IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF HAWAII

UNITED STATES OF AMERICA and STATE OF HAWAII, Plaintiffs, v. CITY AND COUNTY OF HONOLULU, Defendant.	)	Civil No. 94-00765 DAE-KSC

ORDER APPROVING ENTRY OF FIRST AMENDED CONSENT DECREE

On January 30, 2012, Plaintiffs United States and the State of Hawaii, Defendant City and County of Honolulu, and the Intervenors (Sierra Club, Hawaii Chapter, Hawaii's Thousand Friends, and Our Children's Earth Foundation) filed a joint stipulation to amend the Consent Decree in this case. (Doc. # 124.) The parties attached a copy of a proposed First Amended Consent Decree to the joint stipulation and requested that the First Amended Consent Decree be lodged with the Court to allow for public notice and comment. (Id. at 9, ¶6.) After providing an opportunity for public comment, the United States filed an unopposed motion to enter the First Amended Consent Decree on March 12, 2012. (Doc. # 125.) On March 19, 2012, the State of Hawaii joined the United States' motion. (Doc. # 127.)

This Court has conducted an independent evaluation of the proposed First Amended Consent Decree. See Turtle Island Restoration v. Dept. of Commerce, 766 F. Supp. 2d 1039, 1053 (D. Haw. 2011). After review of the United States' motion, the Court has determined that the First Amended Consent Decree meets the standard for entry because it is "'reasonable, fair, and consistent with the purposes that the [Clean Water Act] is intended to serve.'" United States

v. Montrose Chemical Corp. of California, 50 F.3d 741, 747 (9th Cir. 1995) (citation omitted); United States v. State of Oregon, 913 F.2d 576, 580 (9th Cir. 1990).

For the reasons stated above, the Court APPROVES ENTRY OF THE FIRST AMENDED CONSENT DECREE. The First Amended Consent Decree shall be entered in this case forthwith.

IT IS SO ORDERED.

Dated: Honolulu, Hawaii, March 27, 2012.

David Alan Ezra
United States District Judge

ATTACHMENT A
(First Amended Consent Decree)

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IN THE UNITED STATES DISTRICT COURT

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WHEREAS:

Plaintiff, the United States of America, by the authority of the Attorney General of the United States and through its undersigned counsel, acting at the request of and on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), and Plaintiff State of Hawaii, acting at the request of and on behalf of the State of Hawaii Department of Health ("DOH") (collectively, the United States and the State of Hawaii are referred to herein as the "Governments"), have filed a Supplemental Complaint in this action against Defendant City and County of Honolulu ("CCH"), seeking civil penalties and injunctive relief pursuant to the Clean Water Act ("CWA" or the "Act") and State law. The Supplemental Complaint alleges that CCH is violating the Act and State law by discharging untreated sewage from its Wastewater Collection System without a permit. The Supplemental Complaint further alleges that CCH is violating the Act and State law by discharging sewage from its Sand Island and Honouliuli Wastewater Treatment Plants in violation of National Pollutant Discharge Elimination System ("NPDES") permits regulating discharges from these facilities.

CCH, a county in the State of Hawaii, owns and operates a publicly owned treatment works ("POTW") that collects, treats, and disposes of sanitary sewage for a large portion of the island of Oahu within the District of Hawaii. The Supplemental Complaint in this action addresses only violations associated with the Wastewater Collection System and two of the POTW's Wastewater Treatment Plants (Sand Island and Honouliuli).

CCH does not admit any liability to the United States or the State for the transactions or occurrences alleged in the Supplemental Complaint.

On May 15, 1995, the Court entered a Consent Decree requiring CCH to undertake certain steps to remedy CWA violations alleged in the original Complaint filed in this action by the United States and the State of Hawaii on

October 3, 1994 (hereinafter, "the 1994 Complaint" and "the 1995 Consent Decree"). The 1995 Consent Decree required CCH to undertake specific actions to improve conditions in its Wastewater Collection System, through, among other things, implementing comprehensive collection system maintenance and capacity programs, and to undertake two Supplemental Environmental Projects ("SEPs").

On May 24, 2007, Sierra Club, Hawai'i Chapter, Hawai'i's Thousand Friends, and Our Children's Earth Foundation (collectively, "Intervenors") intervened in this action, subject to certain conditions established by this Court and described in May 4, 2007 Findings and Recommendations, entered by this Court on May 24, 2007.

On July 29, 2004, Intervenors filed a separate complaint under the citizen suit provision of the CWA, 33 U.S.C. § 1365, also based on spills from CCH's Wastewater Collection System. Intervenors' Complaint also included claims based on alleged violations of NPDES permits for CCH's Sand Island and Honouliuli Wastewater Treatment Plants ("WWTPs"). Intervenors amended their complaint on January 10, 2005 (as amended, "Intervenors' 2004 Complaint").

In their continuing oversight over CCH's Wastewater Collection System and Wastewater Treatment programs, the United States and the State filed a complaint against CCH on May 8, 2007, asserting a single CWA claim for injunctive relief as a result of a spill referred to as the Beachwalk Force Main Spill (the "2007 Complaint"). Concurrently with the filing of the 2007 Complaint, the United States and the State lodged a Stipulated Order to resolve the claim (the "2007 Stipulated Order").

The Court entered the 2007 Stipulated Order on October 10, 2007. Intervenors also intervened in that action pursuant to a June 28, 2007 Findings and Recommendations, entered by this Court on July 26, 2007. The Court allowed intervention subject to certain conditions established by and described in a November 21, 2007 Findings and Recommendations, entered by this Court on

December 13, 2007.

The United States, the State, CCH, and the Intervenors (collectively, the "Parties") have agreed that this Consent Decree will replace the 1995 Consent Decree and the 2007 Stipulated Order, and will terminate Intervenors' 2004 Complaint, the 2007 Complaint, and all outstanding litigation and administrative compliance orders concerning CCH's Wastewater Treatment Plants and Wastewater Collection System.

Intervenors agree to dismiss with prejudice their claims in intervention in this action and in United States of America, et al., v. City and County of Honolulu, Civ. No. 07-00235 DAE-KSC as well as their claims as plaintiffs in Sierra Club, et al., v. City and County of Honolulu, Civ. No. 04-00463 DAE-BMK ("2004 Case") in consideration of the agreement and future actions required of CCH, which are reflected in the Memorandum of Understanding pertaining to SEPs in the 2004 Case, and in this Consent Decree. So as not to impede settlement, Intervenors' claims for attorneys fees and costs are reserved until after the lodging of this Consent Decree, and will be resolved by Magistrate Judge Kevin Chang of this Court in accordance with applicable principles of law, provided that Intervenors bring a motion for such fees and costs within the time and otherwise in accordance with the Local Rules.

Pursuant to the terms of this Consent Decree, CCH will withdraw its appeals of EPA's decisions to deny renewal of NPDES permits for the Sand Island WWTP and the Honouliuli WWTP that had previously been issued pursuant to CWA section 301(h). As a result, the State of Hawaii will have responsibility for issuing NPDES permits for these WWTPs that require compliance with effluent limitations consistent with secondary treatment requirements in 40 C.F.R. Part 133. Discharges from these WWTPs will not comply with secondary treatment effluent limitations [specifically, discharge parameters for total suspended solids ("TSS") and biochemical oxygen demand (5-day) ("BOD_5")] until CCH Completes

Construction of the facilities required to be constructed pursuant to Paragraphs 30 and 31. The operation of the provisions set forth in Section VII (Compliance Requirements: Wastewater Treatment Plants) of this Decree is intended to resolve anticipated noncompliance with secondary treatment effluent limitations for TSS and BOD_5 and resolve any civil and administrative claims for failing to meet secondary treatment effluent limitations for TSS and BOD_5 until the final compliance milestones set pursuant to Paragraphs 30 and 31 for the Honouliuli and Sand Island WWTPs.

The Parties seek to avoid further litigation and to work cooperatively on issues relating to CCH's Wastewater Treatment Plants and Wastewater Collection System by entering into this Consent Decree as set forth herein. Nothing in this Consent Decree shall be deemed an admission by any party of any fact or of any liability with respect to any issue addressed in the Consent Decree.

The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid further litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367, and sections 309(b) and 505(a) of the Act, 33 U.S.C. §§ 1319(b), 1365(a), and the Court has jurisdiction over the Parties. Venue lies in this District pursuant to sections 309(b) and 505(c) of the Act, 33 U.S.C. §§ 1319(b), 1365(c), and 28 U.S.C. §§ 1391(b) and 1395(a) because this is the District in which CCH is located. For purposes of this Decree, or any action to enforce this Decree, Defendant consents to the Court's jurisdiction over this Decree and any such action and over Defendant and consents to venue in

this judicial District.

2. For purposes of this Consent Decree, Defendant agrees that the Supplemental Complaint states claims upon which relief may be granted pursuant to section 309(b) of the Act, 33 U.S.C. § 1319(b), and HRS sections 322-9 and 342D-11.

3. Notice of commencement of this action was provided to the State of Hawaii pursuant to section 309(b) of the Act, 33 U.S.C. § 1319(b).

II. APPLICABILITY

4. The provisions of this Consent Decree shall apply to and be binding upon the United States, the State of Hawaii, Intervenors, CCH, and any successors or other entities or persons otherwise bound by law.

5. CCH shall provide a copy of this Consent Decree to all managers whose responsibilities include the management of the implementation of the material components of the work required to be performed under this Consent Decree. CCH shall make copies of the Consent Decree available to any contractor retained to perform work required under this Consent Decree.

6. In any action to enforce this Consent Decree, CCH shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

7. CCH shall provide a copy of this Consent Decree to any successor in interest at least thirty (30) Days prior to transfer of that interest, and simultaneously shall verify in writing to EPA that such notice has been given. Absent agreement of the Parties or order of the Court, any sale or transfer of CCH's interests in, or operating role with respect to, CCH's "treatment works" or "POTW," as those terms are defined in 33 U.S.C. § 1292(2)(A) and 40 C.F.R. § 403.3(o), shall not in any manner relieve CCH of its responsibilities for meeting the terms and conditions of this Consent Decree.

III. OBJECTIVES

8. It is the goal of the Parties to eliminate Sanitary Sewer Overflows. In entering into this Consent Decree, the Parties intend to further the objectives set forth in the CWA, to set out measures that CCH will implement to reduce the frequency and impact of Sanitary Sewer Overflows, and to set out measures for construction of secondary treatment upgrades to the Sand Island and Honouliuli Wastewater Treatment Plants to comply with effluent limitations regulating discharges from the Sand Island and Honouliuli WWTPs.

IV. DEFINITIONS

9. Unless otherwise defined herein, terms used in this Consent Decree shall have the meaning given to those terms in the Act, 33 U.S.C. §§ 1251-1387, and the regulations promulgated thereunder. Whenever terms set forth below are used in this Consent Decree, the following definitions shall apply:

"Act" or "CWA" shall mean the Clean Water Act, 33 U.S.C. §§ 1251-1387.

"CCH" shall mean the City and County of Honolulu.

"Complete Construction" shall mean:

(i) for pump stations, force mains, treatment plants, and other improvements that include significant mechanical, electrical, and/or instrumentation equipment, that: (a) all equipment testing has been satisfactorily performed under normal operating range; (b) CCH personnel have been trained in proper operation; (c) substantial completion has occurred, equipment is functionally operational, and CCH is able to use all necessary equipment; and (d) the contractor has delivered a complete operations and maintenance manual to CCH or, in the case of force mains, CCH has prepared a complete operations and maintenance manual; and

(ii) for gravity mains and other improvements that do not include significant mechanical, electrical, and/or instrumentation equipment, that substantial completion has occurred such that CCH is able to utilize the product of the construction work to transport wastewater in accordance with the design intent.

"Day" shall mean a calendar day unless expressly stated to be a working day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, federal or State holiday, or a CCH furlough day, the period shall run until the close of business of the next working day.

"Defendant" shall mean CCH.

"Deliverable" shall mean any written report or other document required to be prepared and/or submitted pursuant to this Consent Decree.

"DOH" shall mean the State of Hawaii Department of Health.

"EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

"Food Service Establishment" shall mean any commercial or public entity located within the jurisdiction of CCH that: (i) operates in a permanently constructed structure such as a room, building, or place, or portion thereof; (ii) is maintained, used, or operated for the purpose of preparing, serving, or otherwise handling food for sale to other entities, or for consumption by the public, its members or employees; and (iii) discharges fats, oils, and/or grease in quantities and quality sufficient to qualify for regulation pursuant to CCH ordinances, rules, policies, and guidelines.

"Force Main Condition Assessment" shall mean an inspection and evaluation program that includes, but is not limited to, all of the elements of the program listed in Appendix D to this Decree.

"Governments" shall mean the United States and the State of Hawaii.

"Grease Removal Device" shall mean any CCH-permitted grease interceptor, grease trap or other mechanism, device, or process, which attaches to, or is applied to, a Food Service Establishment's wastewater plumbing fixtures and lines, the purpose of which is to trap or collect or treat fats, oils, and grease from the waste stream of a Food Service Establishment prior to discharge into the Wastewater Collection System.

"Grease Removal Device Permittee" or "GRD Permittee" shall mean an individual, entity, or business to which a CCH Industrial Wastewater Discharge Permit for a Grease Removal Device is issued.

"Honouliuli Wastewater Treatment Plant" or "Honouliuli WWTP" shall mean the treatment works located at 91-1501 Geiger Road, Ewa Beach, Oahu, Hawaii, for improving the quality of wastewater prior to its discharge to the Pacific Ocean, appurtenant fixtures, and facilities located on site for processing byproducts of the treatment processes (e.g., biosolids or sludge), and any facility constructed to replace the existing treatment works.

"Intervenors" shall mean Sierra Club, Hawai'i Chapter, Hawai'i's Thousand Friends, and Our Children's Earth Foundation.

"Intervenors' 2004 Complaint" shall mean the complaint, as amended on January 10, 2005, filed by Intervenors against CCH in Sierra Club, Hawai'i Chapter; Hawai'i's Thousand Friends; and Our Children's Earth Foundation v. City and County of Honolulu, Civ. No. 04-00463 DAE-BMK.

"Lower Lateral" shall mean that portion of a sewer lateral line that is owned by CCH and located between: (i) the sewer main line and (ii) either the property line of a residence or business, or the boundary of an established easement.

"1994 Complaint" shall mean the original Complaint filed by the United States and the State in this case, United States of America, et al., v. City and County of Honolulu, Civ. No. 94-00765 DAE-KSC.

"1995 Consent Decree" shall mean the Consent Decree entered by this Court in this case, United States of America, et al., v. City and County of Honolulu, Civ. No. 94-00765 DAE-KSC, on May 15, 1995.

"Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral.

"Parties" shall mean the United States, the State, Intervenors, and CCH.

"Rehabilitation" and "Replacement" or "Rehabilitate" and "Replace" shall

include Spot Repairs, trenchless sewer rehabilitation, and sewer replacement or reconstruction.

"Sand Island Wastewater Treatment Plant" or "Sand Island WWTP" shall mean the treatment works located at 1350 Sand Island Parkway, Honolulu, Hawaii, for improving the quality of wastewater prior to its discharge to the Pacific Ocean, appurtenant fixtures, and facilities located on site for processing byproducts of the treatment processes (e.g., biosolids or sludge), and any facility constructed to replace the existing treatment works.

"Sanitary Sewer Overflow" or "SSO" shall mean an overflow, spill, or release of wastewater from or caused by CCH's Wastewater Collection System, except that the term "Sanitary Sewer Overflow" does not include wastewater backups caused by a blockage or other malfunction in a lateral that is privately owned.

"Section" shall mean a portion of this Consent Decree identified by an uppercase Roman numeral.

"Spill Contingency Plan" shall mean a site-specific plan designed to minimize the volume of spills from a force main that includes, but is not limited to, all of the elements of the plan listed in Appendix C to this Decree.

"Spot Repair" shall mean that CCH has addressed all material defects in a pipe segment so that the pipe segment would not be expected to fail or cause an SSO during the following 10 years after the attempted repair.

"State" shall mean the State of Hawaii.

"Subject SSO" shall mean any SSO in excess of 750 gallons. Subject SSOs shall exclude those caused by acts of vandalism or an error of a contractor or subcontractor not working directly or indirectly on behalf of CCH.

"Supplemental Complaint" shall mean the Supplemental Complaint filed by the United States and the State in this case, United States of America, et al., v. City and County of Honolulu, Civ. No. 94-00765 DAE-KSC, seeking injunctive relief

and civil penalties for violations of the Act and State law resulting from operation of CCH's Wastewater Collection System and the Sand Island and Honouliuli Wastewater Treatment Plants.

"2004 Case" shall refer to Sierra Club, et al., v. City and County of Honolulu, Civ. No. 04-00463 DAE-BMK.

"2007 Complaint" shall mean the complaint filed by the United States and the State in United States of America, et al., v. City and County of Honolulu, Civ. No. 07-00235 DAE-KSC.

"2007 Stipulated Order" shall mean the Stipulated Order entered by this Court in United States of America, et al., v. City and County of Honolulu, Civ. No. 07-00235 DAE-KSC, on October 10, 2007.

"United States" shall mean the United States of America, acting on behalf of EPA.

"Wastewater Collection System" shall mean all parts of the wastewater collection system owned or operated by CCH that are intended to convey domestic or industrial wastewater to CCH's wastewater treatment plants, including, without limitation, sewers, pipes, pump stations, lift stations, sewer manholes, force mains, and appurtenances to each of the above.

"Wastewater Treatment Plants" or "WWTPs" shall mean CCH's "treatment works" or "POTW," as those terms are defined in 33 U.S.C. § 1292(2)(A) and 40 C.F.R. § 403.3(o), located at Sand Island and Honouliuli.

"Year One" through "Year Ten" are defined as follows:

"Year One" - - July 1, 2010 - June 30, 2011;

"Year Two" - - July 1, 2011 - June 30, 2012;

"Year Three" - - July 1, 2012 - June 30, 2013;

"Year Four" - - July 1, 2013 - June 30, 2014;

"Year Five" - - July 1, 2014 - June 30, 2015;

"Year Six" - - July 1, 2015 - June 30, 2016;

"Year Seven" - - July 1, 2016 - June 30, 2017;

"Year Eight" - - July 1, 2017 - June 30, 2018;

"Year Nine" - - July 1, 2018 - June 30, 2019; and

"Year Ten" - - July 1, 2019 - June 30, 2020.

V. CIVIL PENALTY

10. Within 30 Days after CCH receives notice from the United States that this Consent Decree has been lodged, CCH shall deposit the sum of $800,000 as a civil penalty into an escrow account bearing interest on commercially reasonable terms, in a federally chartered bank (the "Escrow Account"). If the Consent Decree is not entered by the Court, and the time for any appeal of that decision has run or if the Court's denial of entry is upheld on appeal, the money placed in escrow, together with accrued interest thereon, shall be returned to CCH. If the Consent Decree is entered by the Court, CCH shall, within 10 Days after CCH receives notice from the United States thereof, cause the money placed in the Escrow Account, together with accrued interest thereon but less any associated bank or escrow fees, to be paid to the United States in accordance with subparagraph a. below.

a. Payment of $800,000 plus accrued interest to the United States shall be made by Fedwire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with instructions to be provided to CCH, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney's Office for the District of Hawaii. At the time of payment, CCH shall simultaneously send written notice of payment and a copy of any transmittal document, which shall reference DOJ case number 90-5-1-1-3825/1 and Civil Action No. 94-00765 DAE-KSC, to the United States in accordance with Section XVI (Notices) of this Decree.

b. Payment of $800,000 to the State shall be made within 30 Days after the Effective Date of this Decree by check made payable to the "State of

Hawaii," referencing Civil Action No. 94-00765 DAE-KSC, and mailed to Clean Water Branch, Attn: Alec Wong, Department of Health, 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814. The check shall be deposited into the Environmental Revolving Fund as specified by HRS section 128D-2. Among other things, monies from the Fund may be used to support environmental protection and natural resource protection programs. At the time of payment, CCH shall simultaneously send written notice of payment and a copy of any transmittal document, which shall reference Civil Action No. 94-00765 DAE-KSC, to the State in accordance with Section XVI (Notices) of this Decree.

VI. COMPLIANCE REQUIREMENTS: WASTEWATER COLLECTION SYSTEM

11. Force Main Spill Contingency Program.

a. Small Force Mains. For small force mains identified in Appendix A to this Decree, as a compliance milestone, CCH shall maintain no less than 1.6 million gallons per day ("mgd") in tankering capacity in good working order at all times to respond to releases of wastewater from these force mains and to minimize the release of wastewater to the extent practicable in the event of force main failure. In addition, CCH, in its discretion, may rely on contractor support to respond to releases of wastewater from these force mains.

b. Large Force Mains. CCH shall implement programs to ensure that all large force mains identified in Appendix B to this Decree have facilities in place to divert flows to minimize the release of wastewater to the extent practicable in the event of force main failure. With regard to these force mains, CCH shall implement the following measures to assure compliance with this requirement:

i. Backup Force Mains. With regard to the Beachwalk Force Main, the Ala Moana Force Main No. 2, the Hart Street Force Main, the Pearl City Force Main, the Waipahu Force Main, the Kahala Force Main, and the Kailua Heights Force Main, CCH shall maintain existing backup force mains in

good operating condition for use as a backup in the event the primary force main fails. To achieve compliance with this requirement with respect to the Beachwalk Force Main, the Ala Moana Force Main No. 2, and the Hart Street Force Main, CCH shall implement the force main construction program set out in Paragraphs 14, 15, and 16.

ii. Flow Diversion. With regard to the Fort DeRussy Force Main, the Awa Street Force Main, the Kaneohe Bay Force Main #1, and the Kunia Force Main, CCH shall, within two years after the Effective Date of this Consent Decree, acquire and maintain sufficient equipment at the pump station serving each force main to divert flow so as to minimize the release of wastewater to the extent practicable in the event of any force main failure. Diverting flow may be achieved either by installing pipe sufficient to pump around any point in a force main that has failed, or by diverting flow from the failed force main to other portions of CCH's Wastewater Collection System that have sufficient capacity to transport or store the diverted flows. Flows shall not be diverted to waters of the State or waters of the United States.

iii. Flow Diversion Planning. With regard to the Kamehameha Highway Force Main, the Ewa Beach Force Main, the Waimalu Force Main, and the Halawa Force Main, CCH shall submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, a plan describing the methods CCH proposes to implement with regard to each of these force mains to ensure that CCH will have the capacity to divert flows in the event of failure of any of these force mains. Each plan shall be submitted in conjunction with the Condition Assessment required for each of these force mains by Paragraph 12.b., with the exception of the Waimalu Force Main, for which CCH shall submit a flow diversion plan no later than December 31, 2015, and the Kamehameha Highway Force Main, for which CCH shall submit a flow diversion plan in conjunction with the Spill Contingency

Plan required for that force main by Paragraph 11.c.ii. As part of each plan, CCH shall demonstrate that the solution proposed for each force main is a technically feasible means to ensure that, in the event of force main failure, CCH will be able to minimize, to the maximum extent practicable, any SSO resulting from such failure. Each plan shall provide schedules for any improvements to CCH's Wastewater Collection System needed to implement its proposals with regard to these force mains. The schedule submitted by CCH for approval shall provide for the expeditious completion of any improvements to its Wastewater Collection System consistent with sound engineering practices. The schedule for completion of all required flow diversion work shall extend no later than June 30, 2020. Following approval of each plan, CCH shall complete all improvements identified in the approved schedules as compliance milestones for each force main.

iv. Lualualei Force Main. As a compliance milestone, CCH shall Complete Construction of a dry parallel force main for the Lualualei Force Main by no later than December 31, 2013. CCH shall maintain the dry parallel force main in good condition so that it is available for use as a backup in the event the primary force main fails or otherwise needs to be taken out of service.

c. Spill Contingency Planning.

i. Small Force Mains. With regard to the small force mains identified in Appendix A, CCH shall, by no later than one year after the Effective Date of this Consent Decree, submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, a programmatic spill contingency plan describing how CCH shall respond to releases of wastewater in the event of failure of any of these force mains. This programmatic spill contingency plan shall describe how CCH receives notice of releases from these force mains and CCH's procedures for mobilizing its response to such releases. Within six months after EPA approves the programmatic spill contingency plan for small force mains, CCH shall maintain, at each associated

pump station, a copy of the approved plan. CCH shall modify the plan as necessary to reflect site-specific conditions and shall maintain a copy of the approved plan as modified at each associated pump station.

ii. Large Force Mains. CCH shall submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, site-specific Spill Contingency Plans to document how CCH shall respond in the event of releases of wastewater from each of the force mains addressed in this subparagraph c.ii. CCH shall submit site-specific Spill Contingency Plans consistent with the provisions of Appendix C to this Decree for the following force mains by the following dates:

- within one year after the Effective Date of this Consent Decree: Ewa Beach, Kamehameha Highway, Halawa, and Lualualei;
- within eighteen months after the Effective Date of this Consent Decree: Kailua Heights and Kailua Road; and
- within two years after the Effective Date of this Consent Decree: Ahuimanu and Niu Valley.

