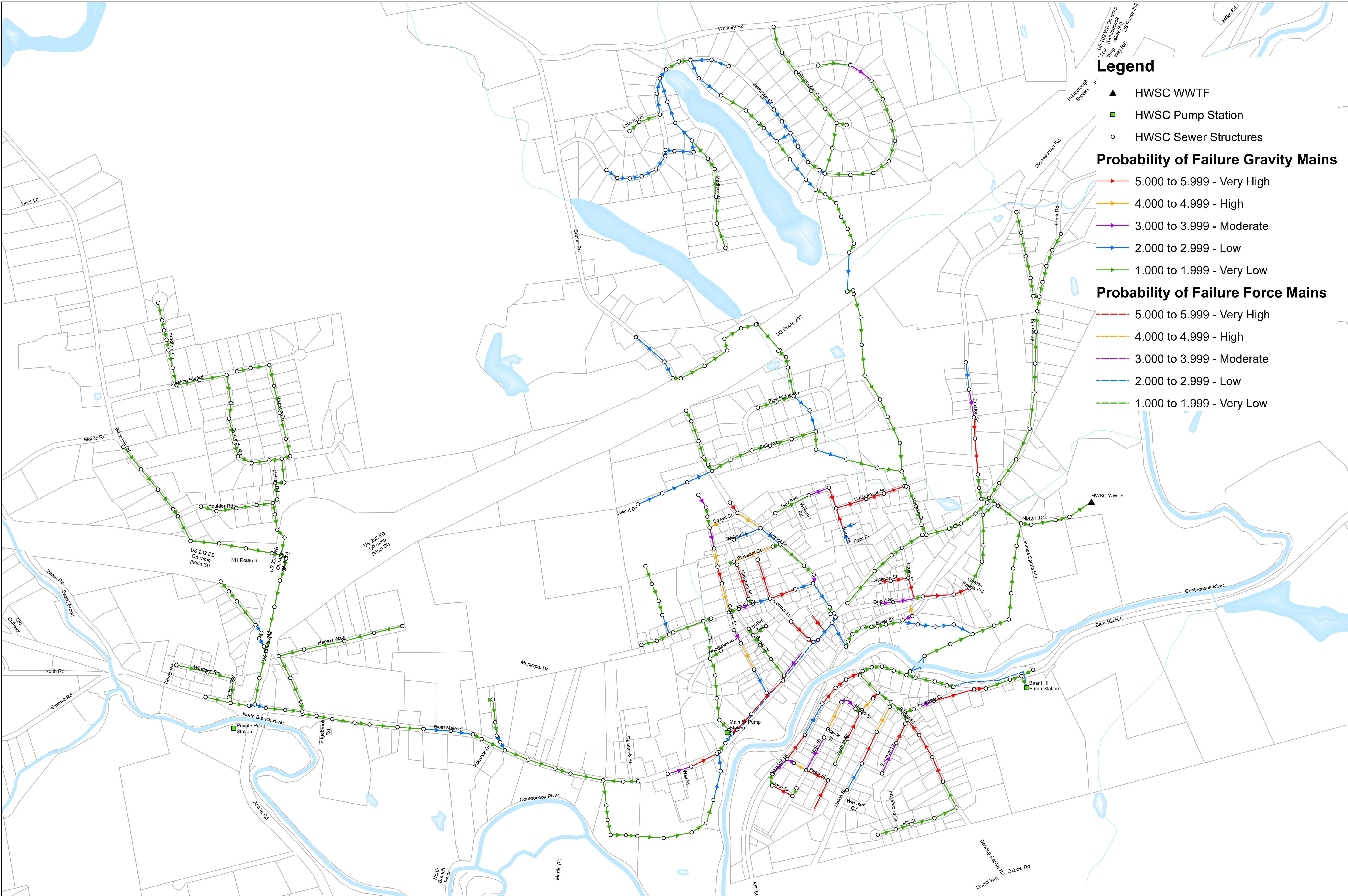
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WATER AND SEWER COMMISSION
WASTEWATER
ASSET MANAGEMENT PROGRAM

Date: April 2022

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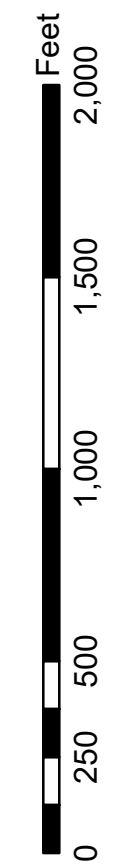
- ▲ HWSC WWTF
- HWSC Pump Station
- HWSC Sewer Structures

Probability of Failure Gravity Mains

- 5.000 to 5.999 - Very High
- 4.000 to 4.999 - High
- 3.000 to 3.999 - Moderate
- 2.000 to 2.999 - Low
- 1.000 to 1.999 - Very Low

