

## **Appendix C: Gravity Sewer System Final Condition Assessment Report**

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## List of Abbreviations

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AC	Asbestos Cement
CA	Condition Assessment
CAP	Condition Assessment Program
CCTV	Closed Circuit Television
CI	Cast Iron
CIP	Capital Improvement Program
DEQ	(Virginia) Department of Environmental Quality
DI	Ductile Iron
EPA	(United States) Environmental Protection Agency
ESVC	Extra Strength Vitrified Clay
FM	Force Main
HDPE	High Density Polyethylene
IR	Infiltration Runner
LF	Linear Feet
MACP	Manhole Assessment and Certification Program
MH	Manhole
MOM	Management, Operations and Maintenance
N/A	Not Applicable
NASSCO	National Association of Sewer Service Companies
PACP	Pipeline Assessment and Certification Program
PCAR	Preliminary Condition Assessment Report
PCCP	Prestressed Concrete Cylinder Pipe
PE	Polyethylene
PRS	Pressure Reducing Station
PS	Pumping Station
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
RCCP	Reinforced Concrete Cylinder Pipe
RTS	Regional Technical Standards
SCADA	Supervisory Control and Data Acquisition
SOC	Special Order by Consent
SP	Steel Pipe
SSES	Sanitary Sewer Evaluation and Survey
SSO	Sanitary Sewer Overflow
STP	Sewage Treatment Plant
TBD	To Be Determined
TP	Treatment Plant
VC	Vitrified Clay
WO	Work Order
ZZZ	Unknown Material Type

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## Section 1

# Introduction

This report is an Appendix to HRSD's Rehabilitation Action (Rehab) Plan to satisfy the requirements of the United State's Environmental Protection Agency (EPA) Consent Decree as well as the Virginia Department of Environmental Quality (DEQ) Special Order by Consent (SOC) for reporting on results of the Condition Assessment Plan (CAP). This document summarizes results related to HRSD's gravity systems. Appendices A, B, D and E satisfy the remaining reporting requirements of the CAP. Assets found presenting material risk of failure, as described further in this report, are referenced in the main document, the Rehabilitation Action Plan.

The HRSD gravity system consists of approximately 50 miles of pipelines and associated manholes. As part of the Condition Assessment Program (CAP) field activities, the gravity sewers within the HRSD sanitary sewer system were inspected for structural integrity and maintenance issues. The CAP field activities of gravity systems assessed over 260,000 linear feet (LF) of pipelines, 1290 manholes, and 17 siphon chambers using internal inspection technologies including closed-circuit television (CCTV), sonar, and laser profiling. The work performed was in accordance with the National Association of Sewer Service Companies (NASSCO) standards.

The primary purpose of the CAP was to identify HRSD assets that present a "material risk of failure." For the purposes of this document, "failure" means any condition resulting in a sanitary sewer overflow, pipe leakage, or interruption of service to HRSD's customers, due to a physical condition defect in the system.

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## Section 2

# Gravity Sewer Condition Assessment

Gravity sewers within the HRSD sanitary sewer system were inspected for structural integrity and maintenance issues. The inspections were consistent with the CAP and Sanitary Sewer Evaluation Survey (SSES) Plan.

## 2.1 Gravity Field Inspection

HRSD's gravity mains consist of approximately 50 miles of pipeline of diameters ranging from 8" to 52". The 50 miles of HRSD gravity pipe are spread out across the entire HRSD service area of approximately 3,100 square miles. The greater challenge than the length of pipe was the physical separation of the assets with many inspections being 300 LF or less which had the effect of reducing productivity to 1,000 LF per day or less at times. In addition, segments with angular pipe geometry, such as siphons, and assets with limited access further increased the total inspection duration. In addition to the inspection process, HRSD removed hundreds of cubic yards of debris during the program to ensure proper sewer operation and to allow for a higher quality inspections.

## 2.2 Data Reporting

HRSD's gravity sewer network consists of assets including pipelines, manholes and siphon chambers. Each gravity sewer asset is associated with a line number. HRSD gravity line numbers typically begin with "NG" or "SG" which denotes the North or South Shore ("N" and "S") and that the asset is part of the gravity system ("G"). Manholes use the same nomenclature but are noted with the "MH" prefix. Table C-1. Overall Gravity System Inspections Summary provides a high level summary of the gravity sewer system inspections performed under the CAP.

Throughout the CAP, HRSD continuously improved and modified the mapping of the sanitary sewer system. As part of the Preliminary Condition Assessment Report (PCAR), HRSD submitted a list of gravity lines and manholes in *Table C-1. HRSD Gravity Mains (Updated May 2010)*. Each gravity line from the PCAR with the pipe length and the number of associated manholes is listed within Section 3 of this report in Table C-2. Gravity System Inspections Summary. This table provides an inspection summary by line with detailed comments regarding any changes from the anticipated inspections listed in the PCAR. Many of the changes from the anticipated inspections are a result of line nomenclature changes that occurred as HRSD updated system mapping. Table C-2 also contains a list of HRSD lines which were not included in the PCAR but were inspected during the CAP. These lines consist of primarily pump station yard piping and other short segments. Pump station yard piping is designated as "SPS" or "NPS" in the HRSD system which denotes North or South Shore and that the line is related to a pump station.

Table C-1. Overall HRSD Gravity System Inspections Summary		
Pipelines (LF)	Active System Length as of August 2012	262,000 LF
	Reported Inspection Length*	260,000 LF
	*Difference in Active System Length and Reported Inspection Length is attributed to inaccessible segments as well as inspections which had to be abandoned due to defects.	
Manholes	Number of Active Manholes/Structures as of August 2012	1,310
	Total Reported Manholes/Structures*	1,274*
	*36 Manholes were newly installed during the CAP	

### 2.3 Data Management

Each inspection performed by HRSD resulted in collected data including, but not limited to, Pipeline Assessment and Certification Program/Manhole Assessment and Certification Program (PACP/MACP) defect data, CCTV videos, sonar data, laser profiling data, photographs and asset measurements. HRSD utilized Innozyze® InfoNet Suite software as its PACP compliant database.

### 2.4 Data Evaluation

The condition data collected by HRSD during the CAP field activities is summarized in the Gravity Pipeline Condition Assessment (CA) Summary by Treatment Plant (TP) Service Area Tables and Manhole Condition Assessment Summary by Treatment Plant Service Area Tables (Table C-4 through Table C-21) found in Section 3 of this report. These tables separate the gravity system by tributary TP and are sorted by line number. The tables are used to summarize the collected information and to provide a recommendation for action for each asset.

To develop the recommendations, HRSD reviewed 100% of the internal inspection data which often included Structural and O&M defect scores. Any defects scoring 3 or above for cleaning related reasons were referred to the Management, Operations and Maintenance (MOM) program. Non-cleaning related 4 and 5 defects were referred for action in the Rehab Plan. While most inspection data allowed review based on the aforementioned PACP/MACP scoring, other defects were reviewed to see if inclusion was necessary. For example, corroded metal pipe has a Structural score of 3 and would not warrant “Rehabilitation Required” based on the defect score alone. Any moderate to severely corroded metal pipe was referred for action based on further review. The comments field in the Gravity Pipelines by Treatment Plant Service Area Tables includes amplifying details as necessary when the PACP code/score alone does not warrant “Rehabilitation Required.”

The MACP version used at the time of the CAP does not have a suitable scoring method similar to PACP, therefore, manhole defects were individually reviewed and referred for action if the equivalent pipe defect in the PACP scoring would also be referred. For example, infiltration runner (IR), has a PACP score of 4, and would be referred for action. An IR in a manhole received the same recommendation as an IR for a pipeline. Similar to pipelines, the comments field in the Manhole Condition Assessment Summary by Treatment Plant Service Area Tables includes amplifying details as necessary when the PACP code/score alone does not warrant “Rehabilitation Required.”

## 2.5 Asset Recommendations

Tables C-4 through C-21 contain every inspected asset with condition information as well as recommendations for action. The asset recommendations for action are either “Rehabilitation Required” or “No Rehabilitation Required at this time.” Assets receiving a recommendation of “Rehabilitation Required” have an associated addressing activity. The addressing activity gives information on how the asset recommendation will be implemented. The addressing activity field is populated with one of the following four options:

- A Rehab Project Number, which is associated with a Rehab Project
- “Interim System Improvements”, which are the specific projects identified in the Consent Decree and are not part of the Rehab Plan
- “Rehab during CAP” is assigned when an asset has already been addressed (or work is currently being performed) under the Interim System Improvements, Capital Improvement Program (CIP) or Prompt Repairs Program. These assets needed some type of corrective action but since the work has already been performed the recommendation is “No Rehabilitation Required at this time”
- “N/A” is assigned to assets which do not present material risk of failure and no action is required

Rehab Project Numbers give information on the treatment plant tributary area and identify themselves as part of the Rehab Plan. For example, a Rehab Project numbered “AT-R1” is within the Atlantic TP service area (“AT”), is a Rehab Project (“R”) and is numbered sequentially (“1”) according to when the project was developed with respect to the other Rehab Projects.

There are assets with a recommendation of “No Rehabilitation Required at this time” but also have an associated Rehab Project Number. These assets did not meet the criteria for a “Rehabilitation Required” recommendation but were nearby or co-located with assets that did meet the criteria. These are being included in the Rehab Project so that the actions taken under the project result in contiguous improvements in those cases which it is economical to do so.

If the addressing activity is “Interim System Improvements”, the asset is within the scope of an existing project within the Consent Decree Interim System Improvements. The Interim System Improvements are a separate commitment from the Rehab Action Plan and will continue to be constructed concurrently with the Rehab Plan.

In limited cases lack of access and system configuration made inspection impractical with available inspection technologies. In these cases, other available data and system characteristics were used to determine if assets presented a material risk of failure.

Project information as well as extents of Rehab Projects can be found in the Rehab Plan.

## 2.6 History of Sanitary Sewer Overflows

As part of the CAP, HRSD is required to provide information on the history of all sanitary sewer overflows (SSOs) from HRSD’s gravity system that occurred from 1999 to 2008. A list of SSOs by HRSD Line Number can be found in Table C-3. Gravity System SSO Summary. This table summarizes SSOs through October 15, 2013.

## 2.7 Assets Presenting a Material Risk of Failure

As part of the CAP, HRSD is required to submit a list of assets that present material risk of failure. The Gravity Pipeline Condition Assessment Summary by Treatment Plant Service Area and Manhole Condition Assessment Summary by Treatment Plant Service Area Tables (Table C-4 through Table C-21) list all of HRSD’s gravity assets. Assets which present actual material risk of failure can be identified specifically

by examining the Recommended Action column. Those assets which have a recommended action of “Rehabilitation Required” have been identified as presenting material risk of failure. Assets not presenting a material risk of failure as a result of the CAP have a recommended action of “No Rehabilitation Required at this time.”



## Section 3

# Final Condition Assessment Report Tables

The tables contained in this section present a summary of the results of the HRSD Gravity System Condition Assessment Program. The content of the tables was discussed in the preceding sections. The Gravity and Manhole Condition Assessment Summary Tables reference observation codes from the NASSCO PACP and MACP. A listing of pertinent observation codes can be found in Table C-22. NASSCO Defect Code Reference.

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Table C-2. Gravity System Inspections Summary										
Line Number	Primary Jurisdiction	Downstream HRSD PS#	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes / Structures Inspected	Comments
NG-034	Newport News	220	Normandy Lane	2,228	24	ESVC	10	2,194	10	None
NG-035	Newport News	220	Normandy Lane	970	18	ESVC	6	973	6	None
NG-044	Newport News	207	Center Avenue	3,168	18	VC	15	5,325	0	Additional pipe length from new construction
NG-045	Newport News	207	Center Avenue	3,498	21	VC	13	3,495	12	One manhole found as inactive
NG-052	Newport News	219	Newmarket	662	15, 18	ESVC	2	660	3	One manhole re-designated from NG-052 to NG-051
NG-053	Newport News	219	Newmarket	6,277	15, 18	ESVC	35	6,284	34	Number of manholes decreased during system mapping updates
NG-054	Newport News	207	Center Avenue	2,143	21	RCP	10	2,141	10	None
NG-056	Newport News	207	Center Avenue	281	10	ESVC	1	278	1	None
NG-057	Newport News	219	Newmarket	5,666	15	ESVC	28	6,262	28	Pipe length increased during system mapping updates
NG-062	Hampton	217	Langley Circle	119	12	VC	1	122	2	Number of manholes increased during system mapping updates
NG-063	Hampton	217	Langley Circle	3,298	12	VC	18	3,312	19	Flow control structure inspected in addition to manholes
NG-064	Hampton	217	Langley Circle	739	8, 20, 21	ESVC	2	267	1	Pipe length and number of manholes decreased during system mapping updates
NG-067	Hampton	223	Washington St	2,860	15, 18, 20, 24	VC	5	858	5	Pipe length decreased during system mapping updates
NG-070	Hampton	City of Hampton PS	None	2,995	18	VC	*TBD*	3,062	0	Ownership of line was transferred to City of Hampton.
NG-078	Hampton	223	Washington St	2,362	18	VC	13	2,366	13	None
NG-082	Hampton	223	Washington St	3,459	18	RCP	25	3,427	25	None
NG-083	Hampton	223	Washington St	930	15	RCP	7	928	7	None
NG-084	Hampton	223	Washington St	829	24, 30	RCP	4	830	4	None
NG-086	Hampton	224	Woodland Road	3,754	15	CI	22	3,567	22	Partial inspection due to defects.
NG-087	Hampton	224	Woodland Road	1,311	18	ESVC	7	1,522	7	Pipe length decreased during system mapping updates
NG-088	Hampton	204	Bloxom's Corner	4,023	10, 12	VC	25	3,889	25	None

Table C-2. Gravity System Inspections Summary

Line Number	Primary Jurisdiction	Downstream HRSD PS#	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes / Structures Inspected	Comments
NG-092	Hampton	224	Woodland Road	1,152	16, 18, 24	AC	5	747	4	Pipe length decreased during system mapping updates
NG-094	Hampton	203	Bay Shore	1,277	15, 18	ESVC	7	1,283	7	None
NG-095	Hampton	203	Bay Shore	2,752	18	ESVC	19	2,713	18	Partial inspection due to defects. Number of manholes decreased during system mapping updates
NG-098	Newport News	207	Center Avenue	4,651	18, 21, 24	ESVC	6	1,567	6	Pipe length decreased during system mapping updates
NG-099	Newport News	219	Newmarket	3,089	18	ESVC	11	3,042	11	None
NG-101	Newport News	TP	Boat Harbor	612	18, 21	VC	4	611	4	None
NG-102	Newport News	207	Center Avenue	332	18	RCP	2	332	2	None
NG-103	Newport News	TP	Boat Harbor	3,831	27	CI, RCP	21	3,842	21	None
NG-104	Newport News	207	Center Avenue	888	21	RCP	9	892	9	None
NG-106	Newport News	TP	Boat Harbor	3,610	8, 27, 36	RCP	11	3,596	11	None
NG-108	Newport News	TP	Boat Harbor	4,630	36	RCP	31	4,618	16	Number of manholes decreased during system mapping updates
NG-109	Newport News	209	Copeland Park	6,280	6, 10, 24	ESVC	29	6,228	30	Number of manholes increased during system mapping updates
NG-110	Newport News	TP	Boat Harbor	2,601	39, 42	RCP	8	2,328	6	Pipe length and number of manholes decreased during system mapping updates
NG-111	Newport News	TP	Boat Harbor	1,697	15	RCP	9	1,726	10	Number of manholes increased during system mapping updates
NG-112	Newport News	TP	Boat Harbor	911	24	RCP	3	622	2	Partial inspection because of pipe defects. One manhole replaced during CAP.
NG-114	Newport News	TP	Boat Harbor	986	42	RCP	3	1,226	5	Pipe length and number of manholes increased during system mapping updates
NG-115	Newport News	TP	Boat Harbor	719	24	RCP	4	723	4	None
NG-116	Newport News	TP	Boat Harbor	680	18	RCP	2	661	2	None
NG-117	Newport News	TP	Boat Harbor	398	18	RCP	3	397	3	None
NG-118	Newport News	TP	Boat Harbor	400	18	RCP	1	396	1	None



Table C-2. Gravity System Inspections Summary										
Line Number	Primary Jurisdiction	Downstream HRSD PS#	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes / Structures Inspected	Comments
NG-123	Newport News	201	25th Street	1,019	8, 12	RCP	10	995	11	Buried manhole discovered.
NG-124	Newport News	TP	Boat Harbor	4,348	48	RCP	18	4,212	18	Pipe length decreased during system mapping updates
NG-125	Newport News	TP	Boat Harbor	2,884	48	FRP	11	2,790	9	Pipe length and number of manholes decreased during system mapping updates
NG-126	Newport News	TP	Boat Harbor	428	18	CI	2	439	2	None
NG-127	Newport News	219	Newmarket	4,012	18, 24, 30	DI, ESVC	17	3,932	17	None
NG-129	Newport News	213	Jefferson Avenue	203	18, 20	CI	8	200	7	Number of manholes decreased during system mapping updates
NG-130X	Newport News	TP	Boat Harbor	1,063	30	DI	*TBD*	785	2	Pipe length decreased during system mapping updates
NG-134	Hampton	206	Bridge Street	475	42	DI	3	471	3	None
NG-135	Hampton	206	Bridge Street	175	42	RCP	8	169	8	None
NG-136	Hampton	206	Bridge Street	1,120	42	CI	4	1,107	4	None
NG-137	Hampton	206	Bridge Street	832	24, 30	CI	2	741	2	Pipe length decreased during system mapping updates
NG-138	Hampton	206	Bridge Street	829	42	RCP	6	783	6	Pipe length decreased during system mapping updates
NG-141	Hampton	208	Claremont	1,249	18	VC	5	1,252	5	None
NG-142	Hampton	208	Claremont	4,110	18	VC	18	4,812	15	New pipe installation. Number of manholes decreased during system mapping updates
NG-143	Hampton	208	Claremont	5,127	8, 10, 24	RCP	23	5,165	23	None
NG-146	Hampton	208	Claremont	126	24	CI	1	233	2	Pipe length decreased during system mapping updates
NG-147	Hampton	208	Claremont	2,305	24	RCP	9	2,296	8	Number of manholes decreased during system mapping updates
NG-148	Hampton	208	Claremont	3,303	24	RCP	8	3,269	8	Pipe length decreased during system mapping updates
NG-149	Hampton	208	Claremont	110	24	RCP	2	97	2	None
NG-150	Hampton	208	Claremont	1,479	24	RCP	6	1,468	5	Number of manholes decreased during system mapping updates
NG-151	Hampton	208	Claremont	48	24	RCP	1	36	2	Number of manholes increased during system mapping updates

Table C-2. Gravity System Inspections Summary

Line Number	Primary Jurisdiction	Downstream HRSD PS#	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes / Structures Inspected	Comments
NG-152	Hampton	208	Claremont	1,832	24	RCP	7	1,892	5	Number of manholes decreased during system mapping updates
NG-157	Hampton	225	Willard Avenue	613	15	RCP	2	-	0	Pipe length and number of manholes decreased during system mapping updates
NG-159	Hampton	225	Willard Avenue	3,772	24, 30	RCP	18	3,726	18	None
NG-160	Hampton	225	Willard Avenue	1,457	24	RCP	7	1,462	7	None
NG-164	Newport News	202	33rd Street	468	8	RCP	3	1,204	3	Pipe length increased during system mapping updates
NG-166	Newport News	202	33rd Street	254	25, 20	RCP	8	290	8	Pipe length increased during system mapping updates
NG-167	Newport News	202	33rd Street	100	20	RCP	10	2,615	10	Pipe length increased during system mapping updates
NG-168	Newport News	202	33rd Street	752	20	RCP	12	913	12	Pipe length increased during system mapping updates
NG-169	Newport News	TP	Boat Harbor	4,760	42, 54	RCP	9	5,038	21	Pipe length and number of manholes increased during system mapping updates
NG-174	Newport News	TP	Boat Harbor	1,538	24, 27	PCCP	7	1,518	7	None
NG-175	Newport News	207	Center Avenue	1,242	18, 21	DI	8	1,244	6	Number of manholes decreased during system mapping updates
NG-176	Newport News	207	Center Avenue	477	21	DI	3	479	3	None
SG-001	Norfolk	TP	Army Base	6,311	20, 24, 30, 36	RCP	12	3,664	10	Partial inspection due to defects. Pipe length and number of manholes decreased during system mapping updates.
SG-003	Norfolk	TP	Army Base	2,581	42, 54	RCP	12	2,956	11	Pipe length and number of manholes decreased during system mapping updates
SG-033	Portsmouth	104	Cedar Lane	1,408	18	ESVC	6	1,738	6	Pipe length and number of manholes increased during system mapping updates
SG-034	Portsmouth	104	Cedar Lane	2,034	27	ESVC	7	2,113	9	Pipe length and number of manholes increased during system mapping updates
SG-035	Portsmouth	104	Cedar Lane	1,518	18	ESVC	7	1,730	7	Pipe length increased during system mapping updates

Table C-2. Gravity System Inspections Summary										
Line Number	Primary Jurisdiction	Downstream HRSD PS#	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes / Structures Inspected	Comments
SG-041	Norfolk	114	Monroe Place	958	8, 12	CI	3	-	3	Pipe length decreased during system mapping updates (See SPS-114)
SG-044	Norfolk	122	Powhatan Avenue	1,074	10	VC	10	1,071	8	Number of manholes decreased during system mapping updates
SG-045	Virginia Beach	TP	Virginia Initiative TP	4,305	8, 12	CI	*TBD*	-	0	SG-045 identified as a force main. No inspection required.
SG-047	Virginia Beach	TP	Virginia Initiative TP	3,404	54	RCP	13	3,368	12	Number of manholes decreased during system mapping updates
SG-048	Virginia Beach	TP	Virginia Initiative TP	962	18	VC	4	964	4	None
SG-049	Virginia Beach	TP	Virginia Initiative TP	805	30	CI	3	797	3	None
SG-050	Virginia Beach	TP	Virginia Initiative TP	4,307	48, 54	RCP	11	4,734	11	Pipe length increased during system mapping updates
SG-053	Virginia Beach	TP	Virginia Initiative TP	1,108	42	RCP	4	1,142	4	None
SG-054	Virginia Beach	TP	Virginia Initiative TP	270	48	RCP	4	306	1	Pipe length and number of manholes changed during system mapping updates
SG-055	Virginia Beach	TP	Virginia Initiative TP	838	30	RCP	4	845	4	None
SG-056	Virginia Beach	TP	Virginia Initiative TP	200	54	RCP	1	-	1	Pipe length decreased during system mapping updates
SG-061	Norfolk	107	Colley Avenue	3,360	24, 30	ESVC	*TBD*	-	0	Ownership of line was transferred to City of Norfolk
SG-063	Norfolk	106	City Park	2,342	10	VC	13	2,023	13	Partial inspection due to defects
SG-067	Norfolk	113	Luxembourg Avenue	1,595	12	VC	14	1,490	14	Partial inspection due to defects
SG-068	Norfolk	113	Luxembourg Avenue	995	8	VC	6	1,152	6	Pipe length and number of manholes changed during system mapping update
SG-068X	Norfolk	113	Luxembourg Avenue	230	8	VC	*TBD*	-	0	Pipe length decreased during system mapping updates (See SG-068)
SG-071	Norfolk	105	Chesapeake Blvd	769	12	VC	3	771	3	None
SG-072	Norfolk	105	Chesapeake Blvd	599	10	VC	4	935	4	Pipe length increased during system mapping updates
SG-073	Norfolk	105	Chesapeake Blvd	1,463	15	VC	12	630	11	Pipe length and number of manholes decreased during system mapping update

Table C-2. Gravity System Inspections Summary

Line Number	Primary Jurisdiction	Downstream HRSD PS#	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes / Structures Inspected	Comments
SG-074	Norfolk	105	Chesapeake Blvd	2,813	21	VC	12	2,771	13	Pipe length and number of manholes changed during system mapping updates
SG-075	Norfolk	105	Chesapeake Blvd	1,798	12	VC	9	1,798	9	None
SG-077	Norfolk	105	Chesapeake Blvd	161	18	VC	1	160	1	None
SG-078	Norfolk	Norfolk PS 44	None	859	12	ESVC	7	1,164	7	Pipe length increased during system mapping updates
SG-079	Norfolk	Norfolk PS 44	None	1,785	10	ESVC	5	1,786	5	None
SG-088	Norfolk	116	Norchester	3,382	27	CI	21	1,471	14	Pipe length and number of manholes decreased during system mapping updates. Gravity main was used as host pipe for new force main.
SG-089	Norfolk	116	Norchester	3,706	24	CI	19	3,686	20	Partial inspection due to defects
SG-096	Norfolk	127	State Street	4,203	30	RCP	16	4,152	17	Pipe length and number of manholes changed during system mapping updates
SG-098	Norfolk	127	State Street	3,133	24, 30	RCP	15	3,099	15	None
SG-102	Norfolk	128	Steamboat Creek	1,918	10	VCP	9	1,755	7	Partial inspection due to defects
SG-104	Norfolk	128	Steamboat Creek	1,642	10	VCP	7	1,321	6	Pipe length and number of manholes decreased during system mapping updates
SG-105	Norfolk	128	Steamboat Creek	1,101	8	VCP	8	1,100	8	None
SG-107	Norfolk	Norfolk PS 44	None	390	8	ESVC	2	388	2	None
SG-108	Norfolk	Norfolk PS 44	None	663	12	ESVC	4	646	4	None
SG-112	Norfolk	115	Newtown Road	793	18	ESVC	6	1,068	6	Pipe length increased during system mapping updates
SG-113	Norfolk	115	Newtown Road	5,236	12, 16, 18, 24	CI	24	4,818	23	Pipe length and number of manholes decreased during system mapping updates
SG-145	Norfolk	103	Bainbridge	1,293	12	VC	7	1,325	7	Pipe length increased during system mapping updates
SG-148	Norfolk	123	Quail Avenue	3,520	21	CI	17	3,503	16	Partial inspection due to defects. Number of manholes decreased during system mapping updates.
SG-149	Chesapeake	119	Park Avenue	3,427	24	CI, ESVC	16	3,434	16	None
SG-151	Norfolk	123	Quail Avenue	5,408	18	DI	16	5,903	16	Pipe length increased during system mapping updates.

Table C-2. Gravity System Inspections Summary										
Line Number	Primary Jurisdiction	Downstream HRSD PS#	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes / Structures Inspected	Comments
SG-152	Norfolk	123	Quail Avenue	1,289	18	VCPE	6	10	4	Line is abandoned
SG-153	Chesapeake	119	Park Avenue	2,863	18	CI, ESVC	18	2,869	18	None
SG-155	Chesapeake	119	Park Avenue	8	6	CI	0	-	0	Line is no longer designated as part of system.
SG-157	Chesapeake	110	Ferebee	2,171	18	ESVC	11	2,249	11	None
SG-161	Chesapeake	131	Washington District	2,992	18	VCP	14	3,066	14	None
SG-162	Chesapeake	131	Washington District	1,126	15	VCP	3	754	3	Pipe length decreased during system mapping updates
SG-191	Suffolk	135	Suffolk	5,467	24	ESVC	31	5,115	31	Pipe length decreased during system mapping updates
SG-192	Suffolk	135	Suffolk	140	18	CI	2	86	2	Partial inspection due to defects
SG-193	Suffolk	135	Suffolk	16,109	18	RCP	83	15,959	84	Partial inspection due to defects. Pipe length and number of manholes changed during system mapping updates.
SG-196	Norfolk	TP	Army Base	1,651	36	RCP	7	2,695	7	Pipe length increased during system mapping updates
SG-201	Norfolk	107	Colley Avenue	285	8	ESVC	*TBD*	-	0	Line owned by City of Norfolk.
SG-202	Norfolk	127	State Street	1,874	12	CI	11	1,586	11	Partial inspection due to defects. Pipe length decreased during system mapping updates.
SG-205	Norfolk	124	Richmond Crescent	857	6, 8, 10	CI	7	774	7	Partial inspection due to defects
SG-207	Norfolk	147	Chesterfield	325	12	VC	2	329	4	Partial inspection due to defects. Number of manholes increased during system mapping updates.

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Table C-2.1. Gravity System Inspections Summary (Additional Inspections)

Line Number	Primary Jurisdiction	Downstream HRSD PS #	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes/Structures Inspected	Comments
NG-051	Hampton	219	Newmarket Creek	-	15	VC	-	4	2	Pipe and manholes added during system mapping updates.
NPS-207	Newport News	207	Center Ave	-	20	CI	-	151	2	Not included in original PCAR list.
NPS-210	Newport News	210	Ferguson Park	-	10	VC	-	5	1	Not included in original PCAR list.
NPS-211	Hampton	211	Hampton Inst	-	18	VC	-	4	0	Not included in original PCAR list.
NPS-212	Newport News	212	Hilton School	-	16, 8	VC	-	112	3	Not included in original PCAR list.
NPS-214	Williamsburg	214	Kingsmill	-	36, 30	CI	-	11	1	Not included in original PCAR list.
NPS-216	Newport News	216	Lucas Creek	-	36, 30	CI	-	364	4	Not included in original PCAR list.
NPS-218	Newport News	218	Morrison Ave	-	18	CI	-	11	1	Not included in original PCAR list.
NPS-221	Newport News	221	Patrick Henry	-	30	CI	-	134	1	Not included in original PCAR list.
NPS-226	Williamsburg	226	Williamsburg	-	24	CI	-	55	2	Not included in original PCAR list.
NPS-227	Newport News	227	Fort Eustis	-	30	CI	-	44	1	Not included in original PCAR list.
NPS-229	York Co	229	Colonial Williamsburg	-	24	CI	-	594	4	Not included in original PCAR list.
NPS-230	York Co	230	Rolling Hills	-	24	CI	-	40	1	Not included in original PCAR list.
NPS-231	Williamsburg	231	Fords Colony	-	DI	24	-	102	1	Not included in original PCAR list.
NPS-232	Williamsburg	232	Greensprings	-	CI	24	-	100	1	Not included in original PCAR list.
NPS-233	York Co	233	Lodge Rd	-	24	PVC	-	66	1	Not included in original PCAR list.

Table C-2.1. Gravity System Inspections Summary (Additional Inspections)

Line Number	Primary Jurisdiction	Downstream HRSD PS #	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes/Structures Inspected	Comments
SPS-101	Virginia Beach	101	Arctic Ave	-	30	CI	-	115	5	Not included in original PCAR list.
SPS-102	Norfolk	102	Ashland Circle	-	10	CI	-	19	2	Not included in original PCAR list.
SPS-107	Norfolk	107	Colley Ave	-	36	VC	-	71	2	Not included in original PCAR list.
SPS-108	Norfolk	108	Dovercourt Rd	-	24	CI	-	20	1	Not included in original PCAR list.
SPS-109	Chesapeake	109	Doziers Corner	-	16	CI	-	88	3	Not included in original PCAR list.
SPS-111	Norfolk	111	Granby St	-	12	CI	-	3	1	Not included in original PCAR list.
SPS-113	Norfolk	113	Luxembourg Ave	-	12	DI	-	142	0	Not included in original PCAR list.
SPS-114	Norfolk	114	Monroe Place	-	12	CI	-	201	0	Not included in original PCAR list.
SPS-116	Norfolk	116	Norchester Street	-	16, 21, 24	VCP	-	152	1	Not included in original PCAR list.
SPS-117	Norfolk	117	North Shore Rd	-	12	CI	-	7	1	Not included in original PCAR list.
SPS-118	Norfolk	118	Norview Ave	-	12	CI	-	5	1	Not included in original PCAR list.
SPS-119	Chesapeake	119	Park Ave	-	24	CI	-	11	0	Not included in original PCAR list.
SPS-121	Norfolk	119	Plume St	-	24	CI	-	46	1	Not included in original PCAR list.
SPS-122	Norfolk	122	Powhatan Ave	-	12	CI	-	35	0	Not included in original PCAR list.
SPS-123	Chesapeake	123	Quail Ave	-	18,21	CI	-	52	1	Not included in original PCAR list.
SPS-125	Norfolk	125	Seay Ave	-	12	CI	-	73	2	Not included in original PCAR list.



Table C-2.1. Gravity System Inspections Summary (Additional Inspections)

Line Number	Primary Jurisdiction	Downstream HRSD PS #	Downstream	Length reported in PCAR (Feet)	Diameter (Inches)	Material	Number of Manholes reported in PCAR	Length Inspected (Feet)	Number of Manholes/Structures Inspected	Comments
SPS-128	Chesapeake	128	Steamboat Creek	-	10,12	PVC	-	86	0	Not included in original PCAR list.
SPS-129	Norfolk	129	Taussig Blvd	-	36	RC	-	173	2	Not included in original PCAR list
SPS-130	Norfolk	130	Virginia Beach Blvd	-	30	VC	-	7	2	Not included in original PCAR list.
SPS-131	Chesapeake	131	Washington District	-	18	VC	-	120	0	Not included in original PCAR list.
SPS-132	Norfolk	132	Willoughby Ave	-	12	UNK	-	11	0	Not included in original PCAR list.
SPS-141	Norfolk	141	Hanover Ave	-	8	UNK	-	-	1	Not included in original PCAR list.
SPS-142	Norfolk	142	Jamestown Crescent	-	10	VCP	-	5	1	Not included in original PCAR list.
SPS-144	Portsmouth	144	Elmhurst Lane	-	24	CI	-	18	1	Not included in original PCAR list.
SPS-145	Portsmouth	145	Rodman Ave	-	27	VC	-	10	1	Not included in original PCAR list.
SPS-146	Portsmouth	146	Camden Ave	-	30	CI	-	85	0	Not included in original PCAR list.
SPS-147	Norfolk	147	Chesterfield Blvd	-	8	VC	-	-	0	Not included in original PCAR list; not inspected due to defects.
SPS-148	Norfolk	148	Ingleside Rd	-	10	UNK	-	3	1	Not included in original PCAR list.

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Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
NG-044	1	1/28/2011	2011-T-102950	Elm Ave & Botetourt Road	Newport News	Contractor was relining gravity pipe. A subcontractor was pumping sewage from a manhole and discharging to a downstream manhole as part of the operation. After the vactor truck was filled and moved from the manhole, it was observed that the suction/disc discharge line was not secured and was releasing sewage along the roadway. The truck driver was flagged down after travelling approximately 700 feet.	200
NG-063	17	4/7/2003	2003-T-1944	North King St/Macalva St	Hampton	2.80" of rain on 4/7.	2,625
		4/9/2003	2003-T-1964	North King Street & 5 Macalva Drive manhole	Hampton	2.29" of rain on 4/7	53,500
		4/9/2003	2003-T-1990	North King St and Gilbert MH	Hampton	2.29" of rain on 4/7	55,875
		4/10/2003	2003-T-2020	North King St/Macalva St	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9.	19,860
		12/14/2003	2004-T-1229	North King St/Macalva St	Hampton	1.47" of rainfall on 12/14. 1.26" in 8.5 hours.	25,800
		3/8/2006	2006-T-100541	North King Street & Macalva Street	Hampton	Force main failure near Marcella Avenue. Flow was diverted to make repairs to the force main which caused manhole to overflow.	250
		9/12/2007	2008-T-101275	North King Street at Macalva & Gilbert	Hampton	Two manholes a block apart overflowed intermittently due to Langley PS being turned off as part of valving operation. Pump station was turned off in order to divert flow from force main break at Hollywood Blvd (SSOR 101269).	10,625
		7/29/2010	2011-T-102644	King Street between Donald Street & MacAlva Drive	Hampton	Heavy rain from storms in the area caused manhole to overflow. Rain gauge at Bayshore PS recorded 3.3" of rain in two hours.	2,538

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		7/29/2010	2011-T-102645	King Street at MacAlva	Hampton	Heavy rain from storms in the area caused manhole to overflow. Rain gauge at Bayshore PS recorded 3.3" of rain in two hours.	20,022
		9/30/2010	2011-T-102691	Donald and N. King Street	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Copeland Park Pump Station recorded 10.75" of rainfall during 48-hour period with 8.7" of rain received on 9/30.	158,655
		9/30/2010	2011-T-102692	1275 North King Street	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Copeland Park Pump Station recorded 10.75" of rainfall during 48-hour period with 8.7" of rain received on 9/30.	37,825
		9/30/2010	2011-T-102693	MacAlva and N. King Street	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Copeland Park Pump Station recorded 10.75" of rainfall during 48-hour period with 8.7" of rain received on 9/30.	151,500
		8/28/2012	2013-T-103507	King Street at MacAlva	Hampton	Heavy rain from severe storm caused system to back up and overflow manhole. Rain gauge at Freeman Pump Station recorded 6.9" of rain within 4.5 hours. Over two inches of rain fell within 30 minutes.	16,330
		8/28/2012	2013-T-103511	1275 North King Street	Hampton	Heavy rain from severe storm caused system to back up and overflow manhole. Rain gauge at Freeman Pump Station recorded 6.9" of rain within 4.5 hours. Over two inches of rain fell within 30 minutes.	7,505

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		8/29/2012	2013-T-103512	North King & Donald Street	Hampton	Overnight heavy rain surcharged the gravity system going to Langley Circle Pump Station. The typical diurnal increase in flow the following morning caused the manhole to overflow. Rain gauge at Freeman Pump Station recorded 6.9" of rain within 4.5 hours during the previous evening. Over two inches of rain fell within 30 minutes.	1,500
		10/29/2012	2013-T-103543	North King & Donald Street	Hampton	Manhole overflowing at estimated rate of 20 gpm due to high flows and tidal flooding from hurricane Sandy. Overflow rate increased throughout the day due to rainfall and tidal conditions. Rain gauge at Bayshore Pump Station recorded 6.72" of rain during October 28-29 with 4.42" of rain falling on October 29.	164,475
		10/29/2012	2013-T-103544	King Street at MacAlva	Hampton	Manhole overflowing at estimated rate of 20 gpm due to high flows and tidal flooding from hurricane Sandy. Overflow rate increased throughout the day due to rainfall and tidal conditions. Rain gauge at Bayshore Pump Station recorded 6.72" of rain during October 28-29 with 4.42" of rain falling on October 29.	105,435
NG-070	1	11/17/2002	2003-T-0914	MH @ Freeman Dr & Armistead Ave (@ Pine Chapel PS)	Hampton	Hampton personnel operated HRSD valve, sending flow to Pine Chapel PS.	32,760
NG-082	1	9/30/2010	2011-T-102718	N. King Street at I-64	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Copeland Park Pump Station recorded 10.75" of rainfall during 48-hour period with 8.7" of rain received on 9/30.	14,250

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
NG-104	17	9/15/1999	SR99-37	Manhole @ 42 Woodfin Rd	Newport News	Hurricane Floyd. 19.32" of rain @ Morrison PS 9/15-16.	77,650
		9/15/1999	SR99-39	Manhole @ 47 Franklin Rd	Newport News	Hurricane Floyd. 19.32" of rain @ Morrison PS 9/15-16.	281,250
		1/30/2000	SR00-3	M.H. near 321 North Ave	Newport News	Snowmelt combined with 1.27" of rain.	37,950
		1/30/2000	SR00-2	M.H. near 42 Franklin St	Newport News	Snowmelt combined with 1.27" of rain.	3,795
		4/17/2000	SR00-15	M.H. near 320 North Ave	Newport News	1.20" of rain at Morrison PS, 1.04" in 5 hours prior to event.	1,420
		4/17/2000	SR00-16	M.H. near 321 North Ave	Newport News	1.20" of rain at Morrison PS, 1.04" in 5 hours prior to event.	1,420
		4/17/2000	SR00-14	M.H. near 42 Franklin St	Newport News	1.20" of rain at Morrison PS, 1.04" in 5 hours prior to event.	2,130
		7/24/2000	SR00-20	M.H. near 42 Franklin St	Newport News	5.60" of rain @ Pine Chapel PS (July hist. avg. 5.53")	16,000
		7/24/2000	SR00-22	M.H. near 321 North Ave	Newport News	5.60" of rain @ Pine Chapel PS (July hist. avg. 5.53")	8,250
		4/9/2003	2003-T-1989	42 Franklin St	Newport News	2.29" of rain on 4/7	94,500
		4/10/2003	2003-T-2018	321 North Ave	Newport News	2.29" Of rain on 4/7 & 1.99" of rain on 4/9	6,500
		4/10/2003	2003-T-2019	42 Franklin St	Newport News	2.29" of rain on 4/7 & 1.99" of rain on 4/9	57,000
		4/10/2003	2003-T-2017	320 North Ave MH	Newport News	2.29" of rain on 4/7 and 1.99" of rain on 4/9	14,800
		8/8/2003	2004-T-0274	320 North Ave MH	Newport News	6.29" Aug 5-8 (1.03" in 1-hr period before event)	3,950
		8/11/2003	2004-T-0288	320 North Ave MH	Newport News	7.53" Aug 2-11; 0.72" in 90-min 8/11	720
		6/23/2006	2006-T-100675	42 Franklin Street	Newport News	Torrential rains caused excessive I/I over whelming sanitary sewer system. 2.56 inches of rain received at Williamsburg PS within period of 1.5 hours.	3,600

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		9/30/2010	2011-T-102705	42 Franklin Street	Newport News	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Copeland Park Pump Station recorded 10.75" of rainfall during 48-hour period with 8.7" of rain received on 9/30.	54,750
NG-111	1	12/14/1999	SR99-82	Manhole near 58th St and Jefferson Ave	Boat Harbor	Contractor was over pumping @ 58th St line when rain occurred.	1,000
NG-112	2	10/27/2010	2011-T-102839	Between Jefferson and Madison.	Newport News	T.A. Sheets Construction Company is replacing a section of the HRSD gravity line on 41st Street. During this process, T.A. Sheets lost the plug in the line and had to put a camera in to locate the plug.	100
		4/14/2011	2011-T-103016	41st Street	Newport News	Failure of temporary gravity line connection installed by contractor. This caused a section of 24-inch gravity line to be displaced and water filled the bottom of the excavation prior to continuing to flow into the downstream gravity line. The water level in the trench varied with the pump cycles from upstream pump stations.	0
NG-116	1	7/30/2011	2012-T-103132	35th Street & Huntington Ave	Newport News	Contractor set up bypass pumps for rehab of 35th Street gravity main. The pumps were not operating properly. They pumped down the manhole too low and would lose suction. Then the pumps did not regain prime fast enough for the wastewater coming into the manhole. This resulted in the manhole overflowing a small amount (5-10 gallons) before the pumps could catch up. The overflows occurred intermittently during the pump cycles. All of spill was recovered.	0

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
NG-125	1	8/28/2012	2013-T-103516	300 Terminal Avenue	Hampton	Heavy rains from severe storm caused system going into Boat Harbor STP to back up and overflow manhole outside of plant. Rain gauge at Copeland Park Pump Station recorded 7.21" of rain within 5.5 hours.	-1
NG-134	1	10/29/2012	2013-T-103545	Eaton & Queen Street	Hampton	Manhole overflowing at an initial estimated rate of 200 gpm due to high flows and tidal flooding from hurricane Sandy. Rain gauge at Bayshore Pump Station recorded 6.72" of rain during October 28-29 with 4.42" of rain falling on October 29.	58,764
NG-135	1	10/29/2012	2013-T-103542	Wine Street & Settlers Landing Road	Hampton	Manhole overflowed at initial estimated rate of 200 gpm. Flow rate dropped to 50 gpm at 11:50 am. Overflows are due to high flows and tidal flooding from hurricane Sandy. Rain gauge at Bayshore Pump Station recorded 6.72" of rain during October 28-29 with 4.42" of rain falling on October 29.	36,750
NG-138	7	4/9/2003	2003-T-1993	Bridge St Tide Gate	Hampton	2.80" of rain on 4/7	50,450
		4/10/2003	2003-T-2023	Bridge St Tide Gate	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9	79,600
		10/29/2003	2004-T-0940	Bridge St Tide Gate	Hampton	2.90" of rain in 16-hr period prior to event.	17,150
		6/27/2006	2006-T-100679	4701 Victoria Boulevard	Hampton	Refer to SSOR 100678. Pump station was shut down in order to reduce flow at force main break on 3721 Victoria Blvd so that repairs could be made. PS has tidal gate which discharges overflow to river.	190,400
		6/28/2006	2006-T-100680	4701 Victoria Blvd	Hampton	Mechanical problems with a by-pass pump caused the system to backup and by-pass at the Bridge St. Tide Gate for 1 hour and 50 minutes as 20 gpm.	2,200



Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		6/29/2006	2007-T-100683	4701 Victoria Blvd.	Hampton	Overflow produced when by-pass pump was unable to keep up with increase in flow caused by combination of rainfall and I&I to the Pump Station. Overflow occurred at 10 gpm for 3 hours and 45 minutes.	2,250
		6/30/2006	2007-T-100684	4701 Victoria Blvd.	Hampton	Overflow produced when by-pass pump was unable to keep up with increase in flow caused by combination of heavy rainfall and I&I to the pump station. Overflow occurred for 3 hours and 21 minutes at a flow rate of 10 gpm.	2,010
		4/9/2003	2003-T-1994	Ivy Home Rd/Victoria Blvd	Hampton	2.80" of rain on 4/7	3,550
NG-142	4	4/22/2008	2008-T-101498	LaSalle Avenue & Ervin Street	Hampton	HRSD notified by City personnel that manhole was overflowing. Area received large amounts of rain in the past 48 hours. Flow rate estimated at 25 gpm. Originally reported that cause of manhole overflow was due to excessive I/I. Investigation of incident revealed that Hampton City personnel opened the incorrect valve at City PS #1 which caused the overflow. Start time of incident was changed from 9:00 am to 8:30 am due to receipt of more information concerning notification.	6,000
		4/22/2008	2008-T-101497	Ivy Home Road & Victoria Blvd	Hampton	Originally reported that cause of manhole overflow was due to I/I. Area had received large amounts of rain in the past 48 hours. Flow rate estimated at 10 gpm. Investigation of incident revealed that Hampton City personnel opened the incorrect valve at City PS#1 which caused overflow.	1,800

