

City and County of Honolulu

2010 Wastewater Consent Decree

Civil No. 94-00765 DAE-KSC

Annual Report

Year Five

(July 1, 2014 – June 30, 2015)



Prepared By:
The Department of Environmental Services

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Acronyms and Abbreviations

Acronym or Abbreviation	Description
ACP	Asbestos Cement Pipe
ARV	Air Release Valve
BWS	Board of Water Supply
CA	Condition Assessment
CCH	City & County of Honolulu
CCP	Concrete Cylinder Pipe
CCTV	Closed-Circuit Television
CD	Consent Decree, Civil No. 94-00765 DAE-KSC
CIP	Capital Improvement Program
CIP	Cast Iron Pipe
CIPP	Cured In Place Piping
CMMS	Computerized Maintenance Management System
COR	Corporation Counsel - CCH
CSM	Division of Collection System Maintenance
CWA	Clean Water Act
DDC	Department of Design and Construction
DFM	Department of Facility Maintenance
DIP	Ductile Iron Pipe
DOH	State of Hawaii Department of Health
DOT	State of Hawaii Department of Transportation
DPP	Department of Planning and Permitting
ENV	Department of Environmental Services
EPA	United States Environmental Protection Agency
EPS	Effluent Pump Station
EQ	Division of Environmental Quality
FCA	Flange Coupling Adaptor
FM	Force Main
FOG	Fats, Oils and Grease
FSE	Food Service Establishment

Acronym or Abbreviation	Description
FTE	Full-Time Equivalent
GCD	Global Consent Decree, Civil No. 94-00765 DAE-KSC
GI	Grease Interceptor
GIS	Geographic Information Systems
GM	Gravity Main
GRD	Grease Removal Device
HDPE	High Density Polyethylene
I/I	Infiltration and Inflow
IDIQ	Indefinite Delivery, Indefinite Quantity
IPS	Influent Pump Station
LOW	Letter of Warning
M&C	Department of Environment Services, Division of Environmental Quality, Monitoring and Compliance Branch
MG	Million Gallons
MGD	Million Gallons per Day
MH	Man Hole
N/A	Not applicable
NASSCO	National Association of Sewer Service Companies
NOV	Notice of Violation
NTP	Notice to Proceed
O&M	Operation and Maintenance
PACP	Pipeline Assessment and Certification Program
PM	Preventative Maintenance
PMH	Pressure Man Hole
POTW	Publicly Owned Treatment Works
PS	Pump Station
PTF	Preliminary Treatment Facility
PVC	Polyvinyl Chloride
R&R	Rehabilitation and Replacement
RC	Department of Environmental Services, Division of Environmental Quality, Regulatory Control Branch

Acronym or Abbreviation	Description
RCP	Reinforced Concrete Pipe
Rehab	Rehabilitation
ROW	Right-of-way
SCADA	Supervisory Control and Data Acquisition
SCP	Spill Contingency Plan
SMH	Sewer Man Hole
SOP	Standard Operating Procedure
SSO	Sanitary Sewer Overflow
STL	Steel
T&D	Treatment & Disposal - CCH
TBD	To Be Determined
TDH	Total Dynamic Head
UT	Ultrasonic Testing
WDV	Waste Discharge Violation
WTD	Division of Wastewater Treatment and Disposal
WWPS	Wastewater Pump Station
WWTP	Wastewater Treatment Plant

Introduction

On December 17, 2010 the Consent Decree, subsequently amended, was entered among the City and County of Honolulu, the United States Environmental Protection Agency, and the Hawaii Department of Health and several non-governmental organizations. The consent decree outlines a program of improvements to the wastewater collection and treatment systems owned by the City and County of Honolulu on the island of Oahu.

The City and County of Honolulu (CCH) has prepared this Annual Report pursuant to Paragraph 34 of the First Amended Consent Decree (CD) to describe the progress achieved in implementing these improvements. Paragraphs 34.c and 34.d of the CD describe the information that is to be included in the Annual Report. This Annual Report summarizes CCH's progress during Year Five of the CD ending on June 30, 2015.

This Annual Report is available on CCH's web site at <http://www1.honolulu.gov/env/www/>.

Annual Report Structure

The content and structure of the Annual Report are based on the requirements set forth in Paragraphs 11 through 33. The Annual Report's sections appear in alphabetical order ("A" through "V") and correspond to Paragraphs 11 through 33 of the CD; however, Paragraph 21 of the CD addresses the modification of construction deadlines, and since there are no modifications to report, this paragraph is not included in the Annual Report.

The CD identifies several types of requirements, including

- Compliance milestones
- Interim compliance milestones
- Performance requirements
- Annual performance requirements
- Other CD due dates.

A. Force Main Spill Contingency Program (Paragraph 11)

Small Force Main Tankering (Paragraph 11.a)

CCH has maintained no less than 1.6 million gallons per day (mgd) tankering capacity in good working order at all times. In the event a CCH vehicle is unavailable for any reason, CCH maintains a list of contractors available to provide tankering capacity. In Year Five, CCH did not utilize contractors to provide tankering capacity during small force main spill events.

Large Force Mains (Paragraph 11.b)**Flow Diversion Equipment (Paragraph 11.b.ii)**

Table 1. Flow Diversion Equipment Requirements

Requirement	Due Date	Status
Awa Street Force Main Flow Diversion Equipment	12/17/2012	Overflow diverts to Hart St. pump station.
Fort DeRussy Force Main Flow Diversion Equipment	12/17/2012	Overflow diverts to Beachwalk pump station.
Kaneohe Bay Force Main No. 1 Flow Diversion Equipment	12/17/2012	Flow diversion equipment in place.
Kunia Force Main Flow Diversion Equipment	12/17/2012	Flow diversion equipment in place.

Flow Diversion Planning (Paragraph 11.b.iii)

Table 2. Flow Diversion Planning Requirements

Requirement	Due Date	Status
Kamehameha Highway Force Main Flow Diversion Plan	12/17/2011	CCH submitted the Kamehameha Highway Force Main Flow Diversion Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012.
Ewa Beach Force Main Flow Diversion Plan	12/31/2014	CCH submitted the Ewa Beach Force Main Flow Diversion Plan on 12/31/2014.
Halawa Force Main Flow Diversion Plan	12/31/2014	CCH submitted the Halawa Force Main Flow Diversion Plan on 12/31/2014. EPA and DOH conditionally approved the plan with comments on 5/5/2015. CCH addressed the comments, revised the document and submitted the "Final" report on 7/6/2015. .
Waimalu Force Main Flow Diversion Plan	12/31/2015	CCH submitted the Waimalu Force Main Flow Diversion Plan on 5/16/2013. Submitted revised construction schedule on 10/21/2013. EPA and DOH approved the Plan and revised construction schedule on 12/20/2013.

Table 3. Flow Diversion Construction Requirements

Requirement	Compliance Milestone	Status
Kamehameha Highway Force Main Rehabilitation - Slip lining	Design NTP: 07/01/2017; Construction NTP: 12/31/2018; Complete Construction: 06/30/2020	Planning in progress.

Lualualei Force Main (Paragraph 11.b.iv)

Table 4. Lualualei Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Lualualei Parallel Dry Force Main Construction	Complete Construction: 12/31/2013	08-0100	Construction completed 11/29/2013.

Spill Contingency Planning (Paragraph 11.c)

Small Force Main Spill Contingency Planning (Paragraph 11.c.i)

Table 5. Small Force Main Spill Contingency Planning Requirements

Requirement	Due Date	Status
Small Force Main Spill Contingency Plan - Programmatic	12/17/2011	CCH submitted the Small Force Main Flow Contingency Plan - Programmatic on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Plans, modified for site specific conditions, are maintained at each Pump Station.

Large Force Main Spill Contingency Planning (Paragraph 11.c.ii)

Table 6. Large Force Main Spill Contingency Planning Requirements

Requirement	Due Date	Status
Ewa Beach Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.

Requirement	Due Date	Status
Halawa Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kamehameha Highway Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Lualualei Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kailua Heights Force Main Spill Contingency Plan	6/17/2012	CCH submitted the Force Main Spill Contingency Plan on 6/17/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Kailua Road Force Main Spill Contingency Plan	6/17/2012	CCH submitted the Force Main Spill Contingency Plan on 6/17/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Ahuimanu Force Main Spill Contingency Plan	12/17/2012	CCH submitted the Force Main Spill Contingency Plan on 12/7/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Niu Valley Force Main Spill Contingency Plan	12/17/2012	CCH submitted the Force Main Spill Contingency Plan on 12/7/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.

Spill Contingency Plans Required by 2007 Stipulated Order (Paragraph 11.c.iii)

Table 7. Spill Contingency Plans Required by 2007 Stipulated Order

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Beachwalk Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.

Requirement	Due Date	Status
Hart Street Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kahala Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kaneohe/Kailua Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Waimalu Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.

Drills and Annual Reviews of Spill Contingency Plans (Paragraph 11.c.iv)

Table 8. Requirements for Spill Contingency Plan Drills

Requirement	CD Year	Compliance Milestone	Status
All of the following must be drilled by 6/30/2016:			
Kaneohe/Kailua Force Main Spill Contingency Plan Drill	Year One	6/30/2011	CCH performed a drill of the spill contingency plan on the Kaneohe/Kailua force main on 9/16/2010. CCH prepared a summary report and submitted it to EPA and DOH on 3/30/2011. Considering the timing of the conditional approval of the original six spill contingency plans, and that the Kaneohe/Kailua Force Main Spill Contingency Plan was approved subject to one minor condition, EPA and DOH agreed to accept this drill in satisfaction of the Year One requirement.
Kahala Force Main Spill Contingency Plan Drill	Year Two	6/30/2012	CCH performed a drill of the spill contingency plan on the Kahala force main on 6/21/2012.
Hart Street Force Main Spill Contingency Plan Drill	Year Three	6/30/2013	CCH performed a drill of the spill contingency plan on the Hart Street force main on 6/5/2013.
Ala Moana Force Main No. 2 Spill Contingency Plan Drill	Year Four	6/19/2014	CCH performed a drill of the spill contingency plan on the Ala Moana No. 2 force main on 6/19/2014.

Requirement	CD Year	Compliance Milestone	Status
Beachwalk Force Main Spill Contingency Plan Drill	Year Five	6/29/2015	CCH performed a drill of the spill contingency plan on the Beachwalk force main on 6/29/2015.
Spill Contingency Plan Drills for Waimalu Force Main	Year Six	6/30/2016	
All of the following must be drilled by 6/30/2020:			
Spill Contingency Plan Drills for Ahuimanu Force Main, Ewa Beach Force Main, Halawa Force Main, Kailua Heights Force Main, Kailua Road Force Main, Kamehameha Highway Force Main, Lualualei Force Main, and Niu Valley Force Main	Year Seven	6/30/2017	
	Year Eight	6/30/2018	
	Year Nine	6/30/2019	
	Year Ten	6/30/2020	
Note: SCPs will be reviewed annually and revised as necessary to address any changed conditions.			

B. Force Main Condition Assessments and Follow-Up Action Plans (Paragraph 12)

Condition Assessment Reports Pursuant to 2007 Stipulated Order (Paragraph 12.a)

Table 9. Condition Assessment Reports Pursuant to 2007 Stipulated Order

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Beachwalk Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Hart Street Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Kahala Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Kaneohe/Kailua Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.

Requirement	Due Date	Status
Waimalu Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.

Table 10. Ala Moana Force Main No. 2 Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
New Pressure manhole (PMH) at WWPS	Complete Construction: 12/31/2008	Construction completed 4/15/2008.
Horizontal bend at Station 23+00 (Bend #1) interim repair	Complete Construction: 09/30/2009	Construction completed 8/9/2009.
Horizontal bend at Station 23+00 (Bend #1) permanent repair	Design NTP: 08/03/2009; Complete Construction: 09/30/2012	Repair completed 8/14/2012.
Cathodic protection system - replace rectifier and anode bed	Complete Construction: 6/17/2014	Time extension submitted (11/15/13) and approved by EPA/DOH (1/13/14) for Complete Construction by 6/17/14. This requirement is also addressed in CD Paragraph 13.c. Construction completed 6/16/2014.
PS#2 Surge Control Improvements	Design NTP: 12/31/2015; Complete Construction: 12/31/2020	

Table 11. Ala Moana Force Main No. 2 Future Assessments

Requirement	Due Date	Status
Inspect remaining segments of FM No. 2	9/30/2009	<p>Inspection of Force Main No. 2 from Pressure Manhole #2A to the Ala Moana WWPS No. 2 was completed 8/18/2009.</p> <p>Inspection of 800-ft segment of Force Main No. 2 on Sand Island from Pressure Manhole #2C to Pressure Manhole #2E was completed 9/22/2009.</p>

Requirement	Due Date	Status
Settlement Monitoring Plan	9/30/2009	Settlement monitoring plan completed 8/27/2009 and updated 12/29/2009.
PS #2 Venturi meter UT testing	12/31/2012	Venturi meter UT testing completed 6/29/2011.
Ala Moana Force Main No. 2 Additional Condition Assessment of Problem Areas	6/30/2011	CCH submitted the Additional Condition Assessment of Problem Areas on 6/29/2011. EPA and DOH approved Report on 2/13/2012.

Table 12. Ala Moana Force Main No. 2 Operation and Maintenance Elements

Requirement	Frequency	Status
Complete survey of cathodic protection system and rectifier adjustment as necessary	Annual	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.5.
Exercise venturi pit gate valve	Weekly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Inspect and exercise manual air bleeders	Quarterly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
Interim Operation of PS#1/FM#1 System	Continuous	Normal operation is Force Main No. 1 lead and Force Main No. 2 lag as needed during wet weather and emergencies, until the surge improvements at PS#2 are completed.
Measure and record voltage and current output of rectifier	Monthly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.5
Venturi Meter Backflush	Weekly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Clean grease at Sand Island Headworks entrance 78" FM	One-time	Grease removal completed 7/11/2012.

Table 13. Beachwalk Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Rehabilitate and/or replace three existing air bleeder assemblies, at approximate locations Stations 17+95, 37+60 and 558+62.	Complete Construction: 12/31/2011	Completed 8/26/2011.

Table 14. Beachwalk Force Main Future Assessments

Requirement	Due Date	Status
Valve vault condition assessment	9/30/2012	Beachwalk valve vault condition assessment report was completed on 8/24/2012.
Force main condition assessment report	9/30/2017	

Table 15. Beachwalk Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
Monitor excavations near force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near thrust block at Station 8+37	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Settlement Protection Program	Continuous	ENV has generated a 500-foot buffer in GIS around the force main and provided this information to Department of Planning and Permitting (DPP). When projects are proposed within this corridor, DPP consults with DDC on potential impacts to the force main.
Slow draining and filling operations	During draining and filling	This work is performed as part of standard operations.

Table 16. Hart Street Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Coat interior of RCP/HDPE transition flange coupling adaptor (FCA) near Sand Island WWTP	Design NTP: 12/31/2011; Complete Construction: 12/31/2014	NTP for construction issued 7/10/2013 as part of project 11-0035, Phase 2. Construction completed 9/15/2014.
Install internal pipe seals at approximate locations Station 47+87, 31+23, 31+07, and 30+91.	Design NTP: 12/31/2011; Complete Construction: 12/31/2014	NTP for construction issued 7/10/2013 as part of project 11-0035, Phase 2. Construction completed 9/15/2014.

Requirement	Compliance Milestone	Status
Install PMH vaults and air bleeders at approximate locations Station 18+15, 28+80, and 43+87.	Design NTP: 12/31/2012; Complete Construction: 12/31/2016	NTP for construction issued 7/10/2013 as part of project 11-0035, Phase 2. Construction completed 9/15/2014.
Connect new WWPS to old FM	Design NTP: 12/31/2011; Complete Construction: 12/31/2013	Planning and Design NTP issued 12/31/2010 as part of project 10-0090, Phase 1. Construction completed 12/27/2013.

Table 17. Hart Street Force Main Future Assessments

Requirement	Due Date	Status
Follow-up internal inspection of the FM	12/31/2019	
Inspect external FM appurtenances	12/31/2019	

Table 18. Hart Street Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Exercise sluice gate at Sand Island WWTP and 12-inch blow-off valve at Station 43+33	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3
Monitor excavations near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Draining and filling operations conducted slowly	During draining and filling	This work is performed as part of standard operations.

Table 19. Kahala Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Install PVC liner in discharge manhole	Complete Construction: 03/31/2012	Completed 1/25/2012.
Remove air injection piping connection and pressure grout surrounding soil	Complete Construction: 12/31/2012	Completed 8/31/2010.
Re-coat pipe under Kahala Avenue Bridge	Complete Construction: 12/31/2012	Completed 8/7/2012.

Table 20. Kahala Force Main Future Assessments

Requirement	Due Date	Status
24" diameter FM condition assessment report	9/30/2018	

Table 21. Kahala Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavation near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Pipe coating inspection on exposed pipes on the bridge and in the vaults	Every two years	This inspection is a routine part of the Force Main O&M Program, Section 4.4.6.

Table 22. Kaneohe/Kailua Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Recoat above-ground piping at Kaneohe EPS discharge pipe	Complete Construction: 12/31/2015	Recoating completed 8/7/2012.

Table 23. Kaneohe/Kailua Force Main Future Assessments

Requirement	Due Date	Status
Air Relief Valve (ARV) study	6/30/2012	ARV Study was completed on 6/28/2012.

Table 24. Kaneohe/Kailua Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Adjust check valves	Per CCH O&M Plan for Kaneohe EPS	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Slow draining and filling	During draining and filling operations	This work is performed as part of standard operations.

Table 25. Waimalu Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Rehabilitate and/or replace air bleeder assembly at Station 388+50	Complete Construction: 12/31/2016	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this requirement extended in light of the planned construction of a new second force main. EPA and DOH approved the extension on 1/13/2014.

Table 26. Waimalu Force Main Future Assessments

Requirement	Due Date	Status
Valve vault condition assessment	9/30/2012	Waimalu valve vault condition assessment report was completed on 8/24/2012.

Requirement	Due Date	Status
Cast iron condition assessment report	9/30/2013	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this requirement eliminated in light of the planned construction of a new second force main. Modification approved by EPA and DOH on 1/13/2014.
Force Main CCTV from discharge manhole at time of air bleeder appurtenance replacement	12/31/2016	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this requirement extended in light of the planned construction of a new second force main. EPA and DOH approved the extension on 1/13/2014.
Force main condition assessment report	9/30/2018	

Table 27. Waimalu Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect, flush, and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near thrust block at Station 387+25	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Slow draining and filling	During draining and filling operations	This work is performed as part of standard operations.