Probability of Failure Force Mains

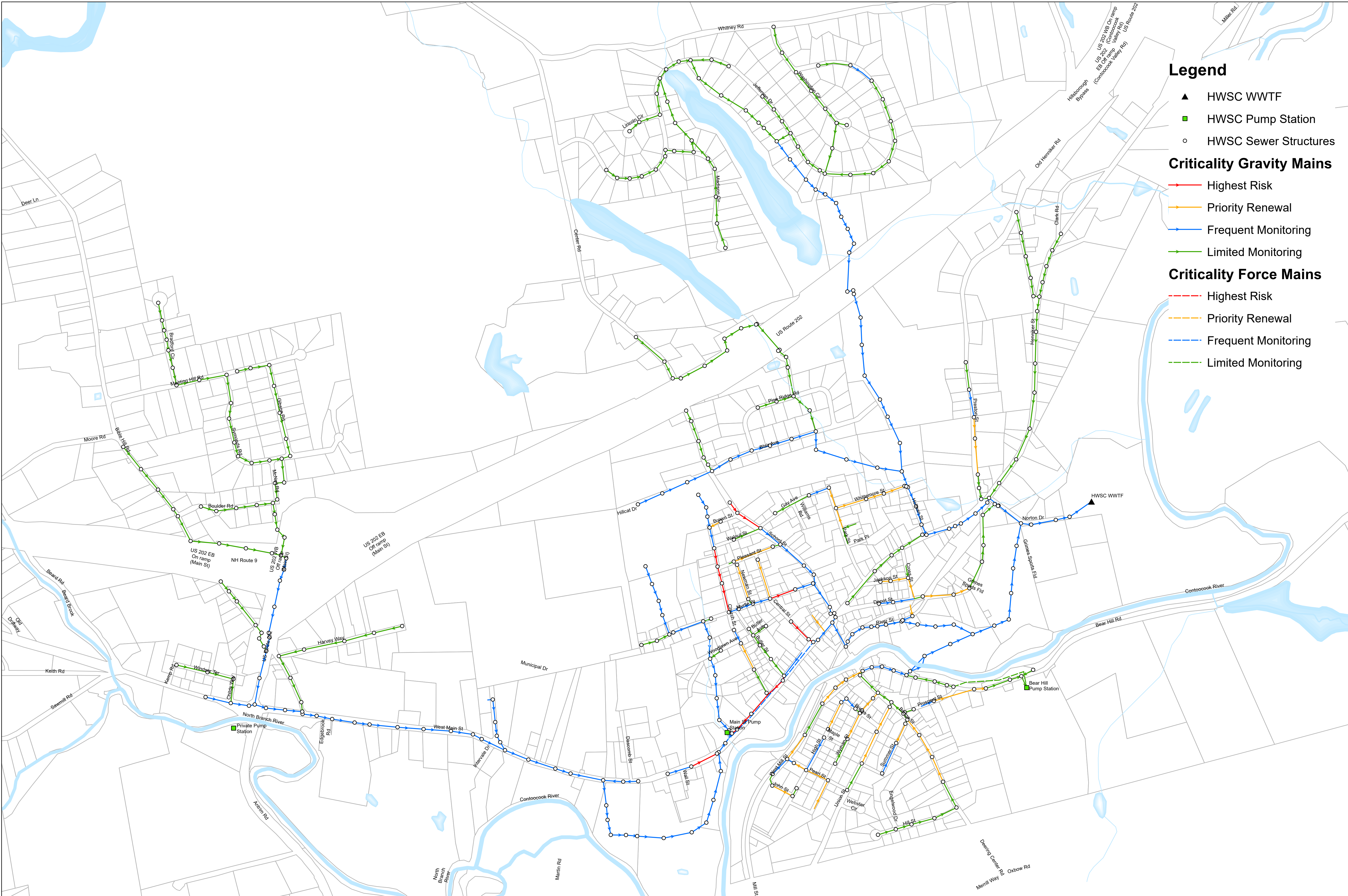
- 5.000 to 5.999 - Very High
- 4.000 to 4.999 - High
- 3.000 to 3.999 - Moderate
- 2.000 to 2.999 - Low
- 1.000 to 1.999 - Very Low