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		9/30/2010	2011-T-102717	Ivy Home Road & Victoria Blvd	Hampton	Pump station overflowed via tide gate due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Freeman Pump Station recorded 16.23" of rainfall during 48-hour period with 13.85" of rain received on 9/30.	1,728
NG-143	19	9/15/1999	SR99-33	Manhole @ Kecoughtan Rd and Sunset Rd	Hampton	Hurricane Floyd. 13.44" of rain @ Pine Chapel PS 9/15-16.	142,750
		9/15/1999	SR99-34	Manhole @ 3804 Chesapeake Ave	Hampton	Hurricane Floyd. 13.44" of rain @ Pine Chapel PS 9/15-16.	145,300
		9/15/1999	SR99-35	Manhole @ 3904 Chesapeake Ave	Hampton	Hurricane Floyd. 13.44" of rain @ Pine Chapel PS 9/15-16.	145,300
		10/18/1999	SR99-74	M.H. @ Kecoughtan Rd and Sunset Rd	Hampton	Hurricane Irene.	54,000
		10/18/1999	SR99-75	M.H. @ 3904 Chesapeake Ave	Hampton	Hurricane Irene.	23,100
		7/24/2000	SR00-25	M.H. near 3802 Chesapeake Ave	Hampton	5.60" of rain @ Pine Chapel PS (July hist. avg. 5.53")	9,000
		7/24/2000	SR00-26	M.H. near 3804 Chesapeake Ave	Hampton	5.60" of rain @ Pine Chapel PS (July hist. avg. 5.53")	4,500
		7/24/2000	SR00-27	M.H. @ Kecoughtan Rd & Sunset Rd	Hampton	5.60" of rain @ Pine Chapel PS (July hist. avg. 5.53")	33,000
		4/9/2003	2003-T-1991	3802 Chesapeake Ave	Hampton	2.80" of rain on 4/7	13,700
		4/9/2003	2003-T-1992	3847 Chesapeake Ave	Hampton	2.80" of rain on 4/7	13,800
		4/10/2003	2003-T-2021	3802 Chesapeake Ave	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9	10,650
		4/10/2003	2003-T-2022	3816 Chesapeake Ave	Hampton	2.29" of rain on 4/7 and 1.99" of rain on 4/9	8,550
		12/3/2008	2009-T-101740	Sunset Road & Kecoughtan road	Hampton	Grease buildup inside of manhole caused flow to back up and overflow manhole.	1,050
		7/29/2010	2011-T-102647	Sunset Road and Kecoughtan Road	Hampton	Heavy rain from storms in the area caused manhole to overflow. Rain gauge at Bayshore PS recorded 3.3" of rain in two hours.	525

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		7/29/2010	2011-T-102648	Chesapeake Avenue and Clyde Street	Hampton	Heavy rain from storms in the area caused manhole to overflow. Rain gauge at Bayshore PS recorded 3.3" of rain in two hours.	1,090
		9/30/2010	2011-T-102695	Sunset Road and Kecoughtan Road	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Freeman Pump Station recorded 16.23" of rainfall during 48-hour period with 13.85" of rain received on 9/30. Initial flow estimate was 10gpm but was modified to 5gpm in final report.	6,810
		9/30/2010	2011-T-102706	3904 Chesapeake Avenue	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Copeland Park Pump Station recorded 10.75" of rainfall during 48-hour period with 8.7" of rain received on 9/30.	22,500
		9/30/2010	2011-T-102707	3748 Chesapeake Avenue	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Copeland Park Pump Station recorded 10.75" of rainfall during 48-hour period with 8.7" of rain received on 9/30.	22,500
		8/28/2012	2013-T-103503	3904 Chesapeake Avenue	Hampton	Heavy rain from severe storm caused system to back up and overflow manhole. Rain gauge at Freeman Pump Station recorded 6.9" of rain within 4.5 hours. Over two inches of rain fell within 30 minutes.	5,550

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
NG-160	1	9/30/2010	2011-T-102701	Yukon and N. Hope Street	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Bayshore Pump Station recorded 12.42" of rainfall during 48-hour period with 10" of rain received on 9/30. Initial flow estimate was 50 gpm but was modified to 100 gpm in final report.	186,000
NG-180	1	9/30/2010	2011-T-102700	E. Chamberlain and N. Hope Street	Hampton	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Bayshore Pump Station recorded 12.42" of rainfall during 48-hour period with 10" of rain received on 9/30. Initial flow estimate was 50 gpm but was modified to 100 gpm in final report.	186,000
SG-047	3	3/8/2005	2005-T-100217	41st-43rd Streets and Powhatan Avenue	Norfolk	Two of the three influent pumps at the Virginia Initiative Plant tripped out briefly causing the flow level in the junction box to rise. The wastewater backed up in the system and overflowed two manholes upstream of the plant.	-1
		12/10/2004	2005-T-100089	43rd St between Powhatan Ave & Hampton Blvd	Norfolk	Heavy rainfall in the area created excessive I/I. The incoming gravity line to VIP backed up due to the high water elevation in the raw influent junction box. This caused the manhole upstream to overflow.	-1
		1/14/2005	2005-T-100142	38th, 39th, 42nd, and 43rd Streets in Norfolk	Norfolk	HRSD received report of manholes overflowing near the VIP STP location. Upon arrival at site, HRSD did not observe any overflows but the manhole lids were slightly out of place indicating that the force main flow level had risen in the pipe.	-1

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
SG-049	1	9/15/1999	SR99-47	Manhole @ Hampton Blvd & 43rd St	Virginia Initiative	Hurricane Floyd. 8.31" of rain @ Luxembourg Ave PS 9/15-16.	57,500
SG-087	1	8/31/1999	SR99-14	Norchester St South of Middle Towne Crescent	Virginia Initiative	Internal corrosion	2,750
SG-089	11	9/10/1999	SR99-25	M.H. on Va. Beach Blvd between Ballentine Blvd & Godfrey Ave	Norfolk	I/I. Very wet period followed by 3.35" of rain in 20 hours.	7,200
		1/30/2000	SR00-4	M.H. at Va. Beach Blvd and Ballentine Blvd	Norfolk	Snowmelt combined with 1.19" of rain.	840
		7/24/2000	SR00-28	Manholes near Norchester St Pump Station	Norfolk	2.34" @ Lux. Ave PS. Manholes on VA Beach Blvd at Bellmore & Ballentine.	2,088
		9/5/2000	SR00-32	Manholes near Norchester St PS	Norfolk	2.71" of rain @ Rodman PS 9/3-9/5. 3rd wettest summer in 130 yrs.	2,150
		7/14/2003	2004-T-0067	Ballentine/VA Beach Blvds Manhole	Norfolk	2.92" of rain in 8 hours on 7/14	9,500
		8/4/2003	2004-T-0215	Ballentine/VA Beach Blvd Manhole	Norfolk	2.25" in 90 minutes on 8/4.	1,650
		9/15/2004	2005-T-0604	Norchester	Norfolk	Excessive I/I 1.79" of rain for one hour prior to event.	140
		9/30/2010	2011-T-102698	Ballentine and Virginia Beach Blvd	Norfolk	Three manholes overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Virginia Beach Blvd Pump Station recorded 12.12" of rainfall during 48-hour period with 10.51" of rain received on 9/30. Two manholes began overflowing at 8:15am at an estimated rate of 25gpm each. The third manhole began overflowing at 12:43 pm at an estimated rate of 15gpm.	16,800
		8/27/2011	2012-T-103192	E. Virginia Beach Blvd & Ballentine Blvd	Norfolk	Heavy rain from hurricane Irene caused manhole to overflow briefly. Rain gauge at Virginia Beach Blvd Pump Station recorded 8.29" of rain for 8/27.	50

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
		8/27/2011	2012-T-103194	E. Virginia Beach Blvd	Norfolk	Heavy rain from hurricane Irene caused manhole to overflow briefly. Rain gauge at Virginia Beach Blvd Pump Station recorded 8.29" of rain for 8/27.	300
		8/27/2011	2012-T-103206	E. Virginia Beach Blvd & Godfrey Ave	Norfolk	Heavy rain from hurricane Irene caused manhole to overflow briefly. Rain gauge at Virginia Beach Blvd Pump Station recorded 8.29" of rain for 8/27.	100
SG-098	1	7/14/2003	2004-T-0068	Craig/Whitehead Streets	Norfolk	2.92" of rain in 8 hours on 7/14	4,360
SG-105	2	11/1/1999	SR99-80	Manhole @ Springfield Ave & Ford Drive	Chesapeake	Line blocked with excessive grease from city line.	100
		11/1/1999	SR99-80	Manhole @ Springfield Ave & Ford Drive	Chesapeake	Line blocked with excessive grease from city line.	100
SG-149	4	7/24/1999	SR99-9	Bainbridge Blvd across from Lakeside Park	Chesapeake	Lightning strike at Park Ave PS. Generator starter/control board out.	30,000
		9/5/2000	SR00-33	Manhole near Bainbridge Blvd & Holly Avenue	Chesapeake	2.71" of rain @ Rodman PS 9/3-9/5. 3rd wettest summer in 130 yrs.	12,725
		9/30/2010	2011-T-102712	Bainbridge Blvd and Park Avenue	Chesapeake	Manhole overflowed at initial estimated rate of 10 gpm due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Ferebee Pump Station recorded 12.5" of rainfall during 48-hour period with 10.59" of rain received on 9/30.	1,550
		8/27/2011	2012-T-103207	Bainbridge Blvd	Chesapeake	Heavy rains from hurricane Irene caused three manholes on same block to overflow. Rain gauge at Ferebee Pump Station recorded 9.15" of rain for 8/27.	4,420

Table C-3. Gravity System SSO Summary (updated February 2014)

Line No.	Total SSO Occurrences (1999 - Oct 2013)	Date	ID No.	Location	Jurisdiction	Reported Cause	Volume (gal)
SG-153	1	7/28/2008	2009-T-101626	Right of Way beside Bainbridge Boulevard near Southgate Plaza	Chesapeake	The cradle holding an 18" gravity line through the swamp failed. Two sections of the line sagged which caused a breach in manhole #23. An estimated 2 gpm was leaking into the swamp which drains to Jones Creek. Leak was discovered during inspection by HRSD personnel.	430
SG-191	1	2/8/2013	2013-T-103662	2320 E. Washington Street	Suffolk	Heavy rain caused manhole to overflow briefly on the west side of Carver Memorial Park Cemetery. Rain gauge at Suffolk Pump Station recorded 1.99" of rainfall.	-1
SG-193	2	9/30/2010	2011-T-102714	134 South 5th Street	Suffolk	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Suffolk Pump Station recorded 9.75" of rainfall during 48-hour period with 7.2" of rain received on 9/30.	6,255
		10/1/2010	2011-T-102788	221 Locust Street	Suffolk	Manhole overflowed due to high flows caused by remnants of TS Nicole interacting with low pressure system. Rain gauge at Suffolk Pump Station recorded 9.75" of rainfall during 48-hour period with 7.2" of rain received on 9/30.	210

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Table C-4. Gravity Pipeline CA Summary within Army Base TP Service Area

Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-001-13946	SG-001-3351	SG-001-2750	607	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13947	SG-001-2750	SG-001-2595	166	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13958	SG-001-2595	SG-001-2270	327	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13959	SG-001-2270	SG-001-2000	269	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13960	SG-001-2000	SG-001-1820	179	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13961	SG-001-1820	SG-001-1500	321	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13962	SG-001-1500	SG-001-1000	500	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13963	SG-001-1000	SG-001-500	495	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-13964	SG-001-500	SG-001-42	464	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-50720	SG-001-11521	SG-001-3351	424	36	HDPE	0	0	0	0	AB	SG-001	-	Construction completed 2011	No Rehabilitation Required at this time	N/A
SG-001-50977	SG-001-11826	SG-001-11521	473	36	HDPE	0	0	0	0	AB	SG-001	-	-	No Rehabilitation Required at this time	N/A
SG-001-50983	SG-001-11827	SG-001-11826	136	36	HDPE	0	0	0	0	AB	SG-001	-	Construction completed 2011	No Rehabilitation Required at this time	N/A
SG-001-50984	SG-001-11828	SG-001-11827	82	36	HDPE	0	0	0	0	AB	SG-001	-	Construction completed 2011	No Rehabilitation Required at this time	N/A
SG-001-50985	SG-001-11829	SG-001-11828	353	36	HDPE	0	0	0	0	AB	SG-001	-	Construction completed 2011	No Rehabilitation Required at this time	N/A
SG-001-50986	SG-001-11830	SG-001-11829	107	36	SP	0	0	0	0	AB	SG-001	-	Construction completed 2011	No Rehabilitation Required at this time	N/A
SG-001-50987	SG-196-5000	SG-001-11830	97	36	ZZZ	0	0	0	0	AB	SG-001	-	Construction completed 2011	No Rehabilitation Required at this time	N/A
SG-003-13948	SG-003-3747	SG-003-3735	12	36	ZZZ	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13949	SG-003-3735	SG-003-3604	131	36	ZZZ	4	5	0	0	AB	SG-003	-	Cleaning required; Cleaning performed June 2012	No Rehabilitation Required at this time	N/A
SG-003-13950	SG-003-3604	SG-003-3565	39	36	ZZZ	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13951	SG-003-3565	SG-003-3258	315	42	FRP	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13952	SG-003-3258	SG-003-3050	302	42	FRP	1	4	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13953	SG-003-3050	SG-003-2658	294	42	FRP	1	4	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13954	SG-003-2658	FLWCTRL-SG-003-1633	345	42	FRP	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13955	FLWCTRL-SG-003-1633	SG-003-1791X	78	48	FRP	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13956	SG-003-1791X	SG-003-1791	443	42	FRP	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13957	SG-003-1791	SG-003-1207	584	42	FRP	1	2	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-13965	SG-001-42	FLWCTRL-SG-003-1633	37	42	FRP	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A

Table C-4. Gravity Pipeline CA Summary within Army Base TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-003-19883	SG-003-3889	SG-003-3747	141	24	ZZZ	1	2	1	3	AB	SG-003	SCP	Abandoned segment	Rehabilitation Required	HRSD CIP No. AB-100
SG-003-21539	SG-003-1207	FLWCTRL-SG-003-4	207	48	FRP	1	1	0	0	AB	SG-003	-	LR	No Rehabilitation Required at this time	N/A
SG-003-21540	FLWCTRL-SG-003-4	FLWCTRL-ABTP-2637	126	42	FRP	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-003-21546	FLWCTRL-SG-003-1601	Outfall	89	42	FRP	0	0	0	0	AB	SG-003	-	-	No Rehabilitation Required at this time	N/A
SG-196-13966	SG-196-7478	SG-196-7000	479	30	HDPE	0	0	0	0	AB	SG-196	-	-	No Rehabilitation Required at this time	N/A
SG-196-13967	SG-196-7000	SG-196-6420	579	30	HDPE	1	2	0	0	AB	SG-196	-	-	No Rehabilitation Required at this time	N/A
SG-196-13968	SG-196-6420	SG-196-5825	595	30	HDPE	0	0	0	0	AB	SG-196	-	-	No Rehabilitation Required at this time	N/A
SG-196-13969	SG-196-5825	SG-196-5360	472	30	HDPE	1	2	0	0	AB	SG-196	-	-	No Rehabilitation Required at this time	N/A
SG-196-13970	SG-196-5360	SG-196-5000	352	30	HDPE	0	0	0	0	AB	SG-196	-	-	No Rehabilitation Required at this time	N/A
SG-196-13971	SG-196-7718	SG-196-7478	232	24	FRP	0	0	0	0	AB	SG-196	-	-	No Rehabilitation Required at this time	N/A
SPS-108-9958	SPS-108-1445	SS-PS-108-1	28	24	CI	3	4	0	0	AB	SPS-108	-	Corroded metal pipe	Rehabilitation Required	GN-R5
SPS-117-10384	SPS-117-1476	SS-PS-117-1	12	12	CI	0	0	0	0	AB	SPS-117	-	Corroded metal pipe	No Rehabilitation Required at this time	HRSD CIP No. AB-105
SPS-129-14945	SPS-129-1501	SPS-129-3073	176	36	ZZZ	0	0	0	0	AB	SPS-129	-	-	No Rehabilitation Required at this time	N/A
SPS-129-14946	SPS-129-3073	SS-PS-129-1	7	36	ZZZ	0	0	0	0	AB	SPS-129	-	-	No Rehabilitation Required at this time	N/A

Table C-5. Manhole CA Summary within Army Base TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
FLWCTRL-SG-003-1633	SG-003	AB	2/7/2011	-	-	-	Rehab with other manholes; Visual inspection performed during PACP inspection	No Rehabilitation Required at this time	GN-R1
MH-SG-001-1000	SG-001	AB	7/21/2011	RCP	1	-	Infiltration dripper observed on bench	Rehabilitation Required	GN-R1
MH-SG-001-1500	SG-001	AB	7/21/2011	RCP	1	IR	Infiltration observed on bench	Rehabilitation Required	GN-R1
MH-SG-001-1820	SG-001	AB	7/21/2011	RCP	0	-	Degradation of coating; infiltration	Rehabilitation Required	GN-R1
MH-SG-001-2000	SG-001	AB	7/21/2011	BR	1	-	Infiltration dripper inside wall	Rehabilitation Required	GN-R1
MH-SG-001-2270	SG-001	AB	7/21/2011	BR	1	-	Infiltration dripper observed on bench	Rehabilitation Required	GN-R1
MH-SG-001-2595	SG-001	AB	7/21/2011	BR	0	-	Degradation of coating; infiltration	Rehabilitation Required	GN-R1
MH-SG-001-2750	SG-001	AB	10/10/2011	BR	0	-	Mortar loss; infiltration	Rehabilitation Required	GN-R1
MH-SG-001-3351	SG-001	AB	7/20/2011	BR	0	-	Degradation of coating; infiltration	Rehabilitation Required	GN-R1
MH-SG-001-42	SG-001	AB	7/20/2011	BR	0	-	Degradation of coating; infiltration	Rehabilitation Required	GN-R1
MH-SG-001-500	SG-001	AB	7/20/2011	BR	0	-	Degradation of coating; infiltration	Rehabilitation Required	GN-R1
MH-SG-003-1207	SG-003	AB	7/20/2011	RCP	1	-	Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-SG-003-1791	SG-003	AB	7/20/2011	RCP	1	-	Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-SG-003-2230	SG-003	AB	2/7/2011	-	-	-	Rehab with other manholes; Visual inspection performed during PACP inspection	No Rehabilitation Required at this time	GN-R1
MH-SG-003-2658	SG-003	AB	7/21/2011	BR	1	-	Infiltration dripper inside wall	Rehabilitation Required	GN-R1
MH-SG-003-3050	SG-003	AB	7/20/2011	RCP	0	-	Degradation of coating	Rehabilitation Required	GN-R1
MH-SG-003-3258	SG-003	AB	7/20/2011	RCP	0	-	Degradation of coating	Rehabilitation Required	GN-R1
MH-SG-003-3565	SG-003	AB	7/20/2011	BR	0	-	Degradation of coating	Rehabilitation Required	GN-R1
MH-SG-003-3604	SG-003	AB	7/20/2011	RCP	1	-	Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-SG-003-3735	SG-003	AB	7/20/2011	BR	0	-	Degradation of concrete	Rehabilitation Required	GN-R1
MH-SG-003-3747	SG-003	AB	10/25/2010	RCP	0	-	Degradation of coating	No Rehabilitation Required at this time	GN-R1
MH-SG-003-3889	SG-003	AB	10/25/2010	BR	0	-	Infiltration observed during PACP inspection of upstream pipe	No Rehabilitation Required at this time	HRSD CIP No. AB-100
MH-SG-196-5000	SG-196	AB	7/20/2011	RCP	1	-	Degradation of concrete; infiltration	Rehabilitation Required	GN-R1
MH-SG-196-5360	SG-196	AB	7/20/2011	BR	0	-	Degradation of coating; infiltration	Rehabilitation Required	GN-R1
MH-SG-196-5825	SG-196	AB	7/20/2011	BR	0	-	Degradation of concrete	Rehabilitation Required	GN-R1
MH-SG-196-6420	SG-196	AB	7/20/2011	BR	0	-	Degradation of concrete; infiltration	Rehabilitation Required	GN-R1
MH-SG-196-7000	SG-196	AB	7/20/2011	BR	0	-	Degradation of coating	Rehabilitation Required	GN-R1
MH-SG-196-7478	SG-196	AB	7/20/2011	BR	0	-	Missing mortar	Rehabilitation Required	GN-R1
MH-SG-196-7718	SG-196	AB	10/10/2011	BR	0	-	Degradation of concrete; infiltration	Rehabilitation Required	GN-R1
MH-SPS-108-1445	SPS-108	AB	7/6/2011	BR	6	MB	Missing Bricks chimney (multiple), Mortar Missing Large in chimney, cone, inside wall, Infiltration dripper inside wall	Rehabilitation Required	GN-R5
MH-SPS-117-1476	SPS-117	AB	7/5/2011	BR	0	-	Rehab with line	No Rehabilitation Required at this time	HRSD CIP No. AB-105
MH-SPS-129-1501	SPS-129	AB	10/10/2011	BR	1	-	Surface Aggregate Visible inside wall; infiltration	Rehabilitation Required	GN-R1
MH-SPS-129-3073	SPS-129	AB	10/10/2011	RCP	1	-	Surface Aggregate Visible inside wall; infiltration	Rehabilitation Required	GN-R1

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Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-096-13705	SG-096-515	SG-096-486	31	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13706	SG-096-725	SG-096-515	209	30	PE	0	0	0	0	AT	SG-096	-	-	No Rehabilitation Required at this time	N/A
SG-096-13707	SG-096-759	SG-096-725	34	30	PE	0	0	0	0	AT	SG-096	-	-	No Rehabilitation Required at this time	N/A
SG-096-13708	SG-096-1099	SG-096-759	339	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13709	SG-096-1505	SG-096-1099	408	30	PE	1	4	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13710	SG-096-1796	SG-096-1505	250	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13711	SG-096-2124	SG-096-1796	369	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13712	SG-096-2505	SG-096-2124	391	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13713	SG-096-2561	SG-096-2505	44	30	PE	1	2	0	0	AT	SG-096	-	-	No Rehabilitation Required at this time	N/A
SG-096-13714	SG-096-2721	SG-096-2561	161	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13715	SG-096-2938	SG-096-2721	218	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13716	SG-096-3445	SG-096-2938	509	30	PE	0	0	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13717	SG-096-3848	SG-096-3445	403	30	PE	1	2	0	0	AT	SG-096	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-096-13718	SG-096-4257	SG-096-3848	410	30	PE	0	0	0	0	AT	SG-096	-	-	No Rehabilitation Required at this time	N/A
SG-096-13719	FLWCTRL-SG-096-3202	SG-096-4257	426	30	PE	0	0	0	0	AT	SG-096	-	-	No Rehabilitation Required at this time	N/A
SG-096-19921	SG-096-402	SS-PS-127-1	11	30	CI	0	0	0	0	AT	SG-096	-	Corroded metal pipe; visual inspection during MACP inspection; possibly replaced by MEB during generator project – confirmation needed with project.	Rehabilitation Required	AT-R2
SG-096-19922	SG-096-486	SG-096-402	84	30	PE	2	2	1	3	AT	SG-096	SCP	Failing Liner and Corrosion	Rehabilitation Required	AT-R2
SG-098-13720	SG-098-5190	SG-098-4932	258	24	ZZZ	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13721	SG-098-4932	FLWCTRL-SG-096-3202	248	30	PE	2	2	0	0	AT	SG-098	-	Deposits Attached in Pipe	No Rehabilitation Required at this time	N/A
SG-098-13722	SG-098-5845	SG-098-5790	55	24	ZZZ	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13723	SG-098-5523	SG-098-5190	308	24	ZZZ	0	0	1	2	AT	SG-098	-	JSL at 285 ft miscoded; should be RPZ	No Rehabilitation Required at this time	AT-R2
SG-098-13724	SG-098-5684	SG-098-5523	185	24	ZZZ	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13725	SG-098-5790	SG-098-5684	105	24	ZZZ	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13726	SG-098-5976	SG-098-5845	129	24	ZZZ	1	4	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13727	SG-098-6081	SG-098-5976	108	24	ZZZ	1	4	1	2	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A

Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-098-13728	SG-098-6409	SG-098-6081	327	24	ZZZ	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13729	SG-098-6624	SG-098-6409	252	24	ZZZ	0	0	1	2	AT	SG-098	-	JSL at 226 ft miscoded; should be RPZ	No Rehabilitation Required at this time	AT-R2
SG-098-13730	SG-098-6814	SG-098-6624	160	24	PE	2	4	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13731	SG-098-7145	SG-098-6814	327	24	PE	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13732	SG-098-7487	SG-098-7145	341	24	PE	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-098-13733	SG-098-7775	SG-098-7487	284	24	PE	1	4	0	0	AT	SG-098	-	IR in MH-SG-098-7487	No Rehabilitation Required at this time	N/A
SG-098-13734	SG-098-7818	SG-098-7775	47	24	PE	0	0	0	0	AT	SG-098	-	-	No Rehabilitation Required at this time	N/A
SG-102-13683	SG-102-451	SG-102-195	260	10	VCP	5	2	3	2	AT	SG-102	JOL	Infiltration Weepers and Stains in Pipe	Rehabilitation Required	AT-R2
SG-102-13684	SG-102-1333	SG-102-1040	292	10	VCP	0	0	1	2	AT	SG-102	-	Rehab with rest of line; Infiltration Stains and Circumferential Crack in Pipe	No Rehabilitation Required at this time	AT-R2
SG-102-13685	SG-102-1040	SG-102-735	306	10	VCP	5	4	1	2	AT	SG-102	IR	Infiltration Weepers and Attached Deposits in Pipe	Rehabilitation Required	AT-R2
SG-102-13686	SG-102-735	SG-102-451	281	10	VCP	2	4	3	2	AT	SG-102	IS	Offset Joint and Continuous Infiltration Stains in Pipe	Rehabilitation Required	AT-R2
SG-102-13687	SG-102-1950	SG-102-1649	300	10	VCP	1	4	2	3	AT	SG-102	FM	Multiple and Circumferential Fracture in Pipe	Rehabilitation Required	AT-R2
SG-102-13688	SG-102-1649	SG-102-1333	318	10	VCP	0	0	1	1	AT	SG-102	-	Rehab with rest of line; Infiltration Stain and Offset Joint in Pipe	No Rehabilitation Required at this time	AT-R2
SG-104-13676	SG-105-1170	SG-104-918	252	10	VCP	4	3	6	2	AT	SG-104	-	Rehab with rest of line; Infiltration Dripper; Longitudinal Cracks and Infiltration Stains in Pipe	No Rehabilitation Required at this time	AT-R2
SG-104-13677	SG-104-918	SG-104-876	42	10	VCP	3	3	0	0	AT	SG-104	-	Rehab with rest of line; Infiltration Stains and Attached Deposits in Pipe	No Rehabilitation Required at this time	AT-R2
SG-104-13678	SG-104-876	SG-104-585	291	10	VCP	19	4	8	2	AT	SG-104	IR	Infiltration Drippers and Longitudinal Cracking in Pipe	Rehabilitation Required	AT-R2
SG-104-13679	SG-104-294	SG-104-315	318	10	DI	5	4	2	2	AT	SG-104	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R2
SG-104-13680	SG-104-585	SG-104-344	291	10	VCP	27	4	7	3	AT	SG-104	IR	Infiltration Drippers and Multiple Cracks in Pipe	Rehabilitation Required	AT-R2
SG-104-13681	SG-104-344	SG-104-294	128	10	DI	3	4	3	3	AT	SG-104	SCP	Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-105-13669	SG-105-1918	SG-105-1726	197	8	VCP	8	4	7	4	AT	SG-105	B	Multiple Fractures and Continuous Infiltration Stains in Pipe	Rehabilitation Required	AT-R2
SG-105-13670	SG-105-2000	SG-105-1918	81	8	VCP	2	2	3	2	AT	SG-105	-	Rehab with rest of line; Attached Deposits and Continuous Infiltration Stains in Pipe	No Rehabilitation Required at this time	AT-R2
SG-105-13671	SG-105-2271	SG-105-2000	266	8	VCP	7	3	7	3	AT	SG-105	B	Attached Deposits and Continuous Infiltration Stains in Pipe	Rehabilitation Required	AT-R2
SG-105-13672	SG-105-1215	SG-105-1170	61	8	VCP	1	3	3	3	AT	SG-105	-	Rehab with rest of line; Infiltration Dripper and Multiple Cracks in Pipe	No Rehabilitation Required at this time	AT-R2
SG-105-13673	SG-105-1424	SG-105-1215	201	8	VCP	6	3	3	4	AT	SG-105	FM	Rehab with rest of line; Infiltration Dripper and Circumferential Cracks in Pipe	Rehabilitation Required	AT-R2

Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-105-13674	SG-105-1451	SG-105-1424	21	8	VCP	4	2	2	4	AT	SG-105	FM	Multiple Fractures/Cracks and Continuous Infiltration Stains in Pipe	Rehabilitation Required	AT-R2
SG-105-13675	SG-105-1726	SG-105-1451	274	8	VCP	13	4	6	2	AT	SG-105	-	Infiltration Dripper and Continuous Infiltration Stains in Pipe	Rehabilitation Required	AT-R2
SG-145-13689	SG-145-995	SG-145-1249	254	12	RPM	0	0	1	2	AT	SG-145	-	Truss pipe; Infiltration Stains noted in Pipe	No Rehabilitation Required at this time	AT-R2
SG-145-13690	SG-145-1249	SG-145-1294	45	12	RPM	0	0	0	0	AT	SG-145	-	Truss pipe;	No Rehabilitation Required at this time	AT-R2
SG-145-13691	SG-145-146	SG-145-445	299	12	RPM	0	0	6	3	AT	SG-145	-	Truss pipe; Longitudinal Fracturing and Cracking in Pipe	No Rehabilitation Required at this time	AT-R2
SG-145-13692	SG-145-445	SG-145-760	315	12	RPM	4	2	7	4	AT	SG-145	-	Truss pipe; Longitudinal Fracturing; Corroded metal defect was addressed Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
SG-145-13693	SG-145-760	SG-145-995	235	12	RPM	0	0	0	0	AT	SG-145	-	Truss pipe; Circumferential Crack noted in Pipe	No Rehabilitation Required at this time	AT-R2
SG-145-13694	SG-145-0	SG-145-146	146	12	RPM	2	2	3	2	AT	SG-145	-	Truss pipe; Infiltration Stains and Longitudinal Crack noted in Pipe	No Rehabilitation Required at this time	AT-R2
SG-145-19912	SG-145-1294	SS-PS-103-1	31	12	VCP	0	0	4	5	AT	SG-145	-	Truss pipe; Addressed under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
SG-148-13633	SG-148-603	SG-148-623	-	21	VCP	-	-	-	-	AT	SG-148	-	Segment is inactive	Not Applicable	N/A
SG-148-13634	SG-148-1000	SG-148-623	378	21	ZZZ	9	4	0	0	AT	SG-148	-	Infiltration Dripper and Stains Observed in Pipe	No Rehabilitation Required at this time	N/A
SG-148-13635	SG-148-1197	SG-148-1000	195	21	ZZZ	6	4	3	4	AT	SG-148	-	Infiltration Dripper and Water Level Greater than 75% observed in Pipe	No Rehabilitation Required at this time	N/A
SG-148-13636	SG-148-1272	SG-148-1197	77	21	ZZZ	0	0	0	0	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13637	SG-148-1538	SG-148-1272	265	21	ZZZ	0	0	3	4	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13638	SG-148-2221	SG-148-1984	237	21	ZZZ	0	0	1	2	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13639	SG-148-1984	SG-148-1745	238	21	ZZZ	0	0	2	2	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13640	SG-148-1745	SG-148-1538	198	21	ZZZ	0	0	2	2	AT	SG-148	-	Deposits Attached and Compacted in Pipe	No Rehabilitation Required at this time	N/A
SG-148-13641	SG-148-3209	SG-148-2934	277	21	ZZZ	0	0	0	0	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13642	SG-148-2934	SG-148-2742	209	21	ZZZ	0	0	0	0	AT	SG-148	-	Point Repair performed on segment under Prompt Repair Program. Defect was determined not to meet Prompt Repair criteria but was fixed for consistency.	No Rehabilitation Required at this time	Rehab during CAP
SG-148-13643	SG-148-2742	SG-148-2684	44	21	ZZZ	0	0	0	0	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13644	SG-148-2684	SG-148-2221	463	21	ZZZ	0	0	0	0	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13645	SG-148-4140	SG-148-4035	92	21	ZZZ	0	0	0	0	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-148-13646	SG-148-4035	SG-148-3758	277	21	ZZZ	2	3	0	0	AT	SG-148	-	Infiltration Dripper and Liner Wrinkling Observed in Pipe	No Rehabilitation Required at this time	N/A
SG-148-13647	SG-148-3758	SG-148-3483	273	21	ZZZ	1	3	1	2	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A



Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-148-13648	SG-148-3483	SG-148-3209	275	21	ZZZ	0	0	1	2	AT	SG-148	-	-	No Rehabilitation Required at this time	N/A
SG-149-13592	SG-149-6258	SG-149-6281	23	24	DI	0	0	0	0	AT	SG-149	-	-	No Rehabilitation Required at this time	N/A
SG-149-13593	SG-149-5872	SG-149-6258	385	24	DI	0	0	2	3	AT	SG-149	-	-	No Rehabilitation Required at this time	N/A
SG-149-13594	SG-149-5860	SG-149-5872	16	24	CI	0	0	0	0	AT	SG-149	-	-	No Rehabilitation Required at this time	N/A
SG-149-13595	SG-149-5192	SG-149-5860	661	24	DI	0	0	0	0	AT	SG-149	-	-	No Rehabilitation Required at this time	N/A
SG-149-13596	SG-149-4366	SG-149-4897	530	24	ZZZ	2	2	4	3	AT	SG-149	-	Infiltration Weepers and Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
SG-149-13597	SG-149-4897	SG-149-4932	36	24	CI	0	0	1	3	AT	SG-149	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-149-13598	SG-149-4932	SG-149-4989	58	24	DI	0	0	0	0	AT	SG-149	-	-	No Rehabilitation Required at this time	N/A
SG-149-13599	SG-149-4989	SG-149-5192	200	24	DI	0	0	2	2	AT	SG-149	-	-	No Rehabilitation Required at this time	N/A
SG-149-13600	SG-149-3764	SG-149-4057	295	24	ZZZ	2	4	4	3	AT	SG-149	IR	Infiltration at service connection	Rehabilitation Required	AT-R2
SG-149-13601	SG-149-4057	SG-149-4273	216	24	ZZZ	1	2	3	3	AT	SG-149	-	Infiltration Weeper and Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
SG-149-13602	SG-149-4273	SG-149-4366	93	24	ZZZ	0	0	1	3	AT	SG-149	-	Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
SG-149-13603	SG-149-3660	SG-149-3764	99	24	DI	0	0	1	3	AT	SG-149	-	Sag noted in Pipe	No Rehabilitation Required at this time	N/A
SG-149-13604	SG-149-3199	SG-149-3561	362	24	ZZZ	3	4	1	3	AT	SG-149	IR	Infiltration at service connection	Rehabilitation Required	AT-R2
SG-149-13605	SG-149-3561	SG-149-3660	101	24	ZZZ	0	0	1	3	AT	SG-149	-	Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
SG-149-13609	SG-149-2846	SG-149-3199	353	24	ZZZ	4	4	3	3	AT	SG-149	IR	Infiltration at service connection; Continuous Liner Failure in Pipe	Rehabilitation Required	AT-R2
SG-151-13649	SG-151-4425	SG-148-4140	299	18	ZZZ	1	2	2	2	AT	SG-151	-	Infiltration Weeper Visible in Pipe	No Rehabilitation Required at this time	N/A
SG-151-13650	SG-151-4438	SG-151-4425	11	18	CI	0	0	1	3	AT	SG-151	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-151-13651	SG-151-4773	SG-151-4438	334	18	CI	0	0	1	3	AT	SG-151	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-151-13652	SG-152-26410	SG-152-26710	301	18	DI	0	0	0	0	AT	SG-151	-	-	No Rehabilitation Required at this time	N/A
SG-151-13653	SG-152-26710	SG-152-27010	299	18	DI	0	0	0	0	AT	SG-151	-	-	No Rehabilitation Required at this time	N/A
SG-151-13654	SG-152-27010	SG-152-27195	188	18	DI	0	0	0	0	AT	SG-151	-	-	No Rehabilitation Required at this time	N/A
SG-151-13655	SG-152-27195	SG-151-9224	21	18	DI	0	0	0	0	AT	SG-151	-	-	No Rehabilitation Required at this time	N/A
SG-151-13656	SG-151-9224	SG-151-8881	343	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
SG-151-13657	SG-151-8881	SG-151-8515	365	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
SG-151-13658	SG-151-8515	SG-151-8155	359	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A



Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-151-13659	SG-151-8155	SG-151-7781	374	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
SG-151-13660	SG-151-7781	SG-151-7389	391	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
SG-151-13661	SG-151-7079	SG-151-6741	337	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
SG-151-13662	SG-151-7389	SG-151-7079	309	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
SG-151-13663	SG-151-6741	SG-151-6392	348	18	CI	0	0	1	3	AT	SG-151	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
SG-151-13664	SG-151-6392	SG-151-6105	287	18	CI	0	0	1	3	AT	SG-151	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-151-13665	SG-151-6105	SG-151-5685	419	18	CI	0	0	1	3	AT	SG-151	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-151-13666	SG-151-5685	SG-151-5431	254	18	CI	0	0	1	3	AT	SG-151	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-151-13667	SG-151-5431	SG-151-5145	286	18	CI	0	0	1	3	AT	SG-151	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-151-13668	SG-151-5145	SG-151-4773	371	18	CI	0	0	1	3	AT	SG-151	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-152(New)	SG-152-27200	SG-151-9224	13		CI	0	0	1	3	AT	SG-152	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-153-13606	SG-153-2331	SG-153-2669	338	18	PVC	3	2	3	2	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13607	SG-153-2669	SG-153-2733	64	18	ZZZ	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13608	SG-153-2733	SG-149-2846	113	18	PVC	2	4	2	2	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13610	SG-153-2068	SG-153-2142	105	18	DI	0	0	2	2	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13611	SG-153-2142	SG-153-2193	94	18	PCCP	2	2	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13612	SG-153-2193	SG-153-2244	98	18	PVC	2	4	1	2	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13613	SG-153-2244	SG-153-2265	21	18	DI	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13614	SG-153-2265	SG-153-2310	45	18	DI	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13615	SG-153-2310	SG-153-2331	21	18	DI	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13616	SG-153-1588	SG-153-2068	375	18	ZZZ	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13617	SG-153-1138	SG-153-1588	450	18	ZZZ	1	4	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13618	SG-153-740	SG-153-1006	266	18	ZZZ	1	4	0	0	AT	SG-153	IR	Infiltration at service connection	Rehabilitation Required	AT-R2
SG-153-13619	SG-153-1006	SG-153-1138	132	18	ZZZ	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13621	SG-153-490	SG-153-575	88	18	ZZZ	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-153-13622	SG-153-575	SG-153-658	84	18	ZZZ	1	3	0	0	AT	SG-153	-	Infiltration at service connection	Rehabilitation Required	AT-R2
SG-153-13623	SG-153-658	SG-153-740	80	18	ZZZ	1	3	0	0	AT	SG-153	-	Infiltration at service connection	Rehabilitation Required	AT-R2

Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-153-13624	SG-153-263	SG-153-490	226	18	ZZZ	1	2	0	0	AT	SG-153	-	Infiltration Stains and Attached Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-153-13625	SG-153-0	SG-153-263	263	18	ZZZ	0	0	0	0	AT	SG-153	-	-	No Rehabilitation Required at this time	N/A
SG-157-13582	SG-157-2177	SG-157-2250	32	18	ZZZ	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13583	SG-157-2086	SG-157-2177	57	18	ZZZ	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13584	SG-157-1776	SG-157-2086	310	18	VCP	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13585	SG-157-1511	SG-157-1776	263	18	VCP	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13586	SG-157-1355	SG-157-1511	158	18	VCP	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13587	SG-157-1157	SG-157-1355	198	18	VCP	1	1	1	2	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13588	SG-157-940	SG-157-1157	214	18	VCP	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13589	SG-157-640	SG-157-940	299	18	VCP	4	1	2	2	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13590	SG-157-323	SG-157-640	319	18	VCP	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-13591	SG-157-0	SG-157-323	319	18	VCP	1	2	1	2	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-157-16074	SG-157-2250	SS-PS-110-1	74	18	PVC	0	0	0	0	AT	SG-157	-	-	No Rehabilitation Required at this time	N/A
SG-161-13566	SG-161-365	SG-161-105	261	18	CI	3	0		3	AT	SG-161	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R1
SG-161-13567	SG-161-105	SG-161-48	30	18	VCP	0	0	0	0	AT	SG-161	-	Rehab with rest of line;	No Rehabilitation Required at this time	AT-R1
SG-161-13568	SG-161-48	SG-161-271	242	18	VCP	2	2		2	AT	SG-161	-	Rehab with rest of line; Infiltration Stains and Longitudinal Crack in Pipe	No Rehabilitation Required at this time	AT-R1
SG-161-13569	SG-161-715	SG-161-500	215	18	VCP	4	3	2	2	AT	SG-161	-	Continuous Infiltration Dripper and Stains in Pipe	Rehabilitation Required	AT-R1
SG-161-13570	SG-161-500	SG-161-365	135	18	VCP	1	2	0	0	AT	SG-161	-	Rehab with rest of line; Attached Deposits in Pipe	No Rehabilitation Required at this time	AT-R1
SG-161-13573	SG-161-1440	SG-161-1140	300	18	VCP	0	0	16	4	AT	SG-161	FM	Infiltration Stains and Continuous Cracking in Pipe	Rehabilitation Required	AT-R1
SG-161-13574	SG-161-1140	SG-161-715	426	18	VCP	0	0	11	4	AT	SG-161	FM	Infiltration Stains and Continuous Cracking in Pipe	Rehabilitation Required	AT-R1
SG-161-13577	SG-162-3194	SG-161-2824	371	15	VCP	10	3	4	4	AT	SG-161	FM	Joint Separation and Continuous Infiltration Dripper in Pipe	Rehabilitation Required	AT-R1
SG-161-13578	SG-161-2824	SG-161-2789	35	18	VCP	1	3	2	4	AT	SG-161	FM	Infiltration Stain and Longitudinal Fracture in Pipe	Rehabilitation Required	AT-R1
SG-161-13579	SG-161-2789	SG-161-2531	258	18	VCP	0	0	1	3	AT	SG-161	-	Moderate to Severe Metal Corrosion	Rehabilitation Required	AT-R1
SG-161-13580	SG-161-2531	SG-161-2273	258	18	VCP	5	2	1	1	AT	SG-161	-	Rehab with rest of line; Infiltration Weeper and Circumferential Crack in Pipe	No Rehabilitation Required at this time	AT-R1
SG-161-13581	SG-161-2273	SG-161-2073	198	18	VCP	6	3	5	3	AT	SG-161	-	Multiple Cracking and Continuous Infiltration Observed in Pipe	Rehabilitation Required	AT-R1
SG-161-15489	SG-161-2073	SG-161-1713	360	18	VCP	15	3	8	3	AT	SG-161	-	Multiple Cracking and Continuous Infiltration Drippers in Pipe	Rehabilitation Required	AT-R1

Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-161-15490	SG-161-1713	SG-161-1440	274	18	VCP	5	3	14	3	AT	SG-161	-	Multiple Cracking and Continuous Infiltration Drippers in Pipe	Rehabilitation Required	AT-R1
SG-162-13575	SG-162-3950	SG-162-3569	381	15	VCP	5	4	3	2	AT	SG-162	-	Rehab with rest of line; Circumferential Cracking and Attached Deposits in Pipe	Rehabilitation Required	AT-R1
SG-162-13576	SG-162-3569	SG-162-3194	375	15	VCP	1	2	0	0	AT	SG-162	-	Rehab with rest of line; Infiltration Weeper in Pipe	No Rehabilitation Required at this time	AT-R1
SG-202-13695	SG-202-1281	SG-202-1198	81	12	VCP	2	2	3	2	AT	SG-202	-	Infiltration Weeper and Longitudinal Crack in Pipe; Addressed Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
SG-202-13696	SG-202-1198	SG-202-922	267	12	VCP	6	4	3	3	AT	SG-202	-	Multiple Cracking and Continuous Infiltration Stains in Pipe; Addressed under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
SG-202-13697	SG-202-922	SG-202-890	31	12	VCP	5	4	1	2	AT	SG-202	IR	Infiltration Stains and Deposits Attached in Pipe; Addressed Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
SG-202-13698	SG-202-890	SG-202-610	287	12	VCP	5	2	8	4	AT	SG-202	FM	Infiltration Weeper and Continuous Cracking in Pipe; Addressed Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
SG-202-13699	SG-202-610	SG-202-560	108	12	CI	0	0	1	3	AT	SG-202	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-202-13700	SG-202-560	SG-202-360	319	12	CI	1	4	2	3	AT	SG-202	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-202-13701	SG-202-360	SG-202-310	83	12	CI	0	0	1	3	AT	SG-202	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-202-13702	SG-202-310	SG-202-160	263	12	CI	3	4	0	0	AT	SG-202	-	Moderate to Severe Metal Corrosion on Surface of Pipe Attached and Compacted Deposits in Pipe	Rehabilitation Required	AT-R2
SG-202-13703	SG-202-160	SG-202-50	151	12	CI	4	4	3	3	AT	SG-202	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SG-202-13704	SG-202-50	SG-202-0	285	12	CI	4	4	5	3	AT	SG-202	-	Moderate to Severe Metal Corrosion on Surface of Pipe and Infiltration Dripper Observed	Rehabilitation Required	AT-R2
SG-202-19923	SG-202-0	SG-096-402	90	12	CI	0	0	1	3	AT	SG-202	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2
SPS-101-8666	PS101-1409	SS-PS-101-1	44	30	CI	0	0	1	3	AT	SPS-101	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	GN-R5
SPS-101-8667	MH-SPS-101-1410	MH-SPS-101-1409	31	30	CI	0	0	1	3	AT	SPS-101	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	GN-R5
SPS-101-8670	MH-SPS-101-1411	MH-SPS-101-1410	18	30	CI	0	0	1	3	AT	SPS-101	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	GN-R5
SPS-101-8671	MH-SPS-101-1415	MH-SPS-101-1411	19	24	DI	2	4	0	0	AT	SPS-101	MCU	Rehab with line;; Compacted Deposits in Pipe	No Rehabilitation Required at this time	GN-R5
SPS-101-8672	MH-SPS-101-1414	MH-SPS-101-1415	36	24	DI	0	0	0	0	AT	SPS-101	-		No Rehabilitation Required at this time	N/A
SPS-109-10149	SPS-109-1448	SPS-109-1447	74	15	VCP	2	2	0	0	AT	SPS-109	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	N/A
SPS-109-9984	SPS-109-1447	SPS-109-1446	25	15	VCP	1	4	0	0	AT	SPS-109	-	IR in manhole SPS-109-1447	No Rehabilitation Required at this time	N/A
SPS-109-9985	SPS-109-1446	SS-PS-109-1	11	16	CI	0	0	1	3	AT	SPS-109	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	GN-R5
SPS-119-16044	SG-149-6281	SS-PS-119-1	48	24	RCP	0	0	0	0	AT	SPS-119	-	Obstructions in Pipe	Rehabilitation Required	AT-R2
SPS-123-10590	SG-148-623	SPS-123-1487	43	18	CI	0	0	1	3	AT	SPS-123	-	Moderate to Severe Metal Corrosion and Other Damage on Surface of Pipe	Rehabilitation Required	AT-R2
SPS-123-10592	SPS-123-1487	SS-PS-123-1	15	21	CI	0	0	1	3	AT	SPS-123	-	Moderate to Severe Metal Corrosion on Surface of Pipe	Rehabilitation Required	AT-R2