Additional Condition Assessment Reports (Paragraph 12.b)

Table 28. Additional Condition Assessment Reports

Requirement	Due Date	Status
Ahuimanu Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.

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Requirement	Due Date	Status
Aliamanu No. 1 and 2 Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Lualualei Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Awa Street Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013. EPA and DOH conditionally approved the plan with comments on 9/24/2014. CCH addressed the comments, revised the document and submitted a complete "Final" report on 12/23/2014.
Kailua Road Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013. EPA and DOH conditionally approved the plan with comments on 10/28/2014. CCH addressed the comments, revised the document and submitted a complete "Final" report on 1/27/2015.
Kaneohe Bay No. 3 Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013. EPA and DOH conditionally approved the plan with comments on 8/14/2014. CCH addressed the comments, revised the document and submitted a complete "Final" report on 9/26/2014.
Kunia Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013. EPA and DOH conditionally approved the plan with comments on 10/28/2014. CCH addressed the comments, revised the document and submitted a complete "Final" report on 1/27/2015.
Ewa Beach Force Main Condition Assessment Report	12/31/2014	Report submitted to EPA and DOH on 12/31/2014.
Halawa Force Main Condition Assessment Report	12/31/2014	Report submitted to EPA and DOH on 12/31/2014. EPA and DOH conditionally approved the plan with comments on 5/5/2015.

Table 29. Ahuimanu Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Manhole Rehabilitation	Complete Construction: 12/31/2014	Rehabilitation completed 4/11/2012.

Requirement	Compliance Milestone	Status
Pipe Repair Corrosion	Complete Construction: 12/31/2015	Construction in progress.
Pipe Repair Liner	Complete Construction: 12/31/2018	Design in progress.

Table 30. Ahuimanu Force Main Future Assessments

Requirement	Due Date	Status
ARV Valve Study	4/30/2013	Ahuimanu Force Main Air Study & Ultrasonic Thickness Testing (Final) report was completed on 4/30/2013.
Future Assessment of Excavation Pit	12/31/2013	Ahuimanu Force Main Air Study & Ultrasonic Thickness Testing (Final) report was completed on 4/30/2013.

Table 31. Aliamanu No. 1 and 2 Force Main Future Assessments

Requirement	Compliance Milestone	Status
Future Assessment	12/31/2015	Work is in progress and the report is scheduled to be completed by 12/31/2015.

Table 32. Aliamanu No. 1 and 2 Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Excavation under FM shall be filled with CLSM to within 6-inches of FM bottom or by other suitable structural support, then bedding of FM shall be replaced to entirely cover the FM.	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Inspect and Repair Valves	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
No excavation allowed within 20 feet of these FM bends.	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.

Requirement	Frequency	Status
Replace lost bedding based on CCH Standards on excavations adjacent to FM. Force Main Cleaning	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Force Main Cleaning	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 6.2.4.

Table 33. Kailua Road Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Replace the unjacketed cast iron section of FM.	Design NTP 12/31/2015 Construction Completion 6/30/2018	Design NTP issued on 4/10/2015. Design in progress.

Table 34. Kaneohe Bay No. 3 Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Replace pipe section with interior longitudinal fracture, 41 ft upstream from discharge manhole	12/31/2014	Completed 10/27/2014.

Table 35. Kunia Force Main Future Assessments

Requirement	Compliance Milestone	Status
Additional Condition Assessment	6/31/2016	Planning in progress.

C. Force Main Maintenance and Spill Prevention Programs (Paragraph 13)

Operation and Maintenance Program (Paragraph 13.a)

CCH is implementing the Force Main O&M program outlined in CD Appendix E. The specific requirements in CD Appendix E are summarized below.

Table 36. Force Main Operation and Maintenance Program Elements

Section	Requirement	Frequency	Status
E-4.1	Force Main Surface Marking	Continuous	Force Main markers were installed on all exposed force mains by December 31, 2011. EPA and DOH have agreed that buried and underwater force mains do not need to be marked. Appendix E will be revised accordingly.
E-4.2	Force Main Location Information	Continuous	DPP issues trenching permits for projects in CCH rights-of-way. DPP notifies DDC when underground activities are to be conducted near a force main. DDC provides inspectors to verify that measures are being implemented to protect force mains.
E-4.3	Force Main Performance Testing	12 months	Performance Testing Procedures have been developed for conducting annual force main performance tests and have been finalized for adoption. Parameters associated with the performance of the force mains will be monitored and evaluated for comparison to both design conditions and previous performance evaluations. Initial performance tests were completed on all force mains by 12/17/2011 and follow-up testing was completed 6/21/2012. Force main performance testing was completed on 12/17/2013. Force main performance testing was completed on 11/05/2014. Due to construction activity performance testing was not conducted on the, Fort DeRussy and Enchanted Lakes force mains; performance testing on these force mains will resume after construction completion.
E-4.4.1	Force Main Right-of-Way	3 - 6 months for buried and elevated; 5 years for underwater	Rights-of-way inspections were performed on all buried, elevated, and underwater force mains during Year Five. Inspection log sheets have been developed to provide standardized procedures and data collection.

Section	Requirement	Frequency	Status
E-4.4.2	Force Main Air and Vacuum Relief Valves - Inspect, Test, and Flush	3 months (or as determined based on field observations)	ARVs were visually inspected during Year Five. Valves that were found to be non-functioning or intentionally kept permanently closed were removed from the list of valves to be exercised and flushed, but they continue to be visually inspected. Based on test data and other information, all ARVs will be considered either for replacement with manual air bleed valves or replacement in kind. Work orders for the inspections are generated from CCH's maintenance management system, and inspection log sheets have been developed to provide standardized procedures and data collection.
E-4.4.3	Force Main Isolation (Inlet) and Blow-Off Valves	12 months	Inspection and exercising of isolation valves continues to be a standard procedure that is performed on a weekly to monthly basis. All functioning isolation valves were exercised during Year Five. Non-functioning isolation valves are evaluated for possible repair or replacement. Inspection log sheets have been developed to provide standardized procedures and data collection. Inspection of blow-off valves is being conducted on an annual basis. All blow-off valves are intentionally kept permanently closed.
E-4.4.4	Force Main Significant Rainfall Event (SRE)	As needed	CCH has identified force mains that could potentially be subject to SRE conditions. Inspections of the SRE force mains will be completed within 48 hours after cancellation of a Flood Warning. In Year Five there were 5 field-verified inspections on 7/19/2014, 7/20/2014, 9/30/2014, 10/1/2014, and 4/22/2015.

Section	Requirement	Frequency	Status
E-4.4.5	Force Main Corrosion Protection	Electrolysis stations: 12 months; Sacrificial anodes: 3 months; Impressed current: 3 months (or as determined based on field observations)	A study of the condition of the known cathodic protection systems has been completed, which included initial inspections of the systems on the Ala Moana, Pearl City, and Waipahu Force Mains. These three systems will have repairs performed as part of the requirements in CD paragraph 13.c. Corrosion protection systems that have been determined to be non-functional are considered in a "non-functional" mode. Construction of Ala Moana and Pearl City Cathodic Protection systems was completed on 6/16/14.
E-4.4.6	Force Main Pipe and Discharge Manhole/Structure Condition Including Coating	12 months	Visual inspections of the internal pipe at the discharge manhole/structure and the discharge manhole/structure is done on an annual basis. Visual inspections of all discharge manholes and pipes were completed by 10/30/2014.

Section	Requirement	Frequency	Status
E-4.5.1	Force Main Sulfide Monitoring	12 months	<p>Sulfide monitoring, either through atmospheric hydrogen sulfide monitoring or total dissolved sulfides of the effluent, is conducted at the discharge manhole/structure of each force main on an annual basis. Data collected is compiled and reviewed by a qualified corrosion engineer. Atmospheric hydrogen sulfide monitoring was completed at each discharge structure. CCH completed an initial measurement at each discharge manhole by 12/17/2011. Additional monitoring was performed at eight (8) discharge structures by 5/21/2012, and a table-top exercise was performed to look at configuration of the discharge structure. Year Three monitoring was completed by 10/30/2013. Year Four monitoring was completed by 10/30/2014. Monitoring for Year Five will be completed by 12/17/2015. Data will be analyzed and compared against the baseline data.</p>
E-4.5.2	Pump Stations with Single Force Mains	Weekly	<p>As part of the standard procedures currently employed by CCH, force mains associated with pump stations with a single force main are high velocity flushed on a weekly basis, with a velocity of at least 3 feet per second. Procedures include allowing the wet well to fill and then turning on multiple pumps to achieve the required velocity. Records of the flushing event are recorded in log books at the pump stations.</p>

Section	Requirement	Frequency	Status
E-4.5.3	Pump Stations with Multiple Force Mains	Weekly (each force main)	As part of the standard procedures currently employed by CCH, force mains associated with pump stations with multiple force mains are high velocity flushed on a weekly basis, with a velocity of at least 3 feet per second, so that each force main is flushed every other week. Procedures include allowing the wet well to fill and then turning on multiple pumps to achieve the required velocity. Valves are opened and/or closed to isolate and flush multiple force mains. Records of the flushing event are recorded in log books at the pump stations.
E-5	Emergency Operations and Emergency Recovery Features	As needed	As part of the standard procedures currently employed by CCH, emergency operations and procedures are undertaken in the event of a force main failure. Emergency operations and procedures are included in the spill contingency plans and flow diversion plans and will be included in additional spill contingency plans and flow diversion plans to be developed.
E-5.1	Force Main All-Weather Access to Valves, Pressure Manholes and Discharge Manholes/Structures	Continuous	CCH determined that all-weather access to valves, pressure manholes and discharge manholes/structures at all locations for personnel or vehicles to perform repairs to the force main system are in place.
E-5.2	Force Main Pressure Manholes	As needed on newly constructed and rehabilitated force mains	Pressure manholes, spaced at approximately every 1,000 feet as determined by the design conditions, will be considered on newly constructed force mains. When rehabilitation of an existing force main occurs, pressure manholes will be considered and installed as needed where appropriate. Pressure manholes may not be appropriate on systems with backup force mains or other spill contingency plans.

Section	Requirement	Frequency	Status
E-6.1	Predictive Maintenance	As issues are identified.	Data collected from the ROW inspections, pipe and discharge manhole/structure inspections, and effluent sulfide monitoring will be used to hone the predictive maintenance program.
E-6.2	Force Main Preventative Maintenance	Continuous	Results from the ARV inspections, Isolation and Blow-off valve inspections, Corrosion Protection inspections and pipe and discharge manhole/structure inspections are used to hone the frequency of preventive maintenance procedures.
E-6.2.4	Force Main Preventive Maintenance - Force Main Cleaning	Varied	Results from the ARV inspections, Isolation and Blow-off valve inspections, Corrosion Protection inspections and pipe and discharge manhole/structure inspections are used to hone the frequency of preventive maintenance procedures. Data gathered from annual performance testing is reviewed, and methods and frequencies of force main cleaning are validated and/or updated.
E-6.3	Force Main Corrective Maintenance	Continuous	As part of the standard procedures currently employed by CCH, corrective maintenance procedures are followed such that planned repairs are completed as categorized and prioritized within the WTD work order system.
E-6.4	Force Main Reactive Maintenance	Continuous	As part of the standard procedures currently employed by CCH, reactive maintenance procedures are followed such that unplanned repairs are completed as categorized and prioritized within the WTD work order priority system. Unplanned reactive maintenance can be a Priority 5 if the repair is considered an Emergency/Regulatory Violations/Safety concern, or a Priority 4 if the repair is considered as Urgent.

Section	Requirement	Frequency	Status
E-6.5	Force Main Spare Parts	Continuous	As part of the standard procedures currently employed by CCH, an inventory of spare parts is maintained in the store rooms of the various regions in order to provide timely support for maintenance and repairs. The spare parts list is based on the asset management listings, and the repair lists in the spill contingency plans. As parts are deployed for use, the inventory is replenished.

Overflow Structures (Paragraph 13.b)

CCH updated its design standards to suspend sections related to overflow structures. A letter dated March 11, 2009, to all design consultants in CCH’s consultant database announced the change. The letter and design standards are on the ENV website. The letter suspended the sections of the design standards that referred to designed overflow structures.

Table 37. Force Main Overflow Structure Requirements

Requirement	Due Date	Status
Force Main Overflow Structure Design Standards Update	12/17/2010	Completed. Letter issued 3/11/2009.
Force Main Overflow Structure Report	12/17/2011	CCH submitted the Force Main Overflow Structure Report on 12/16/2011. EPA and DOH approved the Report on 2/13/2012.
Force Main Overflow Structure Closure Project	2/12/2013	All work was completed prior to 2/12/2013.

Cathodic Protection Systems (Paragraph 13.c)

CCH submitted a study of existing Cathodic Protection Systems installed for Ala Moana, Pearl City, and Waipahu force mains to EPA and DOH on June 17, 2011. CCH is proceeding with construction as necessary.

Table 38. Cathodic Protection System Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Ala Moana Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.

Requirement	Compliance Milestone	DDC Serial Number	Status
Pearl City Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Waipahu Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Ala Moana Force Main Cathodic Protection Project	12/17/2013	08-0565	Construction completed 6/16/2014.
Pearl City Force Main Cathodic Protection Project	6/17/2014	08-0565	Construction completed 6/16/2014.
Waipahu Force Main Cathodic Protection Project	Original 6/17/2014 Extended to 8/17/2015	08-0565	CCH requested an extension to 8/17/2015 for construction completion due to U.S. Navy permit approval and anticipated restrictions due to construction location being in a munitions "blast zone". EPA/DOH approved the extension on 6/12/2015.

Kaneohe Bay WWPS #2 Force Main (Paragraph 13.d)

Table 39. Kaneohe Bay WWPS #2 Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Kaneohe Bay WWPS No. 2 Force Main	Design NTP: 12/31/2013; Construction NTP: 12/31/2015; Complete Construction: 12/31/2016	08-0744	Design NTP issued 12/19/2013. Design completed. Construction NTP issued 8/28/2015.

D. Beachwalk Force Main Projects (Paragraph 14)

Table 40. Beachwalk Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Beachwalk Force Main Construction of Permanent Force Main	Original Completion Milestone: 12/31/2012; Complete Construction: 04/12/2013	00-0519	Construction completed 3/28/2013.

E. Ala Moana Force Main Projects (Paragraph 15)

Table 41. Ala Moana Force Main Assessment Requirements

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Additional Condition Assessment of Problem Areas	6/30/2011	CCH submitted the Additional Condition Assessment of Problem Areas on 6/29/2011. EPA and DOH approved Report on 2/13/2012.
Perform 2020 Condition Assessment	6/30/2020	

Table 42. Ala Moana Force Main Construction Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Ala Moana Force Main No. 3 Construction	Construction NTP: 07/31/2012; Original Completion Milestone : 12/31/2014 Complete Construction: 8/12/2015	06-0065	Construction NTP issued 11/28/2011. Construction in progress. On 12/29/2014, CCH requested an extension to 8/12/2015 for construction completion due to various unforeseen, contractor-related, and other issues that adversely impacted the project schedule. On 6/12/2015 EPA and DOH approved the extension request.

F. Old Hart Street Force Main - Maintenance and Improvements (Paragraph 16)

CCH is proceeding with construction of a permanent connection between the Old Hart Street Force Main and the Hart Street WWPS to facilitate switching flows to the Old Hart Street Force Main more quickly for use of the Old Hart Street Force Main as a backup for the Hart Street WWPS. CCH is maintaining the Old Hart Street Force Main as a backup to handle emergency flows to the extent possible.

Table 43. Hart Street Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Connect new WWPS to old FM	Construction NTP: 12/31/2011; Complete Construction: 12/31/2013	10-0090	Planning and Design NTP issued 12/31/2010 as part of project 10-0090, Phase 1. Construction completed 12/27/13.

G. Kaneohe/Kailua Force Main Project (Paragraph 17)

The First Amended Consent Decree, entered March 27, 2012, provided for the construction of a Kaneohe-Kailua gravity tunnel and an associated influent pump station in lieu of a new force main and storage projects in Kaneohe and Kailua.

Table 44. Kaneohe/Kailua Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Tunnel Sizing Methodology Report	04/12/2012	None	CCH submitted a Tunnel Sizing Methodology Report on 4/12/2012.
Kailua WWTP Tunnel Influent Pump Station	Design NTP: 06/30/2012; Construction NTP: 12/31/2015; Complete Construction: 06/30/2018	None	Planning & Design NTP issued 4/30/2012. Design complete.
Kaneohe/Kailua Tunnel Program	Design NTP: 06/30/2012; Construction NTP: 12/31/2014; Complete Construction: 06/30/2018	11-0241	Planning & Design NTP issued 4/30/2012. Construction NTP issued 1/6/2014. Construction in progress.
Kaneohe/Kailua Force Main Supplemental Condition Assessment	12/31/2014	None	Report submitted to EPA and DOH on 12/31/2014.
Kaneohe/Kailua Force Main and Kaneohe Pretreatment Facility Pump Station 2-Yr Residual Operation Period	06/30/2018	None	

H. 1999 Final Sewer I/I Plan Projects (Paragraph 18)

The projects in Paragraph 18 were originally identified in the 1999 Infiltration/Inflow (I/I) Plan. These projects have changed over time as the result of further planning and design efforts by CCH. By tracking the individual sewer segments associated with each CD line item, CCH is able to accurately report on the status of each CD requirement.

Compliance Milestone: Complete Construction 12/31/2011 (Paragraph 18.b)

CCH maintains a database of the sewer segments that are associated with each of these projects, so that the history of each project and each sewer segment can be tracked. This database was used to define the sewer segments that are included in the three projects in Paragraph 18.b.

Table 45. Paragraph 18.b Requirements (Complete Construction December 31, 2011)

Requirement	DDC Serial Number	Status
SI-CS-05 Kalihi Valley Reconstructed Sewer (aka Kalihi Valley Relief Sewer)	05-0284	This included one pipe segment, SewerID 250497. That sewer segment has been completed as part of project 08-0329. Construction completed 4/1/2011.
SI-CS-36 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion	08-0285	This included two sewer segments, SewerID 278874 and 280867. The sewer segments were completed as part of the IDIQ2 Project; see Appendix H. Construction completed 9/19/2008.
SI-CS-63A Sand Island Basin Misc. Sewer Rehabilitation (aka Sand Island Structural Rehabilitation-Phase 1)	05-0284	This included one pipe segment, SewerID 294754. That sewer segment has been completed as part of project 02-1301. Construction completed 12/31/2008.