CCH shall implement the Spill Contingency Plans as approved.

iii. Spill Contingency Plans Required by 2007 Stipulated Order. Pursuant to the 2007 Stipulated Order, CCH has submitted site-specific Spill Contingency Plans designed to minimize the volume of any spills from the following force mains: Beachwalk, Ala Moana No. 2, Hart Street, Kaneohe/ Kailua, Waimalu, and Kahala. At a minimum, each Spill Contingency Plan is required to contain all of the elements for a Spill Contingency Plan listed in Appendix C to this Decree. EPA's and DOH's review and approval of CCH's Spill Contingency Plans is currently being conducted in accordance with Section IX (Review and Approval of Deliverables) of this Decree. CCH shall implement the Spill Contingency Plans as approved.

iv. As interim compliance milestones, CCH shall:

- in Years One through Ten, conduct at least one drill per year of an approved Spill Contingency Plan listed in subparagraphs c.ii. and iii. above;
- conduct a drill of all approved Spill Contingency Plans listed in subparagraph c.iii. by the end of Year Six;
- conduct a drill of all approved Spill Contingency Plans listed in subparagraphs c.ii. and iii. by the end of Year Ten; and
- review its Spill Contingency Plans as required by Appendix C on an annual basis and revise its Plans as necessary to address any pertinent changed conditions and to ensure the functionality of the Plans.

12. Force Main Condition Assessments and Follow-Up Action Plans.

a. Pursuant to the 2007 Stipulated Order, CCH has submitted Condition Assessments and follow-up action plans for the Beachwalk Force Main, the Ala Moana Force Main No. 2, the Hart Street Force Main, the Kaneohe/Kailua Force Main, the Waimalu Force Main, and the Kahala Force Main. At a minimum, these Condition Assessments are required to contain all of the elements for a force main condition assessment listed in Appendix D to this Decree. EPA's and DOH's review and approval of these Condition Assessments (including the follow-up action plan) is currently being conducted in accordance with Section IX (Review and Approval of Deliverables) of this Decree. The approved follow-up action plans for these force mains shall be incorporated by reference into this Consent Decree, and their design interim compliance milestones and construction compliance milestones shall become enforceable pursuant to this Consent Decree.

b. CCH shall submit Condition Assessments (including follow-up action plans) for the following force mains by the following dates:

- by December 31, 2010: Ahuimanu, Aliamanu #1, Aliamanu #2, and Lualualei;
- by December 31, 2013: Awa Street, Kaneohe Bay #3, Kunia, and Kailua Road; and

- by December 31, 2014: Ewa Beach and Halawa.

At a minimum, these Condition Assessments shall contain all of the elements for a force main condition assessment listed in Appendix D to this Decree. CCH's proposed follow-up action plans shall provide a schedule for the expeditious completion of the work provided for in the follow-up action plans consistent with sound engineering practices. EPA's and DOH's review and approval of these Condition Assessments (including the follow-up action plan) shall be conducted in accordance with Section IX (Review and Approval of Deliverables) of this Decree. The approved follow-up action plans for these force mains shall be incorporated by reference into this Consent Decree, and their design interim compliance milestones and construction compliance milestones that are no later than June 30, 2020, shall become enforceable pursuant to this Consent Decree.

c. CCH reserves the right to take immediate action at its discretion to address conditions identified during the Condition Assessments as necessary to protect public health and the environment. Such actions shall not be subject to the Governments' approval or dispute resolution under this Consent Decree; provided, however, CCH's decision to take such action shall be without prejudice to the Governments' right to determine whether to approve the Condition Assessments (including follow-up action plans).

13. Force Main Maintenance and Spill Prevention Programs.

a. O&M Program. CCH shall implement the Force Main Operation and Maintenance Program attached as Appendix E to this Decree with respect to all force mains (including backup force mains) in its Wastewater Collection System.

b. Force Main Overflow Structures.

i. CCH shall delete all references to overflow structures from its force main design standards.

ii. Within one year after the Effective Date of this Consent

Decree, CCH shall submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, a report on all force main valves or other force main appurtenances that could discharge or release sewage to the environment.

iii. Within one year after the report is approved, CCH shall seal force main valves and other appurtenances whose function by design was to discharge or release sewage to the environment, unless the approved report indicates that such valves or appurtenances are necessary to minimize risk to public health and safety.

iv. CCH shall integrate all other force main valves and other appurtenances that could release sewage to the environment into the Force Main Operation and Maintenance Program attached as Appendix E to this Decree.

c. Cathodic Protection Systems. As a compliance milestone, within three years after the Effective Date of this Consent Decree, CCH shall complete the assessment, repair, and upgrading of its three existing force main cathodic protection systems at Pearl City, Waipahu, and Ala Moana. As an interim compliance milestone, CCH shall submit to EPA and DOH, by no later than six months after the Effective Date of this Consent Decree, a report that identifies the needed repair work on these three cathodic protection systems.

d. Kaneohe Bay WWPS #2 Force Main. CCH shall design and Complete Construction of a new Kaneohe Bay WWPS #2 force main by the compliance milestone of December 31, 2016. The new force main shall replace the existing force main, and CCH may take the existing force main out of service. CCH shall meet the following interim compliance milestones:

i. CCH shall execute a design contract and issue a notice to proceed with design by December 31, 2013; and

ii. CCH shall execute a construction contract and issue a notice to proceed with construction by December 31, 2015.

14. Beachwalk Force Main Projects.

a. Construction of Permanent Force Main. CCH shall design and Complete Construction of a new and permanent Beachwalk force main by the compliance milestone of December 31, 2012.

b. Maintenance of Existing Force Main. CCH presently intends to use the existing Beachwalk force main as a backup force main after it has completed construction of a new and permanent Beachwalk Force Main. When the new, permanent force main is constructed, CCH shall retain, connect, and maintain the existing force main in good operating condition for use as a backup force main unless: (i) CCH has achieved Complete Construction of an alternate backup force main; or (ii) the Governments have approved a proposal by CCH to continue the use of the existing Temporary Force Main as the backup force main for the new and permanent Beachwalk Force Main.

15. Ala Moana Force Main Projects.

a. Construction of Ala Moana Force Main No. 3. CCH shall design and Complete Construction of a new Ala Moana Force Main No. 3 by the compliance milestone of December 31, 2014. As an interim compliance milestone, CCH shall execute a construction contract and issue a notice to proceed with construction by July 31, 2012.

b. Maintenance of Ala Moana Force Main No. 2 as Backup Line. CCH presently intends to use Ala Moana Force Main No. 2 as a backup force main after it has completed construction of Ala Moana Force Main No. 3. When Ala Moana Force Main No. 3 is constructed, CCH shall retain, connect, and maintain Ala Moana Force Main No. 2 in good operating condition for use as a backup force main unless and until CCH has achieved Complete Construction of an alternate backup force main.

c. Additional Condition Assessment of Ala Moana Force Main No. 2. CCH shall conduct an additional Condition Assessment, including a follow-

up action plan, of Ala Moana Force Main No. 2, which shall be submitted to EPA and DOH for review and approval by June 30, 2011. The additional Condition Assessment shall be conducted in the same manner as required by Paragraph 12 and Appendix D to this Decree, except that it will focus only on problem areas identified during the first Condition Assessment of Ala Moana Force Main No. 2 that was submitted to EPA and DOH.

16. Old Hart Street Force Main - Maintenance and Improvements. CCH completed construction of a new Hart Street Force Main in May 2001 and left the old Hart Street Force Main in place. Pursuant to the 2007 Stipulated Order, CCH connected the old Force Main, in its current condition, to the new Hart Street Pump Station for use as a backup force main to handle emergency flows to the extent possible. CCH shall retain, connect, and maintain the old Hart Street Force Main in good operating condition for use as a backup force main to handle emergency flows to the extent possible. As a compliance milestone, CCH shall, by no later than December 31, 2013, replace the force main connection (between the Hart Street Pump Station and the old Hart Street Force Main) and install valving to allow CCH to switch flow to the old Hart Street Force Main more quickly, as provided in the Old Hart Street WWPS FM Condition Assessment Report dated November 13, 2009 (Table 19, Item 4).

17. Kaneohe/Kailua Tunnel Project.

a. Construction of Tunnel and Influent Pump Station. Relying on flow information developed through the Wet Weather I/I Assessment Update required pursuant to Paragraph 18.g., CCH shall, by the compliance milestone of June 30, 2018, design and Complete Construction of: (i) a new Kaneohe/Kailua Tunnel to transport wastewater by gravity from the Kaneohe Pretreatment Facility site to the Kailua WWTP; and (ii) an influent pump station to deliver wastewater from the gravity tunnel to the Kailua WWTP. Consistent with sound engineering practices and the objectives of Paragraph 8, the tunnel and influent pump station

shall provide sufficient storage and transport capacity to handle foreseeable wet weather flows without capacity-related SSOs at the Kaneohe Pretreatment Facility. By April 12, 2012, CCH shall provide a report for review only explaining the methodology that will be applied to develop the tunnel sizing consistent with these provisions. In the design and construction of this project, CCH shall meet the following interim compliance milestones:

i. CCH shall execute a design contract and issue a notice to proceed with the design of the Kaneohe/Kailua Tunnel by no later than June 30, 2012;

ii. CCH shall execute a design contract and issue a notice to proceed with the design of the influent pump station by no later than June 30, 2012;

iii. CCH shall execute a construction contract and issue a notice to proceed with construction of the Kaneohe/Kailua Tunnel by no later than December 31, 2014. The construction contract shall require proper management of construction spoils including, where appropriate and feasible, reuse of spoil material.

iv. CCH shall execute a construction contract and issue a notice to proceed with construction of the influent pump station by no later than December 31, 2015.

b. Maintenance of Existing Kaneohe/Kailua Force Main.

i. By June 30, 2012, CCH shall implement the spill contingency plan dated January 12, 2011 (as that plan may be revised pursuant to Appendix C) and the follow-up action plan items in the condition assessment

report (dated January 14, 2011) due to be performed by June 30, 2012;

ii. Until completion of the initial operation period provided for in Paragraph 17.c., CCH shall conduct regular visual inspections, at appropriate intervals (but, in no event less often than semi-annually unless approved by EPA after consultation with DOH), of the force main alignment and appurtenances to detect any changes in conditions or leaks;

iii. CCH shall maintain an inventory of pipe repair products for the 42-inch diameter force main as set forth in the spill contingency plan;

iv. By December 31, 2014, CCH shall submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, a supplemental condition assessment of the Kaneohe/Kailua force main. The scope of the supplemental condition assessment shall allow the City to determine whether the condition of the force main has changed from that reported in the Kaneohe/Kailua Effluent Force Main Condition Assessment revised Final Report dated January 14, 2011, in such a manner as to pose a material risk of pipe failure or service interruption. The supplemental condition assessment shall include a follow-up action plan for addressing any conditions that are identified as constituting a material risk of failure or service interruption.

c. Initial Two-Year Operation Period. CCH shall continue to maintain its existing Kaneohe Pretreatment Facility Pump Station and Kaneohe/Kailua Force Main in good operating condition until two years following Complete Construction (whenever that is achieved) of the Kaneohe/Kailua Tunnel Project set forth in Paragraph 17.a. During this initial two-year operation period, any required maintenance, inspection, and testing of the existing Kaneohe/Kailua Force Main, including work required pursuant to Paragraph 13.a. and Appendix E, will be limited to activities that can be done without filling or pressurizing the Force Main. After this initial two-year operation period, CCH may, in its

discretion, decommission the Kaneohe Pretreatment Facility Pump Station.