Table C-6. Gravity Pipeline CA Summary within Atlantic TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SPS-128-10826	FLWCTRL-SG-104-5	SS-PS-128-1	9	10	VCP	1	2	0	0	AT	SPS-128	-	Rehab with rest of line; Deposits Attached in Pipe	No Rehabilitation Required at this time	AT-R2
SPS-128-16167	SG-104-315	FLWCTRL-SG-104-5	25	10	DI	0	0	0	0	AT	SPS-128	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R2
SPS-128-16168	SG-102-195	FLWCTRL-SG-104-5	54	12	PVC	2	4	1	2	AT	SPS-128	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R2
SPS-131-16045	SG-161-271	SS-PS-131-1	156	18	VCP	2	3	0	0	AT	SPS-131	-	Severe Corrosion; Infiltration Dripper and Attached Deposits in Pipe	Rehabilitation Required	AT-R1

Table C-7. Manhole CA Summary within Atlantic TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SPS-101-1409	SPS-101	AT	10/13/2011	BR	3	-	Missing bricks	Rehabilitation Required	GN-R5
MH-SPS-101-1410	SPS-101	AT	10/13/2011	BR	0	-	Missing bricks	Rehabilitation Required	GN-R5
MH-SPS-101-1411	SPS-101	AT	6/20/2011	CSU	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	GN-R5
MH-SPS-101-1414	SPS-101	AT	6/20/2011	CSU	2	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-101-1415	SPS-101	AT	6/20/2011	CSU	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	GN-R5
MH-SG-096-1099	SG-096	AT	6/28/2011	BR	4	IR	Missing Mortar on Inside of Wall and surface spalling on Inside of Chimney	Rehabilitation Required	AT-R2
MH-SG-096-1505	SG-096	AT	6/28/2011	BR	3	IR, MB	Missing Mortar on Inside of Wall and surface spalling on Inside of Chimney	Rehabilitation Required	AT-R2
MH-SG-096-1796	SG-096	AT	6/28/2011	BR	6	MB	Missing Mortar and Infiltration Dripper on Inside of Wall	Rehabilitation Required	AT-R2
MH-SG-096-2124	SG-096	AT	6/28/2011	BR	2	MML	Missing bricks	Rehabilitation Required	AT-R2
MH-SG-096-2505	SG-096	AT	10/17/2011	RCP	1	-	Surface aggregate beginning to show	No Rehabilitation Required at this time	AT-R2
MH-SG-096-2561	SG-096	AT	6/27/2011	BR	2	MML	-	Rehabilitation Required	AT-R2
MH-SG-096-2721	SG-096	AT	6/27/2011	CSU	1	-	Liner failing	Rehabilitation Required	AT-R2
MH-SG-096-2938	SG-096	AT	6/27/2011	BR	2	MB	Missing Mortar on Inside of Wall	Rehabilitation Required	AT-R2
MH-SG-096-3445	SG-096	AT	6/27/2011	BR	2	MB	Missing Mortar on Inside of Wall	Rehabilitation Required	AT-R2
MH-SG-096-3848	SG-096	AT	6/27/2011	BR	4	MB	Missing Mortar on Inside of Wall	Rehabilitation Required	AT-R2
MH-SG-096-402	SG-096	AT	10/12/2011	RCP	1	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-096-4257	SG-096	AT	6/27/2011	BR	4	MB	Missing Mortar and Surface Aggregate Projecting on Inside of Wall	Rehabilitation Required	AT-R2
MH-SG-096-486	SG-096	AT	6/28/2011	BR	1	SAP	-	Rehabilitation Required	AT-R2
MH-SG-096-515	SG-096	AT	6/28/2011	BR	4	MML/SAP	-	Rehabilitation Required	AT-R2
MH-SG-096-725	SG-096	AT	6/28/2011	BR	5	MB	Missing Mortar on Inside of Wall and Surface Aggregate Projecting on Bench	Rehabilitation Required	AT-R2
MH-SG-096-759	SG-096	AT	6/28/2011	BR	5	IR	Surface Aggregate Projecting on Bench and Surface Spalding on Inside of Wall and Cone	Rehabilitation Required	AT-R2
FLWCTRL-SG-096-3202	SG-098	AT	4/16/2010	RCP	2	SRC	Surface Aggregate Visible on Inside of Wall	Rehabilitation Required	AT-R2
MH-SG-098-4932	SG-098	AT	4/16/2010	BR	0	-	Rehab with other MHs	No Rehabilitation Required at this time	AT-R2
MH-SG-098-5190	SG-098	AT	4/16/2010	BR	0	-	Missing bricks	Rehabilitation Required	AT-R2
MH-SG-098-5523	SG-098	AT	4/15/2010	BR	0	-	Missing bricks	Rehabilitation Required	AT-R2
MH-SG-098-5684	SG-098	AT	4/15/2010	BR	0	-	Rehab with other MHs	No Rehabilitation Required at this time	AT-R2
MH-SG-098-5790	SG-098	AT	4/15/2010	BR	0	-	Rehab with other MHs	No Rehabilitation Required at this time	AT-R2
MH-SG-098-5845	SG-098	AT	4/15/2010	BR	1	ID	ID; Missing bricks	Rehabilitation Required	AT-R2
MH-SG-098-5976	SG-098	AT	4/15/2010	BR	0	-	Missing bricks	Rehabilitation Required	AT-R2
MH-SG-098-6081	SG-098	AT	4/15/2010	BR	1	-	Missing bricks; Longitudinal Fracture on Inside of Cone	Rehabilitation Required	AT-R2
MH-SG-098-6409	SG-098	AT	4/15/2010	BR	1	ID	ID; Longitudinal Crack on Inside of Cone	Rehabilitation Required	AT-R2
MH-SG-098-6624	SG-098	AT	4/15/2010	BR	1	ID	-	Rehabilitation Required	AT-R2
MH-SG-098-6814	SG-098	AT	4/15/2010	BR	2	-	Missing brick	Rehabilitation Required	AT-R2
MH-SG-098-7145	SG-098	AT	4/15/2010	BR	2	-	Infiltration	Rehabilitation Required	AT-R2
MH-SG-098-7487	SG-098	AT	4/15/2010	BR	1	-	IR from PACP inspection	Rehabilitation Required	AT-R2
MH-SG-098-7775	SG-098	AT	4/15/2010	RCP	3	SAM/SMW/SRCC	To be addressed under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-098-7818	SG-098	AT	4/15/2010	BR	0	-	To be addressed under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-102-1040	SG-102	AT	8/12/2010	BR	1	-	Rehab with rest of line; Circumferential Crack on Inside of Cone	No Rehabilitation Required at this time	AT-R2
MH-SG-102-1333	SG-102	AT	8/12/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-102-1649	SG-102	AT	8/12/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-102-195	SG-102	AT	8/12/2010	BR	2	SMW	Corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-102-1950	SG-102	AT	8/12/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2



Table C-7. Manhole CA Summary within Atlantic TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-102-451	SG-102	AT	8/12/2010	BR	1	-	Rehab along with rest of line, ID	No Rehabilitation Required at this time	AT-R2
MH-SG-102-735	SG-102	AT	8/12/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-104-294	SG-104	AT	9/17/2010	RCP	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-104-315	SG-104	AT	9/17/2010	RCP	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-104-344	SG-104	AT	9/17/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-104-585	SG-104	AT	9/17/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-104-876	SG-104	AT	9/17/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-104-918	SG-104	AT	9/17/2010	RCP	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-1170	SG-105	AT	9/17/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-1215	SG-105	AT	9/16/2010	RCP	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-1424	SG-105	AT	9/16/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-1451	SG-105	AT	9/16/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-1726	SG-105	AT	9/16/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-1918	SG-105	AT	9/16/2010	RCP	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-2000	SG-105	AT	9/16/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-105-2271	SG-105	AT	9/16/2010	BR	0	-	Rehab along with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-145-0	SG-145	AT	10/25/2010	RCP	0	-	Rehab along with line	No Rehabilitation Required at this time	AT-R2
MH-SG-145-1249	SG-145	AT	10/25/2010	RCP	0	-	Rehab along with line	No Rehabilitation Required at this time	AT-R2
MH-SG-145-1294	SG-145	AT	8/3/2011	RCP	2	-	ID: Roots in Joint of Cone; Rehab along with line	No Rehabilitation Required at this time	AT-R2
MH-SG-145-146	SG-145	AT	10/25/2010	RCP	1	-	SAV; Rehab along with line	No Rehabilitation Required at this time	AT-R2
MH-SG-145-445	SG-145	AT	10/25/2010	RCP	1	-	SAV; Rehab along with line	No Rehabilitation Required at this time	AT-R2
MH-SG-145-760	SG-145	AT	10/25/2010	RCP	0	-	Rehab along with line	No Rehabilitation Required at this time	AT-R2
MH-SG-145-995	SG-145	AT	10/25/2010	RCP	0	-	Rehab along with line	No Rehabilitation Required at this time	AT-R2
MH-SG-148-1000	SG-148	AT	8/16/2010	BR	1	IR	-	Rehabilitation Required	AT-R2
MH-SG-148-1197	SG-148	AT	8/16/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-1272	SG-148	AT	8/16/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-1538	SG-148	AT	8/16/2010	BR	1	-	Local connection - truss pipe	No Rehabilitation Required at this time	N/A
MH-SG-148-1745	SG-148	AT	8/16/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-1984	SG-148	AT	8/16/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-2221	SG-148	AT	8/16/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-2684	SG-148	AT	8/18/2010	BR	1	-	CM	No Rehabilitation Required at this time	N/A
MH-SG-148-2742	SG-148	AT	8/18/2010	BR	1	HSV	Corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-148-2934	SG-148	AT	8/17/2010	BR	1	-	Structural Defects	Rehabilitation Required	AT-R2
MH-SG-148-3209	SG-148	AT	8/17/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-3483	SG-148	AT	8/17/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-3758	SG-148	AT	8/17/2010	BR	1	-	Infiltration Stains Observed on Inner Wall	No Rehabilitation Required at this time	N/A
MH-SG-148-4035	SG-148	AT	8/17/2010	BR	0	-	Uncoded infiltration; gusher	Rehabilitation Required	AT-R2
MH-SG-148-4140	SG-148	AT	10/17/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-148-623	SG-148	AT	8/16/2010	BR	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-149-2846	SG-153	AT	4/12/2010	BR	1	-	CM: rehab with associated line.	No Rehabilitation Required at this time	AT-R2
MH-SG-149-3199	SG-149	AT	4/13/2010	BR	0	-	Rehab with associated line.	No Rehabilitation Required at this time	AT-R2
MH-SG-149-3561	SG-149	AT	4/13/2010	BR	0	-	Rehab with associated line.	No Rehabilitation Required at this time	AT-R2
MH-SG-149-3660	SG-149	AT	4/13/2010	RCP	1	-	ID	No Rehabilitation Required at this time	N/A

Table C-7. Manhole CA Summary within Atlantic TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-149-3764	SG-149	AT	4/14/2010	RCP	1	-	Rehab with associated line; ID	No Rehabilitation Required at this time	AT-R2
MH-SG-149-4057	SG-149	AT	4/14/2010	BR	1	-	Rehab with Associated Line; CM	No Rehabilitation Required at this time	AT-R2
MH-SG-149-4273	SG-149	AT	4/14/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-149-4366	SG-149	AT	4/14/2010	BR	1	-	CM	No Rehabilitation Required at this time	N/A
MH-SG-149-4897	SG-149	AT	4/14/2010	RCP	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-149-4932	SG-149	AT	4/14/2010	BR	1	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-149-4989	SG-149	AT	4/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-149-5192	SG-149	AT	4/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-149-5860	SG-149	AT	4/14/2010	RCP	1	-	SAV	No Rehabilitation Required at this time	N/A
MH-SG-149-5872	SG-149	AT	4/14/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-149-6258	SG-149	AT	4/14/2010	BR	1	-	CM	No Rehabilitation Required at this time	N/A
MH-SG-149-6281	SG-149	AT	4/14/2010	BR	0	-	Rehab around bench with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-4425	SG-151	AT	8/23/2010	RCP	1	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-4438	SG-151	AT	8/23/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-4773	SG-151	AT	8/23/2010	RCP	1	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-5145	SG-151	AT	8/23/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-5431	SG-151	AT	8/23/2010	RCP	1	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-5685	SG-151	AT	8/23/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-6105	SG-151	AT	8/20/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-6392	SG-151	AT	8/20/2010	RCP	1	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-151-6741	SG-151	AT	8/20/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-151-7079	SG-151	AT	8/20/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-151-7389	SG-151	AT	8/20/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-151-7781	SG-151	AT	8/20/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-151-8155	SG-151	AT	8/19/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-151-8515	SG-151	AT	8/19/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-151-8881	SG-151	AT	8/19/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-151-9224	SG-151	AT	8/19/2010	RCP	1	-	-	No Rehabilitation Required at this time	N/A
MH-SG-152-26410	SG-152	AT	8/18/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-152-26710	SG-152	AT	8/18/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-152-27010	SG-152	AT	8/18/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-152-27195	SG-152	AT	8/19/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-153-0	SG-153	AT	4/13/2010	BR	0	-	Infiltration	Rehabilitation Required	AT-R2
MH-SG-153-1006	SG-153	AT	4/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R2
MH-SG-153-1138	SG-153	AT	4/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-153-1588	SG-153	AT	4/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-153-2068	SG-153	AT	4/12/2010	BR	0	-	FL	No Rehabilitation Required at this time	N/A
MH-SG-153-2142	SG-153	AT	4/12/2010	BR	1	-	Fracture; Wall broken	Rehabilitation Required	AT-R2
MH-SG-153-2193	SG-153	AT	4/12/2010	BR	0	-	SAV	No Rehabilitation Required at this time	N/A
MH-SG-153-2244	SG-153	AT	4/12/2010	BR	1	-	SAV	No Rehabilitation Required at this time	N/A
MH-SG-153-2265	SG-153	AT	4/12/2010	RCP	2	-	SAV/SAP	No Rehabilitation Required at this time	N/A
MH-SG-153-2310	SG-153	AT	4/12/2010	RCP	2	-	SAV/SAP	No Rehabilitation Required at this time	N/A
MH-SG-153-2331	SG-153	AT	4/12/2010	RCP	2	-	-	No Rehabilitation Required at this time	N/A

Table C-7. Manhole CA Summary within Atlantic TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-153-263	SG-153	AT	4/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-153-2669	SG-153	AT	4/12/2010	BR	0	-	Corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-153-2733	SG-153	AT	4/12/2010	BR	1	SMW	Corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-153-490	SG-153	AT	4/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-153-575	SG-153	AT	4/13/2010	BR	1	-	Rehab with rest of line; Infiltration Staining Observed on Inside of Wall	Rehabilitation Required	AT-R2
MH-SG-153-658	SG-153	AT	4/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-153-740	SG-153	AT	4/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-0	SG-157	AT	4/26/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-1157	SG-157	AT	5/10/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-1355	SG-157	AT	5/10/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-1511	SG-157	AT	5/10/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-1776	SG-157	AT	5/10/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-2086	SG-157	AT	5/10/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-2177	SG-157	AT	2/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-2250	SG-157	AT	5/10/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-323	SG-157	AT	4/26/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-640	SG-157	AT	4/26/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-157-940	SG-157	AT	4/26/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-161-105	SG-161	AT	4/8/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R1
MH-SG-161-1140	SG-161	AT	4/7/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R1
MH-SG-161-1440	SG-161	AT	4/7/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R1
MH-SG-161-1713	SG-161	AT	4/5/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	AT-R1
MH-SG-161-2073	SG-161	AT	4/5/2010	BR	2	-	Rehab with rest of line; Infiltration Weeper and Stain on Inside of Wall	No Rehabilitation Required at this time	AT-R1
MH-SG-161-2273	SG-161	AT	4/5/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	AT-R1
MH-SG-161-2531	SG-161	AT	4/5/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R1
MH-SG-161-271	SG-161	AT	4/8/2010	BR	2	-	Rehab with rest of line; Infiltration dripper	No Rehabilitation Required at this time	AT-R1
MH-SG-161-2789	SG-161	AT	4/5/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	AT-R1
MH-SG-161-2824	SG-162	AT	4/5/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R1
MH-SG-161-365	SG-161	AT	4/12/2010	BR	2	-	Rehab with rest of line; Infiltration Stains on Inside of Wall	No Rehabilitation Required at this time	AT-R1
MH-SG-161-48	SG-161	AT	4/8/2010	RCP	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	AT-R1
MH-SG-161-500	SG-161	AT	4/8/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R1
MH-SG-161-715	SG-161	AT	4/8/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	AT-R1
MH-SG-162-3194	SG-162	AT	4/5/2010	BR	2	-	Rehab with rest of line; Infiltration Weeper on Inside of Wall	No Rehabilitation Required at this time	AT-R1
MH-SG-162-3569	SG-162	AT	4/5/2010	BR	2	-	Rehab with rest of line; Infiltration dripper	No Rehabilitation Required at this time	AT-R1
MH-SG-162-3950	SG-162	AT	4/5/2010	BR	2	-	Rehab with rest of line; Infiltration dripper	No Rehabilitation Required at this time	AT-R1
MH-SG-202-0	SG-202	AT	10/29/2010	RCP	1	-	Rehab with line; Infiltration Staining on Inside of Wall	No Rehabilitation Required at this time	AT-R2
MH-SG-202-1198	SG-202	AT	10/28/2010	BR	1	-	Rehab with other MHs; Infiltration Weeper on Bench; Replaced Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-202-1281	SG-202	AT	12/31/2001	RCP	1	-	Rehab with other MHs; Replaced Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-202-160	SG-202	AT	10/31/2011	RCP	1	-	Rehab with line; Roots in Joint of Chimney	No Rehabilitation Required at this time	AT-R2
MH-SG-202-310	SG-202	AT	10/31/2011	RCP	1	-	Rehab with line; ID	No Rehabilitation Required at this time	AT-R2
MH-SG-202-360	SG-202	AT	10/29/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-202-50	SG-202	AT	10/29/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2



Table C-7. Manhole CA Summary within Atlantic TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-202-560	SG-202	AT	10/29/2010	BR	1	-	Rehab with line; Roots in Joint of Chimney	No Rehabilitation Required at this time	AT-R2
MH-SG-202-610	SG-202	AT	10/29/2010	BR	1	-	Rehab with line; Infiltration Weeper on Bench	No Rehabilitation Required at this time	AT-R2
MH-SG-202-890	SG-202	AT	10/29/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2
MH-SG-202-922	SG-202	AT	10/29/2010	BR	0	-	Rehab with line; Replaced Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SPS-109-1446	SPS-109	AT	10/13/2011	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	GN-R5
MH-SPS-109-1447	SPS-109	AT	7/7/2011	BR	1	IR	IR coded from PACP inspection	Rehabilitation Required	GN-R5
MH-SPS-109-1448	SPS-109	AT	7/7/2011	BR	1	-	Infiltration; MMM	No Rehabilitation Required at this time	GN-R5
MH-SPS-123-1487	SPS-123	AT	6/20/2011	BR	0	-	Rehab with line	No Rehabilitation Required at this time	AT-R2

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Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-051-17474	NG-051-6116	NG-051-6060	56	15	CI	0	0	1	3	BH	NG-051	SCP	-	Rehabilitation Required	BH-R4
NG-052-14067	NG-053-5093	NG-053-4793	301	18	VCP	5	4	3	2	BH	NG-053	IR	-	Rehabilitation Required	BH-R4
NG-052-14069	NG-053-5648	NG-053-5404	245	15	VCP	3	3	1	2	BH	NG-052	ID;CL	Infiltration at joints	Rehabilitation Required	BH-R4
NG-052-14070	NG-053-5704	NG-053-5648	56	15	VCP	4	3	0	0	BH	NG-052	ID; DAE	Infiltration at joints	Rehabilitation Required	BH-R4
NG-052-14071	NG-052-5800	NG-053-5704	96	15	VCP	0	0	1	2	BH	NG-052	None	CL	No Rehabilitation Required at this time	BH-R4
NG-052-17473	NG-051-6060	NG-052-5800	263	15	VCP	8	3	5	2	BH	NG-052	ID;CL		Rehabilitation Required	BH-R4
NG-053-14065	NG-053-4497	NG-053-4278	220	18	VCP	4	2	1	2	BH	NG-053	IW	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14066	NG-053-4793	NG-053-4497	295	18	VCP	17	4	0	0	BH	NG-053	IR	Multiple IR	Rehabilitation Required	BH-R4
NG-053-14068	NG-053-5404	NG-053-5093	299		VCP	4	2	2	2	BH	NG-053	IW	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14072	NG-053-4278	NG-053-4018	260	18	VCP	4	2	3	2	BH	NG-053	IW	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14073	NG-053-4018	NG-053-3773	246	18	VCP	8	4	1	2	BH	NG-053	IR		Rehabilitation Required	BH-R4
NG-053-14074	NG-053-3773	NG-053-3714	58	18	VCP	3	2	0	0	BH	NG-053	IW	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14075	NG-053-3714	NG-053-3470	241	18	VCP	6	4	2	2	BH	NG-053	IR	Multiple IR; MH in middle of segment NG-052-14075	Rehabilitation Required	BH-R4
NG-053-14076	NG-053-3470	NG-053-3292	177	18	VCP	6	4	3	3	BH	NG-053	IR	MWLS coded; not severe	Rehabilitation Required	BH-R4
NG-053-14077	NG-053-3292	NG-053-3173	120	18	VCP	3	2	1	2	BH	NG-053	IW	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14078	NG-053-3173	NG-053-2992	181	18	VCP	9	3	1	1	BH	NG-053	ID	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14079	NG-053-2992	NG-053-2778	216	18	VCP	24	4	3	2	BH	NG-053	IR	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14080	NG-053-2778	NG-053-2694	83	18	VCP	3	2	3	2	BH	NG-053	IW	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14081	NG-053-2694	NG-053-2654	41	18	CI	0	0	1	3	BH	NG-053	SCP	Moderate corrosion	Rehabilitation Required	BH-R4
NG-053-14082	NG-053-2654	NG-053-2460	199	18	VCP	11	3	4	2	BH	NG-053	ID	Multiple IW at joints	Rehabilitation Required	BH-R4
NG-053-14083	NG-053-2460	NG-053-2397	61	18	VCP	4	4	1	1	BH	NG-053	IR	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14084	NG-053-2397	NG-053-2222	178	18	VCP	2	2	2	2	BH	NG-053	-	DAE, CL	No Rehabilitation Required at this time	BH-R4
NG-053-14085	NG-053-2222	NG-053-2094	125	18	VCP	2	3	3	3	BH	NG-053	ID, FL	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14086	NG-053-2094	NG-053-1935	159	18	VCP	2	2	1	1	BH	NG-053	-	IW, CC	No Rehabilitation Required at this time	BH-R4
NG-053-14087	NG-053-1935	NG-053-1791	141	18	VCP	2	3	1	2	BH	NG-053	-	FC, DAE	No Rehabilitation Required at this time	BH-R4
NG-053-14088	NG-053-1791	NG-053-1491	299	18	VCP	9	4	3	3	BH	NG-053	IW, OBB	Infiltration, Cleaning did not remove OBB	Rehabilitation Required	BH-R4
NG-053-14089	NG-053-1491	NG-053-1392	98	18	VCP	0	0	3	3	BH	NG-053	-	CM	No Rehabilitation Required at this time	BH-R4
NG-053-14090	NG-053-1392	NG-053-1191	200	18	VCP	4	2	2	2	BH	NG-053	ID	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14091	NG-053-1191	NG-053-891	300	18	VCP	7	2	3	2	BH	NG-053	ID	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14092	NG-053-891	NG-053-797	96	18	VCP	2	3	0	0	BH	NG-053	ID	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14093	NG-053-797	NG-053-588	207	18	VCP	8	4	2	2	BH	NG-053	IR	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14094	NG-053-588	NG-053-309	297	18	VCP	5	3	6	4	BH	NG-053	FM	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14095	NG-053-309	NG-053-10	302	18	VCP	7	3	2	2	BH	NG-053	ID	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14096	NG-053-10	NG-053-279	303	18	VCP	12	3	2	2	BH	NG-053	ID	MWLS coded, not severe; Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14097	NG-053-279	NG-053-549	252	18	VCP	48	3	4	3	BH	NG-053	ID	Infiltration at joints	Rehabilitation Required	BH-R4

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-053-14098	NG-053-549	NG-053-704	157	18	VCP	30	3	0	0	BH	NG-053	ID	Infiltration at joints	Rehabilitation Required	BH-R4
NG-053-14099	NG-053-704	NG-053-870	167	18	VCP	15	3	2	2	BH	NG-053	ID	Infiltration at joints	Rehabilitation Required	BH-R4
NG-057-14001	NG-057-980	NG-057-630	352	15	VCP	2	2	2	3	BH	NG-057	-	MWLS coded - not severe, SAV mis-coded	No Rehabilitation Required at this time	N/A
NG-057-14002	NG-057-630	NG-057-300	329	15	VCP	8	2	3	3	BH	NG-057	-	MWLS coded - not severe, SAV mis-coded; DAGS	No Rehabilitation Required at this time	N/A
NG-057-14003	NG-057-300	NG-099-3086	300	15	VCP	0	0	0	0	BH	NG-057	-	DAGS	No Rehabilitation Required at this time	N/A
NG-057-14010	NG-057-1541	NG-057-1232	309	15	VCP	20	2	0	0	BH	NG-057	IW	Multiple IW;	Rehabilitation Required	BH-R4
NG-057-14011	NG-057-1232	NG-057-1114	118	15	VCP	0	0	1	3	BH	NG-057	-	MWLS coded - not severe	No Rehabilitation Required at this time	N/A
NG-057-14012	NG-057-1114	NG-057-980	132	15	VCP	1	2	2	3	BH	NG-057	SCP	Material change in segment; Metal section is severely corroded.	Rehabilitation Required	BH-R4
NG-057-14013	NG-057-2542	NG-057-2167	374	15	VCP	4	3	5	4	BH	NG-057	-	MWLS coded - not severe	No Rehabilitation Required at this time	N/A
NG-057-14014	NG-057-2167	NG-057-1850	318	15	VCP	3	4	0	0	BH	NG-057	IR	OBZ; Infiltration	Rehabilitation Required	BH-R4
NG-057-14015	NG-057-1850	NG-057-1541	309	15	VCP	0	0	0	0	BH	NG-057	-	-	No Rehabilitation Required at this time	N/A
NG-057-14016	NG-057-2978	NG-057-2542	437	15	VCP	6	2	1	3	BH	NG-057	-	-	No Rehabilitation Required at this time	N/A
NG-057-14017	NG-057-5062	NG-057-4757	305	15	VCP	0	0	0	0	BH	NG-057	-	-	No Rehabilitation Required at this time	N/A
NG-057-14018	NG-057-4757	NG-057-4714	42	15	VCP	0	0	0	0	BH	NG-057	-	-	No Rehabilitation Required at this time	N/A
NG-057-14019	NG-057-4714	NG-057-4507	208	15	VCP	0	0	0	0	BH	NG-057	-	-	No Rehabilitation Required at this time	N/A
NG-057-14020	NG-057-4507	NG-057-4186	320	15	VCP	7	3	0	0	BH	NG-057	ID, DAE	Multiple DAE; liner	Rehabilitation Required	BH-R4
NG-057-14021	NG-057-4186	NG-057-3840	347	15	VCP	4	4	3	2	BH	NG-057	IR	-	Rehabilitation Required	BH-R4
NG-057-14022	NG-057-3840	NG-057-3504	334	15	VCP	13	4	2	3	BH	NG-057	IR	-	Rehabilitation Required	BH-R4
NG-057-14023	NG-057-3504	NG-057-3347	157	15	VCP	2	2	2	5	BH	NG-057	FM	-	Rehabilitation Required	BH-R4
NG-057-14024	NG-057-3347	NG-057-3188	156	15	VCP	27	4	0	0	BH	NG-057	IR	-	Rehabilitation Required	BH-R4
NG-057-14025	NG-057-3188	NG-057-3152	39	15	CI	0	0	1	3	BH	NG-057	SCP	-	Rehabilitation Required	BH-R4
NG-057-14026	NG-057-3152	NG-057-2978	173	15	VCP	1	2	1	3	BH	NG-057	-	MWLS coded - not severe	No Rehabilitation Required at this time	N/A
NG-057-14027	NG-057-6293	NG-057-6192	91	15	VCP	0	0	0	0	BH	NG-057	-	-	No Rehabilitation Required at this time	N/A
NG-057-14028	NG-057-6192	NG-057-6072	120	15	VCP	0	0	0	0	BH	NG-057	-	-	No Rehabilitation Required at this time	N/A
NG-057-14029	NG-057-6072	NG-057-5955	115	15	PVC	0	0	0	0	BH	NG-057	-	Replaced in 2007	No Rehabilitation Required at this time	N/A
NG-057-14030	NG-057-5955	NG-057-5712	243	15	VCP	0	0	1	3	BH	NG-057	SCP	-	Rehabilitation Required	BH-R4
NG-057-14031	NG-057-5712	NG-057-5532	179	15	VCP	0	0	1	3	BH	NG-057	-	Rehab with rest of line; SCP miscoded	No Rehabilitation Required at this time	BH-R4
NG-057-14032	NG-057-5532	NG-057-5431	102	15	VCP	0	0	1	5	BH	NG-057	-	SMW miscoded; there was a break in tap where the original pipe wall was broken - tap appears to have been installed with a saddle. No evidence of infiltration, void or soil visible	No Rehabilitation Required at this time	N/A
NG-057-14033	NG-057-5431	NG-057-5324	107	15	VCP	0	0	1	3	BH	NG-057	-	Moderate to Severe Corroded Metal Pipe	Rehabilitation Required	BH-R4
NG-057-14034	NG-057-5324	NG-057-5062	263	15	VCP	3	3	2	5	BH	NG-057	HSV	-	Rehabilitation Required	BH-R4
NG-067-14890	NG-067-7310	NG-067-7175	134	13	ZZZ	1	3	1	3	BH	NG-067	-	LFW not severe, DSGV	No Rehabilitation Required at this time	N/A
NG-067-14891	NG-067-7175	NG-067-6926	252	13	ZZZ	1	4	5	3	BH	NG-067	-	MCU; LFW not severe	No Rehabilitation Required at this time	N/A
NG-067-14893	NG-067-6926	NG-078-6648	275	13	ZZZ	0	0	1	3	BH	NG-067	-	LFW; not severe	No Rehabilitation Required at this time	N/A

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area

Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-067-15349	NG-067-7504	NG-067-7457	50	13	ZZZ	0	0	2	3	BH	NG-067	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-067-15351	NG-067-7457	NG-067-7310	147	13	ZZZ	1	2	1	2	BH	NG-067	-	IW, CL	No Rehabilitation Required at this time	N/A
NG-078-14894	NG-078-6648	NG-078-6355	283	16	VCP	0	0	6	3	BH	NG-078	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-078-14895	NG-078-6355	NG-078-6319	46	16	VCP	0	0	1	3	BH	NG-078	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-078-14896	NG-078-6319	NG-078-6157	162	16	VCP	0	0	6	3	BH	NG-078	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-078-14897	NG-078-6157	NG-078-6073	84	16	VCP	0	0	4	3	BH	NG-078	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-078-14898	NG-078-6073	NG-078-5813	260	16	VCP	0	0	11	3	BH	NG-078	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-078-14899	NG-078-5813	NG-078-5691	122	16	VCP	0	0	0	0	BH	NG-078	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-078-14900	NG-078-5691	NG-078-5500	191	16	VCP	0	0	5	3	BH	NG-078	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-078-14901	NG-078-5500	NG-078-5362	139	16	VCP	0	0	0	0	BH	NG-078	-	Infiltration at service tap seal (25 ft.)	Rehabilitation Required	GN-R4
NG-078-14902	NG-078-5362	NG-078-5096	265	16	VCP	2	2	0	0	BH	NG-078	-	Infiltration at service tap seal (214 ft.)	Rehabilitation Required	GN-R4
NG-078-14903	NG-078-5096	NG-078-4821	275	16	VCP	1	3	5	3	BH	NG-078	-	Infiltration at service tap seal (76, 77 ft.)	Rehabilitation Required	GN-R4
NG-078-14904	NG-078-4821	NG-078-4684	136	16	VCP	1	3	3	3	BH	NG-078	-	Infiltration at service tap seal (29 ft.)	Rehabilitation Required	GN-R4
NG-078-14905	NG-078-4684	NG-078-4545	138	16	VCP	2	3	3	3	BH	NG-078	ID	ID contributing significant infiltration in this case	Rehabilitation Required	GN-R4
NG-078-14906	NG-078-4545	NG-082-3034	259	16	VCP	1	3	4	3	BH	NG-078	ID	Infiltration at service tap seal (112 ft.)	Rehabilitation Required	GN-R4
NG-082-14907	NG-082-3034	NG-082-2982	51	18	DI	0	0	0	0	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14908	NG-082-2982	NG-082-2879	102	18	DI	0	0	1	3	BH	NG-082	-	SCP; not severe	No Rehabilitation Required at this time	N/A
NG-082-14909	NG-082-2879	NG-082-2750	129	18	DI	0	0	1	3	BH	NG-082	-	SCP; not severe	No Rehabilitation Required at this time	N/A
NG-082-14910	NG-082-2750	NG-082-2722	29	18	DI	0	0	1	3	BH	NG-082	-	SCP; not severe	No Rehabilitation Required at this time	N/A
NG-082-14911	NG-082-2722	NG-082-2291	429	18	CI	0	0	1	3	BH	NG-082	-	SCP; not severe	No Rehabilitation Required at this time	N/A
NG-082-14912	NG-082-2291	NG-082-2131	145	18	DI	0	0	1	3	BH	NG-082	-	SCP; not severe	No Rehabilitation Required at this time	N/A
NG-082-14913	NG-082-2131	NG-082-2098	19	18	DI	0	0	0	0	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14914	NG-082-2098	NG-082-1926	175	18	CI	0	0	1	3	BH	NG-082	-	SCP; not severe	No Rehabilitation Required at this time	N/A
NG-082-14915	NG-082-1926	NG-082-1868	57	18	DI	0	0	0	0	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14916	NG-082-1868	NG-082-1824	47	18	CI	0	0	1	3	BH	NG-082	-	SCP; Reverse grade/near reverse grade	Rehabilitation Required	GN-R4
NG-082-14917	NG-082-1824	NG-082-1811	13	18	DI	0	0	0	0	BH	NG-082	-	Reverse grade/near reverse grade	Rehabilitation Required	GN-R4
NG-082-14918	NG-082-1811	NG-082-1749	62	18	CI	1	4	1	3	BH	NG-082	-	SCP - Reverse grade/near reverse grade	Rehabilitation Required	GN-R4
NG-082-14919	NG-082-1749	NG-082-1664	86	18	SP	0	0	0	0	BH	NG-082	-	SCP - Reverse grade/near reverse grade	Rehabilitation Required	GN-R4
NG-082-14920	NG-082-1664	NG-082-1581	84	18	SP	0	0	0	0	BH	NG-082	-	SCP - Reverse grade/near reverse grade	Rehabilitation Required	GN-R4
NG-082-14921	NG-082-1581	NG-082-1500	85	18	SP	1	4	0	0	BH	NG-082	-	SCP - Reverse grade/near reverse grade	Rehabilitation Required	GN-R4
NG-082-14922	NG-082-1500	NG-082-1110	407	18	DI	4	4	0	0	BH	NG-082	-	SCP - MCU; Reverse grade/near reverse grade	Rehabilitation Required	GN-R4
NG-082-14923	NG-082-1110	NG-082-909	189	18	DI	0	0	0	0	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14924	NG-082-909	NG-082-696	215	18	DI	0	0	1	3	BH	NG-082	-	SCP; not severe	No Rehabilitation Required at this time	N/A
NG-082-14925	NG-082-687	NG-082-696	8	18	DI	0	0	0	0	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14926	NG-082-696	NG-082-376	313	18	DI	0	0	0	0	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14927	NG-082-376	NG-082-369	6	18	DI	0	0	0	0	BH	NG-082	-	Reverse grade/near reverse grade	No Rehabilitation Required at this time	N/A

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-082-14928	NG-082-369	NG-082-109	260	18	DI	0	0	2	1	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14929	NG-082-109	NG-082-100	8	18	DI	0	0	0	0	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14930	NG-082-100	NG-082-1126	243	16	RCP	0	0	1	3	BH	NG-082	-	-	No Rehabilitation Required at this time	N/A
NG-082-14931	NG-082-1126	NG-084-827	299	16	RCP	0	0	0	0	BH	NG-082	-	LFBK	No Rehabilitation Required at this time	N/A
NG-083-14932	NG-083-265	NG-084-827	266	13	ZZZ	0	0	0	0	BH	NG-083	-	-	No Rehabilitation Required at this time	N/A
NG-083-14933	NG-083-929	NG-083-881	47	13	ZZZ	1	3	0	0	BH	NG-083	-	ID	No Rehabilitation Required at this time	N/A
NG-083-14934	NG-083-881	NG-083-859	24	13	ZZZ	0	0	0	0	BH	NG-083	-	-	No Rehabilitation Required at this time	N/A
NG-083-14935	NG-083-859	NG-083-690	169	13	ZZZ	0	0	0	0	BH	NG-083	-	-	No Rehabilitation Required at this time	N/A
NG-083-14936	NG-083-690	NG-083-634	57	13	ZZZ	0	0	0	0	BH	NG-083	-	Reverse grade/near reverse grade; not severe	No Rehabilitation Required at this time	N/A
NG-083-14937	NG-083-634	NG-083-499	136	13	ZZZ	0	0	0	0	BH	NG-083	-	-	No Rehabilitation Required at this time	N/A
NG-083-14938	NG-083-499	NG-083-265	232	13	ZZZ	0	0	0	0	BH	NG-083	-	-	No Rehabilitation Required at this time	N/A
NG-084-14939	NG-084-827	NG-084-575	251	22	ZZZ	0	0	1	3	BH	NG-084	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-084-14940	NG-084-575	NG-084-294	283	22	ZZZ	0	0	2	3	BH	NG-084	-	LFW; not severe	No Rehabilitation Required at this time	N/A
NG-084-14941	NG-084-294	NG-084-25	268	22	ZZZ	1	2	0	0	BH	NG-084	-	LFZ	No Rehabilitation Required at this time	N/A
NG-084-15469	NG-084-25	NS-PS-223-1	35	22	ZZZ	0	0	1	2	BH	NG-084	-	Inspection ends at Washington St. pump station wet well	No Rehabilitation Required at this time	N/A
NG-094-14499	NG-094-13	NG-095-318	12	18	VCP	0	0	0	0	BH	NG-094	-	-	No Rehabilitation Required at this time	N/A
NG-094-14503	NG-094-364	NG-094-67	296	15	VCP	2	2	1	1	BH	NG-094	-	TFD	No Rehabilitation Required at this time	N/A
NG-094-14504	NG-094-67	NG-094-13	55	15	VCP	0	0	0	0	BH	NG-094	-	-	No Rehabilitation Required at this time	N/A
NG-094-14505	NG-094-373	NG-094-364	9	15	VCP	0	0	0	0	BH	NG-094	-	-	No Rehabilitation Required at this time	N/A
NG-094-14506	NG-094-698	NG-094-373	335	15	VCP	4	3	0	0	BH	NG-094	-	CL, TBD	No Rehabilitation Required at this time	N/A
NG-094-14507	NG-094-1264	NG-094-1000	269	15	VCP	1	3	1	2	BH	NG-094	-	CL, TBD	No Rehabilitation Required at this time	N/A
NG-094-14508	NG-094-1000	NG-094-698	302	15	VCP	4	3	2	2	BH	NG-094	-	TBD	No Rehabilitation Required at this time	N/A
NG-095-14484	NG-095-1052	NG-095-838	214	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14485	NG-095-838	NG-095-823	14	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14486	NG-095-823	NG-095-689	136	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14487	NG-095-689	NG-095-546	143	18	VCP	0	0	0	0	BH	NG-095	-	IR in MH-NG-095-546	No Rehabilitation Required at this time	N/A
NG-095-14488	NG-095-546	NG-095-340	207	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14489	NG-095-340	NG-095-150	189	18	VCP	0	0	1	2	BH	NG-095	-	CL	No Rehabilitation Required at this time	N/A
NG-095-14490	NG-095-150	NG-095-109	41	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14491	NG-095-109	NG-095-25	94	16	SP	1	2	0	0	BH	NG-095	-	Moderate to Severe Corroded metal pipe	Rehabilitation Required	GN-R4
NG-095-14492	NG-095-25	NS-PS-203-1	27	16	SP	1	2	0	0	BH	NG-095	-	Moderate to Severe Corroded metal pipe	Rehabilitation Required	GN-R4
NG-095-14493	NG-095-2146	NG-095-1903	243	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14494	NG-095-1903	NG-095-1745	157	18	VCP	0	0	1	2	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14495	NG-095-1745	NG-095-1584	163	18	VCP	1	2	1	2	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14496	NG-095-1584	NG-095-1426	158	18	VCP	1	4	0	0	BH	NG-095	-	IR in MH-NG-095-1426	No Rehabilitation Required at this time	N/A
NG-095-14497	NG-095-1426	NG-095-1267	157	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A



Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-095-14498	NG-095-1267	NG-095-1052	215	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14500	NG-095-318	NG-095-2408	316	18	VCP	0	0	1	2	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14501	NG-095-2408	NG-095-2390	20	18	VCP	0	0	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-095-14502	NG-095-2390	NG-095-2146	244	18	VCP	2	3	0	0	BH	NG-095	-	-	No Rehabilitation Required at this time	N/A
NG-099-14004	NG-099-3086	NG-099-2786	299	18	VCP	8	3	0	0	BH	NG-099	ID, DAE	Multiple DAE	Rehabilitation Required	BH-R4
NG-099-14005	NG-099-2786	NG-099-2479	308	18	VCP	5	3	1	2	BH	NG-099	ID, DAE, CS	Multiple DAE	Rehabilitation Required	BH-R4
NG-099-14006	NG-099-2479	NG-099-2173	308	18	VCP	2	2	1	2	BH	NG-099	-	DAE	No Rehabilitation Required at this time	N/A
NG-099-14007	NG-099-2173	NG-099-1948	225	18	VCP	1	2	3	3	BH	NG-099	-	Corroded metal pipe	Rehabilitation Required	BH-R4
NG-099-14008	NG-099-1948	NG-099-1861	86	18	VCP	0	0	0	0	BH	NG-099	-	-	No Rehabilitation Required at this time	N/A
NG-099-14009	NG-099-1861	NG-099-1551	310	18	VCP	3	4	3	3	BH	NG-099	IR	-	Rehabilitation Required	BH-R4
NG-099-14101	NG-099-932	NG-099-609	324	18	VCP	12	3	0	0	BH	NG-099	ID	Multiple ID	Rehabilitation Required	BH-R4
NG-099-14102	NG-099-609	NG-099-312	297	18	VCP	13	3	0	0	BH	NG-099	ID	Multiple ID	Rehabilitation Required	BH-R4
NG-099-14103	NG-099-312	NG-127-3791	312	18	VCP	11	4	1	3	BH	NG-099	IR	Moderate to Severely Corroded metal pipe	Rehabilitation Required	BH-R4
NG-099-14104	NG-099-1551	NG-099-1242	311	18	VCP	3	2	0	0	BH	NG-099	-	IW	No Rehabilitation Required at this time	N/A
NG-099-14105	NG-099-1242	NG-099-932	309	18	VCP	3	2	0	0	BH	NG-099	-	DAE	No Rehabilitation Required at this time	N/A
NG-101-14338	NG-101-227	NG-101-133	95	18	VCP	0	0	1	2	BH	NG-101	-	-	No Rehabilitation Required at this time	N/A
NG-101-14339	NG-101-133	NG-101-5	121	18	VCP	0	0	3	2	BH	NG-101	-	Point Repair performed on segment	No Rehabilitation Required at this time	N/A
NG-101-14340	NG-101-5	NG-101-4812	8	18	VCP	0	0	0	0	BH	NG-101	-	-	No Rehabilitation Required at this time	N/A
NG-101-14341	NG-101-4812	NG-126-4440	383	18	CI	0	0	2	3	BH	NG-101	-	Moderate SCP	No Rehabilitation Required at this time	N/A
NG-103-14320	NG-103-851	NG-103-651	202	27	RCP	1	2	6	3	BH	NG-103	-	LFW; Rehab with rest of pipe.	No Rehabilitation Required at this time	BH-R2
NG-103-14321	NG-103-651	NG-103-476	174	27	RCP	3	2	11	5	BH	NG-103	-	SRC	Rehabilitation Required	BH-R2
NG-103-14322	NG-103-476	NG-103-281	192	27	RCP	1	2	3	4	BH	NG-103	-	SAM, SRP	Rehabilitation Required	BH-R2
NG-103-14323	NG-103-281	NG-103-168	115		RCP	6	2	3	3	BH	NG-103	SRPC		Rehabilitation Required	BH-R2
NG-103-14327	NG-103-3401	NG-103-3147	250	27	RCP	6	2	1	3	BH	NG-103	-	SAP	No Rehabilitation Required at this time	N/A
NG-103-14328	NG-103-3147	NG-103-2962	189	27	RCP	2	2	2	3	BH	NG-103	-	SAP	No Rehabilitation Required at this time	N/A
NG-103-14329	NG-103-2962	NG-103-2751	209	27	RCP	6	2	1	3	BH	NG-103	-	SAV	No Rehabilitation Required at this time	N/A
NG-103-14330	NG-103-2751	NG-103-2540	212	27	RCP	7	2	2	3	BH	NG-103	-	SAV	No Rehabilitation Required at this time	N/A
NG-103-14331	NG-103-2540	NG-103-2229	310	27	RCP	1	2	4	3	BH	NG-103	-	SAV	No Rehabilitation Required at this time	N/A
NG-103-14332	NG-103-2229	NG-103-2020	213	27	RCP	8	2	1	3	BH	NG-103	-	SAV	No Rehabilitation Required at this time	N/A
NG-103-14333	NG-103-2020	NG-103-1709	306	27	RCP	8	4	3	3	BH	NG-103	IR	SAV	Rehabilitation Required	BH-R2
NG-103-14334	NG-103-1709	NG-103-1411	298	27	RCP	9	2	2	4	BH	NG-103	SAM	Evidence of Infiltration	Rehabilitation Required	BH-R2
NG-103-14335	NG-103-1411	NG-103-1129	282	27	RCP	0	0	3	3	BH	NG-103	-	LFW; Rehab with rest of pipe.	No Rehabilitation Required at this time	BH-R2
NG-103-14336	NG-103-1129	NG-103-940	110	27	RCP	4	2	4	3	BH	NG-103	-	LFW; Rehab with rest of pipe.	No Rehabilitation Required at this time	BH-R2
NG-103-14337	NG-103-940	NG-103-851	166	27	RCP	3	2	5	3	BH	NG-103	-	LFW; Rehab with rest of pipe.	No Rehabilitation Required at this time	BH-R2
NG-103-14345	NG-103-3987	NG-103-3843	130	27	RCP	6	3	1	3	BH	NG-103	-	SAP; RBJ	No Rehabilitation Required at this time	N/A
NG-103-14346	NG-103-3843	NG-103-3750	94	27	CI	1	2	1	3	BH	NG-103	-	Moderate SCP	No Rehabilitation Required at this time	N/A
NG-103-14347	NG-103-3750	NG-103-3603	163	27	RCP	6	2	1	3	BH	NG-103	-	SAP; moderate	No Rehabilitation Required at this time	N/A