Compliance Milestone: Complete Construction 12/31/2013 (Paragraph 18.c)

Table 46. Paragraph 18.c Requirements (Complete Construction December 31, 2013)

Requirement	DDC Serial Number	Status
HN-CS-10B Waimalu Sewer Rehabilitation/Reconstruction Phase II - 7D01C (aka Honouliuli Sewer Rehabilitation - 7D01C)	09-0149	Construction completed 9/9/2011.
HN-CS-13 Waimalu Sewer Rehabilitation/Reconstruction Phase I - 7D01C (aka Waimalu Sewer Replacement)	09-0149	Construction completed 9/9/2011.
HN-TP-01 Honouliuli WWTP Upgrade	03-0417	Construction completed 7/31/2010.

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Requirement	DDC Serial Number	Status
KK-PS-01 Enchanted Lakes Wastewater Pump Station Upgrade	02-1305	Construction completed 12/27/2013.
SI-CS-51A Sewer Manhole and Pipe Rehabilitation at Various Locations (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation - Phase 1)	02-1304	Construction completed 2/9/2012.
SI-CS-53 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Auahi St. Structural Rehabilitation)	05-0653	A portion of this work was completed 10/17/1997. The 6' x 6' Box portion of this project was Construction completed on 12/31/2013 under DDC serial number 11-0136.
SI-CS-53 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Auahi St. Structural Rehabilitation 6' x 6' Box)	05-0271	The 14-inch structural rehabilitation portion of this project was Construction completed on 6/27/2011 under DDC serial number 11-0429.
SI-CS-54 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-24 Structural Rehabilitation)	05-0271	The remaining 24-inch sewer along Ala Moana Blvd was Construction completed on 5/16/2011 under DDC serial number 11-0113.
SI-CS-55 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-36 Structural Rehabilitation)	05-0271	The grouting portion of this project was Construction completed on 8/26/2014 under DDC serial number 11-0136. Abandonment of 36-inch sewer was completed on 6/9/2012, after service was transferred to other lines in accordance with EPA approval on 5/8/2012.
SI-CS-57 Ala Moana Blvd. Sewer Reconstruction (aka Ala Moana Blvd.-16 Structural Rehabilitation)	03-0412	Construction completed 4/4/2011.
SI-CS-59 Waikiki Sewer Rehabilitation/Reconstruction	04-1159	Construction completed 6/19/2013.
SI-PS-14 Kuliouou Sewer Rehabilitation and WWPS Modification (aka Kuliouou WWPS Modification)	08-0098	Construction completed 4/7/2010.

Requirement	DDC Serial Number	Status
WH-TP-01 Wahiawa Wastewater Treatment Plant Influent Pump Station Upgrade and Equalization Facility (aka Modify IPS and New Storage at Wahiawa WWTP)	02-1306	Construction completed 1/2/2013.
WM-CS-02 Waimanalo Sewer Rehabilitation	06-0354	Construction completed 11/5/2013.

Compliance Milestone: Complete Construction 12/31/2014 (Paragraph 18.d)

Table 47. Paragraph 18.d Requirements (Complete Construction December 31, 2014)

Requirement	DDC Serial Number	Status
HN-TP-02 Mililani WWPTF Storage and Headworks Upgrade (aka Mililani WWPTF Upgrade)	00-0564	Construction completed 11/24/2014.
SI-CS-09 Kahanu St., School St., and Umi St. Relief Sewers (aka School St. Relief Sewer)	04-1147	Construction completed 8/2/2011.
SI-CS-18 Kalaniana'ole Highway Sewer	04-1454	Construction completed 9/16/2011
SI-CS-37 Kahanu St., School St., and Umi St. Relief Sewers (aka Umi St. Relief Sewer)	04-1147	Construction Complete 8/2/2011.
SI-CS-37 Kahanu St., School St., and Umi St. Relief Sewers (aka Umi St. Relief Sewer)	10-0037	Construction completed 8/20/2011.
SI-CS-38 Kahanu St., School St., and Umi St. Relief Sewers (aka Kahanu St. Relief Sewer)	04-1147	Construction completed 8/2/2011.
SI-CS-38 Kahanu St., School St., and Umi St. Relief Sewers (aka Kahanu St. Relief Sewer)	08-0890	Construction completed 3/26/2011.

Requirement	DDC Serial Number	Status
SI-CS-62 Kalaniana'ole Highway Sewer (aka Kalaniana'ole Hwy Structural Rehabilitation)	04-1454	Construction completed 9/16/2011.
SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 1)	08-0729	Construction complete 3/30/2012.
SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 1)	08-0729	Construction complete 3/30/2012.

Compliance Milestone: Complete Construction 12/31/2016 (Paragraph 18.e)

Table 48. Paragraph 18.e Requirements (Complete Construction December 31, 2016)

Requirement	DDC Serial Number	Status
HN-CS-04 Renton Road Sewer and Manhole Rehabilitation (portion: Eastern/Makakilo trunk)	pvt	Lower portion to be completed by private developer. Design complete. CCH to complete upper portion. Construction NTP issued for upper portion of trunk on 6/19/2015.
HN-CS-05B Leeward Area Sewer and Manhole Rehabilitation (aka Waipahu Manhole and Pipe Rehabilitation)	06-0090	Construction completed 12/27/2012.
HN-CS-05C Leeward Area Sewer and Manhole Rehabilitation (aka Ewa Manhole Rehabilitation)	06-0090	Construction completed 12/27/2012.
HN-CS-10A Wai'au Area Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7D01A)	06-0664	This project has been broken into two construction projects. DDC serial number 06-0664 construction completed 9/27/2013. DDC serial number 13-0110 construction in progress.
HN-CS-10C Foster Village Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7F05)	05-0275	Construction completed 7/22/2011.

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Requirement	DDC Serial Number	Status
KK-CS-04 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Oneawa St. Structural Rehabilitation)	05-0281	Construction completed 2/22/2011.
KK-CS-06 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua Beach Park Structural Rehabilitation)	05-0281	Construction completed 2/22/2011.
KK-CS-09 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kaneohe Bay Drive Structural Rehabilitation)	08-0222	This work was completed under DDC serial number 05-0281. Construction completed 2/22/2011.
KK-CS-12B Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua/Kaneohe Manhole and Pipe Structural Rehabilitation - Phase 2)	05-0281	Construction completed 2/22/2011.
KK-CS-12B Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua/Kaneohe Manhole and Pipe Structural Rehabilitation - Phase 2)	08-0455	Construction completed 5/22/2015.
SI-CS-30 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Date St. Relief Sewer)	06-0092	Construction completed 4/11/2014.
SI-CS-43 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka North King St. Relief Sewer)	06-0636	Scope moved to Paragraph 18.f, SI-PS-04 Awa Street WWPS Upgrade.

Requirement	DDC Serial Number	Status
SI-CS-50 Airport Sewer Rehabilitation/Reconstruction (aka Airport Structural Rehabilitation)	09-0464	Construction completed 12/31/2014.
SI-CS-50 Airport Sewer Rehabilitation/Reconstruction (aka Airport Structural Rehabilitation)	06-0063	Construction completed 10/18/2011.
SI-CS-51B Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction & Kalihi/Nuuanu Area Sewer Rehabilitation (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2)	05-0284	Construction in progress. The new DDC Serial No. is 10-0220. DDC 05-0284 is the parent job no. for the basin study. Multiple projects were created from the study and given new DDC Project Nos. This scope of work includes SMH repair under the recently created Kalihi Nuuanu Phase 1K project (DDC 10-0220).
SI-CS-52 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd.-Iwilei Structural Rehabilitation)	06-0636	Scope moved to Paragraph 18.f, SI-PS-04 Awa Street WWPS Upgrade.
SI-CS-58 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Moiliili-Kapahulu Structural Rehabilitation)	06-0092	Construction completed 4/11/2014.
SI-CS-60 Old Sewer Tunnel Rehabilitation (aka Old Tunnel Structural Rehabilitation)	08-0107	Construction in progress.

Projects Requiring Further Study (Paragraph 18.f)

The 39 projects in Paragraph 18.f are being addressed through various planning contracts and facility plans. As provided in the CD, CCH evaluated the projects to determine those projects which: (1) required construction completion before June 30, 2020; (2) could be completed after June 30, 2020; and (3) could be eliminated. The report of evaluations and recommendations was submitted for EPA/DOH approval on 12/17/2014. EPA and DOH approved the report and recommendations on 4/14/2015. The recommended options are set forth below in Table 49. Project design interim compliance milestones and construction compliance milestones that are no later than June 30, 2020 are appropriately incorporated into the Consent Decree

Table 49. Paragraph 18.f Requirements

Requirement	DDC Serial Number	Compliance Milestone	Status
HN-CS-07 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Waimalu Wastewater System Relief)	06-0667	None	Eliminated
HN-CS-08 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City Trunk Sewer Relief)	06-0667	None	Eliminated
HN-CS-09 Pacific Palisades Diversion Sewer Line (aka Pacific Palisades Relief Sewer)	09-0393	None	Eliminated
HN-CS-14 Waipahu Sewer Replacement/Relief Sewer (aka Waipahu Sewer Replacement)	03-0440	None	Eliminated
HN-PS-01 Waipio WWPS Upgrade	06-0669	None	Eliminated
HN-PS-04 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City WWPS Relief)	06-0667	Design NTP: 7/31/2015 Construction NTP: 12/31/2016	Complete Construction after 6/30/2020
KK-CS-01 Kalaheo Ave. Relief Sewer	08-0741	None	Eliminated
KK-CS-13 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Alii Shores Relief Sewer)	03-0414	None	This portion of the requirement was performed under DDC serial number 03-0414. Construction completed 1/9/2009.

Requirement	DDC Serial Number	Compliance Milestone	Status
KK-CS-13 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Alii Shores Relief Sewer)	08-0095	None	Eliminated
KK-CS-15 Hele St. Sewer Relief/Rehabilitation (aka Hele St. Relief Sewer)	09-0532		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
KK-CS-20 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kaha St. Relief Sewer)	08-0095	None	Eliminated
KK-CS-21 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kahuhipa St. Relief Sewer)	08-0095		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
KK-CS-22 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Namoku St. Relief Sewer)	08-0095	None	Eliminated
KK-CS-23 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Puohala Relief Sewer)	08-0095	None	Eliminated
KK-CS-25 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Makahio St. Relief Sewer)	08-0095		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
KK-PS-02 Waikalua WWPS Upgrade	08-0115		Design NTP, Construction NTP and Complete Construction: after 6/30/2020

Requirement	DDC Serial Number	Compliance Milestone	Status
KK-PS-10 Kahanahou Pump Station Upgrade	08-0734	Design NTP: 12/31/2016 Construction NTP: 7/31/2018 Complete Construction: 6/30/2020	
KK-PS-12 Waikapoki WWPS Upgrade	06-0102	Design NTP: 12/31/2016 Construction NTP: 7/31/2018 Complete Construction: 6/30/2020	
SI-CS-01 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Airport Relief Sewer)	04-1139	None	Eliminated
SI-CS-08 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd-Iwillei Relief Sewer), portion	06-0636	Design NTP: 7/31/2017 Construction NTP: 12/31/2018 Complete Construction: 6/30/2020	Portion only to be completed by 6/30/2020. Other portion to be completed after 6/30/2020, including design and compliance milestones.

Requirement	DDC Serial Number	Compliance Milestone	Status
SI-CS-10 Chinatown Sewer Rehabilitation (aka College Walk-30 Replacement Sewer)	08-0083	Design NTP: 12/31/2016 Construction NTP: 7/31/2018 Complete Construction: 6/30/2020	
SI-CS-15 Manoa Sewer Relief/Rehabilitation (aka Manoa Relief Sewer)	08-0102		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
SI-CS-17 Palolo Valley Sewer Rehabilitation (aka Palolo Relief Sewer)	08-0108	Design NTP: 7/31/2017 Construction NTP: 12/31/2018 Complete Construction: 6/30/2020	Portion only to be completed by 6/30/2020. Other portion to be completed after 6/30/2020, including design and compliance milestones.
SI-CS-22 Chinatown Sewer Rehabilitation (aka River St. Relief Sewer)	08-0083	None	Eliminated
SI-CS-22 Chinatown Sewer Rehabilitation (aka River St. Relief Sewer)	08-0331		This portion of the work was completed under DDC serial number 08-0331. Construction completed 9/10/2009.

Requirement	DDC Serial Number	Compliance Milestone	Status
SI-CS-27 Palolo Valley Sewer Rehabilitation (aka Waiomao Stream Relief Sewer)	08-0108		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
SI-CS-28 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Auwaiolimu St. Relief Sewer)	05-0284		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
SI-CS-29 Kalihi/Nuuanu Area Sewer Rehabilitation (southern makai portion) (aka Nuuanu Relief Sewer)	05-0284	Design NTP: 7/31/2017 Construction NTP: 12/31/2018 Complete Construction: 6/30/2020	
SI-CS-36 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion	05-0284	None	Eliminated
SI-CS-39 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Kalani St. Relief Sewer), portion	05-0284		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
SI-CS-42 Dowsett Highlands Relief Sewer	10-0212	Design NTP: 7/31/2017 Construction NTP: 12/31/2018 Complete Construction: 6/30/2020	

Requirement	DDC Serial Number	Compliance Milestone	Status
SI-CS-42 Dowsett Highlands Relief Sewer	10-0212		This work is duplicative of other work identified under DDC Serial Number 10-0212.
SI-PS-01 Kamehameha Hwy WWPS Upgrade	09-0531		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
SI-PS-04 Awa Street WWPS Upgrade	10-0208	Design NTP: 7/31/2017 Construction NTP: 12/31/2018 Complete Construction: 6/30/2020	
SI-PS-06 Sand Island WWTP and Sewer Basin Facilities (aka Ala Moana WWPS and Force Main; upgrade of WWPS to 2020 flows will be further evaluated; note: the force main work is included in Paragraph 15)	08-0074	None	Eliminated
SI-PS-06 Sand Island WWTP and Sewer Basin Facilities (aka Ala Moana WWPS and Force Main; upgrade of WWPS to 2020 flows will be further evaluated; note: the force main work is included in Paragraph 15)	06-0065		This work is the Ala Moana Force Main No. 3, which is already addressed under CD Paragraph 15. Construction in progress.

Requirement	DDC Serial Number	Compliance Milestone	Status
SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 2)	04-1139		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 2)	04-1139		Design NTP, Construction NTP and Complete Construction: after 6/30/2020
WH-PS-02 Uwalu WWPS Upgrade	08-0113	None	Eliminated

Wet Weather I/I Assessment Update (Paragraph 18.g)

Table 50. Wet Weather I/I Assessment Update Schedule Requirements

Requirement	Due Date	Status
EPA/DOH Meeting to Discuss Data from Wet Weather Season 1	9/30/2010	Completed. This meeting was held on 9/14/2010 with CCH, EPA and DOH.
EPA/DOH Meeting to Discuss Data from Wet Weather Season 2	9/30/2011	By mutual agreement, this meeting was held on 10/04/2011 with CCH, EPA and DOH.
EPA/DOH Meeting to Discuss Proposed Hydraulic Capacity Projects	4/18/2012	By mutual agreement, this meeting was held on 4/18/2012 with CCH, EPA and DOH.
Complete Collection of Precipitation and Flow Monitoring Data	8/1/2011	Completed 6/30/2011.
Peak Flow Cost Effectiveness Analysis Report	12/31/2012	Peak Flow Cost Effectiveness Analysis Report finalized on 12/26/2012.

Table 51. Wet Weather I/I Assessment Update Submittal Requirements

Requirement	Due Date	Status
Preliminary Deferred Projects Report	12/31/2012	CCH submitted the Preliminary Deferred Projects report on 12/28/2012

Requirement	Due Date	Status
Final Deferred Projects Report	11/30/2013	Report submitted to EPA and DOH on 11/27/2013. EPA and DOH commented on 4/2/2014. CCH submitted a Revised Report to EPA and DOH on 6/9/2014. EPA and DOH approved the report on 9/24/2014.
Wet Weather I/I Assessment Update	12/31/2013	Report submitted to EPA and DOH on 12/30/2013.
Update of Capital Improvement Plan	Compliance milestone: 9/24/15	CCH is on schedule to complete this requirement

I. Gravity Main Condition Assessment (Paragraph 19)

CCH is conducting a program of inspection and condition assessment for selected gravity mains. Inspections are being performed using closed-circuit television (CCTV) and the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) standard. During CCTV inspection, the camera operator codes each defect using the PACP system and generates a database with the severity of each defect. If there are defects that create an imminent risk of a spill, that information is flagged for immediate follow-up. After the initial assessment, the videos and databases are forwarded to CCH engineering staff for further review and development of rehabilitation and replacement projects.

During the period from 1/01/2009 through 6/30/2014 CCH performed closed-circuit television (CCTV) inspection and condition assessment on approximately 689 miles of gravity sewer. No CCTV inspection and condition assessment was conducted in 2015.

The progress is charted in Figure 1.