d. If the Kaneohe/Kailua Tunnel Project proves infeasible in the design or construction phases, CCH shall: (i) submit a notice to the United States, the State, and Intervenors pursuant to Section XVI (Notices) of this Decree; and (ii) submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, a scope and schedule for a project to design and construct a new Kaneohe/Kailua Force Main. The schedule shall provide for the most expeditious completion of the new Kaneohe/Kailua Force Main consistent with sound engineering practices. In no event, however, shall the schedule provide for Complete Construction of the new Kaneohe/Kailua Force Main after December 31, 2020, unless, consistent with the provisions of Section XI (Force Majeure) of this Decree, the United States or, as applicable, the Court has determined that a Force Majeure event has occurred. The scope and schedule shall include: (i) appropriate compliance milestones and interim compliance milestones for the project; (ii) a commitment to maintain the existing force main as a functional backup line as provided for by Paragraph 17.b. of the Consent Decree as entered by the Court on December 17, 2010; (iii) a commitment to implement the spill contingency plan submitted January 12, 2011 (as the same may be revised pursuant to Appendix C) and the remaining follow-up action plan items in the condition assessment report dated January 14, 2011 with revised schedules as appropriate; and (iv) a schedule for providing a report, the substance of which conforms to the requirements of Paragraph 18.f. and Appendix F of the Consent Decree as entered by the Court on December 17, 2010, which evaluates and makes recommendations with regard to the following projects:

KK-TP-01 Kaneohe/Kailua Wastewater Facilities (aka Kailua RWWTP Upgrade)

KK-TP-02 Kaneohe/Kailua Wastewater Facilities (aka Kailua Area Storage)

KK-TP-03 Kaneohe WWPTF Improvement and Equalization Facility (aka

Kaneohe WWPTF Storage)

Following approval of the scope and schedule for the project to design and construct a new Kaneohe/Kailua Force Main consistent with the provisions of this Paragraph 17.d. and Section IX (Review and Approval of Deliverables) of this Decree, the approved compliance milestones and interim compliance milestones shall be incorporated by reference into this Consent Decree, and shall become enforceable pursuant to this Consent Decree; and the requirements of Paragraph 17.a. - c. shall terminate.

18. 1999 Final Sewer I/I Plan Projects.

a. The projects listed in this Paragraph were conceptually developed in the 1999 Final Sewer I/I Plan and some of these projects will be further developed during the planning and design phases. Appendix F includes a description of the current scope of the projects listed in subparagraphs b. through f. below. For the projects in Appendix F, the development of a project may include consolidation with other projects, further clarification of the scope of a project, and/or division of the proposed work among different work contracts. For any project in Appendix F, if the development of the project results in a proposed substantial modification to its scope, CCH shall meet and confer with EPA and DOH to reach agreement on the proposed modifications to the extent possible given CCH's construction deadlines, but, in any event, CCH shall notify EPA and DOH in writing of any such substantial modifications. For the projects included in subparagraphs f. and g. below, CCH's evaluation of a project may result in a recommendation that the project be eliminated.

b. As compliance milestones, CCH shall Complete Construction of the following projects by no later than December 31, 2011:

SI-CS-05 Kalihi Valley Reconstructed Sewer (aka Kalihi Valley Relief Sewer)

SI-CS-36 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion

SI-CS-63A Sand Island Basin Misc. Sewer Rehabilitation (aka Sand Island Structural Rehabilitation-Phase 1)

c. As compliance milestones, CCH shall Complete Construction of the following projects by no later than December 31, 2013:

HN-CS-10B Waimalu Sewer Rehabilitation/Reconstruction - 7D01C (aka Honouliuli Sewer Rehabilitation - 7D01C)

HN-CS-13 Waimalu Sewer Rehabilitation/Reconstruction - 7D01C (aka Waimalu Sewer Replacement)

HN-TP-01 Honouliuli WWTP Upgrade

KK-PS-01 Enchanted Lakes Wastewater Pump Station Upgrade

SI-CS-51A Sewer Manhole and Pipe Rehabilitation at Various Locations (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation - Phase 1)

SI-CS-53 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Auahi St. Structural Rehabilitation)

SI-CS-54 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-24 Structural Rehabilitation)

SI-CS-55 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-36 Structural Rehabilitation)

SI-CS-57 Ala Moana Blvd. Sewer Reconstruction (aka Ala Moana Blvd.-16 Structural Rehabilitation)

SI-CS-59 Waikiki Sewer Rehabilitation/Reconstruction

SI-PS-14 Kuliouou Sewer Rehabilitation and WWPS Modification (aka Kuliouou WWPS Modification)

WH-TP-01 Wahiawa Wastewater Treatment Plant Influent Pump Station Upgrade and Equalization Facility (aka Modify IPS and New Storage at Wahiawa WWTP)

WM-CS-02 Waimanalo Sewer Rehabilitation

d. As compliance milestones, CCH shall Complete Construction of the following projects by no later than December 31, 2014:

HN-TP-02 Mililani WWPTF Storage and Headworks Upgrade (aka Mililani WWPTF Upgrade)
SI-CS-09 Kahanu St., School St., and Umi St. Relief Sewers (aka School St. Relief Sewer)
SI-CS-18 Kalanianaole Highway Sewer
SI-CS-37 Kahanu St., School St., and Umi St. Relief Sewers (aka Umi St. Relief Sewer)
SI-CS-38 Kahanu St., School St., and Umi St. Relief Sewers (aka Kahanu St. Relief Sewer)
SI-CS-62 Kalanianaole Highway Sewer (aka Kalanianaole Hwy Structural Rehabilitation)
SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 1)
SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 1)

e. As compliance milestones, CCH shall Complete Construction of the following projects by no later than December 31, 2016:

HN-CS-04 Renton Road Sewer and Manhole Rehabilitation (portion: Eastern/Makakilo trunk)
HN-CS-05B Leeward Area Sewer and Manhole Rehabilitation (aka Waipahu Manhole and Pipe Rehabilitation)
HN-CS-05C Leeward Area Sewer and Manhole Rehabilitation (aka Ewa Manhole Rehabilitation)
HN-CS-10A Waiau Area Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7D01A)
HN-CS-10C Foster Village Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7F05)
KK-CS-04 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka

Oneawa St. Structural Rehabilitation)
KK-CS-06 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua Beach Park Structural Rehabilitation)
KK-CS-09 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kaneohe Bay Drive Structural Rehabilitation)
KK-CS-12B Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua/Kaneohe Manhole and Pipe Structural Rehabilitation - Phase 2)
SI-CS-30 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Date St. Relief Sewer)
SI-CS-43 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka North King St. Relief Sewer)
SI-CS-50 Airport Sewer Rehabilitation/Reconstruction (aka Airport Structural Rehabilitation)
SI-CS-51B Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction & Kalihi/Nuuanu Area Sewer Rehabilitation (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2)
SI-CS-52 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd.-Iwilei Structural Rehabilitation)
SI-CS-58 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Moiliili-Kapahulu Structural Rehabilitation)
SI-CS-60 Old Sewer Tunnel Rehabilitation (aka Old Tunnel Structural Rehabilitation)

f. CCH shall conduct an evaluation and develop recommendations for the projects listed in this subparagraph. As a compliance milestone, CCH shall, within four years after the Effective Date of this Consent Decree, submit a report to EPA and DOH for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, setting forth the results of its evaluation and recommendations for the projects listed below in this subparagraph.

In addition, for the projects in this subparagraph marked with an asterisk, CCH shall also submit to EPA and DOH, as part of the report, the proposed scope or a design alternatives report for each project.

SI-CS-01 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Airport Relief Sewer)

*SI-CS-08 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd-Iwillei Relief Sewer), portion

*SI-CS-10 Chinatown Sewer Rehabilitation (aka College Walk-30 Replacement Sewer)

*SI-CS-15 Manoa Sewer Relief/Rehabilitation (aka Manoa Relief Sewer)

*SI-CS-17 Palolo Valley Sewer Rehabilitation (aka Palolo Relief Sewer)

*SI-CS-22 Chinatown Sewer Rehabilitation (aka River St. Relief Sewer)

*SI-CS-27 Palolo Valley Sewer Rehabilitation (aka Waiomao Stream Relief Sewer)

SI-CS-28 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Auwaiolimu St. Relief Sewer)

SI-CS-29 Kalihi/Nuuanu Area Sewer Rehabilitation (southern makai portion) (aka Nuuanu Relief Sewer)

SI-CS-36 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion

SI-CS-39 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Kalani St. Relief Sewer), portion

*SI-CS-42 Dowsett Highlands Relief Sewer

WH-PS-02 Uwalu WWPS Upgrade

*SI-PS-01 Kamehameha Hwy WWPS Upgrade

*SI-PS-04 Awa Street WWPS Upgrade

*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)

*SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 2)

*SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 2)

*HN-CS-07 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Waimalu Wastewater System Relief)

*HN-CS-08 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City Trunk Sewer Relief)

*HN-CS-09 Pacific Palisades Diversion Sewer Line (aka Pacific Palisades Relief Sewer)

HN-CS-14 Waipahu Sewer Replacement/Relief Sewer (aka Waipahu Sewer Replacement)

HN-PS-01 Waipio WWPS Upgrade

*HN-PS-04 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City WWPS Relief)

*KK-CS-01 Kalaheo Ave. Relief Sewer

*KK-CS-13 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Alii Shores Relief Sewer)

*KK-CS-15 Hele St. Sewer Relief/Rehabilitation (aka Hele St. Relief Sewer)

*KK-CS-20 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kaha St. Relief Sewer)

*KK-CS-21 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kahuhipa St. Relief Sewer)

*KK-CS-22 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Namoku St. Relief Sewer)

*KK-CS-23 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Puohala Relief Sewer)

*KK-CS-25 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Makahio St. Relief Sewer)

*KK-PS-02 Waikalua WWPS Upgrade

KK-PS-10 Kahanahou Pump Station Upgrade

KK-PS-12 Waikapoki WWPS Upgrade

The report shall recommend one of the following three options for each of the listed projects in this subparagraph f.: (1) the project should be required and CCH should Complete Construction by June 30, 2020; (2) the project should be required but its construction can be completed after June 30, 2020; or (3) the project should be eliminated. If the report, as approved, concludes that the first option applies, CCH shall Complete Construction of the project by June 30, 2020, and the project's design interim compliance milestones and construction compliance milestones shall be incorporated by reference into this Consent Decree and shall become enforceable pursuant to this Consent Decree. If the report, as approved, concludes that the second option applies, the project's design interim compliance milestones and construction compliance milestones that are no later than June 30, 2020, shall be incorporated by reference into this Consent Decree, and those milestones shall become enforceable pursuant to this Consent Decree. If the report, as approved, concludes that the third option applies, CCH may eliminate the project. If EPA does not agree with the report's conclusion that a project should be eliminated, CCH may invoke the procedures of Section XII (Dispute Resolution).

g. Wet Weather I/I Assessment Update.

i. CCH shall continue its ongoing development of a Wet

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Weather I/I Assessment Update. The Wet Weather I/I Assessment Update shall provide an updated estimate of the hydraulic performance of CCH's Wastewater Collection System, and, in particular, shall address current and predicted future infiltration and inflow ("I/I") rates in the Wastewater Collection System, pump station capacity issues, and the projected peak influent flow at each wastewater plant. The Wet Weather I/I Assessment Update shall assess whether the projects identified in Appendix G ("the Deferred Projects") are needed to address existing or reasonably foreseeable capacity constraints in the Wastewater Collection System, and the appropriate time frame for implementation of the projects that are needed. In addition, the Wet Weather I/I Assessment Update shall assess whether any additional projects not identified in Appendix G are needed to address existing or reasonably foreseeable capacity constraints in the Wastewater Collection System, and the appropriate time frame for implementation of the projects that are needed.

ii. The Wet Weather I/I Assessment Update shall include, but not be limited to, the following tasks:

- Flow and precipitation monitoring for a minimum of two wet weather seasons (October to June) and one dry weather season (July to September).
- Data analysis to determine current I/I rates and reasonably foreseeable I/I rates under a range of storm conditions.
- Peak flow cost-effective analysis.
- Updated flow data for CCH's hydraulic model.
- Field verification of existing and reasonably foreseeable hydraulic deficiencies in the Wastewater Collection System and at pump stations. Field verification shall be made by measuring flows in the Wastewater Collection System and/or water levels in sewer manholes.
- Analysis of records of capacity-related SSOs since, at a minimum, 1999.
- Hydraulic model flow projections for the Wastewater Collection System

(including pump stations) and WWTP influent.