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-103-14348	NG-103-3603	NG-103-3401	202	27	RCP	0	0	1	3	BH	NG-103	-	SAP; moderate	No Rehabilitation Required at this time	N/A
NG-106-14292	NG-108-719	NG-108-1091	371	36	DI	0	0	0	0	BH	NG-106	-	Debris	No Rehabilitation Required at this time	N/A
NG-106-14310	NG-106-9637	NG-106-9210	424	33	RCP	17	5	10	3	BH	NG-106	IR	-	Rehabilitation Required	BH-R2
NG-106-14311	NG-106-9210	NG-106-9101	137	33	RCP	8	3	1	3	BH	NG-106	SAV	Multiple infiltration defects	Rehabilitation Required	BH-R2
NG-106-14312	NG-106-9101	NG-106-8760	56	33	RCP	15	3	2	3	BH	NG-106	ID	Multiple infiltration defects	Rehabilitation Required	BH-R2
NG-106-14313	NG-106-8760	NG-106-8440	301	33	RCP	13	3	2	3	BH	NG-106	ID	Multiple infiltration defects	Rehabilitation Required	BH-R2
NG-106-14314	NG-106-8440	NG-106-8070	245	33	RCP	15	4	1	1	BH	NG-106	IR	Multiple infiltration defects	Rehabilitation Required	BH-R2
NG-106-14315	NG-106-8070	NG-106-36	56	36	DI	0	0	0	0	BH	NG-106	-	Debris	No Rehabilitation Required at this time	N/A
NG-106-14316	NG-106-36	NG-106-350	96	33	RCP	0	0	0	0	BH	NG-106	-	-	No Rehabilitation Required at this time	N/A
NG-106-14317	NG-106-350	NG-108-719	263	36	RCP	2	4	0	0	BH	NG-106	-	Debris; IR is in MH-NG-106-719	No Rehabilitation Required at this time	N/A
NG-106-14318	NG-106-7710	NG-106-350	220	8	PVC	0	0	0	0	BH	NG-106	-	-	No Rehabilitation Required at this time	N/A
NG-106-14319	NG-108-7340	NG-108-719	295	8	PVC	1	2	0	0	BH	NG-106	-	-	No Rehabilitation Required at this time	N/A
NG-106-14324	NG-103-168	NG-106-10400	299	33	RCP	14	2	1	3	BH	NG-106	IW	Infiltration at joints	Rehabilitation Required	BH-R2
NG-106-14325	NG-106-10400	NG-106-9990	260	33	RCP	24	3	1	3	BH	NG-106	ID	Multiple infiltration defects	Rehabilitation Required	BH-R2
NG-106-14326	NG-106-9990	NG-106-9637	246	33	RCP	13	3	6	3	BH	NG-106	ID, SAP	Multiple infiltration defects	Rehabilitation Required	BH-R2
NG-108-14280	NG-108-4000	NG-108-3600	58	36	RCP	0	0	0	0	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14281	NG-108-3600	NG-108-3432	241	36	RCP	0	0	0	0	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14282	NG-108-3432	NG-108-3200	177	36	RCP	1	2	0	0	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14283	NG-108-3200	NG-108-2800	120	36	RCP	1	2	0	0	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14284	NG-108-2800	NG-108-2340	181	36	RCP	1	4	1	3	BH	NG-108	IR	-	Rehabilitation Required	BH-R2
NG-108-14293	NG-108-1091	NG-108-6560	216	36	CI	3	2	5	3	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14294	NG-108-6560	NG-108-6100	83	36	CI	2	2	6	3	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14295	NG-108-6100	NG-108-5657	41	36	RCP	0	0	1	3	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14296	NG-108-5657	NG-108-5288	199	36	RCP	0	0	2	3	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14297	NG-108-5288	NG-108-4920	61	36	RCP	0	0	1	3	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14298	NG-108-4920	NG-108-4459	178	36	RCP	2	2	0	0	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14299	NG-108-4459	NG-108-4420	125	36	DI	0	0	0	0	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-108-14300	NG-108-4420	NG-108-4000	159	36	RCP	2	2	0	0	BH	NG-108	-	-	No Rehabilitation Required at this time	N/A
NG-109-14035	NG-109-679	NG-109-480	141	24	VCP	0	0	1	1	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14036	NG-109-480	NG-109-269	299	24	VCP	0	0	1	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14037	NG-109-269	NG-109-256	98	24	VCP	0	0	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14038	NG-109-242	NG-109-185	200	24	VCP	0	0	1	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14038	NG-109-256	NG-109-242	300	24	VCP	2	2	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14039	NG-109-185	NG-109-167	96	24	VCP	1	4	0	0	BH	NG-109	-	Line turns up	No Rehabilitation Required at this time	N/A
NG-109-14040	NG-109-167	NG-109-121	207	24	VCP	1	3	1	1	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14041	NG-109-121	NS-PS-209-1	297	24	CI	0	0	1	3	BH	NG-109	-	Moderate to Severe SCP	Rehabilitation Required	GN-R4
NG-109-14042	NG-109-135	NG-109-167	302	6	CI	0	0	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A



Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-109-14043	NG-109-2031	NG-109-1734	303	24	VCP	1	2	2	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14044	NG-109-1734	NG-109-1431	252	24	VCP	0	0	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14045	NG-109-1431	NG-109-1130	157	24	VCP	1	2	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14046	NG-109-1130	NG-109-849	167	24	VCP	0	0	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14047	NG-109-849	NG-109-679	352	24	CI	0	0	1	3	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14048	NG-109-2597	NG-109-2312	329	24	VCP	0	0	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14049	NG-109-2312	NG-109-2031	300	24	VCP	0	0	2	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14050	NG-109-3196	NG-109-2900	309	24	VCP	1	2	2	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14051	NG-109-2900	NG-109-2597	118	24	VCP	0	0	0	0	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14052	NG-109-3771	NG-109-3498	132	24	VCP	3	3	3	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14053	NG-109-3498	NG-109-3196	374	24	VCP	2	2	1	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14054	NG-109-4356	NG-109-4082	318	24	VCP	0	0	2	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14055	NG-109-4082	NG-109-3771	309	24	VCP	1	2	2	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14056	NG-109-5026	NG-109-4656	437	24	VCP	1	4	0	0	BH	NG-109	IR	-	Rehabilitation Required	GN-R4
NG-109-14057	NG-109-4656	NG-109-4356	305	24	VCP	0	0	1	2	BH	NG-109	-	-	No Rehabilitation Required at this time	N/A
NG-109-14058	NG-109-6014	NG-109-5774	42	24	VCP	0	0	1	3	BH	NG-109	-	Rehab with rest of line.	No Rehabilitation Required at this time	GN-R4
NG-109-14059	NG-109-5774	NG-109-5557	208	24	VCP	0	0	2	3	BH	NG-109	-	Rehab with rest of line.	No Rehabilitation Required at this time	GN-R4
NG-109-14060	NG-109-5557	NG-109-5255	320	24	VCP	2	4	4	2	BH	NG-109	-	IR in MH-NG-109-5255; rehab with rest of line.	No Rehabilitation Required at this time	GN-R4
NG-109-14061	NG-109-5255	NG-109-5026	347	24	VCP	2	2	3	2	BH	NG-109	-	Rehab with rest of line.	No Rehabilitation Required at this time	GN-R4
NG-109-14062	NG-109-6299	NG-109-6014	334	24	VCP	0	0	1	2	BH	NG-109	-	Rehab with rest of line.	No Rehabilitation Required at this time	GN-R4
NG-109-14063	NG-109-6314	NG-109-6299	157	10	PVC	2	2	2	2	BH	NG-109	-	Rehab with rest of line.	No Rehabilitation Required at this time	GN-R4
NG-110-14275	NG-110-1040	NG-110-779	156	39	RCP	1	3	0	0	BH	NG-110	-	-	No Rehabilitation Required at this time	BH-R10
NG-110-14276	NG-110-779	NG-110-520	39	39	RCP	5	4	1	3	BH	NG-110	SAVZ	Significant concrete degradation.	Rehabilitation Required	BH-R10
NG-110-14277	NG-110-520	NG-110-260	173	39	RCP	1	3	1	3	BH	NG-110	SAVZ	Significant concrete degradation.	Rehabilitation Required	BH-R10
NG-110-14278	NG-110-260	NG-114-11725	91	39	RCP	3	3	1	3	BH	NG-110	SAVZ	--	Rehabilitation Required	BH-R10
NG-110-14285	NG-108-2340	NG-110-1820	120	39	RCP	0	0	0	0	BH	NG-110	-	-	No Rehabilitation Required at this time	N/A
NG-110-14286	NG-110-1820	NG-110-1560	115	39	RCP	1	4	0	0	BH	NG-110	-	DAE in MH-NG-110-1560	No Rehabilitation Required at this time	N/A
NG-110-14287	NG-110-1560	NG-110-1040	243	39	RCP	1	3	0	0	BH	NG-110	-	-	No Rehabilitation Required at this time	N/A
NG-111-14301	NG-111-1699	NG-111-1586	179	15	RCP	5	2	9	5	BH	NG-111	SRV	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-14302	NG-111-1586	NG-111-1350	102	15	CP	1	3	1	3	BH	NG-111	CM	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-14303	NG-111-1350	NG-111-1250	107	15	CP	0	0	3	3	BH	NG-111	SAV	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-14304	NG-111-1250	NG-111-1166	263	15	CP	3	4	2	4	BH	NG-111	IR	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-14305	NG-111-1166	NG-111-879	134	15	CP	1	2	9	3	BH	NG-111	CM	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-14306	NG-111-879	NG-111-590	252	15	CP	10	4	17	4	BH	NG-111	IR	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-111-14307	NG-111-590	NG-111-300	275	15	CP	16	3	11	3	BH	NG-111	FS	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-14308	NG-111-140	NG-108-4459	50	15	CP	3	2	6	5	BH	NG-111	SMW	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-14309	NG-111-300	NG-111-140	147	15	CP	6	3	6	3	BH	NG-111	CM	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-111-21799	NG-111-1736	NG-111-1699	283	12	CP	0	0	2	3	BH	NG-111	SAV	CIP BH-101 to address	Rehabilitation Required	Interim System Improvements
NG-112-14289	NG-112-12636	NG-112-12175	46	27	HDPE	1	2	1	2	BH	NG-112	-	Pipe broken; corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
NG-112-14290	NG-112-12175	NG-112-11783	162	27	HDPE	2	4	3	5	BH	NG-112	B	Lining failure; corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
NG-114-14208	NG-114-11323	NG-114-10917	84	42	RCP	32	4	1	3	BH	NG-114	SAVZ	-	Rehabilitation Required	BH-R10
NG-114-14209	NG-114-10917	NG-114-10500	260	42	RCP	11	4	1	3	BH	NG-114	SAVZ; IR	-	Rehabilitation Required	BH-R10
NG-114-14288	NG-114-11725	NG-114-11465	122	42	RCP	6	3	1	3	BH	NG-114	SAVZ	-	Rehabilitation Required	BH-R10
NG-114-14291	NG-114-11465	NG-114-11323	191	42	RCP	6	3	1	3	BH	NG-114	SAVZ	-	Rehabilitation Required	BH-R10
NG-115-14226	NG-115-863	NG-115-570	139	24	PE	1	2	0	0	BH	NG-115	-	-	No Rehabilitation Required at this time	N/A
NG-115-14227	NG-115-570	NG-174-0	265		PE		0		0	BH	NG-115	-	Inspection included Asset ID NG-115-14228	No Rehabilitation Required at this time	N/A
NG-115-15462	NG-115-897	NG-115-863	275	24	PE	0	0	0	0	BH	NG-115	-	Extra MH found along segment - Appears to have been recently rehabbed	No Rehabilitation Required at this time	N/A
NG-116-15463	NG-116-1237	NG-115-897	136	18	PE	0	0	0	0	BH	NG-116	-	-	No Rehabilitation Required at this time	N/A
NG-116-15464	NG-116-1576	NG-116-1237	138	18	PE	0	0	0	0	BH	NG-116	-	-	No Rehabilitation Required at this time	N/A
NG-117-15465	NG-117-1594	NG-116-1576	259	18	PVC	1	5	0	0	BH	NG-117	-	IG in MH-NG-117-1576	No Rehabilitation Required at this time	N/A
NG-117-15466	NG-117-1954	NG-117-1594	51	18	PVC	0	0	0	0	BH	NG-117	-	-	No Rehabilitation Required at this time	N/A
NG-117-15468	NG-117-1972	NG-117-1954	102	18	PE	0	0	0	0	BH	NG-117	-	-	No Rehabilitation Required at this time	N/A
NG-118-15467	NG-118-2369	NG-117-1972	129	18	PE	0	0	0	0	BH	NG-118	-	-	No Rehabilitation Required at this time	N/A
NG-123-14197	NG-123-873	NG-123-830	29	12	RCP	0	0	1	4	BH	NG-123	-	FM miscoded. CM is actual defect.	No Rehabilitation Required at this time	N/A
NG-123-14198	NG-123-830	NG-123-806	429		CI		0		0	BH	NG-123	-	Siphon barrel 1 of 2	No Rehabilitation Required at this time	N/A
NG-123-14198	NG-123-830	NG-123-806	145		CI	0	0	0	0	BH	NG-123	-	Siphon barrel 2 of 2	No Rehabilitation Required at this time	N/A
NG-123-14200	NG-123-806	NG-123-688	19	12	CI	1	3	0	0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-123-14201	NG-123-688	NG-123-524	175	12	CI	1	3	0	0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-123-14202	NG-123-524	NG-123-363	57	12	CI	3	4	0	0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-123-14203	NG-123-363	NG-123-229	47	12	PE	0	0	0	0	BH	NG-123	-	MH-NG-123-229 buried; No defects noted during PACP inspection	No Rehabilitation Required at this time	N/A
NG-123-14204	NG-123-229	NG-123-0	13		DI	0	0	0	0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-123-14205	NG-123-28	NG-123-8x	62		VCP		0		0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-123-14206	NG-123-0	NG-123-50	86	18	DI	2	4	0	0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-123-14207	NG-123-50	NS-PS-201-1	84	18	DI	1	2	0	0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-123-62529	NG-123-8x	NG-123-0	85		DI		0		0	BH	NG-123	-	-	No Rehabilitation Required at this time	N/A
NG-124-14242	NG-124-5328	NG-124-4861	407	48	FRP	13	3	2	4	BH	NG-124	-	-	No Rehabilitation Required at this time	BH-R1
NG-124-14249	NG-124-4690	NG-124-4418	189	48	FRP	3	2	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-124-14250	NG-124-4418	NG-124-4395	215	48	FRP	0	0	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14251	NG-124-4395	NG-124-4234	8	48	FRP	6	2	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14252	NG-124-4234	NG-124-3858	313	48	FRP	15	3	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14253	NG-124-3858	NG-124-3798	6	48	FRP	3	3	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14254	NG-124-3798	NG-124-3329	260	48	FRP	13	2	1	1	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14255	NG-124-3329	NG-124-2869	8	48	FRP	5	2	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14256	NG-124-2869	NG-124-2526	243	48	FRP	5	2	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14257	NG-124-2526	NG-124-2489	299	48	FRP	0	0	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14258	NG-124-2407	NG-124-2062	266	48	FRP	1	2	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14259	NG-124-2062	NG-124-1522	47	48	FRP	1	4	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14260	NG-124-1522	NG-124-1307	24	48	FRP		4		0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14273	NG-124-4861	NG-124-4710	169	48	FRP	1	2	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-14274	NG-124-4710	NG-124-4690	57	48	FRP	0	0	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-15471	NG-124-2489	NG-124-2407	136	48	FRP	1	2	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-124-15472	NG-124-1307	BHTP Headworks	232	48	FRP	0	0	0	0	BH	NG-124	-	-	No Rehabilitation Required at this time	N/A
NG-125-14262	NG-124-2489	NG-125-1992	251	48	FRP	0	0	0	0	BH	NG-125	-	CIP BH-112 to address	No Rehabilitation Required at this time	Interim System Improvements
NG-125-14263	NG-125-1992	NG-125-1594	283	48	FRP	1	4	0	0	BH	NG-125	-	CIP BH-112 to address	No Rehabilitation Required at this time	Interim System Improvements
NG-125-14264	NG-125-1594	NG-125-1195	268	48	FRP	0	0	0	0	BH	NG-125	-	CIP BH-112 to address	No Rehabilitation Required at this time	Interim System Improvements
NG-125-14265	NG-125-1195	NG-125-1163	35	48	FRP	0	0	0	0	BH	NG-125	-	CIP BH-112 to address	No Rehabilitation Required at this time	Interim System Improvements
NG-125-14266	NG-125-1163	BHTP Headworks	12	48	FRP	2	4	0	0	BH	NG-125	-	CIP BH-112 to address	No Rehabilitation Required at this time	Interim System Improvements
NG-125-14269	NG-125-3824	NG-125-3332	296	48	FRP	0	0	0	0	BH	NG-125	-	CIP BH-112 to address	No Rehabilitation Required at this time	Interim System Improvements
NG-125-14271	NG-125-3267	NG-125-2901	55	48	OB	0	0	0	0	BH	NG-125	-	CIP BH-112 to address	Rehabilitation Required	Interim System Improvements
NG-125-14272	NG-125-2901	NG-124-2489	9	48	OB	5	2	0	0	BH	NG-125	-	CIP BH-112 to address	Rehabilitation Required	Interim System Improvements
NG-125-21583	NG-125-3332	NG-125-3267	335	48	RCP	2	2	0	0	BH	NG-125	-	CIP BH-112 to address	No Rehabilitation Required at this time	Interim System Improvements
NG-126-14342	NG-126-4440	NG-126-4149	269	18	CI	0	0	1	3	BH	NG-126	-	Moderate SCP	No Rehabilitation Required at this time	N/A
NG-126-14343	NG-126-4149	NG-103-4003	302	18	CI	0	0	2	3	BH	NG-126	-	Moderate SCP	No Rehabilitation Required at this time	N/A
NG-126-14344	NG-103-4003	NG-103-3987	214	27	RCP	0	0	1	3	BH	NG-126	-	SAP	No Rehabilitation Required at this time	N/A
NG-127-14100	NG-053-870	NG-127-3791	14	18	VCP	33	4	9	4	BH	NG-127	IR, MWLS	-	Rehabilitation Required	BH-R4
NG-127-14106	NG-127-3658	NG-127-3340	136	24	DI	13	2	0	0	BH	NG-127	-	Only DAE; Reverse grade	Rehabilitation Required	BH-R4
NG-127-14107	NG-127-3791A	NG-127-3658	143	24	VCP	0	0	1	3	BH	NG-127	-	MWLS not severe; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14107	NG-127-3791	NG-127-3791A	207		VCP	9	4	1	2	BH	NG-127	IR	-	Rehabilitation Required	BH-R4
NG-127-14108	NG-127-3340	NG-127-2994	189	24	DI	2	3	1	3	BH	NG-127	-	Needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-127-14109	NG-127-2994	NG-127-2730	41	24	DI	3	2	0	0	BH	NG-127	-	Needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14110	NG-127-2730	NG-127-2380	94	24	DI	3	2	0	0	BH	NG-127	-	DAGS, DAE; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14111	NG-127-2380	NG-127-2030	27	24	PE	0	0	0	0	BH	NG-127	-	Debris; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14112	NG-127-2030	NG-127-1770	243	24	PE	1	5	0	0	BH	NG-127	-	MWM Miscoded; debris; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14113	NG-127-1770	NG-127-1330	157	24	PE	0	0	0	0	BH	NG-127	Reverse grade	Debris; Reverse grade	Rehabilitation Required	BH-R4
NG-127-14114	NG-127-1330	NG-127-980	163	24	PE	0	0	0	0	BH	NG-127	Reverse grade	Debris; Reverse grade	Rehabilitation Required	BH-R4
NG-127-14115	NG-127-980	NG-127-684	158	24	PE	2	4	1	3	BH	NG-127	-	Debris; MCU, LFW; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14116	NG-127-684	NG-127-400	157	24	PE	0	0	0	0	BH	NG-127	-	Debris; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14117	NG-127-400	NG-127-218	215	24	PE	0	0	0	0	BH	NG-127	-	Debris; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14118	NG-127-218	NG-127-201	316	24	PE	0	0	0	0	BH	NG-127	-	Improperly abandoned structure; to be corrected under Prompt Repair Program	Rehabilitation Required	Rehab during CAP
NG-127-14119	NG-127-201	NG-127-160	20	24	CI	0	0	0	0	BH	NG-127	-	Inspection attempted; not completed because of debris in pipe. Clean and Re-inspect.	No Rehabilitation Required at this time	Rehab during CAP
NG-127-14120	NG-127-160	NG-127-52	244	30	PE	1	4	0	0	BH	NG-127	-	Debris; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-127-14121	NG-127-52	NS-PS-219-1	299	30	PE	0	0	0	0	BH	NG-127	-	Debris; needs replace with rest of line for grade	No Rehabilitation Required at this time	BH-R4
NG-129-14193	NG-129-200	NG-129-132	68	18	VCP	0	0	0	0	BH	NG-129	-	-	No Rehabilitation Required at this time	N/A
NG-129-14194	NG-129-132	NG-129-114	18	18	RCP	0	0	0	0	BH	NG-129	-	-	No Rehabilitation Required at this time	N/A
NG-129-14195	NG-129-114	NG-129-44	70	18	RCP	0	0	0	0	BH	NG-129	-	-	No Rehabilitation Required at this time	N/A
NG-129-14196	FLWCTRL-NG-129-4485	NS-PS-213-1	8	18	VCP	0	0	0	0	BH	NG-129	-	SCP	No Rehabilitation Required at this time	N/A
NG-129-15474	NG-129-10	NG-129-44	36	20	RCP	3	2	1	5	BH	NG-129	-	SMW Miscoded - result of construction of drop inlet; encasement present	No Rehabilitation Required at this time	N/A
NG-130X-40442	NG-130X-9585	NG-125-3824	250	42	PP	0	0	14	3	BH	NG-130X	LFDE	CIP BH-112 to address	Rehabilitation Required	Interim System Improvements
NG-130X-4298	NG-130X-9601	NG-130X-9585	189	42	PP	0	0	22	3	BH	NG-130X	LFDE	CIP BH-112 to address	Rehabilitation Required	Interim System Improvements
NG-134-15041	NG-134-75	NG-134-315	209	42	PE	0	0	0	0	BH	NG-134	-	-	No Rehabilitation Required at this time	N/A
NG-134-15042	NG-134-315	NG-134-539	212	42	PE	0	0	0	0	BH	NG-134	-	-	No Rehabilitation Required at this time	N/A
NG-135-15043	NG-134-539	NG-135-160	310	40	PE	0	0	0	0	BH	NG-135	-	-	No Rehabilitation Required at this time	N/A
NG-135-15044	NG-135-160	NG-135-42	213	40	PE	0	0	0	0	BH	NG-135	-	-	No Rehabilitation Required at this time	N/A
NG-135-15045	NG-135-42	NG-135-13580	306	40	PE	0	0	0	0	BH	NG-135	-	-	No Rehabilitation Required at this time	N/A
NG-136-15046	NG-136-13252	NG-136-12932	298	40	PVC	2	3	0	0	BH	NG-136	-	Infiltration Dripper noted	No Rehabilitation Required at this time	N/A
NG-136-15047	NG-136-12932	NG-135-12904	282	40	PVC	0	0	0	0	BH	NG-136	-	-	No Rehabilitation Required at this time	N/A
NG-136-15048	NG-135-12904	NG-135-12858	110	40	PVC	1	2	0	0	BH	NG-136	-	-	No Rehabilitation Required at this time	N/A
NG-136-15049	NG-135-12858	NG-135-12684	166	40	PVC	0	0	0	0	BH	NG-136	-	-	No Rehabilitation Required at this time	N/A
NG-136-15050	NG-135-12684	NG-135-12629	130	40	PVC	0	0	0	0	BH	NG-136	-	-	No Rehabilitation Required at this time	N/A

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-136-15051	NG-135-12629	NG-135-12530	94	40	PVC	0	0	0	0	BH	NG-136	-	-	No Rehabilitation Required at this time	N/A
NG-136-15052	NG-135-12530	NG-136-12489	163	40	PVC	0	0	0	0	BH	NG-136	-	-	No Rehabilitation Required at this time	N/A
NG-136-15053	NG-136-12489	FLWCTRL-NG-137-4483	202	40	PE	0	0	0	0	BH	NG-136	-	-	No Rehabilitation Required at this time	N/A
NG-136-15063	NG-135-13580	NG-136-13492	371	40	PVC	1	4	0	0	BH	NG-136	-	MCU; sonar inspection completed	No Rehabilitation Required at this time	N/A
NG-136-15064	NG-136-13492	NG-136-13252	424	40	PVC	2	4	0	0	BH	NG-136	-	MCU; sonar inspection completed	No Rehabilitation Required at this time	N/A
NG-137-15054	FLWCTRL-NG-137-4483	FLWCTRL-NG-137-1672	137	30	RCP	2	3	0	0	BH	NG-137	-	-	No Rehabilitation Required at this time	N/A
NG-137-16062	FLWCTRL-NG-137-4483	FLWCTRL-NG-137-1672	56	24	RCP	0	0	0	0	BH	NG-137	-	-	No Rehabilitation Required at this time	N/A
NG-138-15055	FLWCTRL-NG-137-1672	NG-138-11967	301	40	PVC	0	0	0	0	BH	NG-138	-	-	No Rehabilitation Required at this time	N/A
NG-138-15056	NG-138-11967	NG-138-11786	245	40	PVC	2	2	0	0	BH	NG-138	-	-	No Rehabilitation Required at this time	N/A
NG-138-15057	NG-138-11786	NG-138-11752	56	40	PVC	0	0	0	0	BH	NG-138	-	-	No Rehabilitation Required at this time	N/A
NG-138-15058	NG-138-11752	NG-138-11474	96	40	PVC	0	0	0	0	BH	NG-138	-	-	No Rehabilitation Required at this time	N/A
NG-138-15059	NG-138-11474	NG-138-11292	263	40	PVC	2	2	0	0	BH	NG-138	-	-	No Rehabilitation Required at this time	N/A
NG-138-15060	NG-138-11292	NG-138-11259	220	40	PVC	0	0	0	0	BH	NG-138	-	-	No Rehabilitation Required at this time	N/A
NG-138-15061	NG-138-11259	NS-PS-206-1	295	40	PVC	1	2	0	0	BH	NG-138	-	Inspection ends at Bridge St. pump station wet well	No Rehabilitation Required at this time	N/A
NG-141-14064	NG-141-5359	NG-141-5329	299	15	HDPE	0	0	0	0	BH	NG-141	-	-	No Rehabilitation Required at this time	N/A
NG-141-14385	NG-141-5329	NG-141-5073	260	15	HDPE	0	0	0	0	BH	NG-141	-	-	No Rehabilitation Required at this time	N/A
NG-141-14386	NG-141-5073	NG-141-4777	246	15	HDPE	0	0	0	0	BH	NG-141	-	-	No Rehabilitation Required at this time	N/A
NG-141-14387	NG-141-4777	NG-141-4467	58	15	HDPE	0	0	0	0	BH	NG-141	-	-	No Rehabilitation Required at this time	N/A
NG-141-14388	NG-141-4467	NG-142-4110	241	15	HDPE	0	0	1	1	BH	NG-141	-	-	No Rehabilitation Required at this time	N/A
NG-142-14390	NG-142-4110	NG-142-3793	177	18	HDPE	1	4	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14391	NG-142-3793	NG-142-3628	120	18	HDPE	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14392	NG-142-3628	NG-142-3282	181	18	HDPE	0	0	1	2	BH	NG-142	-	JSL 55.9 ft is miscoded; no soil or void visible; should be RPZ	No Rehabilitation Required at this time	N/A
NG-142-14393	NG-142-3282	NG-142-3125	216	18	HDPE	0	0	1	2	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14394	NG-142-3125	NG-142-2867	83	18	HDPE	0	0	2	2	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14395	NG-142-2610	NG-142-2371	41	18	HDPE	6	4	3	2	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14396	NG-142-2867	NG-142-2610	199	18	HDPE	1	3	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14397	NG-142-1780	NG-142-1390	61	18	HDPE	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14398	NG-142-2183	NG-142-1780	178	18	HDPE	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14399	NG-142-2371	NG-142-2183	125	18	HDPE	7	4	5	2	BH	NG-142	-	JSM 12.1 ft is miscoded; no soil or void visible; should be RPZ. Sag not causing excessive debris accumulation	No Rehabilitation Required at this time	N/A
NG-142-14400	NG-142-1002	NG-142-750	159	18	HDPE	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14401	NG-142-1390	NG-142-1002	141	18	HDPE	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14402	NG-142-150	NG-143-6510	299	18	HDPE	0	0	1	4	BH	NG-142	FM	CIP BH-120 to address	Rehabilitation Required	Interim System Improvements



Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-142-14403	NG-142-470	NG-142-150	98	18	HDPE	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-14404	NG-142-750	NG-142-470	200	18	HDPE	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-50032	NG-142-2371	NG-142-10879	300	18	CI	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-50342	NG-142-10873	NG-142-10878	96	18	PVC	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-50540	NG-142-10879	Victoria Blvd PS	207	18	CI		2		0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-50542	NG-142-11523	Victoria Blvd PS	297	18	PVC		3		0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-50543	NG-142-10878	NG-142-11522	302	18	PVC	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-50544	NG-142-11522	NG-142-11523	303	18	PVC	0	0	0	0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-142-51046	NG-142-2371	NG-142-10873	252	18	PVC		0		0	BH	NG-142	-	-	No Rehabilitation Required at this time	N/A
NG-143-14405	NG-143-848	NG-143-545	157	10	PVC	3	2	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14406	NG-143-545	NG-143-242	167	10	PVC	1	2	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14407	NG-143-242	NG-143-6510	352	10	PVC	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14408	NG-143-1322	NG-143-1176	329	8	PVC	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14409	NG-143-1176	NG-143-1146	300	8	PVC	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14410	NG-143-1146	NG-143-848	309	10	PVC	4	2	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14411	NG-143-5724	NG-143-5664	118	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-143-14412	NG-143-5985	NG-143-5724	132	24	PE	0	0	0	0	BH	NG-143	-	Reverse Grade	Rehabilitation Required	Interim System Improvements
NG-143-14413	NG-143-6247	NG-143-5985	374	24	PE	0	0	0	0	BH	NG-143	-	Reverse Grade	Rehabilitation Required	Interim System Improvements
NG-143-14414	NG-143-6510	NG-143-6247	318	24	PE	0	0	0	0	BH	NG-143	-	Reverse Grade	Rehabilitation Required	Interim System Improvements
NG-143-14415	NG-143-5492	NG-143-5320	309	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-143-14416	NG-143-5664	NG-143-5492	437	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-143-14417	NG-143-5320	NG-143-4950	305	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14418	NG-143-4950	NG-143-4620	42	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14419	NG-143-4620	NG-143-4290	208	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14420	NG-143-4290	NG-143-3965	320	24	PP	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14421	NG-143-3666	NG-143-3394	347	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14422	NG-143-3749	NG-143-3666	334	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14423	NG-143-3965	NG-143-3749	157	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14429	NG-143-2581	FLWCTRL-NG-146-1622	156	28	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14431	NG-143-3123	NG-143-2852	39	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-143-14432	NG-143-3394	NG-143-3123	173	24	PE	0	0	0	0	BH	NG-143	-	-	No Rehabilitation Required at this time	N/A
NG-146-21559	FLWCTRL-NG-146-1622	FLWCTRL-NG-146-1621	91	18	PE	0	0	0	0	BH	NG-146	-	Siphon barrel 1 of 2	No Rehabilitation Required at this time	N/A
NG-146-21561	FLWCTRL-NG-146-1622	FLWCTRL-NG-146-1621	120	24	PE	0	0	0	0	BH	NG-146	-	Siphon barrel 2 of 2	No Rehabilitation Required at this time	N/A

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-147-14424	NG-147-1601	NG-147-1275	115	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14425	NG-147-1860	NG-147-1601	243	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14426	NG-147-2169	NG-147-1860	179	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14427	FLWCTRL-NG-146-1621	NG-147-2169	102	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14434	NG-147-250	NG-148-19780	107	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14435	NG-147-500	NG-147-250	263	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14436	NG-147-736	NG-147-500	134	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14437	NG-147-941	NG-147-736	252	24	PE	1	2	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-147-14438	NG-147-1275	NG-147-941	275	24	PE	0	0	0	0	BH	NG-147	-	-	No Rehabilitation Required at this time	N/A
NG-148-14430	NG-143-2852	NG-143-2581	50	28	PE	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14433	NG-148-19780	NG-148-19280	147	24	PE	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14439	NG-148-19280	NG-148-18793	283	24	PE	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14440	NG-148-17400	NG-148-17039	46	26	PE	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14441	NG-148-17764	NG-148-17400	162	26	PE	3	4	0	0	BH	NG-148	-	MCU; sonar inspection completed	No Rehabilitation Required at this time	N/A
NG-148-14442	NG-148-18285	NG-148-17764	84	26	PE	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14443	NG-148-18793	NG-148-18285	260	24	PE	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14451	FLWCTRL-NG-149-977	NG-150-16669	122	28	ZZZ	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14453	NG-148-16941	FLWCTRL-NG-149-980	191	28	ZZZ	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-148-14454	NG-148-17039	NG-148-16941	139	28	PE	0	0	0	0	BH	NG-148	-	-	No Rehabilitation Required at this time	N/A
NG-149-20765	FLWCTRL-NG-149-980	FLWCTRL-NG-149-977	265	36	PE	0	0	0	0	BH	NG-149	-	Siphon barrel 1 of 1	No Rehabilitation Required at this time	N/A
NG-150-14446	NG-150-15214	FLWCTRL-NG-151-1281	275	28	PE	0	0	0	0	BH	NG-150	-	-	No Rehabilitation Required at this time	N/A
NG-150-14447	NG-150-15600	NG-150-15214	136	28	PE	0	0	0	0	BH	NG-150	-	-	No Rehabilitation Required at this time	N/A
NG-150-14448	NG-150-15909	NG-150-15600	138	28	PE	0	0	0	0	BH	NG-150	-	-	No Rehabilitation Required at this time	N/A
NG-150-14449	NG-150-16263	NG-150-15909	259	28	PE	0	0	0	0	BH	NG-150	-	-	No Rehabilitation Required at this time	N/A
NG-150-14450	NG-150-16669	NG-150-16263	51	28	PE	0	0	0	0	BH	NG-150	-	-	No Rehabilitation Required at this time	N/A
NG-151-20887	FLWCTRL-NG-151-1281	FLWCTRL-NG-151-15138	102	42	RCP	1	2	2	5	BH	NG-151	H	Will be addressed under Prompt Repair Program	Rehabilitation Required	Rehab during CAP
NG-152-13410-2	City of Hampton 208-231	NG-152-13410	129	12	VCP	3	3	2	2	BH	NG-152	-	-	No Rehabilitation Required at this time	N/A
NG-152-14444	FLWCTRL-NG-151-15138	NG-152-14702	29	28	PE	0	0	0	0	BH	NG-152	-	-	No Rehabilitation Required at this time	N/A
NG-152-14455	NG-152-14332	NG-152-13999	429	28	PE	1	4	0	0	BH	NG-152	-	-	No Rehabilitation Required at this time	N/A
NG-152-14456	NG-152-14702	NG-152-14332	145	28	PE	0	0	0	0	BH	NG-152	-	-	No Rehabilitation Required at this time	N/A
NG-152-14457	NG-152-13639	NG-152-13410	19	30	PE	0	0	0	0	BH	NG-152	-	-	No Rehabilitation Required at this time	N/A
NG-152-14458	NG-152-13999	NG-152-13639	175	28	PE	0	0	0	0	BH	NG-152	-	-	No Rehabilitation Required at this time	N/A
NG-152-14459	NG-152-13410	NG-152-13355	57	30	PE	1	1	0	0	BH	NG-152	-	Survey ends at Claremont PS wet well	No Rehabilitation Required at this time	N/A

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-159-14466	NG-160-25773	NG-159-25728	47	24	ZZZ	2	2	1	3	BH	NG-159	-	Previous slip lining efforts appear to have been abandoned to a bend in the line	Rehabilitation Required	BH-R3
NG-159-14467	NG-159-25728	NG-159-25701	13	30	PE	2	2	0	0	BH	NG-159	-	DAGS not removed with heavy cleaning; reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14468	NG-159-25701	NG-159-25404	62	30	PE	0	0	0	0	BH	NG-159	-	Reverse Grade	No Rehabilitation Required at this time	BH-R3
NG-159-14469	NG-159-25072	NG-159-24821	86	30	PE	0	0	0	0	BH	NG-159	-	Reverse Grade	No Rehabilitation Required at this time	BH-R3
NG-159-14470	NG-159-24821	NG-159-24616	84	30	PE	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14472	NG-159-24318	NG-159-24042	85	30	PE	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14473	NG-159-24042	NG-159-23793	407	30	PE	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14474	NG-159-25404	NG-159-25072	189	30	PE	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14475	NG-159-22080	NG-159-22034	215	30	RCP	0	0	0	0	BH	NG-159	-	Replace with rest of pipe	No Rehabilitation Required at this time	BH-R3
NG-159-14476	NG-159-22034	NS-PS-225-1	8	30	CI	0	0	0	0	BH	NG-159	-	Replace with rest of pipe	No Rehabilitation Required at this time	BH-R3
NG-159-14477	NG-159-22575	NG-159-22325	313	30	RCP	0	0	0	0	BH	NG-159	-	Replace with rest of pipe	No Rehabilitation Required at this time	BH-R3
NG-159-14478	NG-159-22325	NG-159-22080	6	30	RCP	0	0	0	0	BH	NG-159	-	Replace with rest of pipe	No Rehabilitation Required at this time	BH-R3
NG-159-14479	NG-159-23088	NG-159-22788	260	30	RCP	1	2	0	0	BH	NG-159	-	IW; Reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14480	NG-159-22788	NG-159-22575	8	30	RCP	2	2	0	0	BH	NG-159	-	IW; Reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14481	NG-159-23317	NG-159-23088	243	30	RCP	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14482	NG-159-23548	NG-159-23317	299	30	PE	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-14483	NG-159-23793	NG-159-23548	266	30	PE	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-159-15697	NG-159-24418	NG-159-24318	47	30	PE	0	0	0	0	BH	NG-159	-	Reverse Grade	No Rehabilitation Required at this time	BH-R3
NG-159-15698	NG-159-24616	NG-159-24418	24	30	PE	0	0	0	0	BH	NG-159	-	Replace with rest of pipe due to reverse grade	No Rehabilitation Required at this time	BH-R3
NG-160-14460	NG-160-27107A	NG-160-27107	169	20	HDPE	0	0	1	5	BH	NG-160	-	SMWM 32 ft. miscoded; corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
NG-160-14461	NG-160-27107	NG-160-26897	57	20	HDPE	0	0	0	0	BH	NG-160	-	-	No Rehabilitation Required at this time	N/A
NG-160-14462	NG-160-26897	NG-160-26654	136	20	HDPE	1	3	0	0	BH	NG-160	-	-	No Rehabilitation Required at this time	N/A
NG-160-14463	NG-160-26654	NG-160-26350	232	20	HDPE	1	2	0	0	BH	NG-160	-	-	No Rehabilitation Required at this time	N/A
NG-160-14464	NG-160-26350	NG-160-26040	251	20	HDPE	3	3	1	2	BH	NG-160	-	JSL -100.7 ft. miscoded; defective repair clamp	Rehabilitation Required	BH-R3
NG-160-14465	NG-160-26040	NG-160-25773	283	20	HDPE	0	0	0	0	BH	NG-160	-	-	No Rehabilitation Required at this time	N/A
NG-164-14378	NG-164-309	NG-164-21	268	8	VCP	-	-	-	-	BH	NG-164	BSV, FM	See Detailed 46th Street Diversion Sewer Condition Assessment	Rehabilitation Required	BH-R12
NG-164-14380	NG-166-298	NG-166-325	35	24	VCP	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-164-14381	NG-164-21	NG-164-298	12	8	CI	-	-	-	-	BH	NG-164	HSV	See Detailed 46th Street Diversion Sewer Condition Assessment	Rehabilitation Required	BH-R12
NG-164-14381	MH-NG-166-251	MH-NG-164-21	296	8	-	-	-	-	-	BH	NG-166	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12



Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-164-14382	NG-166-325	NG-166-353	55	24	VCP	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-164-14383	NG-166-353	NG-166-419	9	24	VCP	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-164-14384	NG-166-419	NS-PS-202-1	335	18	VCP	-	-	-	-	BH	NG-164	SCP	See Detailed 46th Street Diversion Sewer Condition Assessment	Rehabilitation Required	BH-R12
NG-164-23041	NG-164-338	NG-164-309	269	8	VCP	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-164-49386	PRIV-10866	NG-166-353	302	8	CI	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-166-14373	MH-NG-166-7	MH-NG-166-44	214	21	RCP	-	-	-	-	BH	NG-166	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-166-14374	MH-NG-166-44	MH-NG-166-251	14	21	RCP	-	-	-	-	BH	NG-166	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-166-14376	NG-166-7	NG-166-0	136	15	RCP	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-166-14379	NG-166-251	NG-166-298	143	24	VCP	-	-	-	-	BH	NG-166	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-167-14364	NG-168-2255	NG-167-2108	207	18	VCP	-	-	-	-	BH	NG-167	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-167-14365	NG-167-2108	NG-167-1771	189	21	VCP	-	-	-	-	BH	NG-167	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-167-14366	MH-NG-167-1006	MH-NG-167-777	41	21	RCP	-	-	-	-	BH	NG-167	CM	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple cracks throughout segment	Rehabilitation Required	BH-R12
NG-167-14367	MH-NG-167-777	MH-NG-167-444	94	21	RCP	-	-	-	-	BH	NG-167	CM	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple cracks throughout segment	Rehabilitation Required	BH-R12
NG-167-14368	MH-NG-167-1278	MH-NG-167-1179	27	21	VCP	-	-	-	-	BH	NG-167	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-167-14369	MH-NG-167-1430	MH-NG-167-1278	243	21	VCP	-	-	-	-	BH	NG-167	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-167-14370	MH-NG-167-1179	MH-NG-167-1006	157	21	RCP	-	-	-	-	BH	NG-167	CM	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple cracks throughout segment	Rehabilitation Required	BH-R12
NG-167-14371	MH-NG-167-1771	MH-NG-167-1540	163	21	VCP	-	-	-	-	BH	NG-167	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-167-14372	MH-NG-167-1540	MH-NG-167-1430	158	21	VCP	-	-	-	-	BH	NG-167	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-167-14375	MH-NG-167-444	MH-NG-167-46	157	21	RCP	-	-	-	-	BH	NG-167	CM	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple cracks throughout segment	Rehabilitation Required	BH-R12
NG-167-14377	MH-NG-167-46	MH-NG-166-7	215	21	RCP	-	-	-	-	BH	NG-167	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-167-49387	PRIV-10867	NG-167-1771	316	12	VCP	-	-	-	-	BH	NG-167	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-167-49388	PRIV-10872	PRIV-10867	20	12	DI	-	-	-	-	BH	NG-167	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-167-49390	PRIV-10869	PRIV-10868	244	12	CI	-	-	-	-	BH	NG-167	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-167-49398	PRIV-10868	PRIV-10872	299	12	DI	-	-	-	-	BH	NG-167	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
NG-168-14353	NG-168-2902	NG-168-2765	308	18	RCP	-	-	-	-	BH	NG-168	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-168-14358	NG-168-3150	NG-168-2902	308	18	RCP	-	-	-	-	BH	NG-168	IR, H	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-168-14359	NG-168-2765	NG-168-2645	225	18	RCP	-	-	-	-	BH	NG-168	IR	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-168-14360	NG-168-2645	NG-168-2412	86	18	RCP	-	-	-	-	BH	NG-168	H	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-168-14361	NG-168-2412	NG-168-2396	310	18	RCP	-	-	-	-	BH	NG-168	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-168-14362	NG-168-2396	NG-168-2325	324	18	RCP	-	-	-	-	BH	NG-168	IR	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-168-14363	NG-168-2325	NG-168-2255	297	18	RCP	-	-	-	-	BH	NG-168	ID	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
NG-169-14210	NG-114-10500	NG-169-59	312	42	RCP	0	0	0	0	BH	NG-169	SAVZ	BH-139	Rehabilitation Required	BH-R10
NG-169-14211	NG-169-59	NG-169-592	311	42	RCP	1	2	0	0	BH	NG-169	SAVZ	BH-139	Rehabilitation Required	BH-R10
NG-169-14212	NG-169-592	NG-169-852	309	42	RCP	0	0	0	0	BH	NG-169	SAVZ	BH-139	Rehabilitation Required	BH-R10
NG-169-14213	NG-169-852	NG-169-1395	95	54	RCP	12	5	3	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14214	NG-169-1395	NG-169-1922	121	54	RCP	10	4	4	5	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14215	NG-169-1922	NG-169-2156	8	54	RCP	12	3	4	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14216	NG-169-2156	NG-169-2187	383	54	RCP	2	2	3	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14217	NG-169-2187	NG-169-2213	202	54	RCP	2	3	3	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14218	NG-169-2213	NG-169-2465	174	54	RCP	6	3	4	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14219	NG-169-2465	NG-169-2670	192	54	RCP	13	4	6	5	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14220	FLWCTRL-NG-169-4486	FLWCTRL-NG-169-4487	115	24	RCP	0	0	0	0	BH	NG-169	-	Siphon Barrel 3 of 3; Rehab along with line	No Rehabilitation Required at this time	BH-R1
NG-169-14221	NG-169-2730	NG-169-3032	250	54	RCP	6	3	8	5	BH	NG-169	SRVC	-	Rehabilitation Required	BH-R1
NG-169-14237	NG-169-3619	NG-169-3984	189	54	RCP	12	4	6	5	BH	NG-169	SRVC	-	Rehabilitation Required	BH-R1
NG-169-14238	NG-169-3984	NG-169-4086	209	54	RCP	2	2	3	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14239	NG-169-4086	NG-169-4352	212	54	RCP	3	2	4	5	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14240	NG-169-4352	NG-169-4706	310	54	RCP	10	4	4	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1
NG-169-14241	NG-169-4706	NG-124-5328	213	54	RCP	5	3	4	4	BH	NG-169	SAM	-	Rehabilitation Required	BH-R1