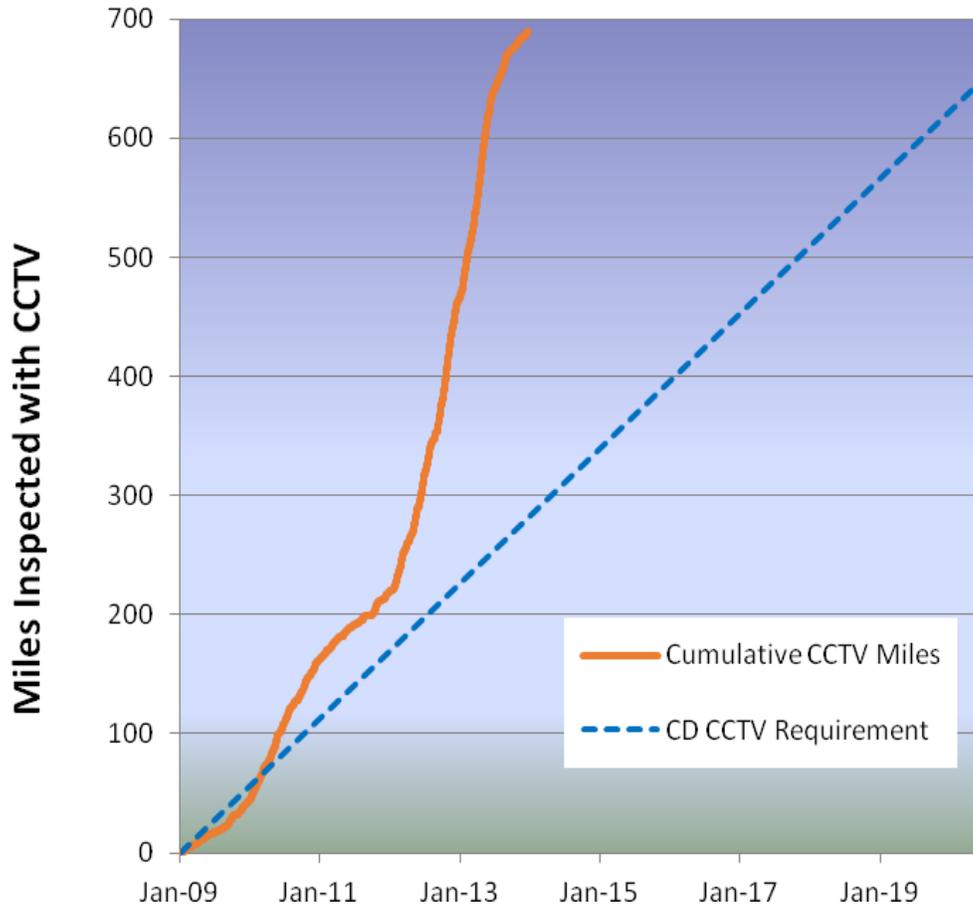
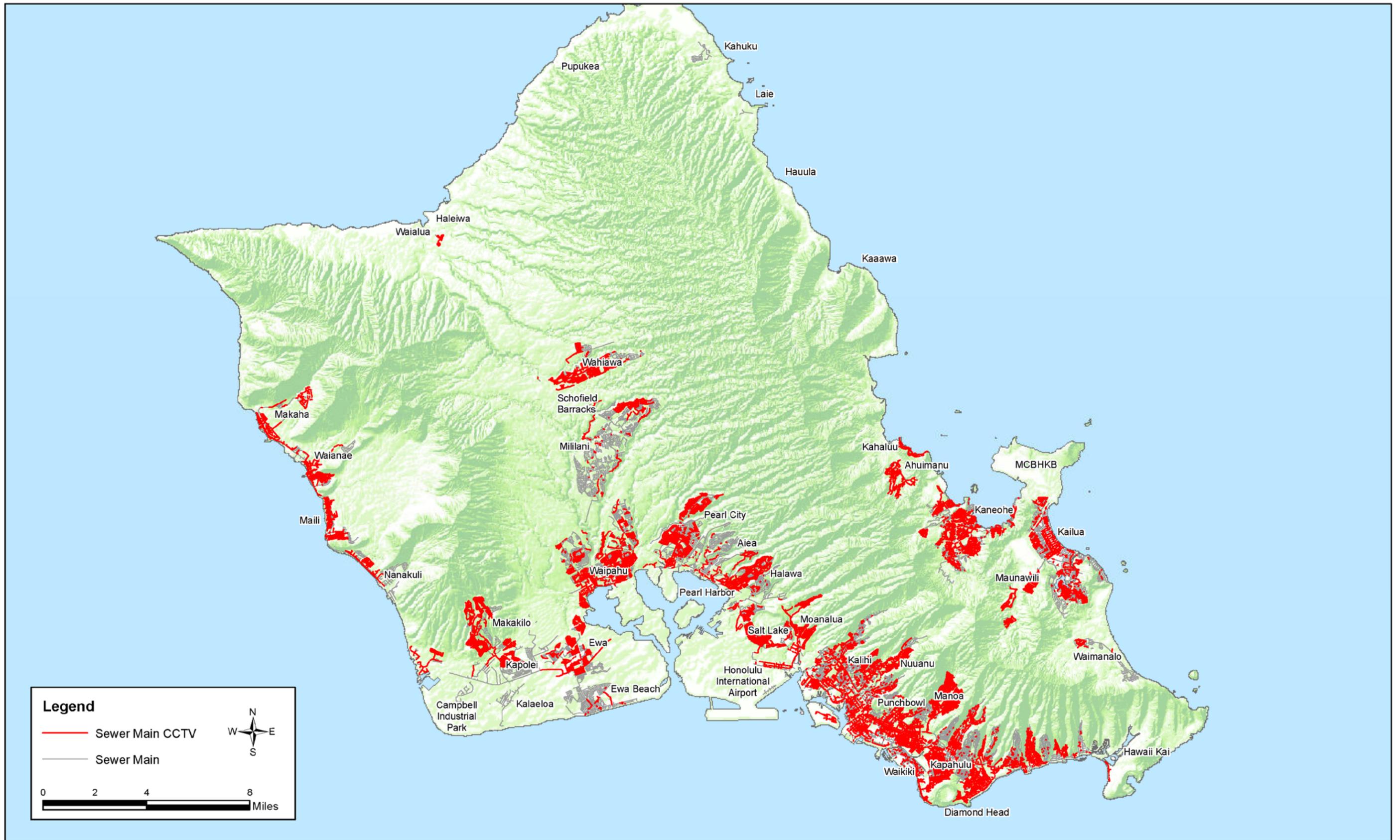


Figure 1. CCTV Inspection Miles through June 30, 2015

Table 52. Gravity Main Condition Assessment Requirements

Requirement	Due Date	Status
Gravity Main Condition Assessment - First 300 Miles	12/17/2013	300 miles of inspection completed through Year Three.
Gravity Main Condition Assessment - Second 350 Miles	6/30/2020	389 miles of inspection completed through Year Five.

Figure 2 shows the pipe segments that have been inspected using CCTV since January 1, 2009.



Gravity Sewer Condition Assessment (January 1, 2009 through June 30, 2015)

FIGURE 2



J. Gravity Main Rehabilitation and Replacement Program (Paragraph 20)

CCH has completed, with the exception of a few segments that have been documented and communicated to EPA/DOH, the gravity main rehabilitation and replacement projects identified in CD Appendix H. CCH has also completed work on other projects that allow additional miles of rehabilitation and replacement to be banked towards meeting the requirements of Years Four through Ten.

Rehabilitation and Replacement Plan (Paragraph 20.b)

Table 53 Rehabilitation and Replacement Plan

Requirement	Due Date	Status
Rehabilitation and Replacement Plan	12/13/2013	CCH submitted Plan to EPA/DOH on 12/13/2013. On 4/2/2014 EPA returned comments for CCH to address and resubmit Plan by 6/16/2014. On 5/29/2014 CCH submitted the revised Plan to EPA/DOH. On 8/27/2014 EPA approved the Revised Gravity Sewer Main Rehabilitation and Replacement Plan.

Rehabilitation and Replacement Program for Years One through Three (Paragraph 20.c)

CD Appendix H specifies a set of rehabilitation and replacement projects that were completed by the end of Year Three. These projects include portions of new sewer (newly constructed gravity main) and rehab sewer (gravity main that has been rehabilitated through a point repair or through the installation of an internal liner). CD Appendix H includes the estimated number of miles of new and rehabilitated sewer associated with each project. In some cases the actual mileage varied because of changes encountered during the construction process. The actual miles of new and rehabilitated sewer are reported in the Table below.

Table 54. Appendix H Requirements

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Alii Shores Structural Rehabilitation	03-0414	0	0.4335	0	0.4134	Construction completed 1/9/2009.
Amelia Street Relief Sewer	05-0980	0.2697	0	0.2002	0	Construction completed 12/19/2010. * See Note 3 below.
Fort Weaver Road Manhole and Pipe Rehabilitation	03-0415	0.1498	0.8379	0.1498	0.9534	Construction completed 12/19/2007.
Halona Street Relief Sewer, Kalihi	02-1300	0.4545	0.3902	0.4438	0.5057	Construction completed 4/21/2009.

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Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Houghtailing Street Area Sewer (SI-CS-06, SCIP 25, SMPR 25)	04-1144	0.5515	3.7519			Construction completed 8/16/2012.
Ilimalia Loop Mokapu Blvd Reconstructed Sewer	00-0534	0	0.5714	0	0.5606	Construction completed 8/7/2008.
Kailua/Kaneohe Sewer Rehabilitation - Ph 1 (KK-CS-09 portion, KK-CS-16 portion)	03-0418	0.0816	2.189	0.0218	2.1716	Construction completed 10/22/2010. * See Note 2 below.
Kailuana Place Sewer Rehabilitation (SMPR 64)	02-1659	0.0227	0.9205	0	0.9426	Construction completed 3/27/2008.
Kalaheo Ave / Mokapu Road / Aikahi Loop Sewer Rehab (KK-ZZ-02 Portion)	06-0083	0	0.6439	0	0.64	Construction completed 2/22/2010.
Kalakaua Ave Sewer Rehabilitation - Kalakaua Ave portion (SMPR 27 portion)	02-1656	0.2775	0			Construction completed 4/19/2012.
Kalihi Valley Reconstructed Sewer (SI-CS-05 portion, SCIP 14 portion)	00-0550	0.268	0	0.2587	0	Construction completed 7/7/2010.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1A [Area 2A - Middle Kalihi]	06-0086	1.5795	0	1.55	0	Construction completed 4/1/2011.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1B [Area 2B - Middle Kalihi]	08-0328	0.7917	0	0.74	0	Construction completed 4/1/2011.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1C [Area 3 - Upper Kalihi]	08-0329	1.072	0	1.03	0	Construction completed 4/1/2011.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1D [Area 4, 7, & 8 - Lanakila, Punchbowl South and Pacific Hts]	08-0330	0.2481	0	0.25	0	Construction completed 11/17/2010.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1E [Area 5A - Lower Nuuanu]	08-0331	0.3144	0	0.33	0	Construction completed 9/10/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1F [Area 5B - Lower Nuuanu]	08-0332	0.3314	0	0.343	0	Construction completed 1/30/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1G [Area 5C - Lower Nuuanu]	08-0333	0.5966	0	0.63	0	Construction completed 11/20/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1H [Area 6 - Punchbowl North]	08-0334	0.392	0	0.4913	0	Construction completed 1/30/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1I [Area 9 - Upper Nuuanu]	08-0335	0.2936	0	0.3487	0	Construction completed 2/13/2009.
Kaneohe Bay Drive Trunk Sewer Reconstruction	02-1286	0.3466	0.2633	0.3223	0.2059	Construction completed 8/26/2010.

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Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Kapiolani Area Revised Sewer System (SCIP 16 portion, SCIP 26 portion, SMPR 12, SMPR 16)	00-0559	0.5244	0.3485	0.52	0.35	Construction completed 10/29/2009.
Kuliouou Sewer Rehabilitation and WWPS Modifications - Sewer Rehabilitation (SMPR 36 portion)	00-0561	0.2212	2.9892	0.12	2.98	Construction completed 4/22/2009.
Peterson Lane (SMPR 92, SMPR 73 p) and Pua Lane (SMPR 93) Sewer Rehabilitation	05-0457	0.7235	0.107	0.72	0.11	Construction completed 9/15/2009.
Renton Road Sewer and Manhole Rehabilitation	03-0427	0	2.3616	0	2.36	Construction completed 8/26/2009.
Saint Louis Heights Sewer Rehabilitation (SCIP 04, SMPR 39, SI-CS-31)	02-1284	0.092	8.8733			Construction completed 3/8/2013.
Sand Island Basin Miscellaneous Sewer Rehabilitation, Phase 1 (SI-CS-63A, SI-CS-63B)	02-1301	0	0.3402	0	0.34	Construction completed 12/30/2008. * See Note 1 below.
Sewer Manhole & Pipe Rehabilitation At Various Locations - Ph I	04-1994	0	0.0407	0	0.05	Construction completed 4/29/2009. * See Note 3 below.
Waimalu Sewer Rehabilitation Ph 1, 7D01C	02-1299	1.1761	0			Construction completed 6/30/2011.
Waimanalo Sewer Rehabilitation	03-0439	0.339	0	0.3411	0	Construction completed 12/16/2009.
Waipahu Street/Plantation Village Sewer Reconstruction (SCIP 24, SMPR 26)	02-1287	0.3985	0	0.44	0	Construction completed 4/30/2011.
Wanaao Road/Keolu Drive Reconstructed Sewer (KK-CS-07, KK-ZZ-03)	02-1557	1.6746	0	1.571	0	Construction completed 7/26/2010.
Wilhelmina Rise Sewer Rehabilitation (SCIP 01)	00-0607	0.0644	8.161			Construction completed 1/11/2012.
Ala Moana and Kapiolani Trunk Sewer Replace/Rehabilitation, Phase 1B, 1C, 1D - Kapiolani Blvd Water and Sewer System Improvements	00-0516	0.2614	0.9848	0.48	0.98	Construction completed 10/29/2009.
Beretania Street 1617 (SUB 7736, McCully) FY08-12-20	08-0459	0	0.1138	0	0.1114	Construction completed 11/12/2008.
Foster Village (Aliamanu) FY08-02-24	09-0135	0	2.2104	0	2.1795	Construction completed 9/13/2010.
Halekoa Drive 1509 (SUB 5254, Waialae) FY08-09-06	08-0402	0	0.1141	0	0.1142	Construction completed 1/24/2008.
Houghtailing, Area 1 (Liliha) FY07-10-01	08-0397	0	0.3379	0	0.3138	Construction completed 9/18/2008.
Houghtailing, Area 2 (Liliha) FY07-10-01	09-0039	0	0.6489			Construction completed 5/23/2008.

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Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Houghtailing, Area 3 (Liliha) FY07-10-01	08-0398	0	0.9715			Construction completed 2/21/2011. * See Note 1 below.
Kahala / Piliialoha Place 1687 (Moanalua) FY09-11-17	08-0982	0	0.1269	0	0.1256	Construction completed 4/7/2009.
Kahala Avenue 4783 (SUB 5281, 5285, Waialae) FY07-05-29	05-0278	0	0.2798	0	0.2737	Construction completed 7/19/2010.
Kalihi Valley, Area 1 (Kalihi) FY 07-09-24	08-0396	0	1.2896			Construction completed 5/18/2012. * See Note 3 below.
Kalihi Valley, Area 2 (Kalihi) FY 07-09-24	09-0040	0	0.5632			Construction completed 11/25/2008.
Kalihi Valley, Area 3 (Kalihi) FY 07-09-24	09-0041	0	1.0969	0	1.0754	Construction completed 7/21/2010.
Kalihi Valley, Area 4 (Kalihi) FY 07-09-24	09-0042	0	0.7713			Construction completed 1/19/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 1 FY07-07-20	08-0285	0	0.0571	0	0.0571	Construction completed 2/28/2008.
Kalihi-Nuuuanu, Area 2.1 FY07-07-20	08-0297	0	0.2965			Construction completed 3/15/2010.
Kalihi-Nuuuanu, Area 2.3 FY07-07-20	08-0297	0	0.3138			Construction completed 8/31/2010.
Kalihi-Nuuuanu, Area 2.4 FY07-07-20	08-0297	0	0.2449			Construction completed 4/7/2010.
Kalihi-Nuuuanu, Area 2.5 FY07-07-20	08-0285	0	0.0761	0	0.0761	Construction completed 4/1/2011.
Kalihi-Nuuuanu, Area 3.1 FY07-07-27	08-0285	0	0.2185	0	0.2185	Construction completed 4/1/2011.
Kalihi-Nuuuanu, Area 3.3 FY07-07-27	08-0297	0	0.433			Construction completed 6/10/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 3.4 FY07-07-27	08-0297	0	0.2373			Construction completed 8/26/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 3.5 FY07-07-27	08-0285	0	0.0462	0	0.0462	Construction completed 9/11/2008.
Kalihi-Nuuuanu, Area 4.1 FY07-07-31	08-0285	0	0.2784	0	0.2784	Construction completed 6/4/2010.
Kalihi-Nuuuanu, Area 4.2 FY07-07-31	08-0285	0	0.3083			Construction completed 9/12/2008.
Kalihi-Nuuuanu, Area 4.3 FY07-07-31	08-0285	0	0.2348	0	0.2348	Construction completed 9/12/2008
Kalihi-Nuuuanu, Area 5.3 FY07-08-01	08-0297	0	0.2213			Construction completed 1/19/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 6.2 FY07-08-01	08-0297	0	0.1786			Construction completed 3/23/2010. * See Note 3 below.

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Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Kalihi-Nuuanu, Area 6.4 FY07-08-01	08-0297	0	0.1443			Construction completed 11/30/2009.
Kalihi-Nuuanu, Area 7.2 FY07-08-06	08-0297	0	0.2856			Construction completed 8/4/2009. * See Note 3 below.
Kaneohe Bay Drive 44-505 (SUB 4267, 4268, 4270, 4271, Kaneohe) FY07-05-17	08-0222	0	0.2978	0	0.2924	Construction completed 6/27/2008.
Kaneohe Bay Drive Trunk Sewer, Sewerline B (Kaneohe) FY07-09-13	08-0394	0	0.3039	0	0.2928	Construction completed 2/16/2009.
Kilani Avenue 211, Illima Street 91 (SUB W186, Wahiawa) FY08-01-02	08-0460	0	0.0909	0	0.0907	Construction completed 8/20/2008.
Komo Mai Drive 1860 (SUB 2094, 2095, Pearl City) FY08-06-13	08-0462	0	0.2708	0	0.2555	Construction completed 1/16/2009.
Leighton Street 815 (SUB 5114, 5116, Kuliouou) FY08-06-18	08-0210	0	0.2561	0	0.2528	Construction completed 8/14/2009.
Makalii Place 350, Kailua Road (SUB 4612, 4661, Kailua) FY07-05-17	08-0223	0	0.2129	0	0.2021	Construction completed 6/27/2008.
Mikiola Drive / Alakai Street / Likeke Place (Kaneohe) FY-07-09-28	08-0395	0	0.4053	0	0.3973	Construction completed 5/12/2010.
Mulehu Street 94-436 (SUB 0446, Mililani) FY09-09-30	08-0981	0	0.0396	0	0.0398	Construction completed 10/7/2009.
Nanamoana Street 44-121 (SUB 3994, Kaneohe) FY07-06-06	08-0260	0	0.0212	0	0.0373	Construction completed 12/13/2007.
Waialae Iki, Area 4 (Kuliouou) FY07-11-15	08-0408	0	0.5375	0	0.5006	Construction completed 3/5/2009.
Waialae Iki, Area 5 (Kuliouou) FY07-11-15	09-0043	0	0.2962	0	0.2953	Construction completed 2/17/2010.
Waialae Iki, Area 6 (Kuliouou) FY07-11-15	09-0044	0	0.2786	0	0.2544	Construction completed 3/24/2010.
Waimalu Sewer Rehabilitation (Aiea) FY09-06-29	09-0653	0	0.4561	0	0.4509	Construction completed 10/1/2009.
Waimanalo Sewers (SUB HAWN, PRIV, 2017, 2013, Waimanalo) FY07-10-05	08-0403	0	0.3705	0	0.3604	Construction completed 12/6/2008.
Waipahu Depot Street, Farrington Highway (SUB 0887, Waipahu) FY09-09-30	08-0980	0	0.0145	0	0.0138	Construction completed 3/11/2009.