- Model projections to predict locations of capacity-related SSOs.
- Identification of necessary Wastewater Collection System improvements (including pump station improvements) to control wet weather SSOs. This shall include both Deferred Projects as well as any projects not identified in the 1999 Final Sewer I/I Plan that the Wet Weather I/I Assessment Update identifies as necessary to address existing and reasonably foreseeable hydraulic deficiencies in the Wastewater Collection System and at pump stations ("New Projects").
- Identification of any currently planned Wastewater Collection System improvements (including, but not necessarily limited to, the Deferred Projects) that are either not needed or should be redesigned to properly address system needs.

iii. CCH shall consult with EPA and DOH on the technical issues associated with the design and implementation of the Wet Weather I/I Assessment Update consistent with the following schedule:

- No later than September 30, 2010, CCH shall meet with EPA and DOH to discuss the results of the first wet season monitoring results. This discussion shall include, but is not necessarily limited to, an evaluation of whether sufficient precipitation occurred to generate useful data, results from any field verification work conducted to date, any initial analysis of wet weather capacity issues in the Wastewater Collection System (including pump stations), and any appropriate corrections in monitoring locations and/or methodologies.
- No later than September 30, 2011, CCH shall meet with EPA and DOH to discuss the results of the first dry season and second wet season monitoring results. This discussion shall include, but is not necessarily limited to, an evaluation of whether sufficient precipitation occurred to generate useful

data, whether an additional wet season of monitoring may be appropriate, results from any field verification work conducted to date, any initial analysis of wet weather capacity issues in the Wastewater Collection System (including pump stations) and, if more monitoring may be necessary, any appropriate corrections in monitoring locations and/or methodologies. In addition, at this meeting, CCH shall discuss how it will use the collected data in its model, what model CCH intends to use, and any further field verification activities that CCH intends to conduct.

- No later than April 1, 2012, CCH shall meet with EPA and DOH to discuss the results of CCH's modeling work. At this meeting, the parties shall discuss which projects (both Deferred Projects and New Projects) are needed to address existing and reasonably foreseeable hydraulic deficiencies in the Wastewater Collection System and at pump stations under various proposed design storms. The parties shall also discuss the recommended time frames for implementing these projects to ensure that hydraulic deficiencies are addressed in a timely manner.

iv. EPA and DOH may in their discretion provide written comments on the progress of the Wet Weather I/I Assessment Update within 60 Days following the meetings set out in Paragraph 18.g.iii. If the written comments state that alterations to the Wet Weather I/I Assessment Update are necessary if the Wet Weather I/I Assessment Update is to satisfactorily accomplish the goals set out in Paragraph 18.g.i., the comments will describe in detail the needed alterations and the justification supporting those alterations. CCH shall implement the alterations detailed by EPA or shall invoke the Dispute Resolution procedures set forth in Section XII.

v. CCH shall implement the Wet Weather I/I Assessment Update consistent with the following schedule.

- No later than August 1, 2011, CCH shall complete the collection of

precipitation and flow monitoring data required for the Wet Weather I/I Assessment Update unless a request for extension of time has been granted pursuant to subparagraph viii. below.

- No later than December 31, 2012, CCH shall finalize a Peak Flow Cost-Effective Analysis Report.

vi. Except as provided in subparagraph viii. below, CCH shall submit to EPA and DOH, by no later than December 31, 2012, a Preliminary Deferred Projects Report, and, by no later than November 30, 2013, a Final Deferred Projects Report. Both the Preliminary Deferred Projects Report and the Final Deferred Projects Report shall include, with regard to each of the Deferred Projects, a proposed project scope and a proposal as to whether:

(a) The project is appropriate to construct by no later than June 30, 2020;

(b) The project is reasonably necessary to prevent capacity-related spills from its Wastewater Collection System during wet weather through the year 2030, but not appropriate to construct by a deadline of June 30, 2020; or

(c) The project is not reasonably necessary to prevent capacity-related SSOs from its Wastewater Collection System during wet weather through the year 2030.

To the extent CCH takes the position that any of the Deferred Projects are not appropriate to construct by June 30, 2020, CCH shall provide its technical justification for not proceeding with that project. This justification shall address, for each affected sewer line, the record of capacity-related SSOs since 1999, sewer manhole water level readings and/or flow data, and hydraulic flow model projections to provide a basis for discussion of the capacity projections as a result of not constructing the project. EPA and DOH may provide written comments to CCH on the Preliminary Deferred Projects Report within 90 Days following submission. CCH shall address EPA and DOH comments in the Final Deferred

Projects Report. CCH's submittal of the Final Deferred Projects Report to EPA and DOH shall be for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree.

vii. Except as provided in subparagraph viii. below, CCH shall submit, by no later than December 31, 2013, a Wet Weather I/I Assessment Update to EPA and DOH. The Wet Weather I/I Assessment Update shall include the following elements:

(a) CCH shall document that it has completed all of the tasks provided for in Paragraph 18.g.i. through 18.g.vi.;

(b) CCH shall discuss the results of the monitoring and modeling effort (including discussion of any limitations on the reliability of the conclusions drawn from the monitoring effort). The report shall include the results of flow and rainfall monitoring, sewer manhole level readings, records of capacity-related spills and analysis, and model projections of Wastewater Collection System flows, capacity-related SSO locations, and peak influent flows to each WWTP; and

(c) CCH shall identify New Projects CCH proposes as reasonably necessary to prevent capacity-related spills from its Wastewater Collection System during wet weather through the year 2030 and the appropriate schedule for implementing those projects.

viii. If insufficient rainfall has occurred to generate reliable data for the Wet Weather I/I Assessment Update, CCH may, by no later than December 1, 2011, submit a proposal to extend for one year the deadline for submission of the Final Deferred Projects Report and the Wet Weather I/I Assessment Update to EPA and DOH for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree. As part of this proposal, CCH shall identify proposed modifications to the Work Plan that will, to

the extent feasible, improve the reliability of the data generated in the additional year so no further time extensions will be necessary. The proposal for the one-year extension shall be deemed approved unless EPA disapproves the proposal by February 15, 2012. If disapproved, EPA shall provide technical justification for the disapproval, and if CCH does not agree with the technical justification provided by EPA, CCH may invoke the procedures of Section XII (Dispute Resolution) of this Decree.

ix. As compliance milestones, CCH shall Complete Construction of the Deferred Projects identified as necessary in the Final Deferred Projects Report as approved and prioritized for completion by no later than June 30, 2020, and shall comply with the following interim requirements:

(a) As interim compliance milestones, by no later than December 31, 2016, CCH shall award the detailed design contract for each of the projects.

(b) As interim compliance milestones, by no later than July 31, 2018, CCH shall award the contract to construct each of the projects.

x. As a compliance milestone, within 12 months of the approval of the Final Deferred Projects Report provided for by Paragraph 18.g.vi., CCH shall update its Capital Improvement Plan to include:

(a) Deferred Projects determined to be reasonably necessary to prevent capacity-related spills from its Wastewater Collection System during wet weather through the year 2030, but not appropriate to construct by a deadline of June 30, 2020; and

(b) New Projects (identified pursuant to Paragraph 18.g.vii.(c)) determined to be reasonably necessary to prevent capacity-related spills from its Wastewater Collection System during wet weather through the year 2030.

In updating the Capital Improvement Plan to include these projects, CCH shall

include a description of the project and a projected schedule for completion of the project consistent with the findings of the Wet Weather I/I Assessment Update.

19. Gravity Main Condition Assessment.

a. General Requirements. CCH shall conduct a comprehensive inspection and assessment of selected gravity mains in accordance with this Paragraph. The Condition Assessment shall be directed at identifying gravity main defects or conditions that may cause or contribute to SSOs, including, but not limited to, design and construction defects, structural defects, debris, root intrusion, or grease accumulation. The Condition Assessment shall be directed at gravity mains in asset classes that CCH determines to be associated with an elevated risk of SSOs. CCH shall classify its gravity sewer assets based on the decade of installation, the pipe material, the pipe diameter, the pipes' relationship to the groundwater table, and other factors determined to be appropriate by CCH. In addition to the selection of gravity mains to inspect and assess based on asset classes, CCH shall consider site-specific information regarding particular gravity mains that may justify inspection and assessment of certain gravity mains outside of the selected asset classes including, but not limited to, maintenance history, patterns of infiltration and inflow, spatial distribution of problematic line segments, and historical spill data. The inspection and assessment shall be conducted in accordance with the following requirements:

(i) CCH shall use closed circuit television ("CCTV") to inspect and assess all selected gravity mains, unless CCH can demonstrate that an alternative inspection method will provide comparable or equivalent information about gravity main defects and conditions for that sewer line segment;

(ii) CCTV inspections and assessments required by this Paragraph shall be performed in accordance with NASSCO Pipeline Assessment and Certification Program standards; and

(iii) CCH shall ensure that the CCTV operators and

technicians conducting the condition assessment are properly trained and certified in the NASSCO Pipeline Assessment and Certification Program.

b. Implementation of Condition Assessment for Gravity Mains. As performance requirements, CCH shall inspect and assess: (i) 300 miles of gravity mains from January 1, 2009, to no later than three years after the Effective Date of this Consent Decree; and (ii) a total of 650 miles of gravity mains, beginning from January 1, 2009, by no later than June 30, 2020.

20. Gravity Main Rehabilitation and Replacement Program.

a. General Requirements. CCH will undertake a ten-year Rehabilitation and Replacement Program for its gravity mains pursuant to this Paragraph in order to take corrective action necessary to address deficiencies in its system, reduce the risk of SSOs, and lead to a long-term sustainable renewal of its infrastructure. Pursuant to this Program, CCH shall complete a total of 144 miles of Rehabilitation and Replacement projects by no later than June 30, 2020. As set forth in subparagraph c. below, CCH shall complete no less than 63 miles of Rehabilitation and Replacement projects by the end of Year Three.

b. Rehabilitation and Replacement Plan.

i. By no later than three years after the Effective Date of this Consent Decree, CCH shall submit a Rehabilitation and Replacement Plan ("RR Plan") to EPA and DOH for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree. In order to prioritize necessary projects, the RR Plan shall utilize the results of the Condition Assessment conducted pursuant to Paragraph 19 and other systematic inspection and assessment methodologies used by CCH to identify gravity mains that require Rehabilitation or Replacement. The RR Plan may also select gravity mains based on overflow history, age, material of construction, maintenance history, and other factors determined to be appropriate by CCH based on sound engineering practice.

ii. The RR Plan shall project the necessary Rehabilitation

and Replacement work for Years Four through Ten, specifying the number of miles of gravity mains to be rehabilitated or replaced on an annual basis. The RR Plan shall propose a minimum of 11.5 miles per year of Rehabilitation and Replacement projects for Years Four through Nine and 12 miles of Rehabilitation and Replacement projects for Year Ten.

c. Rehabilitation and Replacement Program for Years One through Three. CCH shall Complete Construction of the gravity main Rehabilitation and Replacement projects identified in Appendix H to this Decree in Years One through Three. CCH's responsibility to complete these projects by the end of Year Three is a performance requirement for purposes of this Consent Decree. Gravity main projects identified in Appendix H to this Decree qualify for purposes of achieving the 63-mile requirement for Years One through Three, even if the projects are completed prior to Year One.

d. Implementation of RR Plan for Gravity Mains. CCH shall implement the RR Plan as approved, provided, however, that: (i) CCH shall retain the discretion to prioritize work based upon data as it becomes available; and (ii) CCH shall not be required under this Paragraph to complete more than 144 miles in Years One through Ten. In no event shall the projects set forth in Appendix H be counted in achieving compliance with the mileage requirements for Years Four through Ten in the approved RR Plan. Completing a minimum of 11.5 miles of Repair and Rehabilitation work in each year during Years Four through Nine and completing a minimum of 12 miles of Repair and Rehabilitation work in Year Ten are annual performance requirements for purposes of this Consent Decree.

e. "Banking" of Excess Miles of Pipe. If, from January 1, 2009, through Year Three, CCH completes the projects set forth in Appendix H and Rehabilitates or Replaces additional miles of gravity main sewer pipe, or if, in any Year during Years Four through Ten, CCH Rehabilitates or Replaces more than the

annual number of miles of gravity main sewer pipe required pursuant to the approved RR Plan, CCH may "bank" the excess miles of pipe. In any Year beginning in Year Four, CCH may demonstrate compliance with the annual mileage requirement of the RR Plan through a combination of miles rehabilitated or replaced in that Year and "banked" miles of Rehabilitation and Replacement from any previous Years; provided, however, that once a banked mile of Rehabilitation and Replacement has been used in one Year, it may not be used in any subsequent Year.