Table C-8. Gravity Pipeline CA Summary within Boat Harbor TP Service Area															
Asset ID	Upstream Node ID	Downstream Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-169-14246	FLWCTRL-NG-169-2253	NG-169-3619	306	54	RCP	2	2	4	5	BH	NG-169	SRVC	-	Rehabilitation Required	BH-R1
NG-169-14248	NG-169-3220	FLWCTRL-NG-169-2254	298	54	RCP	3	3	5	5	BH	NG-169	SRVC	-	Rehabilitation Required	BH-R1
NG-169-15470	NG-169-3032	NG-169-3220	282	54	RCP	7	4	5	5	BH	NG-169	SRVC	-	Rehabilitation Required	BH-R1
NG-169-34662	FLWCTRL-NG-169-4486	FLWCTRL-NG-169-4487	110	33	RCP	0	0	0	0	BH	NG-169	-	Siphon Barrel 1 of 3; Rehab along with line	No Rehabilitation Required at this time	BH-R1
NG-169-34668	FLWCTRL-NG-169-4486	FLWCTRL-NG-169-4487	166	24	RCP	2	3	0	0	BH	NG-169	-	Siphon Barrel 2 of 3; Rehab along with line	No Rehabilitation Required at this time	BH-R1
NG-169-38498	NG-169-5147	NG-124-5328	130	54	RCP	4	4	5	5	BH	NG-169	SRVC	-	Rehabilitation Required	BH-R1
NG-174-14230	NG-174-21	NG-174-197	94	30	PVC	0	0	0	0	BH	NG-174	-	-	No Rehabilitation Required at this time	N/A
NG-174-14231	NG-174-769	NG-174-1170	163	30	PVC	0	0	0	0	BH	NG-174	-	-	No Rehabilitation Required at this time	N/A
NG-174-14232	NG-174-197	NG-174-231	202	30	RCP	0	0	0	0	BH	NG-174	-	-	No Rehabilitation Required at this time	N/A
NG-174-14234	NG-174-231	NG-174-577	371	30	RCP	1	2	0	0	BH	NG-174	-	-	No Rehabilitation Required at this time	N/A
NG-174-14235	NG-174-577	NG-174-769	424	30	RCP	0	0	0	0	BH	NG-174	-	-	No Rehabilitation Required at this time	N/A
NG-174-14236	NG-174-1170	NG-169-852	137	30	PVC	0	0	0	0	BH	NG-174	-	-	No Rehabilitation Required at this time	N/A
NG-174-3681	NG-174-0	NG-174-21	56	30	PVC	0	0	0	0	BH	NG-174	-	-	No Rehabilitation Required at this time	N/A
NPS-210-2717	NPS-210-275	NS-PS-210-1	301	10	VCP	1	5	0	0	BH	NPS-210	-	Corroded metal pipe	Rehabilitation Required	GN-R4
NPS-211-2160	VA Hospital MH	NS-PS-211-1	245	18	CI	0	0	1	3	BH	NPS-211	SCP	Downstream of survey is the Hampton Institute PS wet well	Rehabilitation Required	GN-R4
-	NG-129-4484	NG-129-200	263		RCP	0	0	0	0	BH	NG-129	-	BHTP influent siphon (2 barrels)	No Rehabilitation Required at this time	N/A
-	SMH 143	LS 21	220		CI	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
-	SMH 3	NG-164-21	295		VCP	-	-	-	-	BH	NG-164	B	See Detailed 46th Street Diversion Sewer Condition Assessment	Rehabilitation Required	BH-R12
-	SMH 228A NN	SMH 134C	299		VCP	-	-	-	-	BH	NG-164	FM	See Detailed 46th Street Diversion Sewer Condition Assessment	Rehabilitation Required	BH-R12
-	SMH 228B NN	SMH 228A NN	260		VCP	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
-	WCMH14133	SMH 229	246		VCP	-	-	-	-	BH	NG-164	CM	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple cracks throughout segment	Rehabilitation Required	BH-R12
-	WCMH013552	SMH 35C	58		VCP	-	-	-	-	BH	NG-164	BSV	See Detailed 46th Street Diversion Sewer Condition Assessment; Multiple Infiltration Defects	Rehabilitation Required	BH-R12
-	SMH 8B	SMH 8A	241		RCP	-	-	-	-	BH	NG-164	-	See Detailed 46th Street Diversion Sewer Condition Assessment	No Rehabilitation Required at this time	BH-R12
-	FLWCTRL-NG-169-2254	FLWCTRL-NG-169-2253	177		CI	2	4	0	0	BH	NG-169	-	Siphon barrel 1 of 3; Cleaning related defects; Rehab along with line	No Rehabilitation Required at this time	BH-R1
-	FLWCTRL-NG-169-2254	FLWCTRL-NG-169-2253	120		CI	2	5	0	0	BH	NG-169	-	Siphon barrel 2 of 3; Cleaning related defects; Rehab along with line	No Rehabilitation Required at this time	BH-R1
-	FLWCTRL-NG-169-2254	FLWCTRL-NG-169-2253			CI	2	2	0	0	BH	NG-169	-	Siphon barrel 3 of 3; Cleaning related defects; Rehab along with line	No Rehabilitation Required at this time	BH-R1

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Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-051-6060	NG-051	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-051-6116	NG-051	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-052-5648	NG-052	BH	9/2/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-052-5704	NG-052	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-052-5800	NG-052	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-052-5404	NG-053	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-10	NG-053	BH	9/8/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-1191	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-1392	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-1491	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-1791	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-1935	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-2094	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-2222	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-2397	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-2460	NG-053	BH	9/7/2010	BR	1	H	-	Rehabilitation Required	BH-R4
MH-NG-053-2654	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-2694	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-2778	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-279	NG-053	BH	9/8/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-2992	NG-053	BH	9/3/2010	BR	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-309	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-3173	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-3292	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-3470	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-3714	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-3714A	NG-053	BH	9/3/2010	BR	0	-	Manhole discovered	No Rehabilitation Required at this time	BH-R4
MH-NG-053-3773	NG-053	BH	9/3/2010	BR	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-4018	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-4278	NG-053	BH	9/3/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-4497	NG-053	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-4793	NG-053	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-5093	NG-053	BH	9/2/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4

Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-053-549	NG-053	BH	9/8/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-588	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-704	NG-053	BH	9/8/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-797	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-870	NG-053	BH	9/8/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-053-891	NG-053	BH	9/7/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-1114	NG-057	BH	8/31/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-1232	NG-057	BH	8/31/2010	RCP	1	-	Infiltration	Rehabilitation Required	BH-R4
MH-NG-057-1541	NG-057	BH	8/31/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-1850	NG-057	BH	8/31/2010	BR	0	-	Missing Mortar; Infiltration	Rehabilitation Required	BH-R4
MH-NG-057-2167	NG-057	BH	8/30/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-2542	NG-057	BH	8/30/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-2978	NG-057	BH	8/30/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-300	NG-057	BH	8/31/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-3152	NG-057	BH	8/30/2010	BR	1	FL	-	Rehabilitation Required	BH-R4
MH-NG-057-3188	NG-057	BH	8/30/2010	BR	2	FL	-	Rehabilitation Required	BH-R4
MH-NG-057-3347	NG-057	BH	8/30/2010	RCP	1	-	Surface Other	No Rehabilitation Required at this time	BH-R4
MH-NG-057-3504	NG-057	BH	8/30/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-3840	NG-057	BH	8/30/2010	RCP	1	-	Surface Other	No Rehabilitation Required at this time	BH-R4
MH-NG-057-4186	NG-057	BH	8/30/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-4507	NG-057	BH	8/27/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-4714	NG-057	BH	8/27/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-4757	NG-057	BH	8/27/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-5062	NG-057	BH	8/27/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-5324	NG-057	BH	8/27/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-5431	NG-057	BH	8/27/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-5532	NG-057	BH	8/27/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-5712	NG-057	BH	8/27/2010	RCP	2	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-5955	NG-057	BH	8/27/2010	BR	0	-	Rehabbed in 2007	No Rehabilitation Required at this time	BH-R4
MH-NG-057-6072	NG-057	BH	8/27/2010	BR	0	-	Rehabbed in 2007	No Rehabilitation Required at this time	BH-R4
MH-NG-057-6192	NG-057	BH	8/27/2010	BR	0	-	Missing Bricks	Rehabilitation Required	BH-R4
MH-NG-057-6293	NG-057	BH	8/27/2010	BR	0	-	Projecting aggregate	Rehabilitation Required	BH-R4
MH-NG-057-630	NG-057	BH	8/31/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-057-980	NG-057	BH	8/31/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4



Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-067-6926	NG-067	BH	5/19/2010	CP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-067-7175	NG-067	BH	5/19/2010	CP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-067-7310	NG-067	BH	5/19/2010	CP	3	-	Longitudinal crack inside chimney; Multiple and Longitudinal cracks inside wall	No Rehabilitation Required at this time	N/A
MH-NG-067-7457	NG-067	BH	5/19/2010	CP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-067-7504	NG-067	BH	5/19/2010	CP	2	IR	IR bench; Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-NG-078-4545	NG-078	BH	5/20/2010	CP	0	-	-	No Rehabilitation Required at this time	GN-R4
MH-NG-078-4684	NG-078	BH	5/20/2010	CP	2	FM	FM inside cone; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-078-4821	NG-078	BH	5/20/2010	CP	1	-	Cracks longitudinal inside chimney	No Rehabilitation Required at this time	GN-R4
MH-NG-078-5096	NG-078	BH	5/20/2010	CP	3	-	Spiral and longitudinal fractures inside wall; longitudinal fracture inside cone	No Rehabilitation Required at this time	GN-R4
MH-NG-078-5362	NG-078	BH	5/20/2010	CP	3	-	Surface Aggregate Visible and Circumferential fractures inside wall; multiple cracks inside chimney	No Rehabilitation Required at this time	GN-R4
MH-NG-078-5500	NG-078	BH	5/20/2010	CP	2	SAM	SAM inside wall; Longitudinal fracture inside wall	Rehabilitation Required	GN-R4
MH-NG-078-5691	NG-078	BH	5/20/2010	CP	2	-	Surface Aggregate Visible and Circumferential fractures inside wall	No Rehabilitation Required at this time	N/A
MH-NG-078-5813	NG-078	BH	5/20/2010	CP	2	-	Longitudinal fractures inside chimney	No Rehabilitation Required at this time	N/A
MH-NG-078-6073	NG-078	BH	5/20/2010	CP	1	-	Surface Aggregate inside wall	No Rehabilitation Required at this time	N/A
MH-NG-078-6157	NG-078	BH	5/20/2010	CP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-078-6319	NG-078	BH	5/20/2010	CP	2	-	Surface Aggregate Visible inside wall; Multiple cracks inside chimney	No Rehabilitation Required at this time	N/A
MH-NG-078-6355	NG-078	BH	5/20/2010	CP	3	FL	Long fractures inside wall; Surface Aggregate visible inside wall	Rehabilitation Required	N/A
MH-NG-078-6648	NG-078	BH	5/20/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-082-100	NG-082	BH	5/24/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-082-109	NG-082	BH	5/24/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-082-1110	NG-082	BH	5/24/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1126	NG-082	BH	5/24/2010	RCP	2	-	Surface Aggregate Visible inside wall; Multiple cracks inside cone	No Rehabilitation Required at this time	N/A
MH-NG-082-1500	NG-082	BH	5/24/2010	RCP	1	-	Rehab with line; Circumferential fracture inside chimney	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1581	NG-082	BH	5/24/2010	RCP	1	-	Rehab with line' Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1664	NG-082	BH	5/24/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1749	NG-082	BH	5/24/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1811	NG-082	BH	5/21/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1824	NG-082	BH	5/21/2010	RCP	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1868	NG-082	BH	5/21/2010	BR	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R4
MH-NG-082-1926	NG-082	BH	5/25/2010	BR	0	-	Rehab with line	No Rehabilitation Required at this time	N/A
MH-NG-082-2098	NG-082	BH	5/21/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-082-2131	NG-082	BH	5/21/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-082-2291	NG-082	BH	5/21/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-082-2722	NG-082	BH	5/21/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A

Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-082-2750	NG-082	BH	5/21/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-082-2879	NG-082	BH	5/21/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-082-2982	NG-082	BH	5/21/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-082-3034	NG-082	BH	5/20/2010	RCP	0	-	Rehab with Line	No Rehabilitation Required at this time	N/A
MH-NG-082-369	NG-082	BH	5/24/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-082-376	NG-082	BH	5/24/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-082-687	NG-082	BH	5/24/2010	RCP	1	-	Longitudinal fracture inside wall	No Rehabilitation Required at this time	N/A
MH-NG-082-696	NG-082	BH	5/24/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-082-909	NG-082	BH	5/24/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-083-265	NG-083	BH	5/25/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-083-499	NG-083	BH	5/25/2010	RCP	2	FM	Multiple fractures inside chimney; circumferential fractures inside wall	Rehabilitation Required	GN-R1
MH-NG-083-634	NG-083	BH	5/25/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-083-690	NG-083	BH	5/25/2010	RCP	2	FM	Multiple and longitudinal fractures inside wall	Rehabilitation Required	GN-R1
MH-NG-083-859	NG-083	BH	5/25/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-083-881	NG-083	BH	5/25/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-083-929	NG-083	BH	5/25/2010	RCP	4	FL	Longitudinal fractures inside wall and inside cone; Surface Aggregate Visible inside wall; Multiple cracks inside Chimney	Rehabilitation Required	GN-R1
MH-NG-084-25	NG-084	BH	5/25/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-084-294	NG-084	BH	5/25/2010	RCP	2	-	Multiple cracks inside chimney; longitudinal fractures inside wall	No Rehabilitation Required at this time	N/A
MH-NG-084-575	NG-084	BH	5/25/2010	RCP	1	IR	IR bench	Rehabilitation Required	GN-R1
MH-NG-084-827	NG-084	BH	5/25/2010	RCP	3	B	B inside cone; Surface Aggregate Visible and Longitudinal fracture inside wall	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-094-1000	NG-094	BH	5/7/2010	BR	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-094-1264	NG-094	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-094-13	NG-094	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-094-364	NG-094	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-094-373	NG-094	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-094-67	NG-094	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-094-698	NG-094	BH	5/7/2010	BR	1	-	Spiral crack inside cone	No Rehabilitation Required at this time	N/A
MH-NG-095-1052	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-109	NG-095	BH	5/11/2010	BR	2	MB	MB inside wall and chimney	Rehabilitation Required	GN-R4
MH-NG-095-1267	NG-095	BH	5/11/2010	BR	1	MB	MB inside wall	Rehabilitation Required	GN-R4
MH-NG-095-1426	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-150	NG-095	BH	5/11/2010	BR	3	MB	MB chimney and roots fine joint inside wall	Rehabilitation Required	GN-R4
MH-NG-095-1584	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-1745	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A



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Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-095-1903	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-2146	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-2390	NG-095	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-2408	NG-095	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-25	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	GN-R4
MH-NG-095-318	NG-095	BH	5/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-340	NG-095	BH	7/29/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-546	NG-095	BH	5/11/2010	BR	1	MB	MB inside wall	Rehabilitation Required	GN-R4
MH-NG-095-689	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-823	NG-095	BH	5/11/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-095-838	NG-095	BH	5/11/2010	BR	1	MB	MB inside wall	Rehabilitation Required	GN-R4
MH-NG-099-1242	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-1551	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-1861	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-1948	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-2173	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-2479	NG-099	BH	8/31/2010	BR	2	-	Surface other - peeling liner	No Rehabilitation Required at this time	BH-R4
MH-NG-099-2786	NG-099	BH	8/31/2010	BR	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-3086	NG-099	BH	9/9/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-312	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-609	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-099-932	NG-099	BH	9/1/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-101-133	NG-101	BH	7/26/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-101-227	NG-101	BH	7/26/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-101-4812	NG-101	BH	7/26/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-101-5	NG-101	BH	7/26/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-103-1129	NG-103	BH	7/26/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-103-1411	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-103-168	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-103-1709	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-103-2020	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-103-2229	NG-103	BH	7/25/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-103-2540	NG-103	BH	7/25/2011	BR	1	-	Roots Fine Connection bench	No Rehabilitation Required at this time	N/A
MH-NG-103-2751	NG-103	BH	7/25/2011	BR	1	-	Roots Fine Connection bench	No Rehabilitation Required at this time	N/A

Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-103-281	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-103-2962	NG-103	BH	7/25/2011	BR	1	-	Roots Fine Connection Chimney	No Rehabilitation Required at this time	N/A
MH-NG-103-3147	NG-103	BH	7/25/2011	BR	1	-	Roots Fine Connection inside wall	No Rehabilitation Required at this time	N/A
MH-NG-103-3401	NG-103	BH	7/25/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-103-3603	NG-103	BH	7/25/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-103-3750	NG-103	BH	7/25/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-103-3843	NG-103	BH	7/25/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-103-3987	NG-103	BH	7/26/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-103-476	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-103-651	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	N/A
MH-NG-103-851	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	N/A
MH-NG-103-940	NG-103	BH	7/25/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	N/A
MH-NG-106-10400	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-106-350	NG-106	BH	7/27/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-106-36	NG-106	BH	7/27/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-106-7710	NG-106	BH	7/27/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-106-8070	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-106-8440	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-106-8760	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-106-9101	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-106-9210	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-106-9637	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-106-9990	NG-106	BH	7/27/2011	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	BH-R2
MH-NG-108-1091	NG-108	BH	11/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-2340	NG-108	BH	11/9/2010	BR	0	-	Rehabilitate with line	No Rehabilitation Required at this time	BH-R2
MH-NG-108-2800	NG-108	BH	11/22/2010	BR	0	-	Rehabilitate with line	No Rehabilitation Required at this time	BH-R2
MH-NG-108-3200	NG-108	BH	11/22/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-3432	NG-108	BH	11/22/2010	BR	2	-	Multiple cracks and spiral fracture in cone	No Rehabilitation Required at this time	N/A
MH-NG-108-3600	NG-108	BH	11/22/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-4000	NG-108	BH	11/22/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-4420	NG-108	BH	11/22/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-4459	NG-108	BH	11/22/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-4920	NG-108	BH	11/22/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-5288	NG-108	BH	11/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A

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Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-108-5657	NG-108	BH	11/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-6100	NG-108	BH	11/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-6560	NG-108	BH	11/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-108-719	NG-108	BH	7/27/2011	BR	1	IR	-	Rehabilitation Required	BH-R2
MH-NG-108-7340	NG-108	BH	7/27/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-1130	NG-109	BH	5/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-121	NG-109	BH	5/14/2010	RCP	1	-	Surface aggregate visible inside wall	No Rehabilitation Required at this time	GN-R4
MH-NG-109-135	NG-109	BH	5/14/2010	BR	0	-	Add to manhole project because of operational concerns.	No Rehabilitation Required at this time	GN-R1
MH-NG-109-1431	NG-109	BH	5/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-167	NG-109	BH	5/14/2010	RCP	2	-	Holes and Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-109-1734	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-185	NG-109	BH	5/14/2010	RCP	1	-	Surface Aggregate Visible inside wall. Add to manhole project because of operational concerns.	No Rehabilitation Required at this time	GN-R1
MH-NG-109-2031	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-2312	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-242	NG-109	BH	5/14/2010	RCP	0	-	MH is buried. Condition satisfactory as observed during pipe inspection. Add to manhole project because of operational concerns.	No Rehabilitation Required at this time	GN-R1
MH-NG-109-256	NG-109	BH	5/14/2010	RCP	2	-	Surface Aggregate Visible cone and inside wall	No Rehabilitation Required at this time	N/A
MH-NG-109-2597	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-269	NG-109	BH	5/14/2010	RCP	3	-	Surface Aggregate Visible cone, chimney, inside wall	No Rehabilitation Required at this time	N/A
MH-NG-109-2900	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-3196	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-3498	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-3771	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-4082	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-4356	NG-109	BH	5/13/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-109-4656	NG-109	BH	5/13/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	GN-R4
MH-NG-109-480	NG-109	BH	5/14/2010	RCP	2	-	Infiltration dripper and roots fine connection chimney	No Rehabilitation Required at this time	N/A
MH-NG-109-5026	NG-109	BH	5/12/2010	RCP	0	-	-	No Rehabilitation Required at this time	GN-R4
MH-NG-109-5255	NG-109	BH	5/12/2010	RCP	2	-	IR from PACP inspection	Rehabilitation Required	GN-R4
MH-NG-109-5557	NG-109	BH	5/12/2010	RCP	2	-	Surface Aggregate Visible cone and inside wall	No Rehabilitation Required at this time	GN-R4
MH-NG-109-5774	NG-109	BH	5/12/2010	CP	3	SRC	SRC chimney; Surface Aggregate Visible chimney and inside wall	Rehabilitation Required	GN-R4
MH-NG-109-6014	NG-109	BH	5/12/2010	CP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	GN-R4
MH-NG-109-6299	NG-109	BH	5/12/2010	BR	0	-	-	No Rehabilitation Required at this time	GN-R4
MH-NG-109-6314	NG-109	BH	5/12/2010	BR	0	-	-	No Rehabilitation Required at this time	GN-R4
MH-NG-109-679	NG-109	BH	5/14/2010	RCP	1	-	Deposits Encrusted inside wall	No Rehabilitation Required at this time	N/A

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Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-109-849	NG-109	BH	5/14/2010	RCP	0	-		No Rehabilitation Required at this time	N/A
MH-NG-110-1040	NG-110	BH	11/9/2010	BR	1	IR	IR inside wall; To be addressed under Prompt Repair Program	Rehabilitation Required	Rehab During CAP
MH-NG-110-1560	NG-110	BH	11/9/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-110-1820	NG-110	BH	11/9/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-110-260	NG-110	BH	11/9/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-110-520	NG-110	BH	11/9/2010	BR	0	-	Rehab done in conjunction with pipelines	No Rehabilitation Required at this time	BH-R10
MH-NG-110-779	NG-110	BH	11/9/2010	BR	0	-	Rehab done in conjunction with pipelines	No Rehabilitation Required at this time	BH-R10
MH-NG-111-1166	NG-111	BH	4/19/2010	BR	1	IR	IR inside wall	Rehabilitation Required	Interim System Improvements
MH-NG-111-1250	NG-111	BH	4/19/2010	BR	1	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-1350	NG-111	BH	4/19/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-140	NG-111	BH	4/19/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-1586	NG-111	BH	4/19/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-1699	NG-111	BH	4/19/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-1736	NG-111	BH	7/28/2011	BR	1	-	Circumferential crack inside wall	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-300	NG-111	BH	4/19/2010	BR	1	-	Roots Medium Connection inside wall	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-590	NG-111	BH	4/19/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-111-879	NG-111	BH	4/19/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-112-12175	NG-112	BH	4/28/2010	RCP	0	-	-	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-112-12636	NG-112	BH	4/28/2010	RCP	4	SRC	ISSRH (15%) inside wall; Surface Aggregate Visible inside wall and chimney	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-114-10500	NG-114	BH	11/9/2010	RCP	2	IR	IR bench; Surface Aggregate Visible inside wall	Rehabilitation Required	BH-R10
MH-NG-114-10917	NG-114	BH	11/9/2010	BR	1	-	Deposits Encrusted inside wall	No Rehabilitation Required at this time	N/A
MH-NG-114-11323	NG-114	BH	2/18/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-114-11465	NG-114	BH	11/9/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-114-11725	NG-114	BH	11/9/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-115-570	NG-115	BH	7/11/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-115-863	NG-115	BH	7/11/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-115-1331	NG-115	BH	7/11/2011	BR	0	-	MH is buried. Condition satisfactory as observed during pipe inspection.	No Rehabilitation Required at this time	N/A
MH-NG-115-1344	NG-115	BH	7/11/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-116-1237	NG-116	BH	8/2/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-116-1576	NG-116	BH	8/3/2011	RCP	2	-	IG from pipeline inspection	Rehabilitation Required	GN-R1
MH-NG-117-1594	NG-117	BH	8/3/2011	RCP	2	-	Surface Aggregate Visible cone and inside wall	No Rehabilitation Required at this time	N/A
MH-NG-117-1954	NG-117	BH	8/2/2011	RCP	2	SRV	SRV and Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-NG-117-1972	NG-117	BH	8/2/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-118-2369	NG-118	BH	8/2/2011	BR	1	-	Multiple cracks inside wall	No Rehabilitation Required at this time	N/A

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Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-123-0	NG-123	BH	10/28/2010	RCP	1	-	Deposits Attached Grease inside wall	No Rehabilitation Required at this time	N/A
MH-NG-123-16	NG-123	BH	10/28/2010	RCP	0	-	MH is buried. Condition satisfactory as observed during pipe inspection.	No Rehabilitation Required at this time	N/A
MH-NG-123-229	NG-123	BH	7/29/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-123-28	NG-123	BH	10/28/2010	BR	2	-	Deposits Attached Grease inside wall	No Rehabilitation Required at this time	N/A
MH-NG-123-363	NG-123	BH	10/28/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-123-50	NG-123	BH	10/28/2010	RCP	2	SZC	SZC and Deposits Attached grease attached	Rehabilitation Required	GN-R1
MH-NG-123-524	NG-123	BH	7/29/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-123-688	NG-123	BH	10/28/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-123-806	NG-123	BH	10/28/2010	RCP	1	-	Infiltration stain inside wall	No Rehabilitation Required at this time	N/A
MH-NG-123-830	NG-123	BH	10/28/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-123-873	NG-123	BH	10/28/2010	BR	1	-	Infiltration dripper cone	No Rehabilitation Required at this time	N/A
MH-NG-124-1015	NG-124	BH	9/30/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-124-1307	NG-124	BH	2/18/2011	BR	1	SRC	SRC chimney	Rehabilitation Required	GN-R1
MH-NG-124-1522	NG-124	BH	2/18/2011	RCP	2	SRC	SRC and Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-NG-124-2062	NG-124	BH	2/18/2011	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-2407	NG-124	BH	2/18/2011	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-2489	NG-124	BH	2/18/2011	RCP	1	IR	IR at pipe connection	Rehabilitation Required	Interim System Improvements
MH-NG-124-2526	NG-124	BH	2/18/2011	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-2869	NG-124	BH	9/30/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-124-3329	NG-124	BH	2/18/2011	BR	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-3798	NG-124	BH	11/8/2010	RCP	2	SRV	SRV and Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-NG-124-3858	NG-124	BH	11/8/2010	RCP	3	-	Deposits Attached Encrusted bench; surface aggregate visible and infiltration dripper inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-4234	NG-124	BH	11/8/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-4395	NG-124	BH	11/8/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-4418	NG-124	BH	11/8/2010	RCP	2	SRV	SRV and Surface Aggregate Visible inside wall	Rehabilitation Required	GN-R1
MH-NG-124-4690	NG-124	BH	11/8/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-124-4710	NG-124	BH	11/8/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-124-4861	NG-124	BH	11/8/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-124-5328	NG-124	BH	11/8/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R1
MH-NG-125-1163	NG-125	BH	2/18/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-125-1195	NG-125	BH	7/7/2011	CSU	1	IR	IR inside wall	Rehabilitation Required	Interim System Improvements
MH-NG-125-1594	NG-125	BH	2/18/2011	RCP	1	IR	IR at pipe connection	Rehabilitation Required	Interim System Improvements
MH-NG-125-1992	NG-125	BH	2/18/2011	RCP	1	IR	IR at pipe connection	Rehabilitation Required	Interim System Improvements
MH-NG-125-2475	NG-125	BH	2/18/2011	RCP	1	IR	IR at pipe connection. Same structure as MH-NG-124-2489	Rehabilitation Required	Interim System Improvements

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Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-125-2901	NG-125	BH	7/7/2011	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-125-3824	NG-125	BH	7/7/2011	CSU	2	-	Lining failure detached chimney; surface aggregate projecting bench	No Rehabilitation Required at this time	Interim System Improvements
FLWCTRL-NG-125-4488	NG-125	BH	10/23/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	Rehabilitation Required	Interim System Improvements
FLWCTRL-NG-125-4489	NG-125	BH	10/23/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	Rehabilitation Required	Interim System Improvements
MH-NG-103-4003	NG-126	BH	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-126-4149	NG-126	BH	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-126-4440	NG-126	BH	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-127-1330	NG-127	BH	9/10/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-160	NG-127	BH	9/10/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-1770	NG-127	BH	8/9/2010	RCP	2	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-201	NG-127	BH	9/10/2010	BR	1	IR	Designated as Prompt Repair	Rehabilitation Required	Rehab During CAP
MH-NG-127-2030	NG-127	BH	8/9/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-218	NG-127	BH	9/10/2010	RCP	2	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-2380	NG-127	BH	8/9/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-2730	NG-127	BH	8/9/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-2994	NG-127	BH	8/9/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-3340	NG-127	BH	8/9/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-3658	NG-127	BH	9/9/2010	RCP	1	SAV	Manhole appears to be deteriorating	Rehabilitation Required	BH-R4
MH-NG-127-3689	NG-127	BH	9/9/2010	RCP	0	0	MH is buried. Condition satisfactory as observed during pipe inspection.	No Rehabilitation Required at this time	BH-R4
MH-NG-127-3791	NG-127	BH	9/9/2010	BR	0	-	Missing Mortar	Rehabilitation Required	BH-R4
MH-NG-127-400	NG-127	BH	9/10/2010	RCP	1	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-52	NG-127	BH	9/10/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-127-684	NG-127	BH	9/10/2010	RCP	1	SAV	-	Rehabilitation Required	BH-R4
MH-NG-127-980	NG-127	BH	9/10/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R4
MH-NG-129-10	NG-129	BH	10/26/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-129-114	NG-129	BH	7/29/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-129-132	NG-129	BH	10/27/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-129-200	NG-129	BH	10/27/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-129-4485	NG-129	BH	10/26/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-129-5762	NG-129	BH	11/3/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	Rehabilitation Required	GN-R1
FLWCTRL-NG-129-5761	NG-129	BH	10/14/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	No Rehabilitation Required at this time	N/A
MH-NG-130X-9585	NG-130X	BH	7/7/2011	BR	2	-	Lining failure detached inside wall and chimney	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-130X-9601	NG-130X	BH	7/7/2011	CSU	4	HVV, HSV, SRC	Surface Aggregate Projecting; designated in Prompt Repair Program	Rehabilitation Required	Rehab During CAP
MH-NG-134-315	NG-134	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A



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Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-134-539	NG-134	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-134-75	NG-134	BH	7/12/2011	BR	1	-	Infiltration dripper inside wall	No Rehabilitation Required at this time	N/A
MH-NG-135-12530	NG-135	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-135-12629	NG-135	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-135-12684	NG-135	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-135-12858	NG-135	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-135-12904	NG-135	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-135-13580	NG-135	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-135-160	NG-135	BH	7/12/2011	PSC	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-135-42	NG-135	BH	7/12/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-136-12489	NG-136	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-136-12932	NG-136	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-136-13252	NG-136	BH	7/12/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-136-13492	NG-136	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-137-1672	NG-137	BH	11/3/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	Rehabilitation Required	GN-R1
FLWCTRL-NG-137-1673	NG-137	BH	11/3/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	Rehabilitation Required	GN-R1
MH-NG-138-11259	NG-138	BH	7/13/2011	BR	1	-	Infiltration Stain	No Rehabilitation Required at this time	N/A
MH-NG-138-11292	NG-138	BH	7/13/2011	BR	1	IR	-	Rehabilitation Required	GN-R1
MH-NG-138-11474	NG-138	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-138-11752	NG-138	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-138-11786	NG-138	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-138-11967	NG-138	BH	7/13/2011	BR	1	-	Infiltration Stain	No Rehabilitation Required at this time	N/A
MH-NG-141-4467	NG-141	BH	8/5/2010	BR	0	-	Missing bricks	Rehabilitation Required	HRSD CIP No. BH-145
MH-NG-141-4777	NG-141	BH	8/5/2010	BR	2	FM	Longitudinal Fracture chimney	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-141-5073	NG-141	BH	8/5/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-141-5329	NG-141	BH	8/5/2010	BR	1	FM	Longitudinal Fracture bench, Missing mortar	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-141-5359	NG-141	BH	8/5/2010	BR	0	-	Improper materials; infiltration potential	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-142-1002	NG-142	BH	6/2/2010	BR	0	-	Infiltration, Mortar deterioration	Rehabilitation Required	HRSD CIP No. BH-145
MH-NG-142-1390	NG-142	BH	6/2/2010	BR	0	-	Infiltration, Mortar deterioration	Rehabilitation Required	HRSD CIP No. BH-145
MH-NG-142-150	NG-142	BH	6/3/2010	BR	0	-	Rehab along with lines; combine with BH-120 (Interim System Improvement).	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-142-1780	NG-142	BH	6/2/2010	BR	0	-	Infiltration, Mortar deterioration	Rehabilitation Required	HRSD CIP No. BH-145
MH-NG-142-2183	NG-142	BH	6/2/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-2371	NG-142	BH	6/2/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-2610	NG-142	BH	6/2/2010	BR	0	-	Infiltration, Mortar deterioration	Rehabilitation Required	HRSD CIP No. BH-145

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Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-142-2867	NG-142	BH	6/2/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-3125	NG-142	BH	6/2/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-3282	NG-142	BH	6/2/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-3628	NG-142	BH	6/2/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-3793	NG-142	BH	6/1/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-4110	NG-142	BH	6/2/2010	BR	0	-	Mortar deterioration; Rehab along with other MHs on line	No Rehabilitation Required at this time	HRSD CIP No. BH-145
MH-NG-142-470	NG-142	BH	6/3/2010	BR	1	-	Missing Bricks; Infiltration dripper inside wall	Rehabilitation Required	HRSD CIP No. BH-145
MH-NG-142-750	NG-142	BH	6/3/2010	BR	0	-	Infiltration, Mortar deterioration	Rehabilitation Required	HRSD CIP No. BH-145
MH-NG-143-6510	NG-142	BH	6/3/2010	BR	0	-	Rehab along with lines	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-143-1146	NG-143	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-1176	NG-143	BH	7/21/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-1322	NG-143	BH	7/21/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-242	NG-143	BH	7/13/2011	BR	0	-	Infiltration	Rehabilitation Required	GN-R1
MH-NG-143-2581	NG-143	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-2852	NG-143	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-3123	NG-143	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-3394	NG-143	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-3666	NG-143	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-3749	NG-143	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-3965	NG-143	BH	7/13/2011	BR	1	-	Infiltration dripper inside wall	No Rehabilitation Required at this time	N/A
MH-NG-143-4290	NG-143	BH	9/30/2011	BR	0	-	Infiltration, Encrustation	Rehabilitation Required	GN-R1
MH-NG-143-4620	NG-143	BH	9/30/2011	BR	0	-	Infiltration, Encrustation	Rehabilitation Required	GN-R1
MH-NG-143-4950	NG-143	BH	9/30/2011	BR	0	-	Infiltration, Encrustation	Rehabilitation Required	GN-R1
MH-NG-143-5320	NG-143	BH	7/13/2011	BR	0	-	Rehab along with lines	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-143-545	NG-143	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-143-5492	NG-143	BH	7/13/2011	BR	0	-	Rehab along with lines	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-143-5664	NG-143	BH	7/21/2011	BR	0	-	Rehab along with lines	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-143-5724	NG-143	BH	7/21/2011	BR	0	-	Rehab along with lines	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-143-5985	NG-143	BH	7/13/2011	BR	0	-	Rehab along with lines	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-143-6247	NG-143	BH	7/13/2011	BR	0	-	Rehab along with lines	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-143-848	NG-143	BH	7/13/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-146-1621	NG-146	BH	10/14/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-146-1622	NG-146	BH	10/14/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	No Rehabilitation Required at this time	N/A
MH-NG-147-1275	NG-147	BH	7/14/2011	BR	1	-	Infiltration dripper inside wall	No Rehabilitation Required at this time	N/A



Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-147-1601	NG-147	BH	7/14/2011	BR	1	IR	IR inside wall	Rehabilitation Required	GN-R1
MH-NG-147-1860	NG-147	BH	7/14/2011	BR	1	IR	IR inside wall	Rehabilitation Required	GN-R1
MH-NG-147-2169	NG-147	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-147-250	NG-147	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-147-500	NG-147	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-147-736	NG-147	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-147-941	NG-147	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-148-16941	NG-148	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-148-17039	NG-148	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-148-17400	NG-148	BH	7/14/2011	BR	2	-	Infiltration dripper inside wall	No Rehabilitation Required at this time	N/A
MH-NG-148-17764	NG-148	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-148-18285	NG-148	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-148-18793	NG-148	BH	7/14/2011	BR	1	-	Infiltration dripper inside wall	No Rehabilitation Required at this time	N/A
MH-NG-148-19280	NG-148	BH	7/14/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-148-19780	NG-148	BH	7/14/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-149-977	NG-149	BH	10/18/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-149-980	NG-149	BH	10/18/2011	RC	-	-	Structural Inspection / Schmidt hammer test done; Reinforcement visible inside of cone	Rehabilitation Required	GN-R1
MH-NG-150-15214	NG-150	BH	7/15/2011	BR	0	-	Infiltration at pipe connections	Rehabilitation Required	GN-R1
MH-NG-150-15600	NG-150	BH	7/15/2011	BR	0	-	Infiltration at pipe connections	Rehabilitation Required	GN-R1
MH-NG-150-15909	NG-150	BH	9/30/2011	BR	0	-	Infiltration at pipe connections	Rehabilitation Required	GN-R1
MH-NG-150-16263	NG-150	BH	9/30/2011	BR	0	-	Infiltration at pipe connections	Rehabilitation Required	GN-R1
MH-NG-150-16669	NG-150	BH	7/15/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-151-1281	NG-151	BH	10/14/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	No Rehabilitation Required at this time	N/A
FLWCTRL-NG-151-15138	NG-151	BH	10/14/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	No Rehabilitation Required at this time	N/A
MH-NG-152-13410	NG-152	BH	7/15/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-152-13639	NG-152	BH	7/15/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-152-13999	NG-152	BH	7/15/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-152-14332	NG-152	BH	7/15/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-152-14702	NG-152	BH	7/15/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-159-22034	NG-159	BH	7/12/2011	BR	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-22080	NG-159	BH	7/12/2011	BR	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-22325	NG-159	BH	7/12/2011	BR	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-22575	NG-159	BH	7/12/2011	BR	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-22788	NG-159	BH	7/12/2011	RCP	1	-	Surface Aggregate Visible inside wall; Rehab along with line	No Rehabilitation Required at this time	BH-R3

Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-159-23088	NG-159	BH	7/12/2011	BR	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-23317	NG-159	BH	7/12/2011	BR	2	IR	IR bench; infiltration dripper inside wall; Rehab along with line	Rehabilitation Required	BH-R3
MH-NG-159-23548	NG-159	BH	7/12/2011	RCP	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-23793	NG-159	BH	7/11/2011	BR	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-24042	NG-159	BH	7/11/2011	BR	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-24318	NG-159	BH	7/11/2011	RCP	1	-	Surface Aggregate Visible inside wall; Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-24418	NG-159	BH	7/11/2011	RCP	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-24616	NG-159	BH	7/11/2011	RCP	1	IR	IR bench	Rehabilitation Required	BH-R3
MH-NG-159-24821	NG-159	BH	7/11/2011	RCP	1	IR	IR bench	Rehabilitation Required	BH-R3
MH-NG-159-25072	NG-159	BH	7/11/2011	RCP	1	-	Surface Aggregate Visible inside wall; Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-25404	NG-159	BH	7/11/2011	RCP	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-25701	NG-159	BH	7/11/2011	ZZZ	0	-	Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-159-25728	NG-159	BH	8/5/2010	RCP	1	-	Surface Aggregate Visible inside wall; Rehab along with line	No Rehabilitation Required at this time	BH-R3
MH-NG-160-25773	NG-160	BH	8/5/2010	BR	0	-	-	No Rehabilitation Required at this time	BH-R3
MH-NG-160-26040	NG-160	BH	8/5/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-160-26350	NG-160	BH	8/5/2010	BR	1	-	infiltration weeper bench	No Rehabilitation Required at this time	N/A
MH-NG-160-26654	NG-160	BH	8/4/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-160-26897	NG-160	BH	8/4/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-160-27107	NG-160	BH	8/4/2010	BR	0	-	-	No Rehabilitation Required at this time	Rehab During CAP
FLWCTRL-NG-160-1676	NG-160	BH	8/4/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
NG-164-309	NG-164	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-166-298	NG-164	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-166-325	NG-164	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-166-353	NG-164	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-166-419	NG-164	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-164-338	NG-164	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-164-21	NG-164	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-166-7	NG-166	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-166-44	NG-166	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-166-251	NG-166	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-166-251	NG-166	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-2255	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-167-2108	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-1006	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12

Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-167-777	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-1278	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-1430	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-1179	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-1771	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-1540	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-444	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-167-46	NG-167	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-2902	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-3150	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-2765	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-2645	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-2412	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-2396	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
NG-168-2325	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-168-3367	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-168-3575	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
MH-NG-168-3611	NG-168	BH	-	-	-	-	See Detailed 46th Street Diversion Sewer Condition Assessment; rehab with line	-	BH-R12
FLWCTRL-NG-169-2253	NG-169	BH	10/18/2011	RC	-	-	Structural Inspection / Schmidt hammer test done	Rehabilitation Required	BH-R1
FLWCTRL-NG-169-2254	NG-169	BH	10/18/2011	RC	-	-	Structural Inspection / Schmidt hammer test done; Reinforcement visible	Rehabilitation Required	BH-R1
FLWCTRL-NG-169-4486	NG-169	BH	10/23/2011	RC	-	-	Structural Inspection / Schmidt hammer test done; Reinforcement visible	Rehabilitation Required	BH-R1
FLWCTRL-NG-169-4487	NG-169	BH	10/23/2011	RC	-	-	Structural Inspection / Schmidt hammer test done; Reinforcement visible	Rehabilitation Required	BH-R1
MH-NG-169-1395	NG-169	BH	11/22/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R1
MH-NG-169-1922	NG-169	BH	11/22/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-169-2156	NG-169	BH	11/22/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-169-2187	NG-169	BH	11/22/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-169-2213	NG-169	BH	11/22/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-169-2465	NG-169	BH	11/23/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-169-3032	NG-169	BH	11/23/2010	RCP	2	SRV	SRV and Surface Aggregate Visible inside wall	Rehabilitation Required	BH-R1
MH-NG-169-3220	NG-169	BH	11/8/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-169-3619	NG-169	BH	11/8/2010	RCP	2	-	Surface Aggregate Visible inside wall and cone	No Rehabilitation Required at this time	BH-R1
MH-NG-169-3984	NG-169	BH	11/8/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-169-4086	NG-169	BH	11/8/2010	RCP	2	SRC	SRC and Surface Aggregate Visible inside wall	Rehabilitation Required	BH-R1
MH-NG-169-4352	NG-169	BH	11/8/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1

Table C-9. Manhole CA Summary within Boat Harbor TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-169-4706	NG-169	BH	11/8/2010	RCP	2	SRC	SRC and Surface Aggregate Visible inside wall	Rehabilitation Required	BH-R1
MH-NG-169-5147	NG-169	BH	11/8/2010	RCP	0	-	-	No Rehabilitation Required at this time	BH-R1
MH-NG-169-59	NG-169	BH	11/23/2010	RCP	2	SRV	SRV and Surface Aggregate Visible inside wall	Rehabilitation Required	BH-R10
MH-NG-169-592	NG-169	BH	11/22/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R10
MH-NG-169-852	NG-169	BH	11/22/2010	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	BH-R1
MH-NG-174-0	NG-174	BH	7/11/2011	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-174-1170	NG-174	BH	7/11/2011	RCP	0	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-174-197	NG-174	BH	7/11/2011	RCP	0	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NG-174-21	NG-174	BH	7/11/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-174-231	NG-174	BH	7/11/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-174-577	NG-174	BH	7/11/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-174-769	NG-174	BH	7/11/2011	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-NPS-210-275	NPS-210	BH	10/11/2011	-	-	-	Inspected during PACP inspection. Rehab along with downstream line segment.	No Rehabilitation Required at this time	GN-R4

Table C-10. Gravity Pipeline CA Summary within Chesapeake-Elizabeth TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-112-13137	SG-112-6042	SG-112-5935	107	18	CI	0	0	1	3	CE	SG-112	-	SCP addressed under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab during CAP
SG-112-13138	SG-112-5898	SG-112-5787	110	18	VCP	0	0	0	0	CE	SG-112	-	-	No Rehabilitation Required at this time	N/A
SG-112-13139	SG-112-5787	SG-112-5525	267	18	VCP	0	0	0	0	CE	SG-112	-	-	No Rehabilitation Required at this time	N/A
SG-112-13140	SG-112-5935	SG-112-5898	39	18	VCP	0	0	0	0	CE	SG-112	-	Rehabbed with rest of line under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab during CAP
SG-112-13141	SG-112-5250	SG-113-4917	333	24	VCP	0	0	0	0	CE	SG-112	-	-	No Rehabilitation Required at this time	N/A
SG-112-13164	SG-112-5525	SG-112-5250	271	18	VCP	2	3	1	3	CE	SG-112	-	Infiltration Dripper and Longitudinal Fracture in Pipe	No Rehabilitation Required at this time	N/A
SG-113-13142	SG-113-4917	SG-113-4569	348	24	VCP	3	3	1	2	CE	SG-113	-	Infiltration Dripper (2) and Longitudinal Crack in Pipe	No Rehabilitation Required at this time	N/A
SG-113-13143	SG-113-4569	SG-113-4219	350	24	VCP	3	3	0	0	CE	SG-113	-	Infiltration Weeper	No Rehabilitation Required at this time	N/A
SG-113-13144	SG-113-4219	SG-113-3961	254	24	VCP	9	4	0	0	CE	SG-113	IR	Infiltration Dripper and Infiltration Weeper	Rehabilitation Required	CE-R1
SG-113-13145	SG-113-3961	SG-113-3687	274	24	VCP	3	3	0	0	CE	SG-113	-	Infiltration Dripper and Deposits Attached - Encrustation	No Rehabilitation Required at this time	N/A
SG-113-13146	SG-113-3687	SG-113-3625	62	24	VCP	1	2	0	0	CE	SG-113	-	Infiltration Weeper	No Rehabilitation Required at this time	N/A
SG-113-13147	SG-113-3625	SG-113-3274	374	24	VCP	0	0	0	0	CE	SG-113	-	Infiltration Stain	No Rehabilitation Required at this time	N/A
SG-113-13148	SG-113-3274	SG-113-2895	378	24	VCP	1	3	0	0	CE	SG-113	-	Infiltration Stain and Deposits Attached - Encrustation	No Rehabilitation Required at this time	N/A
SG-113-13149	SG-113-2895	SG-113-2627	233	24	VCP	0	0	0	0	CE	SG-113	-	-	No Rehabilitation Required at this time	N/A
SG-113-13150	SG-113-2627	SG-113-2609	29	24	CI	0	0	1	3	CE	SG-113	-	SCP addressed under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab during CAP
SG-113-13151	SG-113-2609	SG-113-2583	62	24	CI	0	0	1	3	CE	SG-113	-	SCP addressed under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab during CAP
SG-113-13152	SG-113-2583	SG-113-2297	253	24	VCP	10	4	1	3	CE	SG-113	IR	Infiltration Dripper and Longitudinal Fracture in Pipe	Rehabilitation Required	CE-R1
SG-113-13153	SG-113-2297	SG-113-2329	31	24	VCP	1	2	0	0	CE	SG-113	-	Deposits Attached - Encrustation	No Rehabilitation Required at this time	N/A
SG-113-13154	SG-113-2329	SG-113-1994	305	24	VCP	2	3	0	0	CE	SG-113	-	Infiltration Dripper and Deposits Attached - Encrustation	No Rehabilitation Required at this time	N/A
SG-113-13155	SG-113-1994	SG-113-1753	241	24	VCP	5	3	0	0	CE	SG-113	-	Infiltration Dripper and Infiltration Weeper	No Rehabilitation Required at this time	N/A
SG-113-13156	SG-113-1753	SG-113-1638	115	24	VCP	1	2	0	0	CE	SG-113	-	Deposits Attached - Encrustation	No Rehabilitation Required at this time	N/A
SG-113-13157	SG-113-1638	SG-113-1543	95	24	VCP	0	0	0	0	CE	SG-113	-	-	No Rehabilitation Required at this time	N/A
SG-113-13158	SG-113-1543	SG-113-1264	279	24	VCP	4	4	0	0	CE	SG-113	IR	Infiltration Dripper and Infiltration Weeper	Rehabilitation Required	CE-R1
SG-113-13159	SG-113-1264	SG-113-934	327	24	VCP	2	4	0	0	CE	SG-113	IR	Infiltration Weeper and Infiltration Stain	Rehabilitation Required	CE-R1
SG-113-13160	SG-113-934	SG-113-650	285	24	VCP	3	3	1	2	CE	SG-113	-	Rehab with rest of line; Infiltration Dripper and Longitudinal Crack	No Rehabilitation Required at this time	CE-R1
SG-113-13161	SG-113-650	SG-113-479	170	24	VCP	5	4	0	0	CE	SG-113	IR	Infiltration Dripper and Infiltration Weeper	Rehabilitation Required	CE-R1
SG-113-13163	SG-113-236	SG-113-192	85	24	VCP	5	4	1	2	CE	SG-113	IR	Infiltration Weeper and Infiltration Stain	Rehabilitation Required	CE-R1
SG-113-13165	SG-113-479	SG-113-236	242	24	VCP	1	3	0	0	CE	SG-113	-	Infiltration Runner	Rehabilitation Required	CE-R1
SG-113-19937	SG-113-192	SS-PS-115-1	16	24	CI	0	0	2	3	CE	SG-113	SCP	Pipe Sag	Rehabilitation Required	CE-R1