¹ This project was determined to be in good condition and is complete for purposes of Paragraph 20.c.² This project was determined to be completed at a reconfigured length and is complete for purposes of Paragraph 20.c.

³ A portion of this project is included in the 0.35 miles of pipe that will be re-evaluated by CCH as part of the Kalihi-Nuuanu project by December 31, 2016.

Implementation of RR Plan for Gravity Mains (Paragraph 20.d)

CCH has implemented the RR Plan as approved and has completed the following mileage for each Year.

Table 55 Rehabilitation and Replacement Miles – Years Four through Ten

Consent Decree Year	RR Miles Required	RR Miles Completed
Year Four	11.5	11.5
Year Five	11.5	11.5
Year Six	11.5	
Year Seven	11.5	
Year Eight	11.5	
Year Nine	11.5	
Year Ten	12	

Banking of Excess Miles (Paragraph 20.e)

CCH maintains a database of sewer segments addressed through rehabilitation and replacement projects. A report from this database is shown in Attachment A. For projects that are not identified in CD Appendix H, CCH is allowed under CD Paragraph 20.e to bank the additional miles of gravity main sewer addressed through rehabilitation and replacement projects. Banked miles can then be used towards meeting the requirements of Years Four through Ten. Through the end of Year Five, there were 51.5 miles that qualified for this purpose of which 11.5 miles were applied towards the Year Five annual mileage requirement, leaving 40 “banked” miles.

Table 56 Banked RR Miles

Date	Banked Miles	Applied Miles	Year End Balance
6/30/2013	31*	0	31
6/30/2014	15	11.5	34.5
6/30/2015	17	11.5	40

*Previously 22 miles were reported as banked; however, additional rehabilitation work had been completed, but not yet entered into the database. Once all the data was entered, there was a total of 31 miles of rehab pipe banked at the end of Year Three.

Figure 3 shows the specific sewer segments identified in Attachment A.



Legend

— Banked Sewer Mains
 N
— Sewer Main
 W E
S

0 1.25 2.5 5 Miles



Pipe Segments Proposed for Addition to Rehabilitation and Replacement Bank
 FIGURE 3

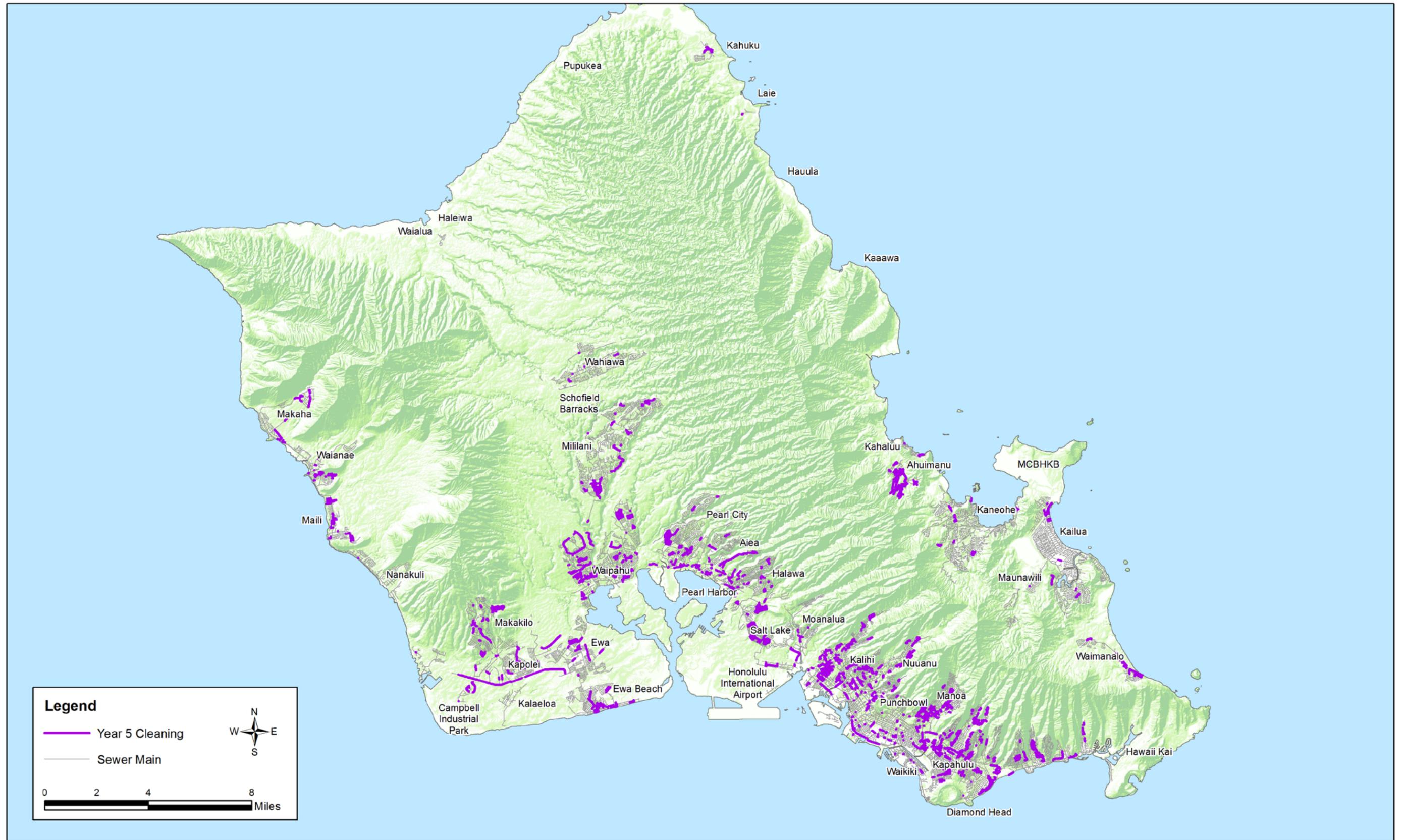
K. Gravity Main Cleaning and Maintenance Program (Paragraph 22)

Gravity Sewer Cleaning (Paragraph 22.a)

Table 57. Gravity Sewer Cleaning

Requirement	Annual Performance Requirement	Status
Gravity Main Cleaning Program	500 miles of cleaning; 300 miles of unique cleaning	Completed for Year Five: 756 miles of cleaning (flushing or rodding) 554 miles of unique cleaning

Figure 4 shows the pipes included in the gravity sewer cleaning program for Year Five.



Gravity Sewer Cleaning (July 1, 2014 through June 30, 2015)

FIGURE 4



Chemical Root Control (Paragraph 22.b)

The root control process included mechanical root cleaning followed by chemical root treatment. CCH will monitor the effectiveness of the root treatment to help determine the future of the root control program.

Table 58. Chemical Root Control Requirements

Requirement	Due Date	Status
Gravity Main Cleaning and Maintenance Program - Root Control Work 15 Miles per Year One	6/30/2011	Complete for Year One: 15.4 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Root Control Work 15 Miles per Year Two	6/30/2012	Complete for Year Two: 18.43 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Root Control annually	6/30/2013	Complete for Year Three: 10.2 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Meeting to Discuss Future Root Control	5/31/2013	Root Control Analysis and Future Cleaning & Maintenance plans were presented to EPA and DOH on 5/22/2013.
Gravity Main Cleaning and Maintenance Program - Root Control annually	6/30/2014	Complete for Year Four: 4.63 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Root Control annually	6/30/2015	Complete for Year Five: 8.64 miles of root treatment

L. Commercial Fats, Oils, and Grease ("FOG") Control Program (Paragraph 23)

CCH continues its FOG Control Program to conduct inspections, enforce existing regulations, and maintain databases of enforcement activity as required by the CD.

General Requirements (Paragraph 23.a)**No Discharge without Permit (Paragraph 23.a.i)**

CCH continues to prohibit Food Service Establishments (FSE) from discharging into its wastewater system without a permit issued under the CCH Ordinances and Rules Relating to Grease Interceptor Program Compliance.

Annual Inspections (Paragraph 23.a.ii)

CCH continues to perform:

- a) Annual inspections of Grease Removal Devices (GRDs), previously in compliance with Grease Interceptor Rules (including sizing criteria); and
- b) Semi-annual inspections of all other GRDs (those not in compliance with the Grease Interceptor rules, including sizing criteria).

Physical inspections include coring the GRD to document compliance to the FOG Control Program and Grease Interceptor Rules, and reviewing maintenance logs and compliance with bar coding requirements.

During Year Five CCH performed 5,047 inspections of GRDs.

Special Investigations (Paragraph 23.a.iii)

CCH continues to perform special investigations of potential FOG sources that may have caused or contributed to a FOG-related SSO or triggered an Environmental Incident Report. CCH issues formal Enforcement Orders within 60 days following completion of the special investigation for those FSEs identified to be the source of the FOG problem. Enforcement Orders require the establishment owner of the FOG problem to:

- a) Come into full compliance with CCH's Grease Interceptor Rules; or
- b) Cease operations in accordance with a CCH-approved compliance schedule.

During Year Five, CCH performed 3 special investigations. These investigations led to enforcement actions or public education in residential areas, as appropriate.

Enforcement (Paragraph 23.a.iv)

CCH issues appropriate enforcement action(s) to FSEs not in compliance with the Grease Interceptor Rules in accordance with the Enforcement Response Plan. The enforcement action may require a FSE to:

- a) Replace existing GRD with a CCH-approved GRD per Grease Interceptor Rules; or
- b) Cease operations in accordance with a CCH-approved compliance schedule.

During Year Five, CCH issued approximately 265 enforcement actions related to FOG. These actions included Wastewater Discharge Orders, Warning Letters, and Notice of Violations (NOVs). In Year Five, CCH issued 11 NOVs and is continuing to escalate enforcement against those permit holders who have not been brought into compliance.

DOH New Business Licenses (Paragraph 23.a.vi)

Based on information from the DOH license lists, building permits, and other sources, CCH issued approximately 93 new permits during Year Five to control FOG discharge into the collection system.

Program Manual (Paragraph 23.b)

CCH provided its Commercial FOG Control Program Manual to EPA and DOH on June 15, 2011 in accordance with the CD. The Manual describes all aspects of the FOG Control Program as set forth in the CD.

M. Pump Station Projects (Paragraph 24)***Beachwalk WWPS Condition Assessment (Paragraph 24.a)***

CCH is proceeding with improvements at the Beachwalk WWPS that were identified as follow-up items from the previously completed condition assessment report dated January 14, 2011.

Table 59. Beachwalk WWPS Condition Assessment

Requirement	DDC Serial Number	Compliance Milestone	Status
Beachwalk WWPS Condition Assessment Follow-Up - Repair Wet Well	08-0730	Construction NTP: 01/03/2011; Complete Construction: 12/31/2012	Construction NTP issued 10/11/2010. Construction completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Replace Variable Speed Controls	08-0730	Construction NTP: 01/03/2011; Complete Construction: 12/31/2012	Completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Repair Roof	08-0730	Complete Construction: 12/31/2012	Completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Replace Level Control	08-0730	Complete Construction: 12/31/2012	Completed 12/26/2012.

Beachwalk Pump Station Upgrade (Paragraph 24.b)

CCH submitted a letter to EPA/DOH dated 8/21/2013 confirming that CCH satisfied this requirement by completing construction of improvements to the Beachwalk Wastewater Pump Station and force main system to increase the station's pumping capacity.

Fort DeRussy Pump Station Upgrade (Paragraph 24.c)

CCH submitted a letter to EPA/DOH dated 8/29/2014 confirming that CCH satisfied this requirement by completing construction improvements to the Fort DeRussy Wastewater Pump Station and force main system to increase the station’s pumping capacity.

Waimalu Pump Station Controller Upgrade (Paragraph 24.d)

CCH completed replacement of the controllers at the Waimalu Pump Station. The work was completed in 6/2010, before the CD completion deadline of 11/30/2010.

Wet Weather Storage (Paragraph 24.e)

Equipment and procedures are in place to use existing storage at the Kaneohe PTF and the Ahuimanu PTF during wet weather events. The available storage volume is approximately 1.4 million gallons at the Kaneohe PTF and 600,000 gallons at the Ahuimanu PTF. As required by the CD, this storage volume is being used to reduce capacity-related overflows during wet weather events. CCH has calculated and documented the available storage volume in the existing structures and prepared flow schematics for each facility. During Year Five the storage at the Kaneohe PTF was used three times during the rainfall events and the storage at the Ahuimanu PTF was used one time during the rainfall events.

CCH has taken steps to decrease response time during wet weather events/spills and maximize the use of storage at the Kaneohe PTF and the Ahuimanu PTF, including:

For Kaneohe PTF:

- a. Replaced Unit 7 portable pump to increase pumping capacity to the storage tanks
- b. Installed automatic start switches for Unit 7 and Unit 8 flow diversion equipment
- c. Installed an automatic switch for Unit 8 portable pump
- d. Set the float height in the wet well of the Old Kawa Pump Station
- e. Set the on/off logic for the portable pumps

For Ahuimanu PTF:

- a. Replaced pumps at the Old Final Clarifier storage tank, to pump from the Old Final Clarifier storage tank to the Old Digester storage tank automatically. Previously, pumping from one tank to the other was done manually.

Pump Station Overflow Structures (Paragraph 24.f)

CCH announced an update of its design standards to suspend sections related to overflow structures in a letter dated 3/11/2009, to all design consultants in CCH’s consultant database and posted the letter on its website. The letter suspended the sections of the design standards that referred to designed overflow structures.

Table 60. Pump Station Overflow Structure Requirements

Requirement	Due Date	Status
WWPS Overflow Structures Design Standards Update (i)	12/17/2010	Completed. Letter issued 3/11/2009.

Requirement	Due Date	Status
WWPS Overflow Structures Closure Report (ii)	12/17/2011	CCH submitted the WWPS Overflow Structures Closure Report on 12/16/2011. EPA and DOH approved the Report on 2/13/2012.
WWPS Overflow Structures Closure Project (iii)	2/13/2013	All work was completed prior to 2/13/2013.

Pump Station Operation and Maintenance Manuals (Paragraph 24.g)

CCH reviewed and updated, as necessary, the pump station O&M manuals by December 17, 2012.

Pump Station Operations Training (Paragraph 24.h)

Table 61. Pump Station Operations Training

Requirement	Due Date	Status
WWPS Standard Training Procedures Including SCPs	12/17/2011	Training procedures and materials were completed and are available for use as needed.
WWPS Training Certification for Maintenance Staff	12/17/2012	Pump Station training was completed 11/1/2011. Force Main SCP training was completed on 6/15/2012.

N. Sewer Laterals (Paragraph 25)

Inventory of Lower Laterals (Paragraph 25.a)

CCH maintains a database of lower laterals in its Geographic Information System (GIS). The CCH GIS database contains a current and complete inventory of lower laterals and is updated when new lateral information becomes available.

Problem Lower Laterals (Paragraph 25.b)

CCH keeps a list of lower laterals with known issues that require maintenance in the CSM computerized maintenance management system database. CSM maintains a database of all reported problem lower laterals, and the appropriate corrective action (repair, replacement or maintenance) to address the lateral issue is assigned. Once identified, the corrective action for such lateral is completed within two years. Attachment B includes a summary of the problem laterals addressed in Year Five.

Reporting of Lower Lateral Issues (Paragraph 25.c)

CSM staff report lower lateral issues observed during fieldwork and complete the appropriate corrective action within 60 days when a lower lateral contributes to an SSO. All CSM staff and contractors have been reminded to report any lateral issues observed during fieldwork.

Construction drawing notes also remind CCH contractors to report lateral problems encountered in the field to the sewer trouble call number (808) 768-7272.

Corrective Action within 60 Days (Paragraph 25.d)

CSM conducts corrective action (repair, replacement, or maintenance) within 60 days if a lower lateral causes or contributes to an SSO. Attachment B summarizes the laterals addressed in Year Five.

Clean-out Cap Replacement Program (Paragraph 25.e)

The Cleanout Cap Replacement Program is currently in place and is continued as part of the smoke testing procedures. CSM records the number of clean-out caps it replaces, and maintains the record for at least five years.

Building Inspection Materials and Follow-up (Paragraph 25.f)

CCH has developed materials for building inspectors with the DPP to assist in identifying illegal connections to the sanitary sewer system. These materials were disseminated before March 17, 2011 (90 days after the CD effective date).

When an inspection identifies an illegal connection, the DPP inspector informs the Regulatory Control Branch (RC) of ENV. CCH sends a Notice (return receipt requested) to the property owner of record indicating that corrective action, including certification of repair, must be taken within six months. RC maintains the records of this correspondence and repair certifications for at least five years.

Smoke Testing and Follow-up (Paragraph 25.g)

As an annual performance requirement, CCH is to perform smoke testing on at least 19 miles of gravity sewers (mains and lower laterals) per year. During Year Five, CCH performed smoke testing using in-house crews. The testing covered 22.09 miles of gravity mains and 8.88 miles of lower laterals, for a total of 30.97 miles. CCH recorded the sewer assets and dates of testing in its computerized maintenance management system and will retain the information for at least five years.