1 inch = 500 feet

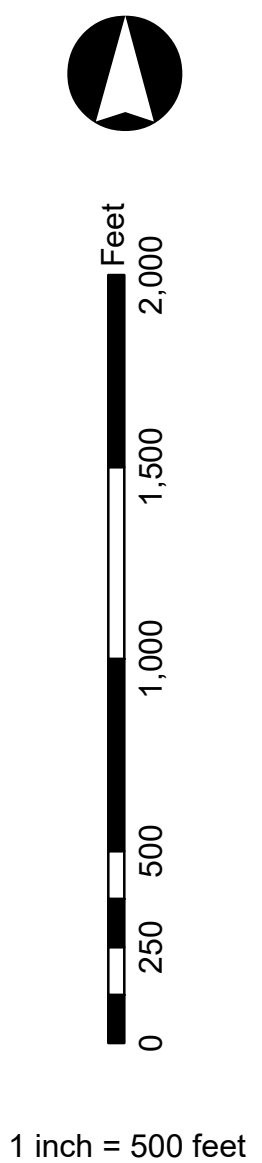
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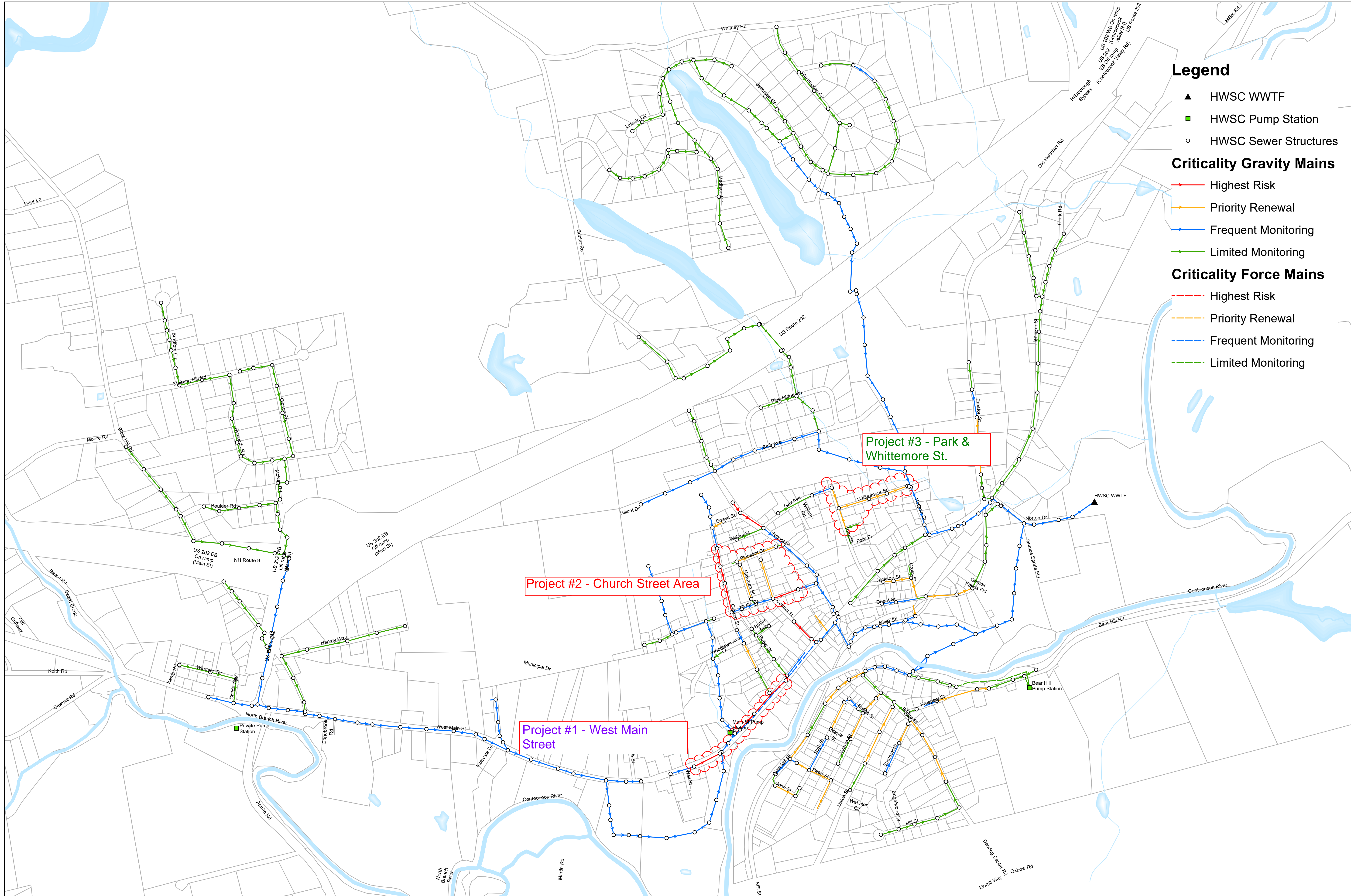
Legend

- ▲ HWSC WWTF
 - HWSC Pump Station
 - HWSC Sewer Structures
- #### Criticality Gravity Mains
- Highest Risk
 - Priority Renewal
 - Frequent Monitoring
 - Limited Monitoring
- #### Criticality Force Mains
- - - Highest Risk
 - - - Priority Renewal
 - - - Frequent Monitoring
 - - - Limited Monitoring



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HILLSBOROUGH, NH
WATER AND SEWER COMMISSION
WASTEWATER
ASSET MANAGEMENT PROGRAM
Date: April 2022
Project No. 2634



Legend

- ▲ HWSC WWTF
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- - - Highest Risk
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