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Table C-11. Manhole CA Summary within Chesapeake-Elizabeth TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-112-5250	SG-112	CE	6/4/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-112-5525	SG-112	CE	6/4/2010	BR	1	MB	-	Rehabilitation Required	CE-R1
MH-SG-112-5787	SG-112	CE	6/3/2010	BR	1	MB	-	Rehabilitation Required	CE-R1
MH-SG-112-5898	SG-112	CE	6/3/2010	BR	1	-	MB addressed under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-112-5935	SG-112	CE	6/3/2010	BR	0	-	Rehabbed with rest of line under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-112-6042	SG-112	CE	6/3/2010	BR	1	-	MB addressed under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-113-1264	SG-113	CE	6/8/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-1543	SG-113	CE	6/8/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-1638	SG-113	CE	6/8/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-1753	SG-113	CE	6/8/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-192	SG-113	CE	6/9/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-1994	SG-113	CE	6/8/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-2297	SG-113	CE	6/7/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-2329	SG-113	CE	6/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-236	SG-113	CE	6/9/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-2583	SG-113	CE	6/7/2010	BR	0	-	Rehabbed with rest of line under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-113-2609	SG-113	CE	6/7/2010	RCP	0	-	Rehabbed with rest of line under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-113-2627	SG-113	CE	6/7/2010	RCP	0	-	Rehabbed with rest of line under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-113-2895	SG-113	CE	6/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-3274	SG-113	CE	6/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-3625	SG-113	CE	6/7/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-3687	SG-113	CE	6/4/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-3961	SG-113	CE	6/4/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-4219	SG-113	CE	6/4/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-4569	SG-113	CE	6/4/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-113-479	SG-113	CE	6/9/2010	BR	1	MB	-	Rehabilitation Required	CE-R1
MH-SG-113-4917	SG-113	CE	6/4/2010	BR	2	-	MB addressed under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP
MH-SG-113-650	SG-113	CE	6/9/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	CE-R1
MH-SG-113-934	SG-113	CE	6/9/2010	BR	2	-	HSV addressed under Prompt Repair Program (Work Order PR-005)	No Rehabilitation Required at this time	Rehab During CAP



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Table C-12. Gravity Pipeline CA Summary within James River TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-034-13990	NG-035-1382	NG-034-1597	214	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13991	NG-034-1597	NG-034-1849	251	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13992	NG-034-1849	NG-034-1995	146	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13993	NG-034-1995	NG-034-2295	299	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13994	NG-034-2295	NG-034-2416	123	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13995	NG-034-2416	NG-034-2698	282	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13996	NG-034-2698	NG-034-3001	303	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13997	NG-034-3560	NS-PS-220	23	24	SP	0	0	0	0	JR	NG-034	-	Metal corrosion on surface of pipe	Rehabilitation Required	GN-R4
NG-034-13998	NG-034-3001	NG-034-3400	397	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-13999	NG-034-3400	NG-034-3506	106	24	VCP	0	0	0	0	JR	NG-034	-	-	No Rehabilitation Required at this time	N/A
NG-034-14000	NG-034-3506	NG-034-3560	54	24	RCP	0	0	0	0	JR	NG-034	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
NG-035-13985	NG-035-410	NG-035-506	96	18	VCP	0	0	0	0	JR	NG-035	-	-	No Rehabilitation Required at this time	N/A
NG-035-13986	NG-035-506	NG-035-750	244	18	VCP	1	1	2	2	JR	NG-035	-	-	No Rehabilitation Required at this time	N/A
NG-035-13987	NG-035-750	NG-035-970	218	18	VCP	0	0	0	0	JR	NG-035	-	-	No Rehabilitation Required at this time	N/A
NG-035-13988	NG-035-970	NG-035-1191	221	18	VCP	0	0	0	0	JR	NG-035	-	-	No Rehabilitation Required at this time	N/A
NG-035-13989	NG-035-1191	NG-035-1382	190	24	VCP	0	0	0	0	JR	NG-035	-	-	No Rehabilitation Required at this time	N/A
NG-044-15074	NG-044-6944	NG-044-6721	223	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-15076	NG-044-6431	NG-044-6176	255	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-15077	NG-044-6176	NG-044-5898	260	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-15078	NG-044-5898	NG-044-5698	313	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-15079	NG-044-5698	NG-175-5273	309	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-15080	NG-175-5273	NG-175-5227	51	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47800	NG-044-10547	NG-044-10546	143	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47801	NG-044-8406	NG-044-10548	25	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47802	NG-044-10548	NG-044-10547	15	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47803	NG-044-10546	NG-044-10550	122	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47804	NG-044-10550	NG-044-10545	166	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47806	NG-044-10545	NG-044-10551	111	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47809	NG-044-10551	NG-044-10561	122	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47827	NG-044-10577	NG-044-6944	186	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47829	NG-044-10561	NG-044-10578	183	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47831	NG-044-10578	NG-044-10579	113	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47833	NG-044-10579	NG-044-10580	253	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP

Table C-12. Gravity Pipeline CA Summary within James River TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-044-47834	NG-044-10581	NG-044-10577	23	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47835	NG-044-10580	NG-044-10581	44	18	PVC	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47837	NG-044-6721	NG-044-6431	289	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-044-47858	NG-044-5898	NG-044-10582	38	18	VCP	0	0	0	0	JR	NG-044	-	Post Construction Video	No Rehabilitation Required at this time	Rehab during CAP
NG-045-15090	NG-045-3448	NG-045-3102	344	21	VCP	25	3	1	2	JR	NG-045	-	-	Rehabilitation Required	Interim System Improvements
NG-045-15091	NG-045-3102	NG-045-2746	352	21	VCP	18	3	0	0	JR	NG-045	-	-	Rehabilitation Required	Interim System Improvements
NG-045-15092	NG-045-2746	NG-045-2537	219	21	VCP	3	2	0	0	JR	NG-045	-	-	Rehabilitation Required	Interim System Improvements
NG-045-15093	NG-045-2537	NG-045-2203	378	21	VCP	0	0	2	4	JR	NG-045	SAM	SAM	Rehabilitation Required	Interim System Improvements
NG-045-15094	NG-045-2203	NG-045-1833	368	21	VCP	0	0	1	2	JR	NG-045	-	-	Rehabilitation Required	Interim System Improvements
NG-045-15095	NG-045-1833	NG-045-1628	208	21	VCP	3	3	1	4	JR	NG-045	SAM	SAM	Rehabilitation Required	Interim System Improvements
NG-045-15096	NG-045-1628	NG-045-1328	297	21	VCP	8	2	3	3	JR	NG-045	-	-	Rehabilitation Required	Interim System Improvements
NG-045-15097	NG-045-1328	NG-045-1025	302	21	VCP	25	4	3	4	JR	NG-045	IR;SAM	Infiltration at joint; SAM	Rehabilitation Required	Interim System Improvements
NG-045-15098	NG-045-1025	NG-045-725	301	21	VCP	47	3	5	2	JR	NG-045	-	-	Rehabilitation Required	Interim System Improvements
NG-045-15099	NG-045-725	NG-045-425	303	21	VCP	25	4	3	2	JR	NG-045	IR	Infiltration at joint	Rehabilitation Required	Interim System Improvements
NG-045-15100	NG-045-425	NG-045-123	303	21	VCP	12	3	2	4	JR	NG-045	SAM	SAM	Rehabilitation Required	Interim System Improvements
NG-045-15101	NG-045-123	NG-054-10998	122	21	VCP	0	0	1	2	JR	NG-045	-	-	Rehabilitation Required	Interim System Improvements
NG-054-15102	NG-054-10998	NG-054-10863	133	21	CP	1	2	2	5	JR	NG-054	HSV	Soil visible in pipe	Rehabilitation Required	Interim System Improvements
NG-054-15103	NG-054-10863	NG-054-10635	230	21	CP	0	0	6	4	JR	NG-054	SAM	Multiple SAM in pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15104	NG-054-10635	NG-054-10423	213	21	CP	11	2	13	4	JR	NG-054	SAM	Multiple SAM in pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15105	NG-054-10423	NG-054-10380	37	21	CP	0	0	2	4	JR	NG-054	SAM	SAM	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15106	NG-054-10380	NG-054-10116	262	21	CP	8	3	7	4	JR	NG-054	SAM	Multiple SAM in pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15107	NG-054-10116	NG-054-9849	265	21	CP	2	4	5	4	JR	NG-054	RBJ; SAM	RBJ; Multiple SAM in pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15108	NG-054-9849	NG-054-9670	181	21	CP	2	3	1	3	JR	NG-054	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15110	NG-054-9670	NG-054-9396	277	21	CP	17	4	11	4	JR	NG-054	IR; SAM	IR; Multiple SAM in pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15111	NG-054-9396	NG-054-9120	274	21	CP	21	3	9	4	JR	NG-054	SAM	Multiple SAM in pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-054-15112	NG-054-9120	NG-098-8847	271	21	CP	38	3	5	4	JR	NG-054	SAM	Multiple SAM in pipe	No Rehabilitation Required at this time	Interim System Improvements

Table C-12. Gravity Pipeline CA Summary within James River TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-056-15109	NG-056-280	NG-054-9670	281	10	RCP	0		0	N	JR	NG-056	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-098-15113	NG-098-8847	NG-098-8594	254	21	CP	6	3	1	3	JR	NG-098	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-098-15114	NG-098-8594	NG-098-8342	253	21	CP	8	3	1	3	JR	NG-098	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-098-15115	NG-098-8342	NG-098-8096	247	21	CP	7	4	2	3	JR	NG-098	IR	Infiltration in pipe	Rehabilitation Required	Interim System Improvements
NG-098-15116	NG-098-8096	NG-098-7832	258	21	CP	17	3	2	5	JR	NG-098	SRC	Reinforcement corroded in pipe	Rehabilitation Required	Interim System Improvements
NG-098-15117	NG-098-7832	NG-098-7583	252	21	CP	17	3	1	3	JR	NG-098	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-098-15118	NG-098-7583	NG-102-7285	300	21	CP	5	3	2	5	JR	NG-098	SRC	Reinforcement corroded in pipe	Rehabilitation Required	Interim System Improvements
NG-102-15119	NG-102-7285	NG-102-7065	221	21	CP	13	3	3	4	JR	NG-102	SAM	Surface aggregate missing in pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-102-15120	NG-102-7065	NG-104-6955	111	21	CP	19	3	3	3	JR	NG-102	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15121	NG-104-6955	NG-104-6785	168	21	CP	18	3	3	3	JR	NG-104	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15122	NG-104-6785	NG-104-6625	161	21	CP	5	4	2	3	JR	NG-104	RBJ	Root ball in joint	Rehabilitation Required	Interim System Improvements
NG-104-15123	NG-104-6625	NG-104-6495	130	21	CP	2	3	2	3	JR	NG-104	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15124	NG-104-6495	NG-104-6363	138	21	CP	7	4	5	4	JR	NG-104	RBJ; FM	Root ball in joint; Multiple fracture on pipe	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15125	NG-104-6363	NG-104-6260	86	21	CP	2	3	1	3	JR	NG-104	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15126	NG-104-6260	NG-104-6176	94	21	CP	4	3	1	3	JR	NG-104	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15127	NG-104-6176	NG-104-6103	73	21	CP	1	4	1	3	JR	NG-104	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15128	NG-104-6103	NG-104-6083	21	21	CP	1	2	1	3	JR	NG-104	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-104-15129	NG-104-6083	NPS-207-8625	13	21	CI	0	0	0	0	JR	NG-104	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-175-15081	NG-175-5227	NG-175-4986	225	18	DI	0	0	1	2	JR	NG-175	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-175-15082	NG-175-4986	NG-175-4818	158	18	DI	1	2	0	0	JR	NG-175	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-175-15083	NG-175-4818	NG-175-4632	196	18	DI	0	0	0	0	JR	NG-175	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-175-15084	NG-175-4632	NG-175-4492	135	18	DI	0	0	0	0	JR	NG-175	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-175-15085	NG-175-4492	NG-175-4222	246	18	DI	0	0	0	0	JR	NG-175	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-175-15086	NG-175-4222	NG-176-4185	59	18	DI	0	4	0	2	JR	NG-175	-	Delamination of internal liner; corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
NG-175-15087	NG-176-4185	NG-176-3932	223	21	DI	0	0	0	2	JR	NG-175	-	-	No Rehabilitation Required at this time	Interim System Improvements

Table C-12. Gravity Pipeline CA Summary within James River TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-176-15088	NG-176-3932	NG-176-3755	122	21	DI	1	4	0	0	JR	NG-176	-	-	No Rehabilitation Required at this time	Interim System Improvements
NG-176-15089	NG-176-3755	NG-045-3448	355	21	DI	0	0	0	0	JR	NG-176	-	-	No Rehabilitation Required at this time	Interim System Improvements
NPS-207-2785	NPS-207-8626	Outfall	252	20	SP	4	4	0	0	JR	NPS-207	-	-	No Rehabilitation Required at this time	N/A
NPS-212-2754	NPS-212-266	NS-PS-212-1	55	8	VCP	1	1	1	3	JR	NPS-212	-	-	No Rehabilitation Required at this time	N/A
NPS-212-2755	NPS-212-7025	NPS-212-266	63	8	VCP	0	0	0	0	JR	NPS-212	-	Belongs to NNPW	No Rehabilitation Required at this time	N/A
NPS-212-2855	NPS-212-7035	NPS-212-7025	29	16	VCP	0	0	0	0	JR	NPS-212	-	-	No Rehabilitation Required at this time	N/A
NPS-216-1709	MH-NPS-216-72	MH-NPS-216-517	17	30	SP	0	0	0	0	JR	NPS-216	-	-	No Rehabilitation Required at this time	N/A
NPS-216-1718	MH-NPS-216-69	End of Line	75	36	SP	0	0	0	0	JR	NPS-216	-	Abandoned Overflow	No Rehabilitation Required at this time	HRSD CIP No. JR-106
NPS-216-1904	NPS-216-517	NPS-216-69	14	36	SP	1	4	0	0	JR	NPS-216	-	Corroded metal pipe	Rehabilitation Required	HRSD CIP No. JR-106
NPS-216-1905	Buried Chamber	NPS-216-69	66	30	SP	0	0	0	0	JR	NPS-216	-	Corroded metal pipe	Rehabilitation Required	HRSD CIP No. JR-106
NPS-216-1906	NPS-216-69	NS-PS-216-1	53	36	SP	0	0	0	0	JR	NPS-216	-	Corroded metal pipe	Rehabilitation Required	HRSD CIP No. JR-106
NPS-216-27329	MH-NPS-216-7665	MH-NPS-216-72	39	12	VCP	0	0	1	2	JR	NPS-216	-	Circumferential Crack in Pipe	No Rehabilitation Required at this time	N/A
NPS-216-27345	House Lateral	MH-NPS-216-7665	-	4	CI	-	2	-	3	JR	SPS-116	-	-	No Rehabilitation Required at this time	N/A
NPS-216-27346	Newport News: WCMH003708	NPS-216-7665	16	12	VCP	0	0	0	0	JR	NPS-216	-	-	No Rehabilitation Required at this time	N/A
NPS-218-914	NPS-218-770	NS-PS-218-1	11	18	SP	0	0	0	0	JR	NPS-218	-	Corroded metal pipe	Rehabilitation Required	GN-R4
NPS-221-834	NPS-221-6705	NS-PS-221-1	211	30	RCP	1	2	0	0	JR	NPS-221	-	Attached Encrusted Deposits	No Rehabilitation Required at this time	N/A
--	NG-044-8160	NG-044-10550	54	-	PVC	0	0	0	0	JR	NG-044	-	-	No Rehabilitation Required at this time	Rehab during CAP

Table C-13. Manhole CA Summary within James River TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-034-1597	NG-034	JR	8/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-034-1849	NG-034	JR	8/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-034-1995	NG-034	JR	8/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-034-2295	NG-034	JR	8/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-034-2416	NG-034	JR	8/6/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-034-2698	NG-034	JR	8/6/2010	BR	1	RMC	-	Rehabilitation Required	GN-R1
MH-NG-034-3001	NG-034	JR	8/6/2010	BR	0	-	Degradation of coating	Rehabilitation Required	GN-R1
MH-NG-034-3400	NG-034	JR	8/6/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-034-3506	NG-034	JR	8/6/2010	RCP	0	-	Degradation of coating; infiltration	Rehabilitation Required	GN-R1
MH-NG-034-3560	NG-034	JR	8/13/2010	RCP	0	-	Address with line segment	No Rehabilitation Required at this time	GN-R4
MH-NG-035-1191	NG-035	JR	8/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-035-1382	NG-035	JR	8/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-035-410	NG-035	JR	8/6/2010	RCP	1	-	-	No Rehabilitation Required at this time	N/A
MH-NG-035-506	NG-035	JR	8/6/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-035-750	NG-035	JR	8/6/2010	BR	1	SAM	-	Rehabilitation Required	GN-R1
MH-NG-035-970	NG-035	JR	8/6/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-045-1025	NG-045	JR	4/30/2010	BR	2	-	Deposits Attached on Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-123	NG-045	JR	5/5/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-1328	NG-045	JR	4/30/2010	BR	1	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-1628	NG-045	JR	4/30/2010	BR	1	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-1833	NG-045	JR	4/30/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-2203	NG-045	JR	4/30/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-2537	NG-045	JR	4/30/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-2746	NG-045	JR	9/30/2011	BR	1	-	Fine Roots in Connection between Inside Wall and Pipe	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-3102	NG-045	JR	4/29/2010	BR	1	-	Deposits Attached on Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-3448	NG-045	JR	4/29/2010	BR	3	-	Deposits Attached on Inside of Wall, RMC	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-425	NG-045	JR	4/30/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-045-725	NG-045	JR	4/30/2010	BR	2	-	Deposits Attached in Bench and Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-10116	NG-054	JR	5/5/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-10380	NG-054	JR	5/6/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-10423	NG-054	JR	5/6/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-10635	NG-054	JR	5/5/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-10863	NG-054	JR	5/5/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-10998	NG-054	JR	5/6/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-9120	NG-054	JR	5/6/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-9396	NG-054	JR	5/6/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-9670	NG-054	JR	5/6/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-054-9849	NG-054	JR	5/6/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-056-280	NG-056	JR	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-098-7583	NG-098	JR	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-098-7832	NG-098	JR	4/20/2010	BR	1	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-098-8096	NG-098	JR	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-098-8342	NG-098	JR	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements



Table C-13. Manhole CA Summary within James River TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-098-8594	NG-098	JR	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-098-8847	NG-098	JR	4/20/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-102-7065	NG-102	JR	4/27/2010	BR	1	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-102-7285	NG-102	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6083	NG-104	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6103	NG-104	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6176	NG-104	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6260	NG-104	JR	4/27/2010	BR	2	-	RBB	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6363	NG-104	JR	4/27/2010	BR	1	-	Fine Roots in Joints	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6495	NG-104	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6625	NG-104	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6785	NG-104	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-104-6955	NG-104	JR	4/27/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-175-4222	NG-175	JR	4/29/2010	BR	2	-	Attached Deposits on Inside of Wall	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-175-4492	NG-175	JR	4/29/2010	BR	2	-	Attached Deposits on Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-175-4632	NG-175	JR	4/29/2010	BR	2	-	Infiltration Dripper and Attached Deposits on Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-175-4818	NG-175	JR	4/28/2010	RCP	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-175-4986	NG-175	JR	4/28/2010	RCP	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-175-5227	NG-175	JR	4/28/2010	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-176-3755	NG-176	JR	4/29/2010	BR	3	-	Deposits Attached on Bench and Inside of Wall. RBC	No Rehabilitation Required at this time	Interim System Improvements
MH-NG-176-3932	NG-176	JR	4/29/2010	BR	1	IR	-	Rehabilitation Required	Interim System Improvements
MH-NG-176-4185	NG-175	JR	4/29/2010	BR	1	-	RFB	No Rehabilitation Required at this time	Rehab During CAP
MH-NPS-207-8625	NPS-207	JR	7/26/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-207-8626	NPS-207	JR	7/26/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-212-266	NPS-212	JR	10/22/2011	-	-	-	Inspected by Newport News; RFJ, Infiltration	Rehabilitation Required	GN-R1
MH-NPS-212-7025	NPS-212	JR	10/22/2011	-	-	-	Inspected by Newport News; Newly located MH; clear debris; structure contains capped valve. Upstream 011037 and Downstream 011043	Rehabilitation Required	GN-R1
MH-NPS-212-7035	NPS-212	JR	8/26/2009	-	-	-	Inspected by Newport News; HRSD Manhole Inspected; Poor MH /pipe connection effluent line; Ownership Updated to HRSD (Former WCMH011037)	Rehabilitation Required	GN-R1
MH-NPS-216-517	NPS-216	JR	7/28/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-216-69	NPS-216	JR	7/28/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-216-72	NPS-216	JR	7/28/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-216-7665	NPS-216	JR	7/28/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-218-770	NPS-218	JR	7/26/2011	BR	0	-	Rehabilitate with line	No Rehabilitation Required at this time	GN-R4
MH-NPS-221-6705	NPS-221	JR	9/30/2011	BR	1	HVV	-	Rehabilitation Required	GN-R1

Table C-14. Gravity Pipeline CA Summary within Nansemond TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-033-13937	SG-033-1782	SG-033-1450	350	15	VCP	0	0	0	0	NP	SG-033	-	Rehab with rest of line; Infiltration Stains Observed in Pipe	No Rehabilitation Required at this time	NP-R1
SG-033-13938	SG-033-1450	SG-033-1040	392	15	VCP	7	4	0	0	NP	SG-033	IR	Infiltration Dripper and Attached Deposits in Pipe	Rehabilitation Required	NP-R1
SG-033-13939	SG-033-1040	SG-033-630	410	15	VCP	7	4	2	2	NP	SG-033	IR	Infiltration Drippers and Longitudinal Cracking in Pipe	Rehabilitation Required	NP-R1
SG-033-13940	SG-033-630	SG-033-380	251	15	VCP	5	4	0	0	NP	SG-033	IR	Infiltration Dripper and Weepers Observed in Pipe	Rehabilitation Required	NP-R1
SG-033-13941	SG-033-380	SG-033-47	331	15	VCP	5	2	1	2	NP	SG-033	IW	Rehab with rest of line; Longitudinal Crack in Pipe	No Rehabilitation Required at this time	NP-R1
SG-033-13942	SG-033-47	SG-035-16720	66	18	VCP	0	0	1	2	NP	SG-033	-	Rehab with rest of line; Longitudinal Crack in Pipe and Infiltration Stain	No Rehabilitation Required at this time	NP-R1
SG-034-13930	SG-035-16720	SG-034-16415	304	27	VCP	13	4	1	2	NP	SG-034	IR	Infiltration Drippers and Longitudinal Crack in Pipe	Rehabilitation Required	NP-R1
SG-034-13931	SG-034-16415	SG-034-16110	304	27	VCP	19	4	1	2	NP	SG-034	IR	Infiltration Drippers and Longitudinal Crack in Pipe	Rehabilitation Required	NP-R1
SG-034-13932	SG-034-16110	SG-034-15780	330	27	VCP	27	4	1	2	NP	SG-034	IR	Infiltration Drippers and Attached Deposits in Pipe	Rehabilitation Required	NP-R1
SG-034-13933	SG-034-15780	SG-034-15420	362	27	VCP	20	4	1	2	NP	SG-034	IR	Infiltration Drippers and Attached Deposits in Pipe	Rehabilitation Required	NP-R1
SG-034-13934	SG-034-15420	SG-034-15150	271	27	VCP	24	4	0	0	NP	SG-034	IR	Infiltration Drippers and Attached Deposits in Pipe	Rehabilitation Required	NP-R1
SG-034-13935	SG-034-15150	SG-034-14987	161	27	VCP	4	4	0	0	NP	SG-034	IR	Attached Deposits and Debris in Pipe	Rehabilitation Required	NP-R1
SG-034-13936	SG-034-14987	MH-SG-034-14658	302	30	VCP	0	0	0	0	NP	SG-034	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R1
SG-034-16049	MH-SG-034-14607	MH-SG-034-14578	27	30	DI	0	0	0	0	NP	SG-034	-	Debris Observed in Pipe	No Rehabilitation Required at this time	N/A
SG-034-16050	MH-SG-034-14578	SS-PS-104-1	48	30	DI	2	2	0	0	NP	SG-034	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-034-16051	MH-SG-034-14658	MH-SG-034-14607	51	30	DI	1	2	1	3	NP	SG-034	SCP	Rehab with rest of line	No Rehabilitation Required at this time	NP-R1
SG-035-13924	SG-035-18453	SG-035-18235	207	18	VCP	0	0	1	2	NP	SG-035	-	Rehab with rest of line; Circumferential Fracture in Pipe	No Rehabilitation Required at this time	NP-R1
SG-035-13925	SG-035-18235	SG-035-17982	261	18	VCP	1	3	1	3	NP	SG-035	ID/CM	Rehab with rest of line;	No Rehabilitation Required at this time	NP-R1
SG-035-13926	SG-035-17982	SG-035-17632	347	18	VCP	2	4	0	0	NP	SG-035	IR	Infiltration Weeper in Pipe	Rehabilitation Required	NP-R1
SG-035-13927	SG-035-17632	SG-035-17244	385	18	VCP	4	5	1	2	NP	SG-035	IG	Infiltration Runner and Circumferential Fracture in Pipe	Rehabilitation Required	NP-R1
SG-035-13928	SG-035-17244	SG-035-16925	322	18	VCP	6	4	1	1	NP	SG-035	IR	Infiltration Drippers and Circumferential Cracking in Pipe	Rehabilitation Required	NP-R1
SG-035-13929	SG-035-16925	SG-035-16720	204	18	VCP	1	4	0	0	NP	SG-035	IR	-	Rehabilitation Required	NP-R1
SG-191-13445	SG-191-602	SG-191-459	143	24	VCP	2	2	1	2	NP	SG-191	-	Rehab with rest of line; Line Up/Down, Sag in Pipe Noted	No Rehabilitation Required at this time	NP-R2
SG-191-13446	SG-191-903	SG-191-602	301	24	VCP	1	3	0	0	NP	SG-191	-	Rehab with rest of line; Survey Abandoned, Obstacle	No Rehabilitation Required at this time	NP-R2
SG-191-13447	SG-191-459	SG-191-355	106	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13448	SG-191-355	SG-191-355I	270	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line; Survey Abandoned	No Rehabilitation Required at this time	NP-R2
SG-191-13449	SG-191-1069	SG-191-903	163	24	CI	1	4	1	3	NP	SG-191	IR, SCP	Grout Seal, CIPP	Rehabilitation Required	NP-R2
SG-191-13450	SG-191-1326	SG-191-1138	187	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13451	SG-191-1138	SG-191-1069	66	24	VCP	1	3	1	3	NP	SG-191	SCP	Infiltration Dripper	Rehabilitation Required	NP-R2
SG-191-13452	SG-191-1538	SG-191-1326	213	24	CI	2	2	3	3	NP	SG-191	SCP	Line Up/Down, Sag noted in Pipe	Rehabilitation Required	NP-R2
SG-191-13453	SG-191-1901	SG-191-1780	122	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13454	SG-191-1780	SG-191-1672	113	24	CI	0	0	1	3	NP	SG-191	SCP	-	Rehabilitation Required	NP-R2
SG-191-13455	SG-191-1672	SG-191-1538	136	24	VCP	1	3	0	0	NP	SG-191	-	Rehab with rest of line; Infiltration Dripper	No Rehabilitation Required at this time	NP-R2
SG-191-13456	SG-191-1992	SG-191-1901	89	24	VCP	3	2	0	0	NP	SG-191	-	Rehab with rest of line; Deposits Attached - Grease	No Rehabilitation Required at this time	NP-R2

Table C-14. Gravity Pipeline CA Summary within Nansemond TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-191-13457	SG-191-2117	SG-191-1992	130	24	DI	1	5	0	0	NP	SG-191	OBZ	-	Rehabilitation Required	NP-R2
SG-191-13458	SG-191-2793	SG-191-2399	317	24	VCP	1	2	2	2	NP	SG-191	-	Rehab with rest of line; Fracture - Circumferential and Infiltration Weeper	No Rehabilitation Required at this time	NP-R2
SG-191-13459	SG-191-2399	SG-191-2117	271	24	CI	0	0	1	3	NP	SG-191	SCP	-	Rehabilitation Required	NP-R2
SG-191-13460	SG-191-2865	SG-191-2793	153	24	CI	0	0	1	3	NP	SG-191	SCP	-	Rehabilitation Required	NP-R2
SG-191-13461	SG-191-2943	SG-191-2865	77	24	VCP	0	0	1	2	NP	SG-191	-	Rehab with rest of line; Crack - Longitudinal	No Rehabilitation Required at this time	NP-R2
SG-191-13462	SG-191-3286	SG-191-2943	339	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line; Infiltration Stain	No Rehabilitation Required at this time	NP-R2
SG-191-13463	SG-191-3792	SG-191-3474	320	24	CI	0	0	1	3	NP	SG-191	SCP	-	Rehabilitation Required	NP-R2
SG-191-13464	SG-191-3474	SG-191-3286	194	24	VCP	0	0	3	3	NP	SG-191	-	Rehab with rest of line; Crack - Multiple and Crack - Longitudinal	No Rehabilitation Required at this time	NP-R2
SG-191-13473	SG-191-4229	SG-191-4009	222	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13474	SG-191-4429	SG-191-4229	195	24	VCP	0	0	5	3	NP	SG-191	-	Rehab with rest of line; Fracture - Longitudinal and Fracture - Circumferential	No Rehabilitation Required at this time	NP-R2
SG-191-13475	SG-191-4009	SG-191-3792	222	24	VCP	1	3	0	0	NP	SG-191	-	Rehab with rest of line; Survey Abandoned; Deposits - Hard/Compacted	No Rehabilitation Required at this time	NP-R2
SG-191-13476	SG-191-4494	SG-191-4429	65	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13477	SG-191-4662	SG-191-4494	162	24	CI	0	0	1	3	NP	SG-191	SCP	-	Rehabilitation Required	NP-R2
SG-191-13478	SG-191-4880	SG-191-4662	222	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13479	SG-191-5048	SG-191-4880	165	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13480	SG-191-5160	SG-191-5048	113	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13481	SG-191-5237	SG-191-5160	76	24	VCP	0	0	0	0	NP	SG-191	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
SG-191-13482	SG-191-5404	SG-191-5237	173	24	VCP	2	4	0	0	NP	SG-191	IR	Deposits Attached - Encrustation	Rehabilitation Required	NP-R2
SG-191-13483	SG-192-5539	SG-191-5404	141	24	RCP	1	4	1	3	NP	SG-191	SCP	Survey Abandoned and Camera Underwater	Rehabilitation Required	NP-R2
SG-192-13484	SG-192-5687	SG-192-5539	139	18	RCP	1	4	1	3	NP	SG-192	SCP	Survey Abandoned and Camera Underwater	Rehabilitation Required	NP-R2
SG-193-13485	SG-193-15690	SG-193-15840	150	18	RCP	2	4	3	5	NP	SG-193	SRC	Survey Abandoned and Camera Underwater	Rehabilitation Required	NP-R2
SG-193-13486	SG-193-15406	SG-193-15690	284	18	RCP	0	0	2	3	NP	SG-193	-	Reinforcement Visible rehab with rest of line; Sag noted and Surface Aggregate Visible	No Rehabilitation Required at this time	NP-R2
SG-193-13487	SG-193-15243	SG-193-15406	164	18	RCP	0	0	1	3	NP	SG-193	-	Rehab with rest of line; Surface Aggregate Visible	No Rehabilitation Required at this time	NP-R2
SG-193-13488	SG-193-15080	SG-193-15243	163	18	RCP	0	0	1	3	NP	SG-193	-	Rehab with rest of line; Surface Aggregate Visible	No Rehabilitation Required at this time	NP-R2
SG-193-13489	SG-193-14810	SG-193-15080	299	18	RCP	0	0	2	5	NP	SG-193	SRC	Surface Aggregate Visible	Rehabilitation Required	NP-R2
SG-193-13490	SG-193-14688	SG-193-14810	122	18	CI	0	0	1	3	NP	SG-193	-	Survey Abandoned; SCP moderate to severe	Rehabilitation Required	NP-R2
SG-193-13491	SG-193-14629	SG-193-14688	60	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13492	SG-193-14517	SG-193-14629	111	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13493	SG-193-14209	SG-193-14517	308	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13494	SG-193-14122	SG-193-14209	87	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13495	SG-193-13824	SG-193-14122	298	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13496	SG-193-13672	SG-193-13824	151	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13497	SG-193-13372	SG-193-13672	300	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13498	SG-193-13277	SG-193-13372	94	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A



Table C-14. Gravity Pipeline CA Summary within Nansemond TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-193-13499	SG-193-12982	SG-193-13277	295	18	RCP	2	4	2	3	NP	SG-193	-	Surface Aggregate Visible and Camera Underwater	No Rehabilitation Required at this time	N/A
SG-193-13500	SG-193-12701	SG-193-12982	282	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13501	SG-193-12566	SG-193-12637	71	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Sag	No Rehabilitation Required at this time	N/A
SG-193-13502	SG-193-12380	SG-193-12566	169	18	RCP	1	2	3	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-13503	SG-193-12264	SG-193-12380	117	18	RCP	1	3	2	3	NP	SG-193	-	Surface Aggregate Visible, Obstacle, and Sag	No Rehabilitation Required at this time	N/A
SG-193-13504	SG-193-12687	SG-193-12701	14	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13505	SG-193-12637	SG-193-12687	52	18	RCP	0	0	2	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 40%	No Rehabilitation Required at this time	N/A
SG-193-13506	SG-193-12004	SG-193-12264	259	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13507	SG-193-11740	SG-193-12004	264	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 40%	No Rehabilitation Required at this time	N/A
SG-193-13508	SG-193-11442	SG-193-11740	299	18	RCP	2	2	2	3	NP	SG-193	-	Surface Aggregate Visible and Sag	No Rehabilitation Required at this time	N/A
SG-193-13509	SG-193-11386	SG-193-11442	56	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13510	SG-193-11343	SG-193-11386	90	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13511	SG-193-11143	SG-193-11343	198	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-13512	SG-193-10859	SG-193-11143	284	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-13513	SG-193-10730	SG-193-10859	128	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-13514	SG-193-10526	SG-193-10730	204	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-13515	SG-193-10352	SG-193-10526	174	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13516	SG-193-10265	SG-193-10352	87	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13517	SG-193-10087	SG-193-10265	170	18	RCP	0	0	2	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13518	SG-193-9910	SG-193-10087	177	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 25%	No Rehabilitation Required at this time	N/A
SG-193-13519	SG-193-9753	SG-193-9910	157	18	RCP	1	3	1	3	NP	SG-193	-	Surface Aggregate Visible and Obstruction	No Rehabilitation Required at this time	N/A
SG-193-13521	SG-193-9288	SG-193-9516	228	18	RCP	1	4	2	3	NP	SG-193	-	Surface Aggregate Visible and Camera Underwater	No Rehabilitation Required at this time	N/A
SG-193-13523	SG-193-8970	SG-193-9069	99	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13524	SG-193-8670	SG-193-8970	291	18	RCP	0	0	2	3	NP	SG-193	-	Surface Aggregate Visible and Sag	No Rehabilitation Required at this time	N/A
SG-193-13525	SG-193-8384	SG-193-8670	286	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-13526	SG-193-8232	SG-193-8384	153	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 40%	No Rehabilitation Required at this time	N/A
SG-193-13527	SG-193-8178	SG-193-8232	54	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13528	SG-193-7978	SG-193-8178	200	18	RCP	1	2	2	3	NP	SG-193	-	Surface Aggregate Visible and Deposits Attached - Encrustation	No Rehabilitation Required at this time	N/A
SG-193-13529	SG-193-7930	SG-193-7978	48	18	RCP	0	0	2	3	NP	SG-193	-	Surface Aggregate Visible and Sag Noted	No Rehabilitation Required at this time	N/A
SG-193-13530	SG-193-7747	SG-193-7930	183	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-13531	SG-193-7469	SG-193-7747	278	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13532	SG-193-7210	SG-193-7469	261	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13533	SG-193-6907	SG-193-7210	264	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-13535	SG-193-6306	SG-193-6605	301	18	RCP	0	0	0	0	NP	SG-193	-	Infiltration Stain and Watermark 25%	No Rehabilitation Required at this time	N/A
SG-193-13537	SG-193-6046	SG-193-6306	261	18	RCP	0	0	1	3	NP	SG-193	-	Watermark 25%	No Rehabilitation Required at this time	N/A
SG-193-13538	SG-193-5801	SG-193-6046	245	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 25%	No Rehabilitation Required at this time	N/A

Table C-14. Gravity Pipeline CA Summary within Nansemond TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-193-13539	SG-193-5550	SG-193-5801	251	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 40%	No Rehabilitation Required at this time	N/A
SG-193-13540	SG-193-5311	SG-193-5550	239	18	RCP	0	0	2	3	NP	SG-193	-	Rehab with rest of line; SCP, Surface Aggregate Visible	No Rehabilitation Required at this time	NP-R2
SG-193-13541	SG-193-5082	SG-193-5311	223	18	RCP	1	4	2	5	NP	SG-193	SRC	Surface Aggregate Visible and Camera Underwater	Rehabilitation Required	NP-R2
SG-193-13542	SG-193-4828	SG-193-5082	250	18	RCP	1	2	4	5	NP	SG-193	SRV, SAM	Surface Aggregate Visible and Infiltration Weeper	Rehabilitation Required	NP-R2
SG-193-13543	SG-193-4674	SG-193-4828	154	18	RCP	0	0	3	3	NP	SG-193	-	Reinforcement Visible; Surface Aggregate Visible and Sag	Rehabilitation Required	NP-R2
SG-193-13544	SG-193-4477	SG-193-4674	198	18	RCP	0	0	2	3	NP	SG-193	-	Rehab with rest of line; SCP, Survey Abandoned and Surface Aggregate Visible	No Rehabilitation Required at this time	NP-R2
SG-193-13545	SG-193-4005	SG-193-4185	179	18	RCP	7	4	4	3	NP	SG-193	-	Camera Underwater, Surface Aggregate Visible, and Sag	No Rehabilitation Required at this time	N/A
SG-193-13546	SG-193-3815	SG-193-4005	193	18	RCP	4	2	3	3	NP	SG-193	-	Surface Aggregate Visible, Sag, Line Up/Down	No Rehabilitation Required at this time	N/A
SG-193-13547	SG-193-4361	SG-193-4477	117	18	CI	0	0	2	3	NP	SG-193	-	Rehab with rest of line; Moderate SCP	No Rehabilitation Required at this time	NP-R2
SG-193-13548	SG-193-4185	SG-193-4361	176	18	RCP	5	4	2	3	NP	SG-193	-	Camera Underwater, Surface Aggregate Visible, and Sag	No Rehabilitation Required at this time	N/A
SG-193-13549	SG-193-3523	SG-193-3815	294	18	RCP	6	2	3	3	NP	SG-193	-	Surface Aggregate Visible, Sag, Line Up/Down	No Rehabilitation Required at this time	N/A
SG-193-13550	SG-193-2967	SG-193-3285	318	18	RCP	0	0	2	4	NP	SG-193	SAM	Surface Aggregate Visible	Rehabilitation Required	NP-R2
SG-193-13551	SG-193-2640	SG-193-2967	327	18	RCP	0	0	14	4	NP	SG-193	SAM	Surface Aggregate Visible and Infiltration Stain	Rehabilitation Required	NP-R2
SG-193-13552	SG-193-3285	SG-193-3350	65	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13553	SG-193-3350	SG-193-3523	172	18	RCP	2	2	2	3	NP	SG-193	-	Surface Aggregate Visible, Sag, Line Up/Down	No Rehabilitation Required at this time	N/A
SG-193-13554	SG-193-2398	SG-193-2640	241	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13555	SG-193-2160	SG-193-2398	238	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13556	SG-193-1919	SG-193-2160	243	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible	No Rehabilitation Required at this time	N/A
SG-193-13557	SG-193-1629	SG-193-1919	290	18	RCP	1	4	1	1	NP	SG-193	IR	Circumferential Crack and Watermark 20%	Rehabilitation Required	NP-R2
SG-193-13558	SG-193-1326	SG-193-1629	300	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 15%	No Rehabilitation Required at this time	N/A
SG-193-13559	SG-193-1073	SG-193-1326	252	18	RCP	0	0	2	3	NP	SG-193	-	SCP, Spiral Crack and Watermark 20%	No Rehabilitation Required at this time	N/A
SG-193-13560	SG-193-947	SG-193-1073	95	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 20%	No Rehabilitation Required at this time	N/A
SG-193-13561	SG-193-656	SG-193-947	291	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 20%	No Rehabilitation Required at this time	N/A
SG-193-13562	SG-193-358	SG-193-656	298	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 15%	No Rehabilitation Required at this time	N/A
SG-193-13563	SG-193-250	SG-193-358	110	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 15%	No Rehabilitation Required at this time	N/A
SG-193-13564	SG-193-22	SG-193-250	238	18	RCP	1	3	1	3	NP	SG-193	-	SCP, Deposits - Settled Fine and Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-50P	SG-193-6660	SG-193-6907	244	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 25%	No Rehabilitation Required at this time	N/A
SG-193-7605	SG-193-15840	SG-192-5687	298	18	RCP	1	3	3	3	NP	SG-193	-	Rehab with rest of line; Survey Abandoned and Sag	No Rehabilitation Required at this time	NP-R2
SG-193-79P	SG-193-10	SG-193-22	12	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 40%	No Rehabilitation Required at this time	N/A
SG-193-82P	SG-193-6605	SG-193-6660	58	18	RCP	0	0	0	0	NP	SG-193	-	Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-83P	SG-193-9516	SG-193-9712	197	18	R	0	0	1	3	NP	SG-193	-	SCP mis-coded; Watermark 30%	No Rehabilitation Required at this time	N/A
SG-193-84P	SG-193-9712	SG-193-9753	40	18	RCP	0	0	0	0	NP	SG-193	-		No Rehabilitation Required at this time	N/A
SG-193-85P	SG-193-9142	SG-193-9288	148	18	RCP	0	0	1	3	NP	SG-193	-	Surface Aggregate Visible and Watermark 35%	No Rehabilitation Required at this time	N/A
SG-193-86P	SG-193-9069	SG-193-9142	72	18	RCP	1	4	1	3	NP	SG-193	-	OBZ - moderate; Surface Aggregate Visible and Infiltration Stain	No Rehabilitation Required at this time	N/A

**Table C-14. Gravity Pipeline CA Summary within Nansemond TP Service Area**

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
-	FLWCTRL-SG-191-1923	FLWCTRL-SPS-135-6	85	-	-	0	0	0	0	NP	SG-191	-	Rehab with rest of line; Siphon barrel 2 of 2	No Rehabilitation Required at this time	NP-R2
-	FLWCTRL-SG-191-1923	FLWCTRL-SPS-135-6	85	-	CI	0	5	0	0	NP	SG-191	-	Rehab with rest of line; Siphon barrel 1 of 2; Deposits Attached - Grease	No Rehabilitation Required at this time	NP-R2

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Table C-15. Manhole CA Summary within Nansemond TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-033-1040	SG-033	NP	10/20/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-033-1450	SG-033	NP	10/20/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-033-1782	SG-033	NP	10/20/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-033-380	SG-033	NP	10/21/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-033-47	SG-033	NP	10/21/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-033-630	SG-033	NP	10/20/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-034-14658	SG-034	NP	7/22/2011	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-034-14987	SG-034	NP	7/22/2011	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-034-15150	SG-034	NP	7/22/2011	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-034-15420	SG-034	NP	7/22/2011	BR	1	SMWC	Wall surface missing / degraded	Rehabilitation Required	NP-R1
MH-SG-034-15780	SG-034	NP	7/22/2011	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-034-16110	SG-034	NP	7/22/2011	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-034-16415	SG-034	NP	7/22/2011	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-034-14578	SG-034	NP	10/10/2011	RCP	1	-	Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	N/A
MH-SG-034-14607	SG-034	NP	10/10/2011	RCP	1	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-035-16720	SG-035	NP	10/21/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-035-16925	SG-035	NP	10/21/2010	BR	1	-	Deposits attached - encrustation (15%); Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-035-17244	SG-035	NP	10/21/2010	BR	1	IR	Infiltration Runner inside wall	Rehabilitation Required	NP-R1
MH-SG-035-17632	SG-035	NP	10/21/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-035-17982	SG-035	NP	10/21/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-035-18235	SG-035	NP	10/21/2010	BR	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	NP-R1
MH-SG-035-18453	SG-035	NP	10/21/2010	RCP	4	SRC	Reinforcement Corroded inside wall; Surface Aggregate Visible	Rehabilitation Required	NP-R1
MH-SG-191-1326	SG-191	NP	11/3/2010	RCP	3	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-1538	SG-191	NP	2/25/2010	CSU	1	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-1901	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-2943	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-3286	SG-191	NP	11/2/2010	RCP	2	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-355	SG-191	NP	2/25/2010	CSU	1	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-4009	SG-191	NP	11/2/2010	RCP	2	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-4229	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-4429	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-459	SG-191	NP	2/25/2010	CSU	1	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-4880	SG-191	NP	11/2/2010	RCP	1	-	Below Floodplain	Rehabilitation Required	NP-R2
MH-SG-191-5048	SG-191	NP	11/2/2010	RCP	2	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2