When smoke testing indicates an improper connection, CSM forwards the case to RC which issues a notice to the responsible party requiring them to:

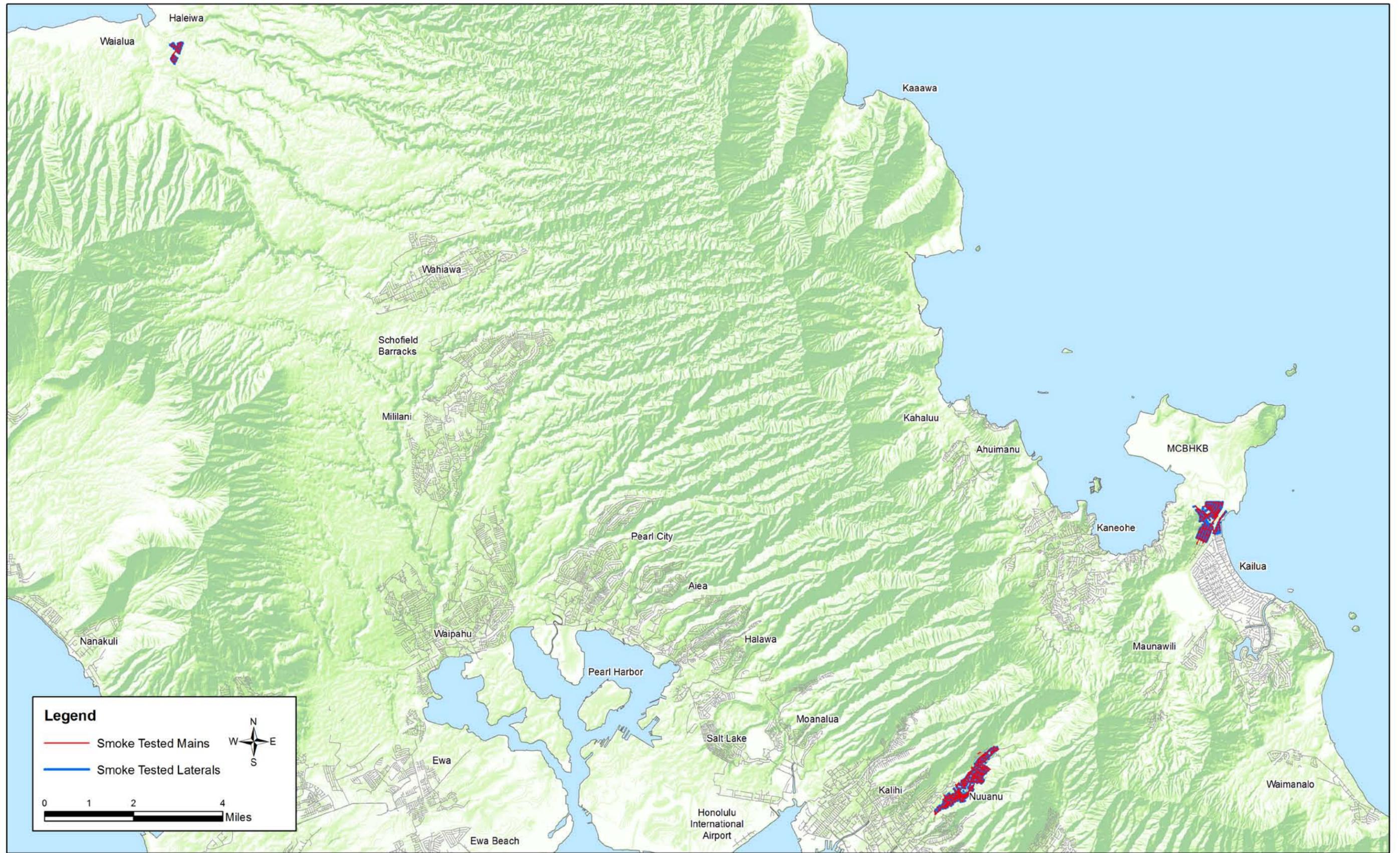
1. Take corrective action to eliminate the improper connection within 6 months after receipt of notification, and
2. Provide certification of completion of the required corrective action.

RC maintains all records to this effect in RC database for at least five years.

During Year Five CCH identified 106 improper connections through the smoke testing program. CCH is currently in the process of notifying responsible parties for 86 improper connections to

conduct corrective actions. The remaining improper connections were resolved through clean out cap replacement or repaired by owner or CSM.

Figure 5 shows areas of smoke testing performed in Year Five.



Gravity Sewer Smoke Testing (July 1, 2014 through June 30, 2015)

FIGURE 5



O. Staffing Commitments (Paragraph 26)

CCH implemented the approved staffing plan dated 2/2011. As of 12/31/2014, CSM met the requirements of the staffing plan.

Table 62. Staffing Commitments

Requirement	Due Date	Status
Collection System Staffing: Revised Staffing Plan Report	2/15/2011	EPA and DOH approval received 7/5/2011.
Collection System Staffing: Maintain 90% of Required Staffing Level annually	1/1/2015	For calendar year 2014, CCH maintained or exceeded the required staffing level of 90% Collection System Staffing with 26 non-field positions (including 5 full-time equivalent provided through overtime) and 134 field positions (including 18 full-time equivalents provided through overtime).

P. Equipment Commitments (Paragraph 27)

CCH had the required equipment under Appendix J by 6/17/2014, in accordance with CD Paragraph 27.b. CCH continues to maintain the equipment in good working order and has access to contractor vehicles as needed.

Table 63. Equipment Commitments

Requirement	Required Number	Status
Vactors	10	CSM currently has 14 vactors
Cesspool Trucks	5	CSM currently has 7 cesspool trucks
Rodders	8	CSM currently has 15 junior rodders and one rodding machine
CCTV Vans	4	CSM currently has 4 CCTV vans
Tankers (within WTD)	4	WTD currently has 6 tankers

Q. Odor Issues (Paragraph 28)

CCH continues to publicize its odor complaint hotline (808) 768-7272 and records trouble calls in its maintenance management system for at least five years.

CCH publishes the Trouble Hotline telephone number on its external web site and in its local telephone directory. All calls related to odors are tracked in the CSM computerized maintenance management system (CMMS). Follow-up and/or resolution for each complaint is also tracked in the database system. During Year Five, CCH received and investigated approximately 132 odor complaints. CCH investigated each complaint and took appropriate

follow-up actions as needed. In most cases the odor could not be identified as attributable to the wastewater collection system. When a collection system issue was identified, CCH took appropriate actions including applying silicone seal around manhole lids or cleaning the sewer main.

R. Spill Response, Monitoring, and Reporting (Paragraph 29)

CCH submitted the Spill Response, Monitoring and Reporting procedures on 12/14/2011. EPA and DOH approved this Report on 8/14/2013.

S. Honouliuli Wastewater Treatment Plant (Paragraph 30)

CCH has withdrawn its appeal of EPA's denial of a permit for the Honouliuli WWTP. CCH has submitted a NPDES permit application to DOH and is proceeding with facility planning for secondary treatment at the Honouliuli WWTP.

T. Sand Island Wastewater Treatment Plant (Paragraph 31)

CCH has withdrawn its appeal of EPA's denial of a permit for the Sand Island WWTP. CCH has submitted a NPDES permit application to DOH and is proceeding with facility planning for secondary treatment at the Sand Island WWTP.

U. Treatment Plant Interim Effluent Limits (Paragraph 32)

The CD includes interim effluent limits for total suspended solids (TSS) and bio-chemical oxygen demand (BOD) for the Sand Island and Honouliuli treatment plants. Data for these constituents and compliance with these limits are reported in the Discharge Monitoring Report (DMR) provided monthly to EPA and DOH.

V. Treatment Plant Operation and Maintenance (Paragraph 33)

EPA and DOH approved Sand Island Wastewater Treatment Plant Operation and Maintenance Manual on 1/30/2012.

EPA and DOH approved Honouliuli Wastewater Treatment Plant Operation and Maintenance Manual on 1/30/2012.

Attachment A

Pipe Segments in Rehabilitation and Replacement Program

The CD paragraph 34.d.iii notes that for the Annual Report:

For each gravity main rehabilitated or replaced, CCH shall provide the following information:

- a) the pipe identification number;
- b) whether the pipe was repaired, rehabilitated or replaced;
- c) the length of the gravity main claimed as credit towards the R/R Plan mileage requirements and the length of repair, rehabilitation or replacement performed;
- d) the pipe material;
- e) the diameter of the pipe;
- f) the original installation date of the gravity main at issue;
- g) the most recent condition assessment of the gravity main prior to its rehabilitation or replacement; and
- h) a map depicting the location of each gravity main rehabilitated or replaced.

The following table provides information on the gravity mains proposed for addition to the rehabilitation and replacement bank.

Project ID	Material	SEWERID	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection Date
1358	VCP	287577	6	141		Point Repair	8/26/2014	4	7/24/2013
1358	VCP	287665	6	190.85		Rehabilitation	8/26/2014	21	12/13/2013
1358	UNK	287655	6	190.85		Rehabilitation	2/13/2015	190.85	12/13/2013
1365	TCP	472575	6	225.65		Rehabilitation	7/2/2014	228.9	3/4/2013
1367	VCP	457967	8	121.68		Rehabilitation	8/22/2014	120.3	5/30/2013
1384	TCP	320771	6	33.4		Point Repair	7/22/2014	30.3	6/21/2012
1384	VCP	357040	6	234		Point Repair	7/22/2014	230	6/22/2012
1384	TCP	357048	6	360		Point Repair	7/22/2014	359	8/7/2012
1386	RCP	295759	6	221.85		Rehabilitation	8/26/2014	226.4	
1392	VCP	259815	8	231.95		Point Repair	7/22/2014	227.3	10/16/2013
1392	VCP	259884	8	133.42		Point Repair	7/22/2014	128.4	10/16/2013
1393	VCP	294076	8	207.75		Point Repair	7/22/2014	197.9	9/20/2013
1397	VCP	268313	8	89.01		Point Repair	8/29/2014	4	3/20/2014
1397	VCP	269503	8	183		Point Repair	8/29/2014	4	3/20/2014
1397	VCP	263160	8	183.33		Point Repair	8/29/2014	4	3/19/2014
1397	VCP	269826	8	179		Point Repair	8/29/2014	6	3/20/2014
1397	VCP	269757	8	250		Point Repair	8/29/2014	13	3/18/2014
1397	VCP	269922	8	212.61		Point Repair	8/29/2014	4	3/18/2014
1397	VCP	263030	10	240		Point Repair	8/29/2014	4	3/19/2014
1397	TCP	270403	12	400		Point Repair	8/29/2014	4	3/19/2014
1398	VCP	294123	6	110.88		Point Repair	6/10/2015	16	2/26/2014
1398	VCP	294353	6	195.8		Point Repair	6/10/2015	4	2/26/2014
1398	VCP	294405	8	127.42		Point Repair	6/10/2015	7	2/26/2014
1398	VCP	295839	8	282		Point Repair	6/10/2015	4	2/27/2014
1398	VCP	294038	10	166.68		Point Repair	6/10/2015	4	2/26/2014
1399	VCP	278781	8	125.95		Rehabilitation	7/1/2014	124.4	12/20/2013
1399	VCP	278309	8	215		Rehabilitation	7/1/2014	216	1/3/2014
1399	TCP	245205	10	330.3		Rehabilitation	7/3/2014	330.7	1/2/2014
1399	VCP	252034	8	204.75		Rehabilitation	7/8/2014	204.8	3/17/2014
1399	VCP	277767	8	165.35		Rehabilitation	7/8/2014	164	3/17/2014
1399	VCP	251806	6	309.1		Rehabilitation	7/9/2014	307	3/24/2014
1399	VCP	251806	6	309.1		Rehabilitation	7/9/2014	307	3/24/2014
1399	VCP	252033	8	78		Rehabilitation	7/10/2014	77.6	3/24/2014
1399	VCP	251956	8	172.4		Rehabilitation	7/10/2014	171	3/24/2014
1399	VCP	4079781	8	24.57		Rehabilitation	7/10/2014	23.4	1/3/2014
1399	VCP	252072	8	254		Rehabilitation	7/10/2014	255.9	3/25/2014
1399	VCP	278310	8	150		Rehabilitation	7/11/2014	163.6	12/20/2013
1399	TCP	251691	6	248.05		Rehabilitation	7/11/2014	248.1	3/24/2014
1399	VCP	4079774	8	5.4		Rehabilitation	7/11/2014	5.8	3/24/2014
1399	VCP	800830	6	100		Rehabilitation	7/14/2014	98.5	3/25/2014
1399	TCP	245120	8	217.95		Rehabilitation	7/15/2014	218.4	1/2/2014
1399	VCP	268293	6	334		Rehabilitation	7/16/2014	338	12/20/2013
1399	VCP	278293	8	107		Point Repair	8/28/2014	8	12/19/2013
1399	TCP	4071219	6	143		Point Repair	8/28/2014	68	10/29/2013
1399	VCP	278484	6	126		Point Repair	8/28/2014	13	12/19/2013
1399	VCP	277334	8	200		Point Repair	3/4/2015	193.9	3/17/2014
1399	VCP	269400	8	210.66		Point Repair	3/4/2015	208.7	8/26/2014
1399	VCP	269385	8	291.44		Rehabilitation	3/4/2015	287.2	8/26/2014
1399	VCP	278724	8	142		Rehabilitation	3/18/2015	148.1	8/25/2014
1399	VCP	270694	8	328		Point Repair	3/19/2015	297.1	12/19/2014
1402	VCP	304627	6	58		Rehabilitation	9/5/2014	53.8	1/3/2014
1402	VCP	304664	6	82		Rehabilitation	9/5/2014	79.3	4/3/2014
1402	UNK	3002610	8	132		Rehabilitation	9/9/2014	131.5	
1402	VCP	304601	6	200		Rehabilitation	9/11/2014	196.4	4/11/2014
1402	TCP	279828	8	209.52		Rehabilitation	9/11/2014	211.1	
1402	UNK	3005877	8	63		Rehabilitation	9/11/2014	64.9	
1402	VCP	304960	8	204		Rehabilitation	3/19/2015	198.7	3/10/14
1403	TCP	314738	6	110		Point Repair	3/13/2015	75.7	1/24/2014
1403	TCP	313907	8	66		Point Repair	3/13/2015	64.1	1/27/2014

Project ID	Material	SEWERID	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection Date
1405	VCP	397140	8	107.63		Point Repair	7/11/2014	4	3/27/2014
1405	VCP	704077	6	258		Point Repair	7/14/2014	6	3/21/2014
1405	VCP	436123	8	119.64		Point Repair	7/14/2014	4	3/27/2014
1405	VCP	397150	8	146		Point Repair	7/17/2014	4	4/3/2014
1405	VCP	477801	8	223		Point Repair	8/22/2014	5	3/17/2014
1406	TCP	364028	8	331		Rehabilitation	7/22/2014	332.5	4/1/2014
1406	TCP	364129	8	333		Rehabilitation	7/23/2014	333.4	4/1/2014
1406	TCP	364345	6	185.25		Rehabilitation	7/25/2014	183.9	3/31/2014
1406	TCP	364356	8	216.5		Rehabilitation	7/28/2014	216.9	
1406	TCP	364788	10	182.87		Rehabilitation	7/29/2014	185.8	4/2/2014
1406	TCP	364927	10	65		Rehabilitation	7/31/2014	62	4/2/2014
1406	TCP	3012482	10	313		Rehabilitation	7/31/2014	302.5	4/2/2014
1406	TCP	364154	8	195.5		Rehabilitation	8/1/2014	192.4	3/31/2014
1406	TCP	364218	8	118		Rehabilitation	8/1/2014	113.4	3/31/2014
1406	TCP	364248	8	120		Rehabilitation	8/1/2014	117.3	3/31/2014
1406	TCP	364322	6	198		Rehabilitation	8/20/2014	198	3/31/2014
1406	TCP	364392	6	115		Rehabilitation	8/20/2014	114.2	3/31/2014
1406	TCP	364815	10	200.35		Rehabilitation	8/20/2014	200.1	4/2/2014
1406	TCP	364842	10	209		Rehabilitation	8/20/2014	202.7	4/2/2014
1406	TCP	364560	6	167		Rehabilitation	8/21/2014	181	3/31/2014
1406	TCP	364659	6	174		Rehabilitation	8/21/2014	169.7	3/31/2014
1406	TCP	364665	6	171.9		Rehabilitation	8/21/2014	169.8	4/1/2014
1406	TCP	3013467	6	200		Rehabilitation	8/21/2014	199.1	4/1/2014
1406	TCP	3015161	8	256.7		Point Repair	3/19/2015	257.6	
1407	VCP	364283	6	203		Rehabilitation	7/11/2014	203.2	5/21/2014
1407	VCP	364406	6	101		Rehabilitation	7/11/2014	104.8	5/1/2014
1407	TCP	3004500	6	270		Rehabilitation	7/11/2014	268.9	4/28/2014
1407	VCP	364280	8	106		Rehabilitation	7/11/2014	104.1	4/30/2014
1407	VCP	364339	8	92		Rehabilitation	7/11/2014	94.6	4/30/2014
1407	VCP	3010980	6	136		Rehabilitation	7/17/2014	133.7	5/21/2014
1407	VCP	364341	8	244		Rehabilitation	8/22/2014	247.6	4/29/2014
1407	TCP	364290	6	94.45		Rehabilitation	9/5/2014	87.6	4/29/2014
1407	TCP	364297	6	35		Rehabilitation	9/5/2014	34.3	4/29/2014
1407	TCP	364523	6	220		Rehabilitation	9/5/2014	220.9	6/16/2014
1408	VCP	324721	6	175.8	9/11/2014	Rehabilitation	9/11/2014	185.9	7/14/2014
1408	TCP	369537	6	190	1/8/2015	Rehabilitation	1/8/2015		
1408	TCP	369544	6	100	1/8/2015	Rehabilitation	1/8/2015	96.7	11/15/2014
1408	TCP	369550	6	100	1/8/2015	Rehabilitation	1/8/2015	78.1	12/15/2014
1408	VCP	4071140	8	67.5		Point Repair	1/9/2015	67	11/15/2014
1408	TCP	369551	8	88		Rehabilitation	1/9/2015	82.2	11/15/2014
1408	TCP	369568	8	173		Rehabilitation	1/9/2015	173	11/15/2014
1408	TCP	369583	8	142.04		Rehabilitation	1/9/2015	144	11/15/2014
1409	VCP	249981	8	220		Point Repair	8/28/2014	9	5/14/2014
1409	TCP	250848	8	234.54		Point Repair	8/28/2014	16	5/14/2014
1409	VCP	250232	8	207		Rehabilitation	9/3/2014	207.8	5/16/2014
1409	TCP	250495	8	88		Rehabilitation	9/3/2014	86.4	5/16/2014
1409	VCP	250604	6	129.3		Rehabilitation	9/4/2014	127.7	5/16/2014
1409	TCP	250447	8	267		Rehabilitation	9/4/2014	269.9	5/16/2014
1409	VCP	251302	6	123		Rehabilitation	9/8/2014	120.8	5/15/2014
1409	VCP	250160	8	179.8		Rehabilitation	9/10/2014	177.9	5/16/2014
1409	TCP	250707	8	99		Rehabilitation	9/10/2014	96.2	5/15/2014
1409	TCP	250741	8	248.37		Rehabilitation	9/10/2014	247.6	5/15/2014
1409	TCP	250802	8	50		Rehabilitation	9/10/2014	48.3	5/15/2014
1409	TCP	250809	8	151.12		Rehabilitation	9/10/2014	150.8	5/15/2014
1409	VCP	245553	6	11		Rehabilitation	9/11/2014	10	5/15/2014
1409	VCP	252057	6	103.45		Rehabilitation	9/11/2014	102	5/15/2014
1409	VCP	250663	6	89.8		Rehabilitation	5/14/2015	73.9	5/14/2014
1409	VCP	251262	6	178		Rehabilitation	5/15/2015	179.3	5/15/2014
1410	VCP	146941	6	155		Rehabilitation	9/26/2014	150.7	5/12/2014