21. Modification of Construction Deadlines. If CCH and EPA, after consultation with DOH, agree, the enforceable construction deadlines prior to June 30, 2020 applicable to projects pursuant to Paragraph 18 and the deadlines applicable to the gravity main rehabilitation and replacement projects identified in Paragraph 20.c and Appendix H to this Decree may be adjusted to address unforeseen project contingencies affecting construction schedules. CCH and the Governments agree to work in good faith to adjust these schedules as necessary to address such contingencies. The revised schedule submitted by CCH shall provide for the expeditious completion of the work in Paragraphs 18 and 20.c. consistent with sound engineering practices and shall extend no later than December 31, 2016, for Paragraph 20.c. projects and no later than June 30, 2020, for Paragraph 18 projects. CCH shall provide Intervenors with timely notice of a CCH proposal to modify a deadline pursuant to this Paragraph, and Intervenors may provide Governments with comments on CCH's proposal. Any dispute with regard to any schedule adjustment proposed pursuant to this Paragraph shall be subject to dispute resolution pursuant to Section XII (Dispute Resolution) of this Decree.

22. Gravity Main Cleaning and Maintenance Program.

a. CCH shall implement a cleaning cycle that requires CCH to clean each gravity main sewer in CCH's Wastewater Collection System on a minimum five-year frequency. As an annual performance requirement, CCH shall

clean a minimum of 500 miles of gravity main sewers per year, including the repeated cleaning of individual pipe segments, and, as an annual performance requirement, CCH shall clean a minimum of 300 "unique miles" of gravity main sewers per year. In calculating the number of "unique miles" per year, CCH shall count each individual pipe segment cleaned in the year but shall not count an individual pipe segment multiple times even if it was subject to repeated cleaning in that year.

b. In order to control the growth of roots in its Wastewater Collection System, CCH shall apply chemicals to a minimum of 15 miles of gravity main sewers in Year One and Year Two. As part of the next Annual Meeting following Year Two, CCH shall meet and confer with EPA and DOH to review and evaluate the effectiveness and applicability of its use of root control chemicals. CCH shall inform EPA and DOH whether it intends to continue or expand the application of root control chemicals.

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

a. General Requirements. CCH shall implement and enforce a program for the control of fats, oils, and grease ("Commercial FOG Control Program") within the Wastewater Collection System to minimize the potential of SSOs caused by FOG. The Commercial FOG Control Program shall meet the following requirements:

i. A Food Service Establishment shall not discharge its wastewater into the Wastewater Collection System without a permit issued under CCH's ordinances and Rules Relating to Grease Interceptor Program Compliance ("GI Rules").

ii. At a minimum, CCH shall conduct: (a) annual inspections of Grease Removal Devices in compliance with GI Rules, including minimal sizing criteria; and (b) semiannual inspections of all other Grease Removal Devices. Such inspections shall include physical inspection, including

coring, of the Grease Removal Device to document compliance with CCH's ordinances and GI Rules, and CCH's review of maintenance logs and compliance with bar coding requirements.

iii. In addition to such other enforcement oversight as CCH determines to be appropriate, CCH shall undertake a special investigation of all potential FOG sources that may have caused or contributed to a FOG-caused SSO or a CCH environmental incident report ("EIR"). The special investigation shall include all elements of the inspection described in subparagraph a.ii. as well as a review of the Food Service Establishment's or other GRD Permittee's record keeping. In addition, the special investigation shall identify the Food Service Establishment(s) or Grease Removal Device(s) that caused or contributed to the SSO or EIR. CCH shall, within 60 Days after the investigation, issue a formal enforcement order (or orders) requiring the identified sources that are determined to be the source of the FOG problem to come into full compliance with the CCH GI Rules or cease operations in accordance with a compliance schedule required or approved by CCH.

iv. For any Food Service Establishment or other GRD Permittee that has failed to properly operate and maintain a Grease Removal Device, the Enforcement Program submitted pursuant to Paragraph 23.b. shall include in an Enforcement Response Plan, among other things, requirements for the Food Service Establishment or other GRD Permittee, in a timely manner, to either: (1) replace its Grease Removal Device with a CCH-approved Grease Removal Device meeting the minimal sizing criteria in the GI Rules; or (2) cease operations in accordance with a compliance schedule required or approved by CCH.

v. For any Food Service Establishment not served by a Grease Removal Device, CCH shall require the Food Service Establishment to install and obtain a permit for a Grease Removal Device meeting the minimal

sizing criteria in the GI Rules, and shall evaluate the Food Service Establishment's compliance with other CCH ordinances and GI Rules.

vi. Beginning 90 Days after the Effective Date of this Consent Decree and at least annually thereafter, CCH shall request from DOH a list of all new food and beverage licenses in CCH's service area. CCH shall review the list submitted by DOH to determine whether any newly operational businesses may be Food Service Establishments subject to the requirements of the Commercial FOG Control Program. In addition, CCH shall review projects submitted for CCH building permit issuance to determine whether the businesses may be subject to the requirements of the Commercial FOG Control Program. For any businesses identified from the DOH list or through the building permit process, CCH shall include the business for inspection in the next six-month inspection cycle. The inspection shall include all elements of the inspection described in subparagraph a.ii. as well as a review of record keeping at the facility with respect to the business' compliance with the requirements of the Commercial Fog Control Program in this Paragraph and the GI Rules.

b. Within 180 Days after the Effective Date of this Consent Decree, CCH shall submit a Commercial FOG Control Program Manual to EPA and DOH. This Manual is not subject to approval by EPA and DOH. The Manual shall include a summary of all aspects of the Commercial FOG Control Program including the following:

- Food Service Establishment Survey and Permitting Program;
- Grease Interceptor Sizing, Operation, and Maintenance;
- Grease Interceptor Compliance Evaluations;
- Identification and Mitigation of FOG Problem Areas;
- Enforcement Program (including an Enforcement Response Plan);
- Quality Assurance and Control Program;
- Training Program; and

- Education and Outreach Program.

24. Pump Station Projects.

a. Condition Assessment of Beachwalk Pump Station. Pursuant to the 2007 Stipulated Order, CCH submitted and EPA approved a Condition Assessment and follow-up action plan for the Beachwalk Pump Station. The approved follow-up action is incorporated by reference into this Consent Decree and is enforceable pursuant to this Decree. The following interim compliance milestones and compliance milestones are enforceable pursuant to this Consent Decree:

i. CCH shall repair the existing wetwell. CCH shall design and Complete Construction of the wetwell repair at Beachwalk Pump Station by the compliance milestone of December 31, 2012. As an interim compliance milestone, CCH shall execute a construction contract and issue a notice to proceed with construction by January 3, 2011.

ii. CCH shall replace the two variable speed controls. CCH shall design and Complete Construction of the variable speed controls at the Beachwalk Pump Station by the compliance milestone of December 31, 2012. As an interim compliance milestone, CCH shall execute a construction contract and issue a notice to proceed with construction by January 3, 2011.

iii. CCH shall repair the pump station's roof. CCH shall design and Complete Construction of the roof repair at Beachwalk by the compliance milestone of December 31, 2012.

iv. CCH shall replace the existing level control system with a new level control system that meets CCH's current standards. CCH shall design and Complete Construction of the new level control system at Beachwalk by the compliance milestone of December 31, 2012.

b. Beachwalk Pump Station Upgrade. CCH shall either: (1) upgrade the capacity of the Beachwalk Pump Station to the extent

recommended by the Wet Weather I/I Assessment Update; or (2) construct an alternative project that would result in the decommissioning of the Beachwalk Pump Station. CCH shall design and Complete Construction of pump station upgrades at Beachwalk or the alternative project by the compliance milestone of June 30, 2020, and shall meet the following interim compliance milestones:

i. By December 31, 2015, CCH shall execute a design contract and issue a notice to proceed with the design; and

ii. By July 31, 2017, CCH shall execute a construction contract and issue a notice to proceed with construction.

c. Ft. DeRussy Pump Station Upgrade. CCH shall either: (1) upgrade the capacity of the Ft. DeRussy Pump Station to the extent recommended by the Wet Weather I/I Assessment Update; or (2) construct an alternative project that would result in the decommissioning of the Ft. DeRussy Pump Station. CCH shall design and Complete Construction of pump station upgrades at Ft. DeRussy or the alternative project by the compliance milestone of June 30, 2020, and shall meet the following interim compliance milestones:

i. By December 31, 2015, CCH shall execute a design contract and issue a notice to proceed with the design; and

ii. By July 31, 2017, CCH shall execute a construction contract and issue a notice to proceed with construction.

d. Waimalu Pump Station Controller Upgrade. At the Waimalu Pump Station, CCH must replace the controllers because they overheat. In order to ensure efficient operation, CCH shall Complete Construction of new controllers at Waimalu by the compliance milestone of November 30, 2010.

e. Interim Controls of Capacity-related Sewage Spills at the Kaneohe PTF Effluent Pump Station.

i. Storage at the old Kaneohe WWTP. CCH has installed pumps and piping necessary to divert peak wet weather flows from the Wastewater

Collection System upstream of the Kaneohe PTF for temporary storage at the old Kaneohe WWTP. Beginning on the Effective Date of this Consent Decree, CCH shall maximize use of the peak flow diversion for the purpose of reducing or eliminating capacity-related overflows from the Kaneohe PTF and overflows resulting from failures at the Kaneohe PTF Effluent Pump Station or the Kaneohe/Kailua Force Main, and shall maintain 1.4 million gallons of storage at the old Kaneohe WWTP. This requirement shall terminate upon completion of the initial two-year operation period for the Kaneohe/Kailua Tunnel project provided for in Paragraph 17.c.

ii. Storage at the old Ahuimanu WWTP. By no later than 90 Days after the Effective Date of this Consent Decree, CCH shall install pumps and piping necessary to divert peak wet weather flows from the Wastewater Collection System upstream of the Kaneohe PTF for temporary storage at the old Ahuimanu WWTP. Beginning 90 Days after the Effective Date of this Consent Decree, CCH shall maximize use of these peak flow diversion(s) for the purpose of reducing or eliminating capacity-related overflows from the Kaneohe PTF and overflows resulting from failures at the Kaneohe PTF Effluent Pump Station or the Kaneohe/Kailua Force Main, and shall maintain 600,000 gallons of storage at the old Ahuimanu WWTP. This requirement shall terminate upon completion of the initial two-year operation period for the Kaneohe/Kailua Tunnel project provided for in Paragraph 17.c.

f. Pump Station Overflow Structures.

i. CCH shall not provide for overflow structures in its pump station design standards.

ii. Within one year after the Effective Date of this Consent Decree, CCH shall submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, a report on all pump station valves or other pump station appurtenances that could

discharge or release sewage to the environment.

iii. Within one year after approval of the report, CCH shall seal pump station valves and other appurtenances that could discharge or release

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sewage to the environment unless the approved report indicates that such valves or appurtenances are necessary to minimize risk to public health and safety.

iv. CCH shall integrate all other pump station valves and other pump station appurtenances that could discharge or release sewage to the environment into the pump station operation and maintenance manual for each individual pump station.

g. In order to minimize risk of future spills at its pump stations, CCH shall review its pump station operation and maintenance manuals and update the manuals within 2 years after the Effective Date of this Consent Decree.

h. Within 1 year after the Effective Date of this Consent Decree, CCH shall develop standard training procedures, which shall include training on the content and implementation of spill contingency plans for related force mains, for its pump station operations staff. CCH shall require its operations staff for pump stations, including any new employees, to be properly trained, and shall certify that the training has taken place within 2 years after the Effective Date of this Consent Decree.