Table C-15. Manhole CA Summary within Nansemond TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-191-5160	SG-191	NP	11/2/2010	RCP	1	-	Rehab with rest of line;	No Rehabilitation Required at this time	NP-R2
MH-SG-191-5237	SG-191	NP	11/2/2010	RCP	1	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-191-602	SG-191	NP	11/3/2010	RCP	3	-	Rehab with rest of line; Surface Aggregate Visible inside wall and inside cone	No Rehabilitation Required at this time	NP-R2
MH-SG-191-1069	SG-191	NP	11/3/2010	RCP	3	-	Rehab with rest of line; Surface Aggregate Visible inside wall and inside cone	No Rehabilitation Required at this time	NP-R2
MH-SG-191-1138	SG-191	NP	11/3/2010	RCP	3	-	Rehab with rest of line; Surface Aggregate Visible inside wall and inside cone	No Rehabilitation Required at this time	NP-R2
MH-SG-191-1672	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-1780	SG-191	NP	11/2/2010	RCP	3	-	Rehab with rest of line; Surface Aggregate Visible inside wall and longitudinal cracks on inside cone	No Rehabilitation Required at this time	NP-R2
MH-SG-191-1992	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-2117	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-2399	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-2793	SG-191	NP	11/2/2010	RCP	2	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-191-2865	SG-191	NP	11/2/2010	RCP	2	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-3474	SG-191	NP	11/2/2010	RCP	0	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
MH-SG-191-3792	SG-191	NP	11/2/2010	RCP	2	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-4494	SG-191	NP	11/2/2010	RCP	2	-	Below Floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-4662	SG-191	NP	11/2/2010	RCP	2	-	Below floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-5404	SG-191	NP	11/2/2010	RCP	1	-	Below floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-191-903	SG-191	NP	11/3/2010	RCP	5	IR	Rehab with rest of line; Survey Aggregate Visible inside wall and inside cone; deposits attached encrusted inside wall	Rehabilitation Required	NP-R2
FLWCTRL-SG-191-1924	SG-191	NP		-	-	-	Siphon Chamber, rehab with pipeline	Rehabilitation Required	NP-R2
MH-SG-192-5539	SG-192	NP	11/2/2010	RCP	2	-	Below floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-192-5687	SG-192	NP	4/2/2010	RCP	1	-	Below floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-193-15080	SG-193	NP	3/24/2010	RCP	1	-	Rehab with the rest of the line; Infiltration Weeper in bench	No Rehabilitation Required at this time	NP-R2
MH-SG-193-15243	SG-193	NP	3/24/2010	RCP	0	-	Rehab with the rest of the line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-15406	SG-193	NP	3/24/2010	RCP	0	-	Rehab with the rest of the line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-15690	SG-193	NP	3/24/2010	RCP	1	-	Below floodplain; Infiltration Stain in Bench	Rehabilitation Required	NP-R2
MH-SG-193-15840	SG-193	NP	3/24/2010	RCP	1	SAM	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-10	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-10087	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-10265	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-10352	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-10526	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-1073	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-10730	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-10859	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2



Table C-15. Manhole CA Summary within Nansemond TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-193-11143	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-11343	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-11386	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-11442	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-11740	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-12004	SG-193	NP	3/19/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-12264	SG-193	NP	3/22/2010	RCP	2	-	Below floodplain; SAV	Rehabilitation Required	NP-R2
MH-SG-193-12380	SG-193	NP	3/22/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-12566	SG-193	NP	3/22/2010	BR	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-12637	SG-193	NP	3/22/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-12687	SG-193	NP	3/22/2010	BR	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-12701	SG-193	NP	3/22/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-12982	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-1326	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-13277	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-13372	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-13672	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-13824	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-14122	SG-193	NP	3/23/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-14209	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-14517	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-14629	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-14688	SG-193	NP	3/23/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-14810	SG-193	NP	3/24/2010	RCP	0	-	Rehab with the rest of the line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-1629	SG-193	NP	3/15/2010	CSU	0	-	Rehab with the rest of the line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-1919	SG-193	NP	3/15/2010	CSU	0	-	Rehab with the rest of the line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-2160	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-22	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-2398	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-250	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-2640	SG-193	NP	3/15/2010	CSU	0	-	Rehab with line segment	No Rehabilitation Required at this time	NP-R2
MH-SG-193-2967	SG-193	NP	3/15/2010	CSU	0	-	Rehab with line segment	No Rehabilitation Required at this time	NP-R2
MH-SG-193-3285	SG-193	NP	3/15/2010	CSU	0	-	Rehab with line segment	No Rehabilitation Required at this time	NP-R2
MH-SG-193-3350	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A



Table C-15. Manhole CA Summary within Nansemond TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-193-3523	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-358	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-3815	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-4005	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-4185	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-4361	SG-193	NP	3/15/2010	CSU	1	-	Rehab with rest of line; Infiltration Stain bench	No Rehabilitation Required at this time	NP-R2
MH-SG-193-4477	SG-193	NP	3/15/2010	CSU	0	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-4674	SG-193	NP	3/15/2010	CSU	0	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-4828	SG-193	NP	3/16/2010	CSU	1	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-193-5082	SG-193	NP	3/16/2010	RCP	1	-	Rehab with rest of line; Surface Aggregate Visible inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-193-5311	SG-193	NP	3/16/2010	CSU	1	-	Rehab with rest of line; Infiltration Stain inside wall	No Rehabilitation Required at this time	NP-R2
MH-SG-193-5550	SG-193	NP	3/16/2010	CSU	0	-	Rehab with rest of line	No Rehabilitation Required at this time	NP-R2
MH-SG-193-5801	SG-193	NP	3/16/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-6046	SG-193	NP	3/16/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-6306	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-656	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-6605	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-6660	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-6907	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-7210	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-7469	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-7747	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-7930	SG-193	NP	3/17/2010	CSU	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-7978	SG-193	NP	3/18/2010	CSU	1	-	Below floodplain; Infiltration Stain bench	Rehabilitation Required	NP-R2
MH-SG-193-8178	SG-193	NP	3/18/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-8232	SG-193	NP	3/18/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-8384	SG-193	NP	3/18/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-8670	SG-193	NP	3/18/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-8970	SG-193	NP	3/18/2010	RCP	1	IR	-	Rehabilitation Required	NP-R2
MH-SG-193-9069	SG-193	NP	3/18/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-9142	SG-193	NP	3/18/2010	RCP	1	-	Below floodplain; Infiltration Stain bench	Rehabilitation Required	NP-R2
MH-SG-193-9288	SG-193	NP	3/18/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-947	SG-193	NP	3/15/2010	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-9516	SG-193	NP	3/18/2010	RCP	1	-	Below floodplain; Infiltration Stain bench	Rehabilitation Required	NP-R2

Table C-15. Manhole CA Summary within Nansemond TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-193-9712	SG-193	NP	3/18/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-193-9753	SG-193	NP	3/18/2010	RCP	0	-	Below floodplain	Rehabilitation Required	NP-R2
MH-SG-193-9910	SG-193	NP	3/18/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A

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Table C-16. Gravity Pipeline CA Summary within Virginia Initiative TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-044-13877	SG-044-0	SG-044-363	360	10	VCP	21	4	8	3	VIP	SG-044	IR	-	Rehabilitation Required	GN-R5
SG-044-13878	SG-044-363	SG-044-370	7	10	PVC	0	0	0	0	VIP	SG-044	-	Attached Deposits in Pipe (5%)	No Rehabilitation Required at this time	N/A
SG-044-13879	SG-044-370	SG-044-707	351	10	PVC	0	0	2	2	VIP	SG-044	-	Uncoded DAGS <5%	No Rehabilitation Required at this time	N/A
SG-044-13880	SG-044-707	SG-044-974	267	10	PVC	1	2	0	0	VIP	SG-044	-	Attached Deposits in Pipe (5%)	No Rehabilitation Required at this time	N/A
SG-044-13881	SG-044-974	SG-044-1057	69	10	PVC	1	2	0	0	VIP	SG-044	-	-	No Rehabilitation Required at this time	N/A
SG-044-13882	SG-044-1057	SG-044-1077	20	10	PVC	0	0	0	0	VIP	SG-044	-	-	No Rehabilitation Required at this time	N/A
SG-047-13883	SG-047-518	SG-047-17	501	54	PE	1	2	0	0	VIP	SG-047	-	Infiltration Dripper in Pipe	No Rehabilitation Required at this time	N/A
SG-047-13885	SG-047-1025	SG-047-518	507	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13886	SG-047-1130	SG-047-1025	103	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13888	SG-047-1728	SG-047-1130	598	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13891	SG-047-2306	SG-047-1754	557	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13892	SG-047-1754	SG-047-1728	24	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13894	SG-047-2754	SG-047-2463	290	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13895	SG-047-2463	SG-047-2306	157	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13897	SG-047-3123	SG-047-2754	369	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13898	SG-047-3156	SG-047-3123	35	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-13899	SG-047-3414	SG-047-3156	263	54	PE	0	0	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-047-24690	SG-047-17	VIP Headworks	16	60	PVC	1	4	0	0	VIP	SG-047	-	-	No Rehabilitation Required at this time	N/A
SG-048-13920	SG-048-263	SG-047-3123	242	18	ZZZ	2	3	0	0	VIP	SG-048	-	Point Repair in Pipe	No Rehabilitation Required at this time	N/A
SG-048-13921	SG-048-1052	SG-048-814	239	18	ZZZ	0	0	0	0	VIP	SG-048	-	Attached Deposits in Pipe (5%)	No Rehabilitation Required at this time	N/A
SG-048-13922	SG-048-814	SG-048-625	185	18	ZZZ	0	0	1	3	VIP	SG-048	-	Conflict structure confirmed with utilities at ODU. Capacity of this line may have been reduced but pipe is stable; no action needed.	No Rehabilitation Required at this time	N/A
SG-048-13923	SG-048-625	SG-048-263	296	18	ZZZ	0	0	0	0	VIP	SG-048	-	-	No Rehabilitation Required at this time	N/A
SG-049-13917	SG-049-193	SG-047-3156	163	30	PE	0	0	0	0	VIP	SG-049	-	-	No Rehabilitation Required at this time	N/A
SG-049-13918	SG-049-845	SG-049-600	231	30	PE	1	2	0	0	VIP	SG-049	-	-	No Rehabilitation Required at this time	N/A
SG-049-13919	SG-049-600	SG-049-193	411	30	PE	0	0	0	0	VIP	SG-049	-	-	No Rehabilitation Required at this time	N/A
SG-050-13884	FLWCTRL-SF-046-1623	SG-050-491	501	54	PE	1	2	0	0	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-050-13887	SG-050-1096	FLWCTRL-SF-046-1623	116	54	PE	0	0	0	0	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-050-13889	SG-050-1567	SG-050-1096	488	54	PE	0	0	0	0	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-050-13890	SG-050-2078	SG-050-1567	511	54	PE	0	0	0	0	VIP	SG-050	-	Line Bends Left	No Rehabilitation Required at this time	N/A
SG-050-13893	SG-050-2589	SG-050-2078	511	54	PE	0	0	0	0	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-050-13896	SG-050-3129	SG-050-2589	494	54	PE	0	0	0	0	VIP	SG-050	-	Attached Deposits in Pipe (5%)	No Rehabilitation Required at this time	N/A
SG-050-13900	SG-050-3388	SG-050-3129	259	54	PE	1	4	0	0	VIP	SG-050	-	Medium Joint Separation in Pipe	No Rehabilitation Required at this time	N/A

Table C-16. Gravity Pipeline CA Summary within Virginia Initiative TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-050-13901	SG-050-3642	SG-050-3388	254	54	PE	0	0	0	0	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-050-13903	SG-050-4166	SG-050-3642	524	54	PE	0	0	1	1	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-050-13905	SG-050-4500	SG-050-4166	337	54	PE	0	0	0	0	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-050-13909	SG-054-4765	SG-050-4500	265	44	PE	1	1	0	0	VIP	SG-050	-	-	No Rehabilitation Required at this time	N/A
SG-053-13902	SG-053-3779	SG-047-3414	362	39	PE	0	0	0	0	VIP	SG-053	-	Attached Deposits in Pipe (10%)	No Rehabilitation Required at this time	N/A
SG-053-13904	SG-053-4189	SG-053-3779	410	39	PE	0	0	0	0	VIP	SG-053	-	-	No Rehabilitation Required at this time	N/A
SG-053-13906	SG-053-4396	SG-053-4189	206	39	PE	1	2	0	0	VIP	SG-053	-	-	No Rehabilitation Required at this time	N/A
SG-053-13907	SG-053-4525	SG-053-4396	131	36	PE	0	0	0	0	VIP	SG-053	-	-	No Rehabilitation Required at this time	N/A
SG-054-13912	SG-054-4880	SG-054-4765	79	44	PE	0	0	0	0	VIP	SG-054	-	-	No Rehabilitation Required at this time	N/A
SG-054-13913	SG-055-5109	SG-054-4880	230		PE	3	2	0	0	VIP	SG-054	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-055-13908	SG-055-4804	SG-053-4525	277	28	ZZZ	0	0	0	0	VIP	SG-055	-	-	No Rehabilitation Required at this time	N/A
SG-055-13910	SG-055-4920	SG-055-4804	123	28	ZZZ	0	0	0	0	VIP	SG-055	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-055-13914	SG-055-5109	SG-055-4920	182	28	ZZZ	0	0	0	0	VIP	SG-055	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-055-13915	SG-055-5153	SG-055-5109	44	48	HDPE	1	2	0	0	VIP	SG-055	-	Deposits Attached in Pipe	No Rehabilitation Required at this time	N/A
SG-055-13916	SG-056-5366	SG-055-5153	213	48	FRP	0	0	0	0	VIP	SG-055	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-063-13858	SG-063-220	SG-063-75	159	10	VCP	3	4	2	4	VIP	SG-063	-	Sag Greater than 50% in Pipe	Rehabilitation Required	Interim System Improvements
SG-063-13859	SG-063-445	SG-063-220	229	10	CI	8	4	5	3	VIP	SG-063	-	Continuous Infiltration Dripper and Metal Corrosion on Surface of Pipe	Rehabilitation Required	Interim System Improvements
SG-063-13860	SG-063-1143	SG-063-869	274	10	VCP	2	4	2	4	VIP	SG-063	BSV	-	Rehabilitation Required	Interim System Improvements
SG-063-13861	SG-063-869	SG-063-657	214	10	VCP	0	0	3	3	VIP	SG-063	-	Longitudinal Crack in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13862	SG-063-657	SG-063-445	208	10	VCP	0	0	0	0	VIP	SG-063	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13863	SG-063-1742	SG-063-1494	249	10	VCP	1	3	1	3	VIP	SG-063	-	Infiltration Dripper and Sag of 50% in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13864	SG-063-1494	SG-063-1372	124	10	VCP	2	4	1	3	VIP	SG-063	-	Deposits Attached in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13865	SG-063-1372	SG-063-1143	227	10	VCP	0	0	1	2	VIP	SG-063	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13866	SG-063-2147	SG-063-1742	401	10	VCP	0	0	1	3	VIP	SG-063	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13867	SG-063-2253	SG-063-2211	40	10	VCP	0	0	0	0	VIP	SG-063	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13868	SG-063-2211	SG-063-2147	67	10	VCP	0	0	2	3	VIP	SG-063	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-063-13869	SG-063-2403	SG-063-2253	151	10	VCP	0	0	0	0	VIP	SG-063	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-063-19850	SG-063-75	SS-PS-106-1	15	10	CI	0	0	3	3	VIP	SG-063	-	Continuous Infiltration Weepers in Pipe	Rehabilitation Required	Interim System Improvements
SG-067-11P	SG-067-1352	SG-067-1252	100	12	VCP	11	4	4	5	VIP	SG-067	BSV;IR	Multiple Infiltration Defects and Broken Section in Pipe	Rehabilitation Required	VIP-R1

Table C-16. Gravity Pipeline CA Summary within Virginia Initiative TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-067-12P	SG-067-1445	SG-067-1352	93	12	VCP	21	4	1	1	VIP	SG-067	IR	Continuous Infiltration Weepers and Attached Deposits in Pipe	Rehabilitation Required	VIP-R1
SG-067-13842	SG-067-226	SG-067-92	170	12	VCP	1	2	3	3	VIP	SG-067	-	Rehab with rest of line; Multiple infiltration Defects and Medium Joint Offset in Pipe	No Rehabilitation Required at this time	VIP-R1
SG-067-13843	SG-067-1001	SG-067-735	267	12	VCP	13	4	2	5	VIP	SG-067	B; IR	Multiple infiltration Defects and Medium Joint Offset in Pipe	Rehabilitation Required	VIP-R1
SG-067-13844	SG-067-735	SG-067-700	32	12	VCP	4	2	0	0	VIP	SG-067	-	Rehab with rest of line; Infiltration Weepers and Attached Deposits in Pipe	No Rehabilitation Required at this time	VIP-R1
SG-067-13845	SG-067-700	SG-067-458	244	12	VCP	4	3	3	5	VIP	SG-067	SMW	Multiple Infiltration Defects and Cracks in Pipe	Rehabilitation Required	VIP-R1
SG-067-13846	SG-067-458	SG-067-226	231	12	VCP	7	4	3	2	VIP	SG-067	IR	Multiple Infiltration Defects and Medium Joint Separation in Pipe	Rehabilitation Required	VIP-R1
SG-067-13847	SG-067-1207	SG-067-1001	214	12	VCP	18	4	0	0	VIP	SG-067	IR	Multiple Infiltration Defects and Attached Deposits in Pipe	Rehabilitation Required	VIP-R1
SG-067-13849	SG-067-1252	SG-067-1207	38	12	VCP	3	2	1	2	VIP	SG-067	-	Rehab with rest of line; Infiltration Weepers and Longitudinal Crack in Pipe	No Rehabilitation Required at this time	VIP-R1
SG-067-13851	SG-067-1549	SG-067-1445	104	12	VCP	2	2	1	1	VIP	SG-067	-	Infiltration	Rehabilitation Required	VIP-R1
SG-068-13853	SG-068-1795	SG-067-1549	257	8	DI	0	0	1	3	VIP	SG-068	-	Rehab with rest of line; Corrosion on Surface of Metal Pipe	No Rehabilitation Required at this time	VIP-R1
SG-068-13854	SG-068-2540	SG-068-2360	179	8	VCP	2	2	3	2	VIP	SG-068	-	Infiltration Runner miscoded; Medium Joint Offset in Pipe	Rehabilitation Required	VIP-R1
SG-068-2P	SG-068-2045	SG-068-1795	241	8	DI	0	0	1	3	VIP	SG-068	-	Rehab with rest of line; Corrosion on Surface of Metal Pipe	No Rehabilitation Required at this time	VIP-R1
SG-068-3P	SG-068-2110	SG-068-2045	64	8	CI	2	4	3	3	VIP	SG-068	-	Infiltration	Rehabilitation Required	VIP-R1
SG-068-4P	SG-068-2360	SG-068-2110	254	8	ZZZ	5	4	3	2	VIP	SG-068	MWLS	Significant grease and debris accumulation	Rehabilitation Required	VIP-R1
SG-068-6P	SG-068X-230	SG-068-2045	229	8	ZZZ	2	4	5	4	VIP	SG-068	-	Rehab with rest of line; Blistered Lining in Pipe; sag	No Rehabilitation Required at this time	VIP-R1
SG-071-13829	SG-071-248	SG-073-795	248	12	VCP	6	4	6	3	VIP	SG-071	-	Infiltration	Rehabilitation Required	VIP-R1
SG-071-13830	SG-071-498	SG-071-248	250	12	VCP	4	4	2	2	VIP	SG-071	-	Infiltration	Rehabilitation Required	VIP-R1
SG-071-13831	SG-071-768	SG-071-498	270	12	VCP	4	4	2	2	VIP	SG-071	-	Infiltration	Rehabilitation Required	VIP-R1
SG-072-13832	SG-073-855	SG-073-795	59	15	DI	2	3	0	0	VIP	SG-072	-	Compacted Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-072-13833	SG-073-1046	SG-073-855	194	15	DI	2	3	0	0	VIP	SG-072	-	Compacted Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-072-13834	SG-073-1300	SG-073-1046	255	15	DI	0	0	0	0	VIP	SG-072	-		No Rehabilitation Required at this time	N/A
SG-072-13835	SG-072-47	SG-073-1300	44	10	DI	1	2	0	0	VIP	SG-072	-	Compacted Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-072-13836	SG-072-336	SG-072-47	289	10	DI	0	0	0	0	VIP	SG-072	-	-	No Rehabilitation Required at this time	N/A
SG-072-13837	SG-072-534	SG-072-336	199	10	DI	0	0	0	0	VIP	SG-072	-	-	No Rehabilitation Required at this time	N/A
SG-072-13838	SG-072-601	SG-072-534	67	10	DI	0	0	0	0	VIP	SG-072	-	-	No Rehabilitation Required at this time	N/A
SG-073-13802	SG-073-20	SG-073-0	16	15	ZZZ	0	0	0	0	VIP	SG-073	-	-	No Rehabilitation Required at this time	N/A
SG-073-13803	SG-073-350	SG-073-20	334	15	ZZZ	1	4	0	0	VIP	SG-073	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-073-13824	SG-073-430	SG-073-350	80	15	ZZZ	0	0	0	0	VIP	SG-073	-	-	No Rehabilitation Required at this time	N/A
SG-073-13825	SG-073-118	SG-073-430	53	15	VCP	4	4	0	0	VIP	SG-073	-	Multiple Instances of Attached Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-073-13826	SG-073-54	SG-073-118	64	15	DI	0	0	0	0	VIP	SG-073	-	-	No Rehabilitation Required at this time	N/A
SG-073-13827	SG-073-517	SG-073-54	53	15	DI	1	3	0	0	VIP	SG-073	-	Compacted Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-073-13828	SG-073-795	SG-073-517	279	15	ZZZ	0	0	0	0	VIP	SG-073	-	-	No Rehabilitation Required at this time	N/A



Table C-16. Gravity Pipeline CA Summary within Virginia Initiative TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-074-13799	SG-074-250	SG-074-0	250	21	ZZZ	2	3	2	3	VIP	SG-074	-	Infiltration Dripper and Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13800	SG-074-0	SG-073-0	18	24	VCP	0	0	0	0	VIP	SG-074	-	-	No Rehabilitation Required at this time	N/A
SG-074-13801	SG-073-0	FLWCTRL-SG-074-3201	75	24	VCP	9	4	2	3	VIP	SG-074	IR	Infiltration Drippers and Corrosion on Surface of Metal Pipe	Rehabilitation Required	VIP-R1
SG-074-13804	SG-074-945	SG-074-720	224	21	VCP	1	3	3	3	VIP	SG-074	-	Infiltration Dripper and Wrinkled Liner in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13805	SG-074-720	SG-074-495	225	21	VCP	0	0	2	3	VIP	SG-074	-	Infiltration Stains and Wrinkled Liner in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13806	SG-074-495	SG-074-250	246	21	VCP	0	0	2	3	VIP	SG-074	-	Infiltration Stains and Wrinkled Liner in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13809	SG-074-1060	SG-074-945	117	21	VCP	0	0	0	0	VIP	SG-074	-	-	No Rehabilitation Required at this time	N/A
SG-074-13810	SG-074-1740	SG-074-1400	341	21	VCP	0	0	0	0	VIP	SG-074	-	Infiltration Stains in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13811	SG-074-1400	SG-074-1060	339	21	VCP	0	0	3	3	VIP	SG-074	-	Wrinkled Liner in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13812	SG-074-2385	SG-074-2080	304	21	VCP	0	0	0	0	VIP	SG-074	-	Infiltration Stains in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13813	SG-074-2080	SG-074-1740	339	21	VCP	0	0	0	0	VIP	SG-074	-	-	No Rehabilitation Required at this time	N/A
SG-074-13815	SG-074-2634	SG-074-2520	114	21	VCP	0	0	2	3	VIP	SG-074	-	Wrinkled Liner in Pipe	No Rehabilitation Required at this time	N/A
SG-074-13816	SG-074-2520	SG-074-2385	137	21	VCP	0	0	1	3	VIP	SG-074	-	Infiltration Stain Observed in Pipe	No Rehabilitation Required at this time	N/A
SG-074-19849	FLWCTRL-SG-074-3201	SS-PS-105-1	9	24	CI	0	0	1	3	VIP	SG-074	-	Metal Corrosion on Surface of Pipe	Rehabilitation Required	VIP-R1
SG-074-27973	FLWCTRL-SG-074-3201	Outfall	25	16	SP	0	0	0	0	VIP	SG-074	-	Outfall	No Rehabilitation Required at this time	N/A
SG-075-13807	SG-075-50	SG-074-250	49	12	VCP	3	3	0	0	VIP	SG-075	-	Infiltration	Rehabilitation Required	VIP-R1
SG-075-13808	SG-075-281	SG-075-50	231	12	VCP	7	3	1	2	VIP	SG-075	-	Multiple structural defects	Rehabilitation Required	VIP-R1
SG-075-13817	SG-075-1800	SG-075-1615	185	12	VCP	1	3	6	3	VIP	SG-075	-	Multiple structural defects	Rehabilitation Required	VIP-R1
SG-075-13818	SG-075-1615	SG-075-1401	215	12	VCP	0	0	12	3	VIP	SG-075	-	Multiple structural defects	Rehabilitation Required	VIP-R1
SG-075-13819	SG-075-1401	SG-075-1178	220	12	VCP	1	2	5	3	VIP	SG-075	-	Multiple structural defects	Rehabilitation Required	VIP-R1
SG-075-13820	SG-075-1178	SG-075-958	220	12	VCP	0	0	10	3	VIP	SG-075	-	Multiple structural defects	Rehabilitation Required	VIP-R1
SG-075-13821	SG-075-958	SG-075-740	219	12	VCP	6	3	6	3	VIP	SG-075	-	Multiple structural defects	Rehabilitation Required	VIP-R1
SG-075-13822	SG-075-740	SG-075-516	241	12	VCP	8	4	7	3	VIP	SG-075	IR	Infiltration Weepers and Multiple Crack in Pipe	Rehabilitation Required	VIP-R1
SG-075-13823	SG-075-516	SG-075-281	219	12	VCP	2	3	5	4	VIP	SG-075	FM	Infiltration Dripper and Longitudinal Cracking in Pipe	Rehabilitation Required	VIP-R1
SG-077-13814	SG-077-2796	SG-074-2634	162	18	VCP	14	5	0	0	VIP	SG-077	IR; TBI	Infiltration Drippers and Attached Deposits in Pipe	Rehabilitation Required	VIP-R1
SG-078-13784	SG-078-1005	SG-078-784	253	12	VCP	13	4	1	3	VIP	SG-078	IR	Infiltration Drippers and Multiple Crack in Pipe	Rehabilitation Required	VIP-R1
SG-078-13789	SG-078-1311	SG-078-1019	295	12	VCP	37	4	0	0	VIP	SG-078	IR	Infiltration Drippers and Attached Deposits in Pipe	Rehabilitation Required	VIP-R1
SG-078-13790	SG-078-1019	SG-078-1005	14	12	VCP	0	0	0	0	VIP	SG-078	-	Rehab with rest of line; Infiltration Stain in Pipe	No Rehabilitation Required at this time	VIP-R1
SG-078-13791	SG-078-1610	SG-078-1350	259	12	VCP	13	3	0	0	VIP	SG-078	-	Infiltration	Rehabilitation Required	VIP-R1
SG-078-13792	SG-078-1350	SG-078-1311	39	12	VCP	8	4	0	0	VIP	SG-078	IR	Attached Deposits in Pipe	Rehabilitation Required	VIP-R1
SG-078-13793	SG-078-1916	SG-078-1610	305	12	VCP	51	3	2	3	VIP	SG-078	-	Infiltration	Rehabilitation Required	VIP-R1
SG-079-13794	SG-079-2300	SG-078-1916	392	10	VCP	3	2	2	2	VIP	SG-079	-	Infiltration	Rehabilitation Required	VIP-R1



Table C-16. Gravity Pipeline CA Summary within Virginia Initiative TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-079-13795	SG-079-2703	SG-079-2300	396	10	VCP	19	3	1	2	VIP	SG-079	-	Rehab with rest of line; Infiltration Dripper and Longitudinal Crack in Pipe	No Rehabilitation Required at this time	VIP-R1
SG-079-13796	SG-079-2967	SG-079-2703	263	10	VCP	3	4	3	3	VIP	SG-079	IR	Infiltration Dripper and Multiple Cracks in Pipe	Rehabilitation Required	VIP-R1
SG-079-13797	SG-079-3332	SG-079-2967	365	10	VCP	1	2	2	2	VIP	SG-079	-	Rehab with rest of line; Infiltration Stain and Medium Joint Separation in Pipe	No Rehabilitation Required at this time	VIP-R1
SG-079-13798	SG-079-3701	SG-079-3332	368	10	VCP	1	1	4	2	VIP	SG-079	-	Rehab with rest of line; Longitudinal Cracks in Pipe and Fine Roots in Lateral Pipe	No Rehabilitation Required at this time	VIP-R1
SG-088-13746	SG-088-164	SG-088-27	137	27	RCP	1	2	0	0	VIP	SG-088	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-088-13747	SG-088-895	SG-088-753	142	27	FRP	2	2	0	0	VIP	SG-088	-	Vermin and Attached Deposits in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-088-13748	SG-088-753	SG-088-456	297	27	FRP	4	2	0	0	VIP	SG-088	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-088-13749	SG-088-456	SG-088-164	292	27	FRP	0	0	0	0	VIP	SG-088	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-088-13750	SG-088-1463	SG-088-1206	257	27	FRP	5	2	0	0	VIP	SG-088	-	Infiltration Weepers and Vermin in Pipe	No Rehabilitation Required at this time	N/A
SG-088-13751	SG-088-1206	SG-088-1054	152	27	FRP	4	4	1	5	VIP	SG-088	IR; H	Vermin and Debris in Pipe	Rehabilitation Required	Interim System Improvements
SG-088-13752	SG-088-1054	SG-088-895	159	27	FRP	1	2	0	0	VIP	SG-088	-	Debris in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-088-13753	SG-088-1482	SG-088-1463	19	27	FRP	2	3	0	0	VIP	SG-088	-	Vermin and Settled Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-088-13763	SG-089-3355	SG-088-3229	24	27	RCP	1	1	0	0	VIP	SG-088	-	Fine Roots in Joint of Pipe	No Rehabilitation Required at this time	N/A
SG-088-16068	SG-088-27	SS-PS-147-1	22	10	RCP	1	2	0	0	VIP	SG-088	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SG-088-19844	SG-088-17	SG-088-27	4	27	RCP	0	0	0	0	VIP	SG-088	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-088-19845	SG-088-5	SG-088-17	26	27	RCP	0	0	0	0	VIP	SG-088	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-088-19846	SG-088-5	Inactive Outfall	63	27	RCP	0	0	0	0	VIP	SG-088	-	-	No Rehabilitation Required at this time	Interim System Improvements
SG-089-13766	SG-089-3538	SG-089-3365	172	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13767	SG-089-4160	SG-089-3843	324	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13768	SG-089-3843	SG-089-3538	305	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13770	SG-089-4518	SG-089-4168	349	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13771	SG-089-5053	SG-089-4518	535	24	ZZZ	3	4	1	2	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13772	SG-089-5551	SG-089-5053	496	24	ZZZ	4	4	4	3	VIP	SG-089	-	Medium Joint Separation in Pipe	No Rehabilitation Required at this time	N/A
SG-089-13773	SG-089-6219	SG-089-5863	334	24	ZZZ	1	3	0	0	VIP	SG-089	-	Compacted Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-089-13774	SG-089-5863	SG-089-5690	193	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13775	SG-089-5690	SG-089-5551	140	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13776	SG-089-6287	SG-089-6219	70	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13777	SG-089-6434	SG-089-6287	141	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-13778	SG-089-7111	SG-089-7021	142	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A

Table C-16. Gravity Pipeline CA Summary within Virginia Initiative TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SG-089-13779	SG-089-7021	SG-089-6971	79	24	PP	0	0	0	0	VIP	SG-089	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SG-089-13780	SG-089-6971	SG-089-6692	191	24	PP	1	2	0	0	VIP	SG-089	-	Compacted Deposits in Pipe	No Rehabilitation Required at this time	N/A
SG-089-13781	SG-089-6692	SG-089-6434	208	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-089-6P	SG-089-4168	SG-089-4160	8	24	ZZZ	0	0	0	0	VIP	SG-089	-	-	No Rehabilitation Required at this time	N/A
SG-107-13787	SG-107-315	SG-078-748	316	8	VCP	3	2	1	1	VIP	SG-107	-	Rehab with rest of line; Infiltration Weeper and Fine Roots in Joint of Pipe	No Rehabilitation Required at this time	VIP-R1
SG-107-13788	SG-107-390	SG-107-315	74	8	VCP	0	0	0	0	VIP	SG-107	-	Rehab with rest of line;	No Rehabilitation Required at this time	VIP-R1
SG-108-13782	SG-108-378	SG-108-192	185	12	VCP	13	3	0	0	VIP	SG-108	-	Infiltration	Rehabilitation Required	VIP-R1
SG-108-13783	SG-108-192	SG-108-85	108	12	VCP	14	5	1	2	VIP	SG-108	IG	Infiltration Drippers and Attached Deposits in Pipe	Rehabilitation Required	VIP-R1
SG-108-13785	SG-078-748	SG-078-468	280	12	VCP	15	4	0	0	VIP	SG-108	-	Infiltration	Rehabilitation Required	VIP-R1
SG-108-13786	SG-108-468	SG-108-378	91	12	VCP	7	5	0	0	VIP	SG-108	-	Infiltration	Rehabilitation Required	VIP-R1
SG-205-13871	SG-205-100	SG-205-126	24	8	CI	0	0	1	3	VIP	SG-205	-	Attached Deposits and Severe Corrosion on Surface of Metal Pipe	Rehabilitation Required	VIP-R10
SG-205-13872	SG-205-126	SG-205-250	166	8	CI	2	2	1	3	VIP	SG-205	-	Severe Corrosion on Surface of Metal Pipe	Rehabilitation Required	VIP-R10
SG-205-13873	SG-205-250	SG-205-500	230	8	CI	2	2	1	3	VIP	SG-205	-	Attached Deposits and Severe Corrosion on Surface of Metal Pipe	Rehabilitation Required	VIP-R10
SG-205-13874	SG-205-500	SG-205-725	247	8	CI	0	0	1	3	VIP	SG-205	-	Infiltration Stains and Severe Corrosion on Surface of Metal Pipe	Rehabilitation Required	VIP-R10
SG-205-13875	SG-205-725	SG-205-895	132	8	CI	1	2	1	3	VIP	SG-205	-	Compacted Deposits and Severe Corrosion on Surface of Metal	Rehabilitation Required	VIP-R10
SG-205-13876	SG-205-895	SG-205-901	3	8	CI	0	0	0	0	VIP	SG-205	-	Severe Corrosion on Surface of Metal Pipe; Obstruction	Rehabilitation Required	VIP-R10
SG-205-19593	SG-205-895	SS-PS-124-1	56	12	CI	0	0	2	3	VIP	SG-205	-	Severe Corrosion on Surface of Metal Pipe	Rehabilitation Required	VIP-R10
SG-207-20842	SG-207-324	SG-207-629	290	12	VCP	1	1	3	5	VIP	SG-207	BSV; JOL	-	Rehabilitation Required	Interim System Improvements
SG-207-20845	SG-207-21	SG-207-324	297	12	VCP	18	4	12	4	VIP	SG-207	IR; JOL	Infiltration Weeper in Pipe	Rehabilitation Required	Interim System Improvements
SP-114-13870	SG-041-0	SG-041-150	150	0	ZZZ	0	0	0	0	VIP	SP-114	-	Deposits in Pipe	No Rehabilitation Required at this time	N/A
SP-114-16000	SG-041-150	SG-041-162	12	0	ZZZ	1	2	0	0	VIP	SP-114	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	N/A
SP-114-16033	SG-041-162	SS-PS-114-1	62	0	ZZZ	0	0	0	0	VIP	SP-114	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SP-125-10734	SP-125-1055	SS-PS-125-1	21	12	VCP	3	4	1	2	VIP	SP-125	-	Compacted Deposits in Pipe	No Rehabilitation Required at this time	GN-R5
SP-125-12727	SP-125-1000	SP-125-1055	57	12	VCP	8	3	1	2	VIP	SP-125	-	Infiltration	Rehabilitation Required	GN-R5
SPS-102-9834	SPS-102-1420	SS-PS-102-1	37	8	ZZZ	0	0	0	0	VIP	SPS-102	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SPS-107-10098	SPS-107-1441	SS-PS-107-1	13	36	VCP	0	0	0	0	VIP	SPS-107	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SPS-107-11491	SPS-107-1440	SPS-107-1441	75	36	VCP	0	0	0	0	VIP	SPS-107	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SPS-111-21686	SPS-111-6721	SS-PS-111-1	19	12	CI	0	0	0	0	VIP	SPS-111	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SPS-113-13839	SG-067-8	SG-067-0	8	12	CI	0	0	0	0	VIP	SPS-113	-	Corroded metal pipe just before wet well; to be addressed under Prompt Repair Program	Rehabilitation Required	Rehab during CAP
SPS-113-13840	SG-067-0	SG-067-25	24	12	PVC	0	0	0	0	VIP	SPS-113	-	-	No Rehabilitation Required at this time	VIP-R1
SPS-113-13841	SG-067-92	SG-067-25	61	12	DI	0	0	1	3	VIP	SPS-113	-	Corrosion on Surface of Metal Pipe	No Rehabilitation Required at this time	VIP-R1

Table C-16. Gravity Pipeline CA Summary within Virginia Initiative TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
SPS-113-16095	SG-067-25	SS-PS-113-1	61	27	ZZZ	1	3	1	2	VIP	SPS-113	-	Compacted Solids in Pipe	No Rehabilitation Required at this time	VIP-R1
SPS-116-10333	SG-089-3365	SPS-116-1475	60	24	VCP	1	2	0	0	VIP	SPS-116	RPL	Attached Deposits in Pipe	Rehabilitation Required	Interim System Improvements
SPS-116-15995	SG-089-3338	SS-PS-116-1	43	16	ZZZ	1	2	0	0	VIP	SPS-116	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	Interim System Improvements
SPS-118-10476	SPS-118-1483	SS-PS-118-1	6	12	CI	0	0	0	0	VIP	SPS-118	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SPS-121-10546	SPS-121-1485	SS-PS-121-1	32	24	CI	0	0	0	0	VIP	SPS-121	-	Camera zoomed all the way to wet well for inspection	No Rehabilitation Required at this time	N/A
SPS-122-16037	SG-044-1077	SS-PS-122-1	36	12	CI	1	2	0	0	VIP	SPS-122	-	-	No Rehabilitation Required at this time	N/A
SPS-130-10879	SPS-130-1498	SPS-130-1500	20	30	VCP	0	0	0	0	VIP	SPS-130	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
SPS-132-10850	FLWCTRL-SPS-132-7	SS-PS-132-1	17	12	ZZZ	0	0	0	0	VIP	SPS-132	-	Debris in Pipe -	No Rehabilitation Required at this time	N/A
SPS-142-9305	SPS-142-1457	SS-PS-142-1	6	10	VCP	1	2	0	0	VIP	SPS-142	-	Severe Corrosion; Attached Deposits in Pipe	Rehabilitation Required	VIP-R10
SPS-144-10165	SPS-144-30	SS-PS-144-1	20	24	SP	1	2	0	0	VIP	SPS-144	-	Corrosion	Rehabilitation Required	GN-R5
SPS-145-10667	SPS-145-1491	SS-PS-145-1	18	27	RCP	1	2	2	5	VIP	SPS-145	SRC	Infiltration Weeper and Surface Aggregate Visible in Pipe; To be addressed under Prompt Repair Program	Rehabilitation Required	Rehab During CAP
SPS-146-9891	SPS-146-1422	SPS-146-1423	109		RCP	1	3	0	0	VIP	SPS-146	-	Attached Deposits and Debris in Pipe	No Rehabilitation Required at this time	N/A
SPS-146-9900	SPS-146-1423	SS-PS-146-1	27	30	RCP	0	0	0	0	VIP	SPS-146	-	Corrected under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
SPS-148-10239	SPS-148-1456	SS-PS-148-1	4	10	ZZZ	0	0	0	0	VIP	SPS-148	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
VIP-1000-24469	SG-050-491	FLWCTRL-VIPTP-2563	475	54	PE	0	0	0	0	VIP	SG-050	-	Debris in Pipe	No Rehabilitation Required at this time	N/A
-	SG-205-901	SS-PS-124-1	54		CI	2	5	0	0	VIP	SG-205	-	Severe Corrosion; Survey abandoned due to obstruction	Rehabilitation Required	GN-R5

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Table C-17. Manhole CA Summary within Virginia Initiative TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
FLWCTRL-SG-074-3201	SG-074	VIP	-	-	-	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-041-0	SG-041	VIP	7/5/2011	BR	5	LFD	Infiltration, Missing mortar and lining failure	Rehabilitation Required	GN-R1
MH-SG-041-150	SG-041	VIP	7/5/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-041-162	SG-041	VIP	7/5/2011	BR	2	-	-	No Rehabilitation Required at this time	N/A
MH-SG-044-0	SG-044	VIP	9/14/2010	RCP	0	-	Rehabilitate along with rest of line	No Rehabilitation Required at this time	GN-R5
MH-SG-044-1057	SG-044	VIP	9/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-044-1077	SG-044	VIP	9/14/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-044-1132	SG-044	VIP	6/21/2011	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-044-363	SG-044	VIP	9/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-044-370	SG-044	VIP	9/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-044-707	SG-044	VIP	9/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-044-974	SG-044	VIP	9/14/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-047-1025	SG-047	VIP	6/30/2011	BR	1	LFD	Detached Liner on Inside of Wall	Rehabilitation Required	GN-R1
MH-SG-047-1130	SG-047	VIP	6/30/2011	BR	1	SRP	-	Rehabilitation Required	GN-R1
MH-SG-047-17	SG-047	VIP	6/30/2011	BR	1	LFD	Detached Liner on Inside of Wall	Rehabilitation Required	GN-R1
MH-SG-047-1728	SG-047	VIP	6/30/2011	BR	2	LFD	Surface Aggregate Projecting on Inside of Wall	Rehabilitation Required	GN-R1
MH-SG-047-1754	SG-047	VIP	6/30/2011	BR	2	LFD	Detached Liner on Inside of Cone and Chimney	Rehabilitation Required	GN-R1
MH-SG-047-2306	SG-047	VIP	10/11/2011	RCP	1	-	Spalling; Surface Aggregate Visible on Inside of Cone	Rehabilitation Required	GN-R1
MH-SG-047-2463	SG-047	VIP	10/11/2011	RCP	1	-	Degradation of lining; Surface Aggregate Visible on Inside of Cone	Rehabilitation Required	GN-R1
MH-SG-047-2754	SG-047	VIP	10/11/2011	RCP	0	-	Uncoded infiltration; Possible conflict MH	Rehabilitation Required	GN-R1
MH-SG-047-3123	SG-047	VIP	10/11/2011	RCP	0	-	Uncoded infiltration	Rehabilitation Required	GN-R1
MH-SG-047-3156	SG-047	VIP	10/11/2011	PP	0	-	Uncoded infiltration	Rehabilitation Required	GN-R1
MH-SG-047-3414	SG-047	VIP	6/29/2011	BR	1	IR	-	Rehabilitation Required	GN-R1
MH-SG-047-518	SG-047	VIP	6/30/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-048-1052	SG-048	VIP	9/14/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-048-263	SG-048	VIP	9/15/2010	BR	0	-	Uncoded infiltration	Rehabilitation Required	GN-R1
MH-SG-048-625	SG-048	VIP	9/14/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-048-814	SG-048	VIP	9/14/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-049-193	SG-049	VIP	10/11/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-049-600	SG-049	VIP	6/30/2011	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-049-845	SG-049	VIP	6/30/2011	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-1096	SG-050	VIP	6/30/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-1567	SG-050	VIP	10/11/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-2078	SG-050	VIP	10/11/2011	RCP	0	-	Uncoded infiltration	Rehabilitation Required	GN-R1
MH-SG-050-2589	SG-050	VIP	10/11/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-3129	SG-047	VIP	10/11/2011	RCP	1	SRC	-	Rehabilitation Required	GN-R1
MH-SG-050-3388	SG-050	VIP	6/29/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-3642	SG-050	VIP	6/29/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-4166	SG-050	VIP	6/29/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-4500	SG-050	VIP	6/29/2011	BR	2	SAP	Surface Aggregate Projecting on Inside of Wall and Cone	Rehabilitation Required	GN-R1
MH-SG-050-491	SG-050	VIP	6/30/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-050-992	SG-050	VIP	6/30/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-053-3779	SG-053	VIP	6/29/2011	BR	2	SAP	Surface Aggregate Projecting on Channel	Rehabilitation Required	GN-R1