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1410	VCP	154766	6	142		Rehabilitation	9/26/2014	138.3	4/29/2014
1410	VCP	161479	6	24.05		Rehabilitation	9/26/2014	19.7	
1410	VCP	161560	6	147		Rehabilitation	9/26/2014	143.4	5/9/2014
1410	VCP	152337	8	111.5		Rehabilitation	9/29/2014	105	6/17/2014
1410	VCP	166465	8	84.93		Rehabilitation	9/29/2014	78.2	
1410	VCP	166481	8	263		Rehabilitation	9/29/2014	258.6	
1410	VCP	167286	8	182.05		Rehabilitation	9/29/2014	173.8	
1410	VCP	169880	8	27.72		Rehabilitation	9/29/2014	23.8	
1410	VCP	169935	8	80.08		Rehabilitation	9/29/2014	74.7	
1410	VCP	170061	8	57.94		Rehabilitation	9/29/2014	54	
1410	VCP	136436	10	125.75		Rehabilitation	9/29/2014	122	
1410	RCP	57820	15	262		Rehabilitation	10/31/2014	256.7	
1410	CIP	57818	12	204.5		Rehabilitation	1/26/2015	203	10/14/2014
1410	CIP	57826	12	205.6		Rehabilitation	2/25/2015	202.1	10/10/2014
1410	CIP	57759	15	181.54		Rehabilitation	2/25/2015	183.8	
1410	CIP	57799	15	261.1		Rehabilitation	2/25/2015	260.3	
1410	TCP	313630	6	263.9		Rehabilitation	4/6/2015	262.2	6/17/2014
1411	VCP	363780	8	274		Rehabilitation	8/4/2014	274	5/20/2014
1411	TCP	363927	6	215		Rehabilitation	8/7/2014	196.6	
1411	TCP	364049	6	155		Rehabilitation	8/7/2014	160.5	5/20/2014
1411	TCP	363973	6	213.8		Rehabilitation	8/13/2014	213.8	5/21/2014
1411	TCP	3010460	6	233.3		Rehabilitation	8/18/2014	234.2	5/21/2014
1411	TCP	4013586	6	193.8		Rehabilitation	8/18/2014	196.6	5/20/2014
1411	TCP	363770	6	194		Rehabilitation	8/18/2014	195.4	5/20/2014
1411	TCP	369471	6	205		Rehabilitation	8/19/2014	204.8	5/21/2014
1411	TCP	363847	6	141		Rehabilitation	8/22/2014	136.2	5/20/2014
1411	TCP	364175	6	221		Rehabilitation	8/22/2014	221.1	5/22/2014
1411	TCP	3004480	6	170		Rehabilitation	8/22/2014	179.4	5/22/2014
1411	TCP	4013582	6	218.7		Rehabilitation	8/22/2014	220.5	5/20/2014
1411	TCP	364054	6	138.2		Rehabilitation	3/25/2015	135.9	7/11/2014
1411	TCP	364116	6	42.5		Rehabilitation	3/25/2015	40.3	5/22/2014
1411	TCP	365340	6	240		Rehabilitation	3/25/2015	241.7	5/22/2014
1411	TCP	369488	6	177		Rehabilitation	3/25/2015	177.1	5/21/2014
1411	TCP	364142	6	165.6		Point Repair	3/27/2015	164.9	5/22/2014
1411	TCP	4014718	6	130		Rehabilitation	3/27/2015	129.4	5/22/2014
1412	VCP	232419	8	194.55		Point Repair	8/20/2014	4	7/18/2014
1412	VCP	232434	8	195.1		Rehabilitation	8/20/2014	193.8	7/18/2014
1412	VCP	232669	10	99		Point Repair	8/20/2014	4	7/17/2014
1412	VCP	232364	6	109.18		Rehabilitation	11/7/2014	106	8/20/2014
1412	VCP	232451	8	99.9		Rehabilitation	11/7/2014	96.2	7/17/2014
1412	VCP	232474	8	124.21		Rehabilitation	11/7/2014	123.2	7/17/2014
1412	VCP	250059	8	215		Rehabilitation	11/7/2014	217	7/21/2014
1412	VCP	232375	8	227.37		Rehabilitation	12/22/2014	228	7/23/2014
1412	VCP	232404	8	166.31		Rehabilitation	12/22/2014	167	7/21/2014
1412	VCP	232452	8	118.1		Rehabilitation	12/22/2014	119	7/18/2014
1412	VCP	232400	8	153.69		Rehabilitation	1/15/2015	153.8	7/24/2014
1412	VCP	232418	8	160		Rehabilitation	1/15/2015	151.1	7/21/2014
1412	VCP	232408	8	216.91		Point Repair	1/16/2015	5	7/21/2014
1413	TCP	250211	8	28		Rehabilitation	9/19/2014	46.3	6/25/14
1413	TCP	250276	8	119.64		Rehabilitation	9/19/2014	96.4	6/25/14
1413	VCP	250709	6	144		Rehabilitation	10/7/2014	142.9	
1413	TCP	250762	6	274		Rehabilitation	10/7/2014	277.7	
1413	TCP	250332	8	152.48		Rehabilitation	10/7/2014	154.4	
1413	TCP	250986	6	273.3		Rehabilitation	10/10/2014	272.4	
1413	TCP	250182	8	62.75		Rehabilitation	11/6/2014	55.4	6/25/14
1413	TCP	250661	6	233.33		Rehabilitation	11/14/2014	236.6	6/25/14
1413	TCP	250777	6	233.29		Rehabilitation	11/14/2014	233.8	6/26/14
1413	TCP	250519	6	250	2/6/2015	Rehabilitation	2/6/2015	246.3	6/24/2014
1413	TCP	250647	6	216.66		Rehabilitation	2/6/2015	215	

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1413	TCP	250895	6	64		Rehabilitation	5/15/2015	54.7	
1414	VCP	232807	8	70		Rehabilitation	11/7/2014	82.3	7/23/2014
1414	TCP	232836	8	82.31		Rehabilitation	11/7/2014	82.2	7/24/2014
1414	TCP	249956	6	100		Rehabilitation	11/10/2014	99.9	7/18/2014
1414	TCP	250016	6	100		Rehabilitation	11/10/2014	100.7	7/18/2014
1414	TCP	250080	6	97		Rehabilitation	11/10/2014	94	7/18/2014
1414	TCP	252127	6	232.75		Rehabilitation	11/12/2014	233.4	7/16/2014
1414	TCP	250621	6	231.66		Rehabilitation	1/16/2015	233.3	7/17/2014
1414	TCP	250668	6	200		Rehabilitation	1/16/2015	202.3	7/17/2014
1414	TCP	250750	6	200		Rehabilitation	1/16/2015	201.4	7/17/2014
1414	TCP	250614	6	281.5		Rehabilitation	2/2/2015	281.5	7/17/2014
1414	TCP	250136	6	230.98		Point Repair	3/4/2015	208.4	7/16/2014
1414	TCP	254837	6	83.33		Rehabilitation	3/4/2015	79.4	7/14/2014
1414	TCP	254855	6	145.56		Rehabilitation	3/4/2015	143.8	7/16/2014
1414	TCP	254878	6	246.65		Rehabilitation	3/4/2015	246.3	7/16/2014
1414	TCP	249900	8	106.8		Rehabilitation	3/4/2015	105.4	7/24/2014
1414	VCP	250218	8	70.5		Point Repair	3/4/2015	67.8	7/14/2014
1414	TCP	254909	6	145.62		Point Repair	3/5/2015	147.6	7/14/2014
1414	TCP	254933	6	266.7		Point Repair	3/5/2015	269.4	7/18/2014
1414	VCP	232746	6	241		Point Repair	3/6/2015	245.3	7/23/2014
1414	TCP	232758	6	140.54		Rehabilitation	3/6/2015	141.9	7/23/2014
1414	VCP	236066	6	190		Point Repair	3/6/2015	189.6	7/23/2014
1414	VCP	236080	6	210		Point Repair	3/6/2015	212	7/23/2014
1414	VCP	236161	6	235.37		Point Repair	3/6/2015	237.9	7/23/2014
1414	TCP	250481	6	168.4		Point Repair	3/6/2015	166.7	7/18/2014
1414	TCP	250308	6	250		Point Repair	3/18/2015	253.7	7/18/2014
1414	TCP	250175	8	159		Point Repair	3/18/2015	150.8	7/24/2014
1414	TCP	232789	6	250		Rehabilitation	6/5/2015	250.7	7/24/2014
1414	TCP	250390	6	243.18		Point Repair	6/5/2015	9	7/16/2014
1415	TCP	189620	8	214	7/28/2014	Rehabilitation	7/28/2014	226.8	6/12/2014
1415	VCP	192351	10	59		Rehabilitation	8/8/2014	54	6/18/2014
1415	VCP	192103	6	164.02		Rehabilitation	8/11/2014	160.9	6/20/2014
1415	VCP	192114	6	152.72		Rehabilitation	8/11/2014	153.7	6/20/2014
1415	VCP	192134	6	130.24		Rehabilitation	8/11/2014	126	6/20/2014
1415	VCP	192153	6	240.04		Rehabilitation	8/12/2014	236.1	6/19/2014
1415	VCP	192241	6	92.98		Rehabilitation	8/12/2014	92	6/20/2014
1415	VCP	192070	6	195		Rehabilitation	9/3/2014	209.8	6/12/2014
1415	VCP	192135	6	239.18		Rehabilitation	9/24/2014	236.5	6/13/2014
1415	VCP	192152	6	52.92		Rehabilitation	9/24/2014	48.5	6/19/2014
1415	VCP	192233	6	110.89		Rehabilitation	9/24/2014	106.5	6/18/2014
1415	TCP	189644	8	130		Rehabilitation	9/24/2014	129.2	6/12/2014
1415	VCP	192095	8	270		Rehabilitation	9/24/2014	265.4	6/18/2014
1415	VCP	192263	8	124.11		Rehabilitation	9/24/2014	119.2	6/18/2014
1415	VCP	192317	8	73.68		Rehabilitation	9/24/2014	69.2	6/18/2014
1415	VCP	189903	8	51.47		Rehabilitation	9/25/2014	47.8	6/13/2014
1415	VCP	2021247	8	58		Rehabilitation	9/25/2014	53.8	6/12/2014
1415	VCP	2021249	8	94		Rehabilitation	9/25/2014	89	6/12/2014
1415	VCP	2021516	8	84		Rehabilitation	9/25/2014	79.7	6/13/2014
1415	VCP	192162	6	236		Rehabilitation	1/15/2015	238.7	6/19/2014
1415	VCP	192145	8	115.73		Rehabilitation	1/15/2015	115.7	6/18/2014
1415	VCP	2021099	8	300		Rehabilitation	3/13/2015	298.8	6/12/2014
1416	TCP	357107	8	250		Rehabilitation	3/5/2015	246.3	7/31/2014
1416	TCP	357047	8	299		Rehabilitation	3/10/2015	295.5	7/31/2014
1416	TCP	357083	8	267.3		Rehabilitation	3/12/2015	263.7	7/28/2014
1416	TCP	357125	8	337.6		Rehabilitation	3/13/2015	297	7/31/2014
1416	TCP	357086	8	366.8		Rehabilitation	3/16/2015	363.6	7/29/2014
1416	TCP	357088	8	329.6		Rehabilitation	3/17/2015	325.6	7/30/2014
1416	TCP	357127	8	336		Rehabilitation	3/18/2015	331.9	7/29/2014
1416	TCP	357131	8	387		Rehabilitation	3/19/2015	312.7	7/31/2014

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1416	TCP	357236	8	208		Rehabilitation	3/27/2015	198.1	8/1/2014
1416	VCP	357017	6	165		Rehabilitation	3/30/2015	162.3	8/1/2014
1416	TCP	315538	6	171		Rehabilitation	4/2/2015	165.5	8/5/2014
1416	TCP	357059	8	299.9		Rehabilitation	4/6/2015	303.6	7/28/2014
1416	TCP	315486	6	191.94		Rehabilitation	4/9/2015	186.9	8/5/2014
1416	TCP	800849	6	219.12		Rehabilitation	4/9/2015	214.4	8/4/2014
1416	TCP	357067	6	254		Rehabilitation	5/14/2015	250.5	7/30/2014
1416	TCP	357084	6	29		Rehabilitation	5/14/2015	32.4	7/30/2014
1416	TCP	357226	6	288.7		Rehabilitation	5/14/2015	284.7	8/1/2014
1416	TCP	357439	8	300		Rehabilitation	5/14/2015	269.4	7/29/2014
1416	TCP	315428	6	73		Point Repair	6/4/2015	4	8/5/2014
1416	TCP	315434	6	148		Point Repair	6/4/2015	4	8/5/2014
1416	TCP	357087	6	367		Point Repair	6/4/2015	13	7/30/2014
1416	TCP	357065	8	331.2		Point Repair	6/4/2015	12	7/30/2014
1417	VCP	4065306	8	51		Rehabilitation	11/7/2014	51.2	10/14/2014
1417	VCP	244896	12	203.58		Rehabilitation	11/18/2014	203.3	10/14/2014
1417	VCP	262917	18	241.7		Rehabilitation	3/23/2015	235.6	10/17/2014
1417	UNK	333091	18	342		Rehabilitation	3/23/2015	340.3	10/15/2014
1417	VCP	280290	6	126		Point Repair	6/2/2015	6	10/14/2014
1418	VCP	197084	8	263.44		Rehabilitation	10/8/2014	258.8	9/4/2014
1418	VCP	182182	8	323.26		Rehabilitation	10/9/2014	319.4	9/4/2014
1418	VCP	182237	8	156.62		Rehabilitation	10/9/2014	156.7	9/10/2014
1418	VCP	182292	8	159		Rehabilitation	10/9/2014	152.2	9/4/2014
1418	VCP	194692	8	217		Rehabilitation	10/9/2014	211.3	9/8/2014
1418	VCP	194702	8	144.76		Rehabilitation	10/9/2014	114.2	9/8/2014
1418	VCP	196786	8	158.68		Rehabilitation	10/9/2014	156.3	9/11/2014
1418	VCP	196871	8	189.95		Rehabilitation	10/9/2014	185.6	9/8/2014
1418	VCP	196942	8	300		Rehabilitation	10/9/2014	297.4	9/8/2014
1418	VCP	197373	8	52		Rehabilitation	10/9/2014	57.5	9/5/2014
1418	RCP	3018371	8	325		Rehabilitation	10/9/2014	319	9/11/2014
1418	VCP	188299	8	17		Rehabilitation	10/14/2014	17.1	9/10/2014
1418	VCP	202196	8	59.86		Rehabilitation	10/14/2014	61.8	9/9/2014
1418	VCP	200167	8	85		Rehabilitation	10/15/2014	82.1	9/15/2014
1418	VCP	202794	8	348		Rehabilitation	10/16/2014	346.4	9/15/2014
1418	VCP	197185	10	168		Rehabilitation	10/22/2014	166.8	9/5/2014
1418	VCP	4064663	10	81.09		Rehabilitation	10/24/2014	73	9/5/2014
1418	VCP	197143	10	101.45		Rehabilitation	11/3/2014	105.2	9/5/2014
1418	VCP	182082	8	312.94		Rehabilitation	11/20/2014	311.1	9/4/2014
1418	VCP	199057	8	297.07		Rehabilitation	11/20/2014	291.4	9/9/2014
1418	VCP	199064	8	245		Rehabilitation	11/21/2014	239.3	9/9/2014
1418	VCP	196817	12	296		Rehabilitation	12/15/2014	294.4	9/5/2014
1418	RCP	199025	21	331.41		Rehabilitation	12/18/2014	330.6	9/9/2014
1418	VCP	202757	8	97.43		Rehabilitation	1/7/2015	93.7	9/9/2014
1419	VCP	4042934	6	165		Rehabilitation	2/23/2015	161.9	11/25/2014
1419	VCP	4042928	8	192		Rehabilitation	2/23/2015	188.2	11/20/2014
1419	VCP	4043114	8	268		Rehabilitation	2/24/2015	244.9	11/21/2014
1419	VCP	4043114	8	168.3		Rehabilitation	2/24/2015	164	11/25/2014
1419	VCP	422876	8	245		Rehabilitation	2/25/2015	242.8	11/19/2014
1419	VCP	422929	8	107.11		Rehabilitation	2/25/2015	103.2	11/19/2014
1419	VCP	422955	8	124.91		Rehabilitation	2/25/2015	123	11/19/2014
1419	VCP	468594	8	185.75		Rehabilitation	2/26/2015	180.9	11/19/2014
1419	VCP	423607	8	237		Rehabilitation	2/27/2015	460.1	
1419	VCP	423607	8	2373		Rehabilitation	2/27/2015	230.5	11/19/2014
1419	VCP	469642	10	272.78		Rehabilitation	3/2/2015	266.7	11/20/2014
1419	VCP	469642	10	272.78		Rehabilitation	3/2/2015	266.7	11/20/2014
1419	VCP	466006	10	126.74		Rehabilitation	3/9/2015	123.5	11/21/2014
1419	VCP	427101	6	155.5		Point Repair	6/3/2015	4	11/25/2014
1419	VCP	426263	8	215.8		Point Repair	6/3/2015	14	11/19/2014
1419	VCP	469511	8	118.09		Rehabilitation	6/22/2015	117.5	11/20/2014