25. Sewer Laterals.

a. CCH shall maintain an inventory of Lower Laterals and shall include the information in CCH's GIS database where it will be maintained until June 30, 2020, and available for inspection.

b. Within 90 Days after the Effective Date of this Consent Decree, CCH shall maintain a list of Lower Laterals for which it has identified problems in either maintenance or the condition of the Lower Lateral. After CCH has identified a problem Lower Lateral, CCH shall conduct corrective action (either repair, replacement, or maintenance) within two years after identification of the problem Lower Lateral.

c. CCH shall require its sewer main maintenance workers and contractors to report any issues with respect to Lower Lateral conditions observed

during work on sewer mains.

d. CCH shall conduct corrective action (either repair, replacement, or maintenance) within 60 Days after a Lower Lateral has caused or contributed to an SSO.

e. CCH shall continue to implement its clean-out cap replacement program and record such information in CCH's database where it will be maintained for at least five years and available for inspection.

f. Within 90 Days after the Effective Date of this Consent Decree, CCH shall develop materials to assist City building inspectors in identifying and reporting open and obvious improper inflow connections to laterals or gravity mains. When an inspection indicates that an improper inflow connection is channeling flow to the Wastewater Collection System, CCH shall provide notice to the responsible party, requiring the responsible party to: (1) take corrective action to eliminate the improper connection within six months after receipt of notification; and (2) provide certification of completion of the required corrective action. CCH shall record information of its notice and the certification of completion in CCH's database where it will be maintained for at least five years and available for inspection.

g. As an annual performance requirement, CCH shall conduct smoke testing on at least 19 miles per year of its sewers, including gravity mains and Lower Laterals, and record such information in CCH's database where it will be maintained for at least five years and available for inspection. When smoke testing indicates that an improper connection is channeling inflow to the Wastewater Collection System, CCH shall provide notice to the responsible party, requiring the responsible party to: (1) take corrective action to eliminate the improper connection within six months after receipt of notification; and (2) provide certification of completion of the required corrective action. CCH shall record information of its notice and the certification of completion in CCH's database

where it will be maintained for at least five years and available for inspection.

26. Staffing Commitments.

a. No later than six months after the Effective Date of this Consent Decree, CCH shall achieve full staffing, as further described in subparagraph c. below, for currently funded positions as provided in Appendix I to this Decree.

b. By 60 Days after the Effective Date of this Consent Decree, CCH shall submit to EPA and DOH, for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree, a Staffing Plan for its gravity mains, Lower Laterals, and sewer manholes ("Gravity Sewer System"). CCH shall meet the commitments of the approved Staffing Plan by December 31, 2011.

c. CCH shall attain and maintain at least 90 percent of the staffing levels required under subparagraphs a. and b. on an annual basis. CCH may meet this requirement through the use of overtime and/or equivalent contractor support. If CCH uses contractor support to achieve compliance with these requirements, CCH shall in the Annual Report demonstrate that the level of contractor support fulfilled the minimum staffing requirements for each category in its Staffing Plan. If CCH, in any year, fails to attain or maintain at least 90 percent of the staffing levels required under subparagraphs a. and b., CCH shall submit to EPA and DOH either a revised Staffing Plan that justifies a decrease in staffing levels as provided for in subparagraph d., or an action plan to bring staffing up to the required levels in the following year.

d. CCH may at any time submit to EPA and DOH a revised Staffing Plan that maintains staffing levels at sufficient levels to properly operate and maintain its Gravity Sewer System. A revised Staffing Plan submitted pursuant to this subparagraph shall specifically identify all areas where staffing levels are to be reduced and set forth an explanation why the reductions in staffing

are appropriate.

27. Equipment Commitments.

a. CCH has submitted, as Appendix J to this Decree, an Equipment Inventory of the equipment necessary to ensure that CCH can achieve its commitments under this Consent Decree for maintenance of its Wastewater Collection System as well as spill response and remediation. Pursuant to Appendix J, CCH shall keep at least one spare piece of each type of equipment in good working order in addition to the minimum number of equipment inventory needed for CCH to achieve its Consent Decree commitments. CCH may meet the requirements of this subparagraph through the use of contractor vehicle capacity, provided that CCH maintains the capability to timely mobilize such equipment to meet the requirements of this Consent Decree.

b. Within eighteen months after the Effective Date of this Consent Decree, CCH shall meet the specified requirements for equipment set out in the Equipment Inventory in Appendix J. CCH shall regularly maintain, repair, and replace the equipment to ensure that it has sufficient equipment in good working order.

c. CCH may at any time submit to EPA and DOH an updated Equipment Inventory to reflect changes in need and technology advancements provided that the updated Equipment Inventory is sufficient to ensure that CCH can achieve its commitments under this Consent Decree for maintenance of its Wastewater Collection System as well as spill response and remediation.

28. Odor Issues.

a. CCH shall maintain and publicize its hot line for citizen complaints about sewage odor.

b. CCH shall record information relating to odor complaints and maintain it in its database for at least five years available for inspection.

29. Spill Response, Monitoring, and Reporting. Within one year after the

Effective Date of this Consent Decree, CCH shall update its spill response, monitoring, and reporting procedures and submit a report to EPA and DOH for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree. The procedures shall include, but are not limited to, the following: spill response procedures for appropriate staff; a requirement that each spill report identify (by asset number) a sewer pipe that causes a spill; a requirement that CCH report and issue a press release following a spill that complies with the Hawaii Administrative Rules; and spill volume estimating procedures, including start time based on receipt of notification or information from witnesses, visual estimates for small spills, analysis of duration and flow, on-site measurement of contained volume, and, to the extent appropriate, an engineering evaluation.

VII. COMPLIANCE REQUIREMENTS: WASTEWATER TREATMENT PLANTS

30. Honouliuli Wastewater Treatment Plant. No later than 30 Days after the Effective Date of the Consent Decree, CCH shall withdraw any pending appeals of EPA's denial of its application for a permit pursuant to section 301(h) of the CWA for the Honouliuli WWTP. CCH shall Complete Construction of facilities necessary to comply with secondary treatment standards of the Act, as defined by 40 C.F.R. Part 133, for wastewater discharges from the Honouliuli WWTP by the compliance milestone of June 1, 2024, and shall meet the following interim compliance milestones.

a. By January 1, 2017, CCH shall execute a design contract and issue a notice to proceed with the design of all secondary treatment process facilities needed to comply with secondary treatment standards for wastewater discharges from the Honouliuli WWTP.

b. By January 1, 2019, CCH shall execute a construction contract (or contracts) and issue a notice (or notices) to proceed with construction of all

secondary treatment process facilities necessary to comply with secondary treatment standards for wastewater discharges from the Honouliuli WWTP.

31. Sand Island Wastewater Treatment Plant. No later than 30 Days after the Effective Date of the Consent Decree, CCH shall withdraw any pending appeals of EPA's denial of its application for a permit pursuant to section 301(h) of the CWA for the Sand Island WWTP. Unless the schedule is extended pursuant to Paragraph 31.d., CCH shall Complete Construction of facilities necessary to comply with secondary treatment standards of the Act, as defined by 40 C.F.R. Part 133, for wastewater discharges from the Sand Island WWTP by the compliance milestone of December 31, 2035, in accordance with the schedule set forth in subparagraphs a.-c.

a. As an interim compliance milestone, by January 1, 2019, CCH shall execute a design contract and issue a notice to proceed with the design of treatment process facilities needed to comply with secondary treatment standards for wastewater discharges from the Sand Island WWTP. The scope of the design contract may reflect phasing of necessary upgrades to the Sand Island WWTP, and may not include the detailed designs of all process facilities necessary to comply with secondary treatment standards.

b. By January 1, 2022, CCH shall execute a construction contract and issue a notice to proceed with construction of facilities that are part of its design to upgrade the Sand Island WWTP, in relation to compliance with secondary treatment standards. The scope of the construction contract may reflect phasing of necessary upgrades to the Sand Island WWTP, and may not include all process facilities necessary to comply with secondary treatment standards.

c. If the notice to proceed required by subparagraph b. did not authorize construction of all secondary treatment process facilities necessary to comply with secondary treatment standards for wastewater discharges from the Sand Island WWTP, as an interim compliance milestone, by January 1, 2030, CCH

shall execute a construction contract (or contracts) and issue a notice (or notices) to proceed with construction of all secondary treatment process facilities necessary to comply with secondary treatment standards for wastewater discharges from the Sand Island WWTP.

d. No earlier than January 1, 2024, and no later than December 31, 2025, CCH may submit to the Parties a report with a proposal to extend the deadline to Complete Construction of facilities necessary to comply with secondary treatment standards of the Act, as defined by 40 C.F.R. Part 133, for wastewater discharges from the Sand Island WWTP. The proposal shall, in no event, seek to extend this compliance milestone to a date later than December 31, 2038. The report submitted pursuant to this subparagraph shall, at a minimum, contain the following elements:

i. CCH's proposed schedule to Complete Construction of secondary treatment facilities, including any proposed modifications to the schedule in subparagraphs a.-c. above.

ii. An analysis of the technical, logistical, and financial impacts of constructing secondary treatment facilities at Sand Island under: (1) the 2035 schedule set forth in Paragraph 31 and subparagraphs a.-c. above; and (2) CCH's proposed schedule.

iii. A comparison of the impacts to CCH of the two construction schedules. In this report, CCH shall present detailed information on the costs it has incurred and anticipates it will incur in complying with the Consent Decree and operating and maintaining its Wastewater Collection System and Wastewater Treatment Plants, including, but not necessarily limited to:

- CCH's actual expenditures on its Wastewater Collection System from Year One through Year Ten.
- CCH's actual expenditures on its Wastewater Collection System following Year Ten. If any of these costs were incurred to complete work required by

Section VI (Compliance Requirements: Wastewater Collection System) of the Decree, these costs shall be specifically itemized.

- CCH may include projected capital improvements to the Wastewater Collection System in this analysis, and shall indicate whether the costs are: (1) included in its Capital Improvement Plan; and (2) likely to be incurred.
- CCH's projected budget for operation and maintenance of its Wastewater Collection System through Termination of the Consent Decree, along with the basis for the projections and supporting information.
- The most complete information available on the costs of construction of secondary treatment facilities at the Honouliuli WWTP.
- CCH's estimate of the projected construction costs of secondary treatment facilities at the Sand Island WWTP based on CCH's planning and design for all secondary treatment alternatives considered for the WWTP.
- CCH's actual expenditures in operating and maintaining its Wastewater Treatment Plants and sludge facilities through the end of the fiscal year prior to submittal of the report and CCH's estimate of changes to these operation and maintenance costs once secondary treatment operation commences at Sand Island.
- Actual and projected expenditures as a result of additional or more stringent legislative or regulatory mandates regarding air quality, water quality, and treatment standards applicable to CCH's Wastewater Collection System and Wastewater Treatment Plants.

iv. A discussion of the rate structure that CCH has implemented to finance the Wastewater Collection System and Wastewater Treatment Plant improvements it has constructed pursuant to the Consent Decree. This shall include a discussion of how CCH adjusted sewer rates to finance existing and expected costs during the implementation of the work required by the Consent Decree, along with EPA and/or industry guidelines regarding

affordability, and sewer fees in jurisdictions of comparable size and population.

v. A comparison of the rate structure that CCH projects would be appropriate to finance completion of construction of secondary treatment facilities at Sand Island by December 31, 2035, with the compliance deadline proposed by CCH. Specifically, CCH shall present its rationale for why requiring compliance by an earlier deadline than that proposed by CCH would result in undue financial hardship, which may include consideration of factors such as the cost of regulatory and statutory mandates, and other financial and socio-economic indicators relevant to evaluating the financial capability of CCH and its ratepayers.

vi. If CCH uses any models as part of its analysis in the report, CCH shall provide the Parties access to those models as well as all inputs to the models, and an explanation of the models' operation.

vii. Nothing set forth in subparagraph d. above shall limit the information or contentions that CCH may include in its report, or that any of the Parties may present to the Court, in support of its position.

e. After receiving CCH's report, the Parties shall meet and confer to discuss the report and shall use their best efforts to negotiate a schedule for construction of secondary treatment facilities at Sand Island. Any such schedule shall include a compliance milestone to Complete Construction of secondary treatment facilities at Sand Island by no later than December 31, 2038, and adjustments to interim compliance milestones in this Paragraph consistent with achieving this compliance milestone.

f. If the Governments and CCH reach an agreement regarding the construction schedule for secondary treatment facilities at the Sand Island WWTP, they shall submit the schedule to the Court for approval as a major modification pursuant to Section XIX (Modification) of the Consent Decree.

g. If the Governments and CCH cannot reach agreement regarding the construction schedule for secondary treatment facilities, they shall submit a

joint motion to the Court requesting judicial resolution of the dispute. The joint motion shall contain a written statement of: (1) CCH's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and the requested construction schedule, as presented to the Governments pursuant to subparagraph d.; and (2) the Governments' response to CCH's position, including a proposed construction schedule. Within 15 Days after the joint motion is filed, Intervenors may file a statement of position proposing a construction schedule that includes, at a minimum, the elements set forth in subparagraph e. above.

h. CCH shall bear the burden of demonstrating by a preponderance of the evidence that CCH's position should prevail over the Governments' position. Should the Court determine that the schedule proposed by the Governments is either technically infeasible or would result in undue financial hardship, the Court shall adopt the schedule proposed by CCH; provided that the schedule selected by the Court shall not require completion of construction of secondary treatment facilities at Sand Island any earlier than December 31, 2035, or later than December 31, 2038.