Table C-17. Manhole CA Summary within Virginia Initiative TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-053-4189	SG-053	VIP	6/29/2011	BR	1	IR	-	Rehabilitation Required	GN-R1
MH-SG-053-4396	SG-053	VIP	6/29/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-053-4525	SG-053	VIP	6/29/2011	BR	2	IR	-	Rehabilitation Required	GN-R1
MH-SG-054-4880	SG-054	VIP	6/29/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-055-4804	SG-055	VIP	6/29/2011	BR	3	SAP	Surface Aggregate Projecting on Inside of Cone and Wall; SAM	Rehabilitation Required	GN-R1
MH-SG-055-4920	SG-055	VIP	6/29/2011	CSU	2	IR	-	Rehabilitation Required	GN-R1
MH-SG-055-5109	SG-055	VIP	7/1/2011	BR	2	LFD	Surface Aggregate Projecting on Inside of Chimney and Liner Detached on Inside of Wall	Rehabilitation Required	GN-R1
MH-SG-055-5153	SG-055	VIP	6/29/2011	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-056-5366	SG-056	VIP	7/1/2011	BR	0	-	Spalling on walls; Missing brick	Rehabilitation Required	GN-R1
MH-SG-063-1143	SG-063	VIP	6/21/2011	BR	2	-	CIP VIP-105; Medium Root in Joint of Inside of Chimney	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-1372	SG-063	VIP	10/13/2011	BR	1	-	CIP VIP-105; Infiltration Dripper on Inside of Cone	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-1494	SG-063	VIP	6/21/2011	BR	1	-	CIP VIP-105; Medium Root in Joint of Inside of Chimney	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-1742	SG-063	VIP	6/21/2011	BR	0	-	CIP VIP-105	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-2147	SG-063	VIP	6/21/2011	BR	2	-	CIP VIP-105; Fine Roots in Joint and Pipe Material on Bench	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-220	SG-063	VIP	6/21/2011	BR	2	-	CIP VIP-105; Attached Deposits and Missing Mortar on Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-2211	SG-063	VIP	6/21/2011	BR	0	-	CIP VIP-105	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-2253	SG-063	VIP	6/21/2011	BR	1	-	CIP VIP-105; Attached Deposits on Bench	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-2403	SG-063	VIP	6/21/2011	BR	1	-	CIP VIP-105; Missing Mortar on Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-445	SG-063	VIP	6/21/2011	BR	0	-	CIP VIP-105	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-657	SG-063	VIP	6/21/2011	BR	1	-	CIP VIP-105; Medium Roots in Joint of Chimney	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-75	SG-063	VIP	10/17/2011	BR	0	-	CIP VIP-105	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-063-869	SG-063	VIP	6/21/2011	BR	0	-	CIP VIP-105	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-067-0	SG-067	VIP	6/21/2011	CSU	1	-	Rehab with rest of line; Circumferential Crack on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-1001	SG-067	VIP	8/10/2010	BR	3	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-1207	SG-067	VIP	8/10/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-1252	SG-067	VIP	8/10/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-1352	SG-067	VIP	8/10/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-1445	SG-067	VIP	8/10/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-1549	SG-067	VIP	8/10/2010	BR	2	-	Rehab with rest of line; Infiltration Weeper on Bench and Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-226	SG-067	VIP	8/11/2010	BR	2	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-25	SG-067	VIP	10/14/2011	RCP	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-458	SG-067	VIP	8/10/2010	BR	2	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-700	SG-067	VIP	8/10/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-735	SG-067	VIP	8/10/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-067-8	SG-067	VIP	6/21/2011	BR	3	MB	Missing Mortar on Inside of Wall and Bench	Rehabilitation Required	VIP-R1
MH-SG-067-92	SG-067	VIP	8/11/2010	RCP	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-068-1795	SG-068	VIP	10/11/2011	BR	2	IG	Longitudinal Fracture on Inside of Wall; corrected under Prompt Repair Program	Rehabilitation Required	Rehab During CAP
MH-SG-068-2045	SG-068	VIP	8/10/2010	BR	0	-	Rehab with rest of line.	No Rehabilitation Required at this time	VIP-R1
MH-SG-068-2110	SG-068	VIP	8/10/2010	BR	1	FM	Multiple Fracture on Inside of Cone	Rehabilitation Required	VIP-R1
MH-SG-068-2360	SG-068	VIP	8/10/2010	BR	1	-	Rehab with rest of line; Infiltration Stain on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-068-2540	SG-068	VIP	8/10/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-068X-230	SG-068	VIP	10/11/2011	BR	2	IR	Circumferential Fracture on Inside of Wall; To be corrected under Prompt Repair Program	Rehabilitation Required	Rehab During CAP
MH-SG-071-248	SG-071	VIP	8/12/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1



Table C-17. Manhole CA Summary within Virginia Initiative TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-071-498	SG-071	VIP	8/12/2010	BR	1	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-071-768	SG-071	VIP	8/12/2010	BR	1	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-072-336	SG-072	VIP	9/23/2010	BR	2	IR	Circumferential Fracture on Inside of Wall	Rehabilitation Required	VIP-R1
MH-SG-072-47	SG-072	VIP	10/19/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-072-534	SG-072	VIP	9/23/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-072-601	SG-072	VIP	9/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-0	SG-073	VIP	9/24/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-073-1046	SG-073	VIP	9/23/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-118	SG-073	VIP	9/23/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-1300	SG-073	VIP	9/23/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-20	SG-073	VIP	9/24/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-350	SG-073	VIP	9/24/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-430	SG-073	VIP	9/24/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-517	SG-073	VIP	9/24/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-54	SG-073	VIP	9/23/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-073-795	SG-073	VIP	9/23/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-073-855	SG-073	VIP	9/23/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-0	SG-074	VIP	10/19/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-1060	SG-074	VIP	10/18/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-1400	SG-074	VIP	10/18/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-1740	SG-074	VIP	10/18/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-2080	SG-074	VIP	9/28/2010	BR	1	-	Circumferential Cracking on Inside of Cone	No Rehabilitation Required at this time	N/A
MH-SG-074-2385	SG-074	VIP	9/28/2010	BR	1	IR	Infiltration in MH	Rehabilitation Required	VIP-R1
MH-SG-074-250	SG-074	VIP	10/19/2010	BR	1	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-074-2520	SG-074	VIP	9/28/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-2634	SG-074	VIP	9/27/2010	BR	1	-	Rehab with rest of line; infiltration in manhole.	No Rehabilitation Required at this time	VIP-R1
MH-SG-074-495	SG-074	VIP	10/19/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-720	SG-074	VIP	10/19/2010	BR	1	-	Infiltration Dripper on Inside of Wall	No Rehabilitation Required at this time	N/A
FLWCTRL-SG-074-3201	SG-074	VIP	10/19/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-074-945	SG-074	VIP	10/18/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-075-1178	SG-075	VIP	9/13/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-075-1401	SG-075	VIP	9/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-075-1615	SG-075	VIP	9/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-075-1800	SG-075	VIP	9/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-075-281	SG-075	VIP	9/13/2010	BR	1	IR	-	Rehabilitation Required	VIP-R1
MH-SG-075-50	SG-075	VIP	9/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-075-516	SG-075	VIP	9/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-075-740	SG-075	VIP	9/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-075-958	SG-075	VIP	9/13/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-077-2796	SG-074	VIP	9/27/2010	BR	1	-	Locality connection and channel to be addressed.	Rehabilitation Required	VIP-R1
MH-SG-078-1005	SG-078	VIP	10/20/2010	BR	2	IR	Attached Deposits on the Bench	Rehabilitation Required	VIP-R1
MH-SG-078-1019	SG-078	VIP	10/20/2010	RCP	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-078-1311	SG-078	VIP	10/20/2010	BR	1	-	Rehab with rest of line; Infiltration Dripper on Inside of Wall	No Rehabilitation Required at this time	VIP-R1



Table C-17. Manhole CA Summary within Virginia Initiative TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-078-1350	SG-078	VIP	10/20/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-078-1610	SG-078	VIP	10/20/2010	BR	1	-	Rehab with rest of line; Infiltration Dripper on Inside of Cone	No Rehabilitation Required at this time	VIP-R1
MH-SG-078-1916	SG-078	VIP	10/20/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-078-748	SG-078	VIP	10/19/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-079-2300	SG-079	VIP	8/11/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-079-2703	SG-079	VIP	8/11/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-079-2967	SG-079	VIP	8/11/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-079-3332	SG-079	VIP	8/11/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-079-3701	SG-079	VIP	8/11/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-088-1054	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-1206	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-1463	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-088-1482	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-088-164	SG-088	VIP	6/27/2011	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-17	SG-088	VIP	6/27/2011	CSU	1	-	Debris Observed on Bench	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-2227	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-088-2524	SG-088	VIP	6/22/2011	BR	1	-	Missing Mortar on Inside of Wall	No Rehabilitation Required at this time	N/A
MH-SG-088-27	SG-088	VIP	6/27/2011	CSU	1	-	Surface Aggregate Projecting on Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-2900	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SG-088-456	SG-088	VIP	6/27/2011	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-5	SG-088	VIP	6/27/2011	BR	1	-	Fine Roots on Joint of Inside of Wall	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-753	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-088-895	SG-088	VIP	6/22/2011	BR	0	-	-	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-089-3338	SG-089	VIP	6/22/2011	BR	4	-	Infiltration	Rehabilitation Required	Interim System Improvements
MH-SG-089-3348	SG-089	VIP	6/22/2011	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-089-3355	SG-089	VIP	6/22/2011	BR	0	-	Potential abandoned connection	Rehabilitation Required	Interim System Improvements
MH-SG-089-3365	SG-089	VIP	5/4/2010	BR	1	-	Potential abandoned connection	Rehabilitation Required	Interim System Improvements
MH-SG-089-3538	SG-089	VIP	5/4/2010	BR	0	-	Rehab with rest of manholes line	No Rehabilitation Required at this time	GN-R1
MH-SG-089-3843	SG-089	VIP	5/4/2010	BR	0	-	Uncoded missing bricks	Rehabilitation Required	GN-R1
MH-SG-089-4160	SG-089	VIP	5/4/2010	BR	0	-	Conflict Manhole; Bricks with holes	Rehabilitation Required	GN-R1
MH-SG-089-4168	SG-089	VIP	5/4/2010	BR	0	-	Conflict Manhole; Bricks with holes	Rehabilitation Required	GN-R1
MH-SG-089-4518	SG-089	VIP	5/4/2010	BR	0	-	Rehab with rest of manholes line;	No Rehabilitation Required at this time	GN-R1
MH-SG-089-5053	SG-089	VIP	5/4/2010	BR	0	-	Uncoded missing bricks	Rehabilitation Required	GN-R1
MH-SG-089-5551	SG-089	VIP	5/3/2010	BR	0	-	Uncoded missing bricks	Rehabilitation Required	GN-R1
MH-SG-089-5690	SG-089	VIP	5/3/2010	BR	1	-	Infiltration	Rehabilitation Required	GN-R1
MH-SG-089-5863	SG-089	VIP	5/3/2010	BR	0	-	Uncoded missing bricks	Rehabilitation Required	GN-R1
MH-SG-089-6219	SG-089	VIP	5/4/2010	BR	0	-	Uncoded missing bricks	Rehabilitation Required	GN-R1
MH-SG-089-6287	SG-089	VIP	5/3/2010	BR	1	MB	-	Rehabilitation Required	GN-R1
MH-SG-089-6434	SG-089	VIP	5/3/2010	CP	1	-	Rehab with rest of manholes on line; Surface Aggregate Visible on Inside of Wall	No Rehabilitation Required at this time	GN-R1
MH-SG-089-6692	SG-089	VIP	5/3/2010	BR	0	-	Infiltration	Rehabilitation Required	GN-R1
MH-SG-089-6971	SG-089	VIP	5/3/2010	RCP	1	-	Rehab with rest of manholes on line; Surface Aggregate Visible on Inside of Wall	No Rehabilitation Required at this time	GN-R1
MH-SG-089-7021	SG-089	VIP	5/3/2010	BR	1	MB	-	Rehabilitation Required	GN-R1
MH-SG-089-7111	SG-089	VIP	5/3/2010	BR	0	-	-	No Rehabilitation Required at this time	N/A

Table C-17. Manhole CA Summary within Virginia Initiative TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-SG-107-315	SG-107	VIP	10/19/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-107-390	SG-107	VIP	10/19/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-108-192	SG-108	VIP	10/19/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-108-378	SG-108	VIP	10/19/2010	RCP	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-108-468	SG-108	VIP	10/19/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R1
MH-SG-108-85	SG-108	VIP	10/19/2010	BR	1	-	Rehab with rest of line; Infiltration Weeper on Inside of Wall	No Rehabilitation Required at this time	VIP-R1
MH-SG-205-100	SG-205	VIP	9/15/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R10
MH-SG-205-126	SG-205	VIP	9/15/2010	RCP	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R10
MH-SG-205-250	SG-205	VIP	9/15/2010	BR	1	-	Rehab with rest of line; Attached Deposits on Inside of Wall	No Rehabilitation Required at this time	VIP-R10
MH-SG-205-500	SG-205	VIP	9/15/2010	BR	1	-	Rehab with rest of line; Attached Deposits on Inside of Wall	No Rehabilitation Required at this time	VIP-R10
MH-SG-205-725	SG-205	VIP	9/15/2010	BR	1	-	Rehab with rest of line; Infiltration Dripper on Inside of Cone	No Rehabilitation Required at this time	VIP-R10
MH-SG-205-895	SG-205	VIP	9/15/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R10
MH-SG-205-901	SG-205	VIP	9/15/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	VIP-R10
MH-SG-207-0	SG-207	VIP	10/25/2010	BR	0	-	Rehab with rest of line	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-207-324	SG-207	VIP	10/25/2010	BR	1	-	Attached Deposits on Inside of Wall; Rehab with rest of line	No Rehabilitation Required at this time	Interim System Improvements
MH-SG-207-21	SG-207	VIP	10/25/2010	BR	0	-	Buried; Rehab with rest of line	Rehabilitation Required	Interim System Improvements
MH-SG-207-629	SG-207	VIP	10/25/2010	BR	0	-	Buried; Rehab with rest of line	Rehabilitation Required	Interim System Improvements
MH-SPS-125-1000	SP-125	VIP	7/6/2011	BR	2	-	Rehab with line	No Rehabilitation Required at this time	GN-R5
MH-SPS-125-1055	SP-125	VIP	10/12/2011	BR	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R5
MH-SPS-102-1419	SPS-102	VIP	7/6/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-102-1420	SPS-102	VIP	7/6/2011	BR	1	-	Flow Meter on Inside of Wall	No Rehabilitation Required at this time	N/A
MH-SPS-107-1440	SPS-107	VIP	7/1/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-107-1441	SPS-107	VIP	6/28/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-111-6721	SPS-111	VIP	7/21/2011	PSC	0	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-116-1475	SPS-116	VIP	7/1/2011	BR	2	-	-	Rehabilitation Required	Interim System Improvements
MH-SPS-118-1483	SPS-118	VIP	7/6/2011	CSU	0	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-121-1485	SPS-121	VIP	7/1/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-130-1498	SPS-130	VIP	7/6/2011	BR	1	-	Degradation of lining; infiltration	Rehabilitation Required	GN-R1
MH-SPS-130-1500	SPS-130	VIP	7/6/2011	BR	1	-	Surface Aggregate Projecting on Inside of Wall	No Rehabilitation Required at this time	N/A
MH-SPS-141-1455	SPS-141	VIP	7/1/2011	BR	1	-	-	No Rehabilitation Required at this time	N/A
MH-SPS-142-1457	SPS-142	VIP	7/1/2011	BR	2	-	Rehab with rest of line; Multiple Crack on Inside of Wall	No Rehabilitation Required at this time	VIP-R10
MH-SPS-144-30	SPS-144	VIP	7/22/2011	BR	0	-	Rehab with line	No Rehabilitation Required at this time	GN-R5
MH-SPS-145-1491	SPS-145	VIP	10/17/2011	RCP	1	-	Rehab with line; Surface Aggregate Visible on Inside of Wall; To be addressed under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-SPS-148-1456	SPS-148	VIP	7/6/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A

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**Table C-18. Gravity Pipeline CA Summary within Williamsburg TP Service Area**

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NPS-214-1435	NPS-214-73	NPS-214-67	54	30	DI	0	0	0	0	WB	NPS-214	-	Deposits Observed in Pipe	No Rehabilitation Required at this time	N/A
NPS-226-1513	NPS-226-68	SS-PS-226-1	20	24	CI	1	2	0	0	WB	NPS-226	-	Severe Corrosion	Rehabilitation Required	GN-R4
NPS-226-1514	NPS-226-66	NPS-226-68	40	24	CI	1	2	0	0	WB	NPS-226	-	Severe Corrosion	Rehabilitation Required	GN-R4
NPS-227-2886	NPS-227-278	NS-PS-227-1	44	30	SP	0	0	0	0	WB	NPS-227	-	-	No Rehabilitation Required at this time	N/A
NPS-229-1445	NPS-229-64	NS-PS-229-1	25	24	DI	0	0	0	0	WB	NPS-229	-	-	No Rehabilitation Required at this time	N/A
NPS-229-1490	NPS-229-71	NPS-229-64	52	24	DI	0	0	0	0	WB	NPS-229	-	-	No Rehabilitation Required at this time	N/A
NPS-229-1491	NPS-229-516	NPS-229-71	40	12	DI	0	0	0	0	WB	NPS-229	-	-	No Rehabilitation Required at this time	N/A
NPS-229-1492	York County 229-101A	NPS-229-516	32	12	PVC	2	2	0	0	WB	NPS-229	-	Severe Corrosion; Deposits Attached and Vermin Observed in Pipe; Not owned by HRSD; owned by Locality.	No further action	N/A
NPS-229-1493	NPS-229-65	NPS-229-71	82	24	DI	0	0	0	0	WB	NPS-229	-	-	No Rehabilitation Required at this time	N/A
NPS-229-27349	Unmapped York County MH	NPS-229-64	12	10	PVC	0	0	0	0	WB	NPS-229	-	-	No Rehabilitation Required at this time	N/A
NPS-230-848	NPS-230-737	NS-PS-230-1	41	24	DI	2	2	0	0	WB	NPS-230	-	Metal Corrosion on Surface of Pipe	No Rehabilitation Required at this time	N/A
NPS-231-2978	NPS-231-267	SS-PS-231-1	113	24	DI	1	4	0	0	WB	NPS-231	-	Deposits Observed in Pipe	No Rehabilitation Required at this time	N/A
NPS-232-925	NPS-232-771	SS-PS-232-1	106	24	DI	0	0	0	0	WB	NPS-232	-	-	No Rehabilitation Required at this time	N/A
NPS-233-35937	NPS-233-9266	NS-PS-233-1	51	24	PVC	0	0	0	0	WB	NPS-233	-	-	No Rehabilitation Required at this time	N/A
NPS-233-35938	FLWCTRL-NPS-233-5121	NPS-233-9266	37	24	PVC	0	0	0	0	WB	NPS-233	-	-	No Rehabilitation Required at this time	N/A

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Table C-19. Manhole CA Summary within Williamsburg TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NPS-214-67	NPS-214	WB	8/1/2011	BR	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-226-66	NPS-226	WB	8/2/2011	BR	1	-	FL; address with line	No Rehabilitation Required at this time	GN-R4
MH-NPS-226-68	NPS-226	WB	8/2/2011	BR	2	-	FI/CL; address with line	No Rehabilitation Required at this time	GN-R4
MH-NPS-227-278	NPS-227	WB	9/30/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-229-516	NPS-229	WB	8/2/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-229-64	NPS-229	WB	8/2/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-229-65	NPS-229	WB	8/1/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-229-71	NPS-229	WB	8/1/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-230-737	NPS-230	WB	8/1/2011	RCP	1	IR	-	Rehabilitation Required	GN-R1
MH-NPS-231-267	NPS-231	WB	8/1/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-232-771	NPS-232	WB	8/1/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NPS-233-9266	NPS-233	WB	8/1/2011	RCP	0	-	-	No Rehabilitation Required at this time	N/A

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Table C-20. Gravity Pipeline CA Summary within York River TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
New Segment	MH-NG-088-625	MH-NG-088-636	-		PVC	-	-	-	-	YR	NG-088	-	Installed under Prompt Repair Program	No Rehabilitation Required at this time	Rehab during CAP
NG-062-14869	NG-062-8225	NG-062-8105	118	12	DI	5	4	0	0	YR	NG-062	RBJ	Fine Roots in Joints in Pipe	Rehabilitation Required	YR-R1
NG-063-14870	NG-062-8105	NG-063-7816	289	13	ZZZ	0	0	2	3	YR	NG-063	-	Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
NG-063-14871	NG-063-7816	NG-063-7500	316	13	ZZZ	0	0	5	3	YR	NG-063	-	Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
NG-063-14872	NG-063-7500	NG-063-7347	149	13	PVC	0	0	2	3	YR	NG-063	-	Medium Joint Offset in Pipe	No Rehabilitation Required at this time	N/A
NG-063-14873	NG-063-7348	NG-063-6845	169	13	PVC	0	0	1	3	YR	NG-063	-	Liner Wrinkling in Pipe	No Rehabilitation Required at this time	N/A
NG-063-14874	NG-063-6845	NG-063-6694	161	13	ZZZ	1	4	2	3	YR	NG-063	-	MCU and Liner Wrinkled from 10 to 1 o'clock for 56 ft	No Rehabilitation Required at this time	N/A
NG-063-14875	NG-063-6694	NG-063-6541	142	13	ZZZ	0	0	1	3	YR	NG-063	-	Liner Wrinkled from 10 to 11 o'clock	No Rehabilitation Required at this time	N/A
NG-063-14876	NG-063-6541	NG-063-6377	167	13	ZZZ	0	0	2	3	YR	NG-063	-	Liner Wrinkled from 10 to 11 o'clock for 34.9 ft	No Rehabilitation Required at this time	N/A
NG-063-14877	NG-063-6377	NG-063-6225	152	13	ZZZ	0	0	0	0	YR	NG-063	-	Staining Observed in Pipe	No Rehabilitation Required at this time	N/A
NG-063-14878	NG-063-6225	NG-063-6058	164	13	ZZZ	4	4	0	0	YR	NG-063	-	Address with rest of line; MCU	No Rehabilitation Required at this time	YR-R1
NG-063-14879	NG-063-6058	NG-063-5918	138	13	ZZZ	4	4	0	0	YR	NG-063	-	Reverse grade	Rehabilitation Required	YR-R1
NG-063-14880	NG-063-5918	NG-063-5825	93	13	ZZZ	2	4	0	0	YR	NG-063	-	Address with rest of line; MCU	No Rehabilitation Required at this time	YR-R1
NG-063-14881	NG-063-5825	NG-063-5557	268	13	ZZZ	5	4	2	3	YR	NG-063	IR	Two Instances of Staining	Rehabilitation Required	YR-R1
NG-063-14882	NG-063-5557	NG-063-5457	99	13	ZZZ	1	4	2	3	YR	NG-063	IR	Two Instances of Lining Wrinkling; not severe	Rehabilitation Required	YR-R1
NG-063-14883	NG-063-5457	NG-063-5286	172	13	ZZZ	3	4	0	0	YR	NG-063	-	MCU and infiltration	Rehabilitation Required	YR-R1
NG-063-14884	NG-063-5286	NG-063-5042	245	13	ZZZ	1	4	1	3	YR	NG-063	-	MCU; Address with rest of line	No Rehabilitation Required at this time	YR-R1
NG-063-15345	NG-063-4857	FLWCTRL-NG-063-2883	7	13	ZZZ	0	0	0	0	YR	NG-063	-	Address with rest of line	No Rehabilitation Required at this time	YR-R1
NG-063-15347	NG-063-5042	NG-063-4857	184	13	ZZZ	5	3	2	3	YR	NG-063	ID	MCU and infiltration	Rehabilitation Required	YR-R1
NG-063-15348	FLWCTRL-NG-063-2883	NG-067-7504	46	13	ZZZ	0	0	2	3	YR	NG-063	-	Two Instances of Liner Wrinkling; not severe	No Rehabilitation Required at this time	N/A
NG-063-25017	NG-063-7183	NG-063-7348	168	13	ZZZ	0	0	4	3	YR	NG-063	-	Four Instances of Liner Wrinkling; not severe	No Rehabilitation Required at this time	N/A
NG-063-25018	NG-063-7347	NG-063-7183	168	13	PVC	0	0	3	3	YR	NG-063	-	Three Instances of Liner Wrinkling; not severe	No Rehabilitation Required at this time	N/A
NG-064-15346	NG-064-57	SS-PS-217-1	70	18	DI	2	3	0	0	YR	NG-064	-	SCP and infiltration	Rehabilitation Required	YR-R1
NG-064-15350	FLWCTRL-NG-063-2883	NG-064-57	213	20	ZZZ	0	0	0	0	YR	NG-064	-	Address with rest of line	No Rehabilitation Required at this time	YR-R1
NG-086-14163	NG-086-740	NG-086-540	201	15	VCP	1	2	0	0	YR	NG-086	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-086-14164	NG-086-540	NG-086-280	268	15	VCP	3	2	0	0	YR	NG-086	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-086-14168	NG-086-280	NG-086-1331	278	15	PVC	0	0	0	0	YR	NG-086	-	Line Replaced in 2008	No Rehabilitation Required at this time	YR-R2
NG-086-14169	NG-086-1354	NG-086-1331	23	18	VCP	3	3	0	0	YR	NG-086	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-086-14170	NG-086-1457	NG-086-1354	103	18	VCP	4	3	0	0	YR	NG-086	-	; Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-086-14171	NG-086-1783	NG-086-1484	297	15	CI	0	0	1	3	YR	NG-086	SCP	-	Rehabilitation Required	YR-R2

Table C-20. Gravity Pipeline CA Summary within York River TP Service Area															
Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-086-14172	NG-086-1484	NG-086-1385	99	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14173	NG-086-1385	NG-086-1225	161	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14174	NG-086-1225	NG-086-948	277	15	VCP	0	0	1	2	YR	NG-086	-	CS	No Rehabilitation Required at this time	YR-R2
NG-086-14175	NG-086-948	NG-086-793	156	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14176	NG-086-793	NG-086-648	143	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14177	NG-086-648	NG-086-345	303	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14178	NG-086-345	NG-086-220	124	15	CI	0	0	1	3	YR	NG-086	SCP	Severe corrosion	Rehabilitation Required	YR-R2
NG-086-14179	NG-086-220	NG-086-740	220	15	VCP	4	4	0	0	YR	NG-086	IR	-	Rehabilitation Required	YR-R2
NG-086-14180	NG-086-2883	NG-086-2572	311	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14181	NG-086-2572	NG-086-2464	107	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14182	NG-086-2464	NG-086-2323	140	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14183	NG-086-2323	NG-086-2203	118	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-086-14184	NG-086-2203	NG-086-2037	169	15	VCP	1	2	0	0	YR	NG-086	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-086-14185	NG-086-2037	NG-086-1869	169	15	VCP	0	0	0	0	YR	NG-086	-	Metal corrosion	No Rehabilitation Required at this time	YR-R2
NG-086-14186	NG-086-1869	NG-086-1783	85	15	VCP	0	0	0	0	YR	NG-086	-	-	No Rehabilitation Required at this time	YR-R2
NG-087-14154	NG-087-292	NG-087-163	136	18	VCP	3	2	0	0	YR	NG-087	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-087-14155	NG-087-440	NG-087-292	149	18	VCP	4	3	0	0	YR	NG-087	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-087-14156	NG-087-625	NG-087-440	186	18	VCP	8	2	0	0	YR	NG-087	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-087-14157	NG-087-163	NG-087-0	162	18	VCP	1	2	0	0	YR	NG-087	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-087-14165	NG-087-813	NG-087-625	185	18	VCP	0	0	0	0	YR	NG-087	-	-	No Rehabilitation Required at this time	YR-R2
NG-087-14166	NG-087-1033	NG-087-813	221	18	VCP	1	2	0	0	YR	NG-087	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-087-14167	NG-086-1331	NG-087-1033	272	18	VCP	10	2	0	0	YR	NG-087	-	Attached Deposits in Pipe	No Rehabilitation Required at this time	YR-R2
NG-088-14129	NG-088-3260	NG-088-3414	156	10	VCP	1	2	1	3	YR	NG-088	-	; Longitudinal Fracture in Pipe	No Rehabilitation Required at this time	YR-R2
NG-088-14130	NG-088-3691	NG-088-3844	153	10	VCP	9	2	3	5	YR	NG-088	-	Fine Deposits in Pipe	No Rehabilitation Required at this time	YR-R2

Table C-20. Gravity Pipeline CA Summary within York River TP Service Area

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-088-14131	NG-088-3844	NG-088-4019	147	12	PVC	3	4	2	2	YR	NG-088	-	-	No Rehabilitation Required at this time	YR-R2
NG-088-14132	NG-088-4019	NS-PS-204-1	28	12	PVC	0	0	0	0	YR	NG-088	-	-	No Rehabilitation Required at this time	YR-R2
NG-088-14133	NG-088-3414	NG-088-3691	274	10	VCP	2	2	3	3	YR	NG-088	-	Multiple Cracks and Three Instances of Staining	No Rehabilitation Required at this time	YR-R2
NG-088-14135	NG-088-2517	NG-088-2725	207	10	VCP	2	3	3	5	YR	NG-088	SMW	; One Instance of CM	Rehabilitation Required	YR-R2
NG-088-14136	NG-088-2725	NG-088-2818	93	10	VCP	1	2	1	2	YR	NG-088	-	Lateral Crack and Staining Observed	No Rehabilitation Required at this time	YR-R2
NG-088-14137	NG-088-2818	NG-088-3024	207	10	VCP	2	2	8	5	YR	NG-088	BVW	Four Instances of Lateral Cracking and Fracturing	Rehabilitation Required	YR-R2
NG-088-14138	NG-088-3024	NG-088-3122	97	10	VCP	0	0	1	2	YR	NG-088	-	Infiltration Stains Observed in Pipe	No Rehabilitation Required at this time	YR-R2
NG-088-14139	NG-088-3122	NG-088-3260	136	10	VCP	1	3	7	3	YR	NG-088	-	Infiltration Dripper and Six Instances of Cracking	No Rehabilitation Required at this time	YR-R2
NG-088-14140	NG-088-2463	NG-088-2517	54	10	VCP	0	0	2	4	YR	NG-088	FM	Four Instances of Staining	Rehabilitation Required	YR-R2
NG-088-14141	NG-088-2199	NG-088-2463	263	10	VCP	2	4	4	3	YR	NG-088	SCP	Infiltration Stains and Two Instances of Cracking	Rehabilitation Required	YR-R2
NG-088-14142	NG-088-1928	NG-088-2161	232	10	VCP	1	2	1	4	YR	NG-088	FM	; Infiltration Stains and Sagging Observed in Pipe	Rehabilitation Required	YR-R2
NG-088-14143	NG-088-2161	NG-088-2199	39	10	VCP	0	0	1	2	YR	NG-088	-	Longitudinal Crack	No Rehabilitation Required at this time	YR-R2
NG-088-14144	NG-088-1654	NG-088-1863	209	10	VCP	0	0	3	5	YR	NG-088	HSV	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14145	NG-088-1863	NG-088-1928	64	10	VCP	0	0	3	2	YR	NG-088	-	Beach Rd prompt repair post construction	No Rehabilitation Required at this time	N/A
NG-088-14146	NG-088-1563	NG-088-1654	90	10	VCP	0	0	3	5	YR	NG-088	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14147	NG-088-1316	NG-088-1563	247	10	VCP	6	4	2	2	YR	NG-088	-	Line Down; Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14148	NG-088-0	NG-088-155	155	10	CI	2	2	2	5	YR	NG-088	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14149	NG-088-155	NG-088-334	179	10	VCP	4	4	23	3	YR	NG-088	-	MCU; Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14150	NG-088-334	NG-088-636	302	10	VCP	6	2	9	5	YR	NG-088	HSV	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14151	NG-088-636	NG-088-970	334	10	VCP	3	3	10	5	YR	NG-088	SMW; FM	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14152	NG-088-970	NG-088-1260	298	10	VCP	3	3	6	3	YR	NG-088	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-14153	NG-088-1260	NG-088-1316	55	10	VCP	2	5	3	5	YR	NG-088	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab during CAP
NG-088-2690	NG-088-3842	NG-088-3844	106	12	VCP	3	3	1	3	YR	NG-088	SCP	Detached Deposits and Infiltration Dripper in Pipe	Rehabilitation Required	YR-R2
NG-092-14158	NG-092-5517	NG-092-5250	260	21	VCP	3	2	2	4	YR	NG-092	FM	Multiple cracks; infiltration weeper	Rehabilitation Required	YR-R2
NG-092-14159	NG-092-5250	NG-092-5007	244	21	VCP	3	2	0	0	YR	NG-092	-	Beach Rd prompt repair post construction	No Rehabilitation Required at this time	YR-R2
NG-092-14160	NG-092-5007	NG-092-4779	232	24	VCP	4	4	0	0	YR	NG-092	IR	Attached Deposits in Pipe	Rehabilitation Required	YR-R2
NG-092-14161	NG-087-0	NG-092-5517	207	18	VCP	0	0	0	0	YR	NG-087	-	-	No Rehabilitation Required at this time	YR-R2

**Table C-20. Gravity Pipeline CA Summary within York River TP Service Area**

Asset ID	Upstream Node ID	Downstreams Node ID	Pipe Length (feet)	Diameter (inches)	Material	Number of O&M Defects	Highest O&M Defect Score	Number of Structural Defects	Highest Structural Score	Treatment Plant	Line Number	Actionable PACP Code	Comments	Recommended Action	Addressing Activity
NG-092-14162	NG-092-4779	SS-PS-224-1	16	24	CI	0	0	1	3	YR	NG-092	SCP	Severe corrosion	Rehabilitation Required	YR-R2

Table C-21. Manhole CA within York River TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-062-8105	NG-062	YR	5/17/2010	BR	0	-	Rehab with line	No Rehabilitation Required at this time	YR-R1
MH-NG-062-8225	NG-062	YR	5/17/2010	BR	0	-	Rehab with line	No Rehabilitation Required at this time	YR-R1
MH-NG-063-4857	NG-063	YR	5/18/2010	CP	1	-	Circumferential Fracture; rehab with line	No Rehabilitation Required at this time	YR-R1
FLWCTRL-NG-063-2882	NG-063	YR	5/18/2010	CP	1	-	SAV; Rehab with Line	No Rehabilitation Required at this time	YR-R1
MH-NG-063-5042	NG-063	YR	5/18/2010	CP	0	-	Replace with line	No Rehabilitation Required at this time	YR-R1
MH-NG-063-5286	NG-063	YR	5/18/2010	CP	3	SAM	Infiltration Weeper Observed	Rehabilitation Required	YR-R1
MH-NG-063-5457	NG-063	YR	5/18/2010	CP	2	IR	Circumferential Fracture	Rehabilitation Required	YR-R1
MH-NG-063-5557	NG-063	YR	5/18/2010	CP	2	FM	Multiple Fracture	Rehabilitation Required	YR-R1
MH-NG-063-5825	NG-063	YR	5/18/2010	CP	2	SAM	Surface Aggregate Visible	Rehabilitation Required	YR-R1
MH-NG-063-5918	NG-063	YR	5/18/2010	CP	3	FM	Multiple Fractures; Addressed Under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-063-6058	NG-063	YR	5/18/2010	CP	0	-	Replace with line	No Rehabilitation Required at this time	YR-R1
MH-NG-063-6225	NG-063	YR	5/18/2010	CP	0	-	Replace with line	No Rehabilitation Required at this time	YR-R1
MH-NG-063-6377	NG-063	YR	5/18/2010	CP	3	FM	Infiltration Observed	Rehabilitation Required	YR-R1
MH-NG-063-6541	NG-063	YR	5/18/2010	CP	1	-	FL	No Rehabilitation Required at this time	N/A
MH-NG-063-6694	NG-063	YR	5/18/2010	CP	2	FM	Longitudinal Fractures	Rehabilitation Required	YR-R1
MH-NG-063-6845	NG-063	YR	5/17/2010	CP	2	FM	Longitudinal Fractures	Rehabilitation Required	YR-R1
MH-NG-063-7183	NG-063	YR	5/17/2010	RCP	1	-	FL	No Rehabilitation Required at this time	N/A
MH-NG-063-7347	NG-063	YR	5/17/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-063-7348	NG-063	YR	5/17/2010	RCP	0	-	-	No Rehabilitation Required at this time	N/A
MH-NG-063-7500	NG-063	YR	5/17/2010	RCP	2	-	FL	No Rehabilitation Required at this time	N/A
MH-NG-063-7816	NG-063	YR	5/17/2010	RCP	4	-	FL	No Rehabilitation Required at this time	N/A
MH-NG-064-57	NG-064	YR	5/18/2010	CP	3	IR	Surface Aggregate Visible/ Multiple Cracks	Rehabilitation Required	YR-R1
MH-NG-086-1225	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-1331	NG-086	YR	8/3/2010	BR	1	-	Rehabbed in 2008	No Rehabilitation Required at this time	YR-R2
MH-NG-086-1354	NG-086	YR	8/3/2010	BR	0	-	; Missing mortar	Rehabilitation Required	YR-R2
MH-NG-086-1385	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-1457	NG-086	YR	8/3/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-086-1484	NG-086	YR	8/2/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-086-1783	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-1869	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-2037	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-220	NG-086	YR	8/3/2010	BR	1	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-2203	NG-086	YR	8/2/2010	BR	1	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-086-2323	NG-086	YR	8/2/2010	BR	1	SMW	Addressed under Prompt Repair Program	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-086-2464	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-2572	NG-086	YR	8/2/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-086-280	NG-086	YR	8/3/2010	BR	1	-	Rehabbed in 2008	No Rehabilitation Required at this time	YR-R2
MH-NG-086-2883	NG-086	YR	8/2/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-086-345	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-540	NG-086	YR	8/3/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-648	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-740	NG-086	YR	8/3/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2



Table C-21. Manhole CA within York River TP Service Area

Facility ID	Line Number	TP	Survey Date	Material	Number of Defects	Actionable MACP Code	Comments	Recommended Action	Addressing Activity
MH-NG-086-793	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-086-948	NG-086	YR	8/2/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-087-0	NG-087	YR	8/4/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-087-1033	NG-087	YR	8/3/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-087-163	NG-087	YR	8/3/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-087-292	NG-087	YR	8/3/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-087-440	NG-087	YR	8/3/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-087-625	NG-087	YR	8/3/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-087-813	NG-087	YR	8/3/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-0	NG-088	YR	5/27/2010	RCP	1	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-1260	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-1316	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-155	NG-088	YR	5/27/2010	BR	1	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-1563	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-1654	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-1863	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-1928	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	YR-R2
MH-NG-088-2161	NG-088	YR	5/28/2010	BR	1	-	Circumferential Cracks	No Rehabilitation Required at this time	YR-R2
MH-NG-088-2199	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-2463	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-2517	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-2725	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-2818	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-3024	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-3122	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-3260	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-334	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-3414	NG-088	YR	5/28/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-3691	NG-088	YR	6/1/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-3842	NG-088	YR	6/1/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-3844	NG-088	YR	6/1/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-4019	NG-088	YR	6/1/2010	RCP	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-088-636	NG-088	YR	5/27/2010	BR	1	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-088-970	NG-088	YR	5/27/2010	BR	0	-	Corrected under Prompt Repair Program (WO PR002)	No Rehabilitation Required at this time	Rehab During CAP
MH-NG-092-4779	NG-092	YR	8/4/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-092-5007	NG-092	YR	8/4/2010	BR	0	-	-	No Rehabilitation Required at this time	YR-R2
MH-NG-092-5250	NG-092	YR	8/4/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2
MH-NG-092-5517	NG-092	YR	8/4/2010	BR	0	-	Missing bricks	Rehabilitation Required	YR-R2

<b>Table C-22. NASSCO Defect Code Reference</b>			
<b>Code</b>	<b>Group</b>	<b>Description</b>	<b>Modifier</b>
B	Pipe Failures	Broken	
BSV	Pipe Failures	Broken	Soil Visible
BVV	Pipe Failures	Broken	Void Visible
CC	Crack	Circumferential	
CL	Crack	Longitudinal	
CM	Crack	Multiple	
CS	Crack	Spiral	
D	Deformed	Pipe	
DAE	Deposits Attached	Encrustation	
DAGS	Deposits Attached	Grease	
DAR	Deposits Attached	Ragging	
DAZ	Deposits Attached	Other	
DB	Brickwork	Displaced	
DH	Deformed	Brick	Horizontally
DI	Brickwork	Dropped Invert	
DNF	Deposits Ingress	Fine Silt/Sand	
DNGV	Deposits Ingress	Gravel	
DNZ	Deposits Ingress	Other	
DSC	Deposits Settled	Hard/Compacted	
DSF	Deposits Settled	Fine	
DSGV	Deposits Settled	Gravel	
DSZ	Deposits Settled	Other	
DV	Deformed	Brick	Vertically
FC	Fracture	Circumferential	
FL	Fracture	Longitudinal	
FM	Fracture	Multiple	
FS	Fracture	Spiral	
H	Pipe Failures	Hole	Silent
HSV	Pipe Failures	Hole	Soil Visible
HVV	Pipe Failures	Hole	Void Visible
ID	Infiltration	Dripper	
IG	Infiltration	Gusher	
IR	Infiltration	Runner	
IS	Intruding Seal Material		
ISGT	Intruding Seal Material	Grout	
ISSR	Intruding Seal Material	Seal Ring	
ISSRB	Intruding Seal Material		Broken



<b>Table C-22. NASSCO Defect Code Reference</b>			
<b>Code</b>	<b>Group</b>	<b>Description</b>	<b>Modifier</b>
ISSRH	Intruding Seal Material		Hanging
ISZ	Intruding Seal Material	Other	
IW	Infiltration	Weeper	
JAL	Joint	Angular	Large
JAM	Joint	Angular	Medium
JOL	Joint	Offset (displacement)	Large
JOM	Joint	Offset (displacement)	Medium
JSL	Joint	Separated (open)	Large
JSM	Joint	Separated (open)	Medium
LD	Line	Down	
LFAC	Lining Failure	Abandoned Connection	
LFB	Lining Failure	Blistered	
LFBK	Lining Failure	Buckled	
LFCS	Lining Failure	Service Cut Shifted	
LFD	Lining Failure	Detached	
LFDE	Lining Failure	Defective End	
LFOD	Lining Failure	Overcut Service	
LFUC	Lining Failure	Undercut Service	
LFW	Lining Failure	Wrinkled	
LFZ	Lining Failure	Other	
LL	Line	Left	
LLD	Line	Left/Down	
LLU	Line	Left/Up	
LR	Line	Right	
LRD	Line	Right/Down	
LRU	Line	Right/Up	
LU	Line	Up	
MB	Brickwork	Missing	
MCU	Miscellaneous	Camera Underwater	
MGO	Miscellaneous	General Observation	
MGP	Miscellaneous	General Photograph	
MUL	Miscellaneous	Joint Length Change	
MLC	Miscellaneous	Lining Change	
MMC	Miscellaneous	Material Change	
MML	Brickwork	Missing Mortar	Large
MMM	Brickwork	Missing Mortar	Medium
MMS	Brickwork	Missing Mortar	Slight

<b>Table C-22. NASSCO Defect Code Reference</b>			
<b>Code</b>	<b>Group</b>	<b>Description</b>	<b>Modifier</b>
MSA	Miscellaneous	Survey Abandoned	
MSC	Miscellaneous	Dimension/Diam/Shape Change	
MWL	Miscellaneous	Water Level	
MWLS	Miscellaneous	Water Level	Sag
MWM	Miscellaneous	Water Mark	
MY	Miscellaneous	Dye Test	
MYN	Miscellaneous	Dye Test	Not Visible
MYV	Miscellaneous	Dye Test	Visible
OBB	Obstacles/Obstructions	Brick or Masonry	
OBC	Obstacles/Obstructions	Object Through Connection	
OBI	Obstacles/Obstructions	Object Protruding Through Wall	
OBJ	Obstacles/Obstructions	Object Wedged In Joint	
OBM	Obstacles/Obstructions	Pipe Material in Invert	
OBN	Obstacles/Obstructions	Construction Debris	
OBP	Obstacles/Obstructions	External Pipe or Cable in Sewer	
OBR	Obstacles/Obstructions	Rocks	
OBS	Obstacles/Obstructions	Built Into Structure	
OBZ	Obstacles/Obstructions	Other	
RB	Roots	Ball	Joint
RBB	Roots	Ball	Barrel
RBC	Roots	Ball	Connection
RBL	Roots	Ball	Lateral
RF	Roots	Fine	Joint
RFB	Roots	Fine	Barrel
RFC	Roots	Fine	Connection
RFL	Roots	Fine	Lateral
RM	Roots	Medium	Joint
RMB	Roots	Medium	Barrel
RMC	Roots	Medium	Connection
RML	Roots	Medium	Lateral
RPL	Point Repair	Localized Lining	
RPLD	Point Repair	Localized Lining	Defective
RPP	Point Repair	Patch Repair	
RPPD	Point Repair	Patch Repair	Defective
RPR	Point Repair	Pipe Replaced	
RPRD	Point Repair	Pipe Replaced	Defective

Table C-22. NASSCO Defect Code Reference			
Code	Group	Description	Modifier
RPRZ	Point Repair	Other	
RPRZD	Point Repair	Other	Defective
RT	Roots	Tap	Joint
RTB	Roots	Tap	Barrel
RTC	Roots	Tap	Connection
RTL	Roots	Tap	Lateral
SAMC	Surface Damage Chemical	Aggregate Missing	Chemical
SAMM	Surface Damage Mechanical	Aggregate Missing	Mechanical
SAMZ	Surface Damage Not Evident	Aggregate Missing	Not Evident/Unknown
SAPC	Surface Damage Chemical	Aggregate Projecting	Chemical
SAPM	Surface Damage Mechanical	Aggregate Projecting	Mechanical
SAPZ	Surface Damage Not Evident	Aggregate Projecting	Not Evident/Unknown
SAVC	Surface Damage Chemical	Aggregate Visible	Chemical
SAVM	Surface Damage Mechanical	Aggregate Visible	Mechanical
SAVZ	Surface Damage Not Evident	Aggregate Visible	Not Evident/Unknown
SCP	Surface Damage (Metal Pipes)	Corrosion	
SMWC	Surface Damage Chemical	Missing Wall	Chemical
SMWM	Surface Damage Mechanical	Missing Wall	Mechanical
SMWZ	Surface Damage Not Evident	Missing Wall	Not Evident/Unknown
SRCC	Surface Damage Chemical	Reinforcement Corroded	Chemical
SRCM	Surface Damage Mechanical	Reinforcement Corroded	Mechanical
SRCZ	Surface Damage Not Evident	Reinforcement Corroded	Not Evident/Unknown
SRIC	Surface Damage Chemical	Roughness Increased	Chemical
SRIM	Surface Damage Mechanical	Roughness Increased	Mechanical
SRIZ	Surface Damage Not Evident	Roughness Increased	Not Evident/Unknown
SRVC	Surface Damage Chemical	Reinforcement Visible	Chemical
SRVM	Surface Damage Mechanical	Reinforcement Visible	Mechanical
SRVZ	Surface Damage Not Evident	Reinforcement Visible	Not Evident/Unknown
SSSC	Surface Damage Chemical	Surface Spalling	Chemical
SSSM	Surface Damage Mechanical	Surface Spalling	Mechanical
SSSZ	Surface Damage Not Evident	Surface Spalling	Not Evident/Unknown
SZC	Surface Damage Chemical	Other	Chemical
SZM	Surface Damage Mechanical	Other	Mechanical
SZZ	Surface Damage Not Evident	Other	Not Evident/Unknown
TB	Tap	Break-In/Hammer	
TBA	Tap	Break-In/Hammer	Active
TBC	Tap	Break-In/Hammer	Capped

<b>Table C-22. NASSCO Defect Code Reference</b>			
<b>Code</b>	<b>Group</b>	<b>Description</b>	<b>Modifier</b>
TBD	Tap	Break-In/Hammer	Defective
TBI	Tap	Break-In/Hammer	Intruding
TF	Tap	Factory Made	
TFA	Tap	Factory Made	Active
TFC	Tap	Factory Made	Capped
TFD	Tap	Factory Made	Defective
TFI	Tap	Factory Made	Intruding
TS	Tap	Saddle	
TSA	Tap	Saddle	Active
TSC	Tap	Saddle	Capped
TSD	Tap	Saddle	Defective
TSI	Tap	Saddle	Intruding
VC	Vermin	Cockroach	VC
VR	Vermin	Rat	VR
VZ	Vermin	Other	VZ
WFC	Weld Failure	Circumferential	WFC
WFL	Weld Failure	Longitudinal	WFL
WFM	Weld Failure	Multiple	WFM
WFS	Weld Failure	Spiral	WFS
XB	Collapse	Brick	XB
XP	Collapse	Pipe	

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