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1419	VCP	469533	8	87.8		Rehabilitation	6/22/2015	88.73	11/20/2014
1420	VCP	458857	12	257		Rehabilitation	2/6/2015	253.6	11/18/2014
1420	UNK	458951	8	64		Rehabilitation	2/25/2015	63.9	11/14/2014
1420	UNK	465675	8	106		Rehabilitation	2/25/2015	105.1	11/13/2014
1420	VCP	466305	10	234.25		Rehabilitation	2/27/2015	229.3	11/13/2014
1420	VCP	458560	8	280		Rehabilitation	2/28/2015	271.8	11/14/2014
1420	VCP	466404	10	291.94		Rehabilitation	3/5/2015	290.9	11/12/2014
1420	VCP	458579	8	299		Rehabilitation	3/11/2015	294.3	11/14/2014
1420	VCP	466381	10	272		Rehabilitation	3/20/2015	275.7	11/12/2014
1420	UNK	466253	8	341.66		Rehabilitation	6/3/2015	337.9	11/17/2014
1420	UNK	466231	8	218		Rehabilitation	6/4/2015	218	11/17/2014
1420	VCP	466256	8	97		Rehabilitation	6/8/2015	97	11/17/2014
1420	VCP	466213	8	90		Rehabilitation	6/9/2015	90	11/17/2014
1420	UNK	466301	10	210.1		Rehabilitation	6/15/2015	207.5	11/17/2014
1420	VCP	466048	12	352		Rehabilitation	6/16/2015	347.9	11/17/2014
1421	VCP	419382	8	169.76		Rehabilitation	11/24/2014	166.8	4/25/1900
1421	VCP	419292	8	218		Rehabilitation	11/25/2014	153.2	11/6/2014
1421	VCP	419412	8	111.02		Rehabilitation	11/26/2014	113.2	11/6/2014
1421	VCP	419413	8	39.05		Rehabilitation	11/26/2014	35	11/6/2014
1421	VCP	419424	8	165		Rehabilitation	11/26/2014	165.2	11/7/2014
1421	VCP	419443	8	150		Rehabilitation	12/1/2014	149.4	11/7/2014
1421	VCP	419665	6	201		Rehabilitation	12/8/2014	203.7	11/5/2014
1421	VCP	419326	8	264.48		Rehabilitation	12/8/2014	153.2	10/22/2014
1421	VCP	419379	8	214.52		Rehabilitation	12/8/2014	217.7	10/22/2014
1421	VCP	465677	6	147.81		Rehabilitation	12/9/2014	148.9	10/22/2014
1421	VCP	419885	10	55.85		Rehabilitation	12/10/2014	53.3	11/10/2014
1421	VCP	419903	10	157.33		Rehabilitation	12/10/2014	157	11/10/2014
1421	VCP	419953	10	40.75		Rehabilitation	12/10/2014	38.2	11/10/2014
1421	VCP	420219	6	150		Rehabilitation	12/12/2014	148.2	10/21/2014
1421	VCP	420332	6	100.87		Rehabilitation	12/12/2014	98.1	10/22/2014
1421	VCP	465225	6	132		Rehabilitation	12/12/2014	131.2	10/21/2014
1421	VCP	420252	8	180.36		Rehabilitation	1/12/2015	177.1	10/21/2014
1421	VCP	465498	8	217.1		Rehabilitation	1/13/2015	210.2	10/22/2014
1421	VCP	419472	8	240		Rehabilitation	1/14/2015	236.5	11/6/2014
1421	VCP	466438	8	268.05		Rehabilitation	1/15/2015	244.7	10/21/2014
1421	VCP	419833	8	212.5		Rehabilitation	1/16/2015	208.1	11/5/2014
1421	VCP	419289	8	190		Rehabilitation	1/20/2015	186.4	11/7/2014
1421	VCP	419370	8	138.67		Rehabilitation	1/21/2015	137.8	11/7/2014
1421	VCP	419405	8	153.41		Rehabilitation	1/21/2015	150.2	11/7/2014
1421	VCP	419540	8	62.15		Rehabilitation	1/22/2015	66.4	11/5/2014
1421	VCP	419550	8	100		Rehabilitation	1/22/2015	97.2	11/5/2014
1421	VCP	420335	8	85.15		Rehabilitation	1/23/2015	81.3	10/21/2014
1421	VCP	420365	8	183.15		Rehabilitation	1/23/2015	182.9	10/21/2014
1421	VCP	419744	8	58.22		Rehabilitation	1/26/2015	46.3	11/10/2014
1421	VCP	419751	8	84.32		Rehabilitation	1/26/2015	84.5	11/10/2014
1421	VCP	419755	8	78.22		Rehabilitation	1/26/2015	76.1	11/10/2014
1421	VCP	420310	8	149		Rehabilitation	1/27/2015	143.2	10/22/2014
1421	VCP	420028	6	132.81		Rehabilitation	1/28/2015	129.3	10/21/2014
1421	VCP	419469	6	240		Rehabilitation	1/29/2015	235.5	11/5/2014
1421	VCP	419594	6	175		Rehabilitation	1/29/2015	171.3	11/5/2014
1421	VCP	419799	10	248.59		Rehabilitation	2/3/2015	363.9	11/10/2014
1421	VCP	420287	8	302		Point Repair	6/1/2015	4	10/21/2014
1421	VCP	465504	8	230		Point Repair	6/1/2015	14	10/22/2014
1421	VCP	420157	10	125.37		Point Repair	6/1/2015	4	10/21/2014
1422	VCP	419512	6	72	2/9/2015	Rehabilitation	2/9/2015	72.1	12/2/2014
1422	VCP	419529	8	90	2/9/2015	Rehabilitation	2/9/2015	88.4	12/2/2014
1422	VCP	419556	8	42.95	2/9/2015	Rehabilitation	2/9/2015	40.8	12/2/2014
1422	VCP	419230	8	37		Rehabilitation	2/10/2015	37	
1422	VCP	419238	8	187		Rehabilitation	2/10/2015	183	11/26/2014

Project ID	Material	SEWERID	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection Date
1422	VCP	419877	8	162.75	2/11/2015	Rehabilitation	2/11/2015	158	11/26/2014
1422	VCP	420059	8	250	2/11/2015	Rehabilitation	2/11/2015	246.5	12/1/2014
1422	VCP	420011	8	204.5	2/12/2015	Rehabilitation	2/12/2015	206.1	12/1/2014
1422	VCP	419480	6	138.05		Rehabilitation	2/17/2015	137.6	12/3/14
1422	VCP	419519	6	30		Rehabilitation	2/17/2015	30.9	12/3/14
1422	VCP	419588	6	195.5		Rehabilitation	2/18/2015	188	12/1/14
1422	VCP	420166	6	256.6		Rehabilitation	2/19/2015	253.6	12/2/14
1422	VCP	420098	8	149.5		Rehabilitation	2/20/2015	150	12/1/14
1422	VCP	419992	6	97.5		Rehabilitation	3/3/2015	34.9	12/1/2014
1422	VCP	420019	6	147		Rehabilitation	3/3/2015	144.2	12/1/2014
1422	VCP	420501	6	62		Rehabilitation	3/4/2015	58.5	11/26/2014
1422	VCP	465226	6	62.2		Rehabilitation	3/4/2015	63.5	11/26/2014
1422	VCP	419463	8	111		Rehabilitation	3/9/2015	107	12/2/2014
1422	VCP	419486	8	54.3		Rehabilitation	3/9/2015	35.1	12/2/2014
1422	VCP	419660	8	113.8		Rehabilitation	5/15/2015	111.5	11/29/2014
1422	UNK	420018	6	134		Point Repair	6/1/2015	15.2	12/1/2014
1422	VCP	419225	8	232		Rehabilitation	6/1/2015	228	11/26/2014
1422	UNK	419268	8	195		Point Repair	6/1/2015	20.4	11/26/2014
1424	VCP	5770	8	240		Rehabilitation	4/30/2015	239.2	3/24/2015
1424	VCP	5058	8	172		Rehabilitation	5/5/2015	170.7	3/24/2015
1424	VCP	6150	8	219.96		Rehabilitation	5/6/2015	216.9	3/24/2015
1424	VCP	6356	8	151.73		Rehabilitation	5/6/2015	152.8	3/24/2015
1424	VCP	5895	8	54.21		Rehabilitation	5/7/2015	51.6	3/24/2015
1424	VCP	5976	8	178.58		Rehabilitation	5/7/2015	177.5	3/24/2015
1424	VCP	5354	8	109.15		Rehabilitation	5/8/2015	108.7	3/24/2015
1425	TCP	215221	6	235		Point Repair	3/30/2015	235.8	
1425	TCP	342506	6	167.13		Point Repair	3/30/2015	167.2	
1425	VCP	345257	10	192.88		Point Repair	3/30/2015	193.4	
1425	TCP	344991	6	180		Point Repair	4/2/2015	317.2	
1425	TCP	345036	6	265.5		Point Repair	4/2/2015	264.4	4/2/2015
1425	TCP	344753	8	71		Point Repair	4/6/2015	74.4	
1425	TCP	344001	8	247.03		Point Repair	4/7/2015	248.3	3/2/2015
1425	TCP	344678	8	171		Point Repair	4/8/2015	176.7	
1425	TCP	344757	8	400		Rehabilitation	5/12/2015	395.8	4/8/2015
1425	TCP	1004977	8	175		Rehabilitation	5/13/2015	164.3	4/17/2015
1425	TCP	344883	8	206		Rehabilitation	5/21/2015	300.9	4/7/2015
1425	TCP	344195	8	280		Point Repair	5/29/2015	13.4	4/6/2015
1425	TCP	685300	8	305		Point Repair	5/29/2015	8.2	3/2/2015
1426	TCP	122057	6	187.5		Rehabilitation	4/27/2015	185.3	
1426	TCP	122104	6	35.5		Rehabilitation	4/27/2015	34	
1426	TCP	1022057	6	187.5		Rehabilitation	4/27/2015	185.3	
1426	TCP	122104	6	35.5		Rehabilitation	4/27/2015	34	
1426	CIP	122665	12	187		Rehabilitation	4/28/2015	184.1	
1426	VCP	119766	8	252		Rehabilitation	4/29/2015	248.1	
1426	TCP	4055686	10	137.19		Rehabilitation	4/29/2015	134.9	
1426	VCP	119753	8	97		Rehabilitation	4/29/2015	94.1	
1426	TCP	4055686	10	137.19		Rehabilitation	4/29/2015	134.9	
1426	VCP	119727	8	125		Rehabilitation	4/30/2015	121.4	
1426	CIP	122654	12	240		Rehabilitation	5/1/2015	236.6	
1426	TCP	122932	12	183		Rehabilitation	5/1/2015	182.6	
1426	TCP	122195	10	98.21		Rehabilitation	5/18/2015	93.8	
1426	TCP	122931	10	240		Rehabilitation	5/18/2015	235.8	
1426	VCP	122909	8	294.21		Rehabilitation	5/20/2015	290.2	
1426	TCP	107471	10	240		Rehabilitation	5/20/2015	231.9	
1426	TCP	107530	10	205		Rehabilitation	5/20/2015	198.9	
1426	TCP	107562	10	45		Rehabilitation	5/20/2015	43.5	
1426	TCP	4079853	10	21		Rehabilitation	5/20/2015	21.2	

Attachment B

Problem Laterals Addressed in Year Five

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
2399	FLUSHING	1/21/2015	32
244597	FLUSHING	7/15/2014	25.97
244597	FLUSHING	10/6/2014	25.97
244597	FLUSHING	1/24/2015	25.97
262597	FLUSHING	8/28/2014	115
262597	FLUSHING	3/2/2015	115
277958	FLUSHING	7/24/2014	48.55
277958	FLUSHING	10/6/2014	48.55
277958	FLUSHING	10/23/2014	48.55
277958	FLUSHING	1/24/2015	48.55
277958	FLUSHING	4/9/2015	48.55
277958	FLUSHING	6/20/2015	48.55
3005364	FLUSHING	3/18/2015	58
36279	FLUSHING	7/24/2014	33
383650	FLUSHING	7/7/2014	72
383650	FLUSHING	10/14/2014	72
383650	FLUSHING	1/13/2015	72
383650	FLUSHING	3/30/2015	45
383650	FLUSHING	6/16/2015	45
383762	FLUSHING	7/7/2014	62
383762	FLUSHING	10/14/2014	62
383762	FLUSHING	1/13/2015	62
383762	FLUSHING	3/30/2015	45
383762	FLUSHING	6/16/2015	45
383888	FLUSHING	7/7/2014	64
383888	FLUSHING	10/14/2014	64
383888	FLUSHING	1/13/2015	64
383888	FLUSHING	3/30/2015	15
383919	FLUSHING	7/7/2014	70
383919	FLUSHING	10/14/2014	70
383919	FLUSHING	1/13/2015	70
383919	FLUSHING	3/30/2015	45
383919	FLUSHING	6/16/2015	45
384182	FLUSHING	8/19/2014	32.03
384182	FLUSHING	2/26/2015	32.03
384609	FLUSHING	10/8/2014	32.8
384609	FLUSHING	3/6/2015	32.8
384638	FLUSHING	10/8/2014	32.8
384638	FLUSHING	3/6/2015	32.8
397166	FLUSHING	7/14/2014	35.15
4029351	FLUSHING	10/18/2014	34
403142	FLUSHING	4/27/2015	37.88

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
4039275	FLUSHING	7/7/2014	76
4039275	FLUSHING	10/14/2014	76
4039275	FLUSHING	1/13/2015	76
4039275	FLUSHING	3/30/2015	45
4039275	FLUSHING	6/16/2015	45
426132	FLUSHING	10/13/2014	24
452690	FLUSHING	12/16/2014	57.11
478152	FLUSHING	2/28/2015	2.5
497927	FLUSHING	10/15/2014	160
620451	FLUSHING	5/30/2015	64.91
620542	FLUSHING	5/30/2015	113
197087	MECHANICAL CLEANING	10/23/2014	65
257315	MECHANICAL CLEANING	9/20/2014	71.19
257315	MECHANICAL CLEANING	3/6/2015	71.19
3002654	MECHANICAL CLEANING	7/21/2014	38.86
3002654	MECHANICAL CLEANING	9/8/2014	38.86
3002654	MECHANICAL CLEANING	12/12/2014	38.86
3002654	MECHANICAL CLEANING	2/21/2015	38.86
3002654	MECHANICAL CLEANING	4/24/2015	38.86
3002654	MECHANICAL CLEANING	5/26/2015	38.86
3004091	MECHANICAL CLEANING	9/9/2014	38.59
3004091	MECHANICAL CLEANING	3/13/2015	38.59
413751	MECHANICAL CLEANING	9/30/2014	73
413751	MECHANICAL CLEANING	4/3/2015	73
61909	MECHANICAL CLEANING	1/21/2015	17
313562	REPAIR	3/6/2015	11
313562	REPAIR	6/2/2015	11
624372	REPAIR	7/24/2014	1.75
462089	REPAIR	8/29/2014	3
672523	REPAIR	9/16/2014	23
257786	REPAIR	9/3/2014	1
219393	REPAIR	9/10/2014	0
150757	REPAIR	9/10/2014	11
295784	REPAIR	10/26/2014	8
4070805	REPAIR	12/6/2014	44.91
243958	REPAIR	10/8/2014	6
603840	REPAIR	10/16/2014	33
64293	REPAIR	7/7/2014	2.5
355969	REPAIR	8/6/2014	26
364811	REPAIR	7/1/2014	2
277450	REPAIR	9/22/2014	4
324141	REPAIR	9/26/2014	1

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
3009936	REPAIR	9/12/2014	2
364495	REPAIR	10/31/2014	40
675274	REPAIR	10/17/2014	1.5
130190	REPAIR	3/11/2015	19
138974	REPAIR	3/25/2015	16.5
132806	REPAIR	4/9/2015	8
161160	REPAIR	4/16/2015	2.17
161703	REPAIR	4/21/2015	18.5
403142	REPAIR	4/28/2015	4.5
255108	REPAIR	5/1/2015	4
662953	REPAIR	5/27/2015	3
390383	REPAIR	3/13/2015	3
223735	REPAIR	7/9/2014	5
110949	REPAIR	7/18/2014	3.33
478152	REPAIR	3/22/2015	3.33
609796	REPAIR	4/1/2015	5
156084	REPAIR	2/23/2015	2
161664	REPAIR	3/5/2015	4
615404	REPAIR	2/23/2015	33
704494	REPAIR	2/18/2015	2.5
478152	REPAIR	2/28/2015	2.5
608904	REPAIR	11/7/2014	1
110949	REPAIR	7/18/2014	3.33
219597	REPAIR	11/6/2014	34.07
223466	REPAIR	1/20/2015	31.85
355922	REPAIR	12/10/2014	30.66
558887	REPAIR	12/1/2014	8.5
64367	REPAIR	12/22/2014	19
166541	REPAIR	1/8/2015	1
280413	REPAIR	1/13/2015	2.5
138691	REPAIR	1/16/2015	9
705598	REPAIR	1/20/2015	2
4067515	VIS INSP	8/22/2014	16.52
4067515	VIS INSP	11/19/2014	16.52
4067515	VIS INSP	2/20/2015	16.52
4067515	VIS INSP	5/7/2015	16.52
4067518	VIS INSP	8/22/2014	15.22
4067518	VIS INSP	11/19/2014	15.22
4067518	VIS INSP	2/20/2015	15.22
4067518	VIS INSP	5/7/2015	15.22
4067521	VIS INSP	7/19/2014	15.74
4067521	VIS INSP	11/19/2014	15.74

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
4067521	VIS INSP	3/2/2015	15.74
4067524	VIS INSP	7/19/2014	19.65
4067524	VIS INSP	11/19/2014	19.65
4067524	VIS INSP	3/2/2015	19.65
4078137	VIS INSP	8/22/2014	1
4078137	VIS INSP	11/19/2014	1
4078137	VIS INSP	2/20/2015	1
4078137	VIS INSP	5/7/2015	1
4078140	VIS INSP	3/2/2015	146.3