32. Treatment Plant Interim Effluent Limits.

a. Until CCH achieves compliance with secondary treatment standards of the Clean Water Act, as defined by 40 C.F.R. Part 133, for wastewater discharges from the Honouliuli and Sand Island WWTPs, CCH shall achieve compliance with the following interim effluent limits, monitoring, and reporting requirements for the discharge flow rate, TSS, and BOD_5:

Honouliuli Wastewater Treatment Plant

2010 Consent Decree Interim Limits

Interim Discharge Limitations					Monitoring Requirements	
Discharge Parameter	Average Monthly	Average Weekly	Maximum Daily	Units	Minimum Frequency	Sample Type
Flow	report	report	report	MGD	continuous	recorder or totalizer
Biochemical Oxygen Demand (5-day)	161 53679	166 55424	report	mg/l lbs/day	daily	24-hour composite
	As a monthly average, not less than 30% removal efficiency from influent stream.					
Total Suspended Solids	50 16721	53 17580	report	mg/l lbs/day	daily	24-hour composite
	As a monthly average, not less than 60% removal efficiency from influent stream.					

Sand Island Wastewater Treatment Plant 2010 Consent Decree Interim Limits						
Interim Discharge Limitations					Monitoring Requirements	
Discharge Parameter	Average Monthly	Average Weekly	Maximum Daily	Units	Minimum Frequency	Sample Type
Flow	report	report	report	MGD	continuous	recorder or totalizer
Biochemical Oxygen Demand (5-day)	119 89414	122 91594	report	mg/l lbs/day	daily	24-hour composite
	As a monthly average, not less than 30% removal efficiency from influent stream.					
Total Suspended Solids	48 36349	50 37403	report	mg/l lbs/day	daily	24-hour composite
	As a monthly average, not less than 60% removal efficiency from influent stream.					

b. Effluent Limits and Monitoring Requirements for Honouliuli WWTP. From the Effective Date of this Consent Decree until the final compliance milestone set pursuant to Paragraph 30 for the Honouliuli WWTP, CCH shall comply with the requirements and interim effluent limits for TSS and BOD_5 set forth above for the Honouliuli WWTP, notwithstanding any final effluent limitations for TSS and BOD_5 set forth in CCH's applicable NPDES permit for the Honouliuli WWTP; provided, however, that this Consent Decree shall not affect the force or effect of any other effluent limitations, or monitoring and reporting requirements, or any other terms and conditions of its applicable NPDES permit. After the final compliance milestone set pursuant to Paragraph 30 for the Honouliuli WWTP, all effluent limitations, monitoring and reporting requirements, and all other terms and conditions of its applicable NPDES permit for the

Honouliuli WWTP shall apply, without any limitation imposed by the terms of this Consent Decree.

c. Effluent Limits and Monitoring Requirements for Sand Island WWTP. From the Effective Date of this Consent Decree until the final compliance milestone set pursuant to Paragraph 31 for the Sand Island WWTP, CCH shall comply with the requirements and interim effluent limits for TSS and BOD_5 set forth above for the Sand Island WWTP, notwithstanding any final effluent limitations for TSS and BOD_5 set forth in CCH's applicable NPDES permit for the Sand Island WWTP; provided, however, that this Consent Decree shall not affect the force or effect of any other effluent limitations, or monitoring and reporting requirements, or any other terms and conditions of its applicable NPDES permit. After the final compliance milestone set pursuant to Paragraph 31 for the Sand Island WWTP, all effluent limitations, monitoring and reporting requirements, and all other terms and conditions of its applicable NPDES permit for the Sand Island WWTP shall apply, without any limitation imposed by the terms of this Consent Decree.

d. Without limiting the application of any other provision relating to the ability of the Parties to modify this Consent Decree, if changes are made to either the Honouliuli WWTP or Sand Island WWTP that affect the plant's design capacity, or if the influent wastewater characteristics of either plant change significantly, then upon CCH's request, EPA, DOH, and CCH shall meet and confer in an attempt to reach agreement on new interim effluent limits for TSS and BOD_5 for that plant. If the parties are unable to reach agreement, CCH may invoke the procedures set forth in Section XII (Dispute Resolution) of this Decree.

33. Treatment Plant Operation and Maintenance.

a. By no later than six months after the Effective Date of this Consent Decree, CCH shall submit revised facility-wide operation and maintenance manuals for the Sand Island and Honouliuli WWTPs to EPA and

DOH for review and approval in accordance with Section IX (Review and Approval of Deliverables) of this Decree. CCH may, where appropriate, incorporate provisions from existing operation and maintenance manuals. These manuals shall include, but not be limited to, the following elements:

i. Operation and maintenance procedures for all major systems at each WWTP from the headworks to and including the outfall and on-site sludge processing facilities;

ii. Spare parts inventory procedures, including identification of which parts are to be maintained on site and which parts may be maintained at off-site locations;

iii. Staffing levels and professional experience grades required for plant operating personnel; and

iv. Training procedures.

b. By no later than 90 Days prior to the deadline for CCH to Complete Construction of secondary treatment facilities at the Honouliuli or Sand Island WWTPs, CCH shall submit revised operation and maintenance manuals for the WWTP being upgraded to EPA and DOH for review only. CCH may, where appropriate, incorporate provisions from existing operation and maintenance manuals. The revised operation and maintenance manuals shall be consistent with proper operation and maintenance at the affected facilities, and shall include updates to all the program elements in the operation and maintenance manuals approved pursuant to subparagraph a. to address changes to the operations and maintenance procedures as a result of installation of new treatment technology.

c. At its discretion, CCH may modify its approved operation and maintenance manuals to address changed circumstances. Such modifications shall be submitted to EPA and DOH for review only, and shall be consistent with proper operation and maintenance at the affected facilities.

d. CCH shall implement the operation and maintenance manuals

as approved pursuant to subparagraph a., and as they may be modified pursuant to subparagraphs b. and c. However, nothing in this subparagraph shall be construed to limit CCH's discretion to perform supplemental operation and maintenance in addition to the minimum requirements of the approved manuals.

VIII. ANNUAL AND COMPLIANCE REPORTS

34. Reporting Requirements.

a. Annual Meeting. At a mutually agreeable date each year in April or May, the Parties shall meet to review CCH's compliance with the requirements of the Consent Decree and to discuss the status of work being performed by CCH pursuant to the Decree. Two weeks before the scheduled annual meeting, CCH shall provide the United States, the State, and the Intervenors a proposed agenda addressing issues to be discussed.

b. Quarterly SSO Reports. On the thirtieth day of January, April, July, and October of each year until Section VI (Compliance Requirements: Wastewater Collection System) of this Decree is terminated, CCH shall submit to the Governments and Intervenors a list of all SSOs occurring during the previous calendar quarter that are either: (i) required to be reported pursuant to Hawaii Administrative Regulations (HAR) Chapter 11-62, Appendix C.2 (as amended on April 15, 1997); (ii) required to be reported pursuant to HAR Chapter 11-62, Appendix C.4 (as amended on April 15, 1997); or (iii) required to be recorded or reported pursuant to HAR Chapter 11-62, Appendix C.5 (as amended on April 15, 1997). This provision is in addition to and does not alter requirements of Hawaii law or CCH's NPDES permit requirements concerning SSO reporting. The provisions of HAR Chapter 11-62 that describe the SSOs to be reported are attached as Appendix K.

The reports shall provide:

i. the date and time of each SSO;

ii. the location of each SSO including address and asset

identification number;

iii. the structure(s) from which each SSO emerged (e.g., sewer manhole, broken pipe, wet well, indoor plumbing, lateral cleanout, etc.);

iv. the pipe size, length, and material;

v. the estimated volume of each SSO including gross volume, amount recovered, and amount not recovered;

vi. the cause of each SSO;

vii. whether each SSO entered a particular water of the United States and/or water of the State, and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;

viii. the results of any post-SSO CCTV inspection or assessment; and

ix. the actions CCH took to control the overflow, clean up the SSO, and prevent future SSOs at the same location.

c. Annual Reports. For each project required by Paragraphs 11 through 33 of Sections VI (Compliance Requirements: Wastewater Collection System) and VII (Compliance Requirements: Wastewater Treatment Plants) of this Decree, CCH shall submit an Annual Report to the Governments and Intervenors for their review. The Annual Report shall be due on September 30 (covering the previous July 1 to June 30). Each Annual Report shall report the status of each project required by Paragraphs 11 through 33. For projects that are completed, the Annual Report shall state whether the project was completed by the applicable deadline. For projects that have not been completed, the Annual Report shall briefly describe the status of the project including whether the project remains on schedule for completion by the applicable deadline. If any projects identified in Paragraphs 11 through 33 are not completed by the applicable deadline, subsequent Annual Reports shall continue to set forth the status of these uncompleted projects until each project is completed. The Annual Reports shall not be subject to

approval pursuant to Section IX (Review and Approval of Deliverables) of this Decree.

d. Contents of Annual Report.

i. Each Annual Report shall document the status of compliance milestones, interim compliance milestones, annual performance requirements, and performance requirements for the previous Year. The report shall identify each compliance milestone, interim compliance milestone, annual performance requirement, and performance requirement that was to be achieved in the previous Year, and shall indicate whether the work called for in each compliance milestone, interim compliance milestone, annual performance requirement, and performance requirement is complete and the date of completion. If the work required by any individual compliance milestone, interim compliance milestone, annual performance requirement or performance requirement for the previous Year is completed at a date later than the date of an Annual Report, within 30 Days of completion of the milestone, CCH shall submit a follow-up report documenting when the work was complete.

ii. Designated Rehabilitation and Replacement Projects. For Years One through Three of this Consent Decree, CCH's Annual Report shall include a status report on each project required by Paragraph 20.c. and identified in Appendix H of this Decree. For projects that are completed, the Annual Report shall state whether the project was completed by the applicable deadline. For projects that have not been completed, the Annual Report shall briefly describe the status of the project and indicate whether the project remains on schedule for completion by the applicable deadline. If any projects in Appendix H are not completed by the end of Year Three of this Consent Decree, subsequent Annual Reports shall continue to set forth the status of these uncompleted projects until each project is completed. If CCH has completed the projects identified in Appendix H of this Decree and has rehabilitated or replaced additional miles of

gravity main sewer pipe in Years One through Three, CCH is eligible to bank the excess mileage as provided in Paragraph 20.e. The Annual Report shall indicate the number of miles CCH proposes to bank and explain the basis for CCH's position.

iii. RR Plan - Mileage Requirements. For Years Four through Ten of this Consent Decree, the Annual Reports shall state the number of miles of gravity mains that CCH has rehabilitated and replaced in the previous Fiscal Year. 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.

If CCH exceeded the required annual mileage of gravity main rehabilitation or replacement and is eligible to bank the excess mileage as provided in Paragraph 20.e., the Annual Report shall indicate the number of miles CCH proposes to bank and explain the basis for CCH's position that it has exceeded the mileage requirements of the RR Plan for the Year.

iv. Lower Laterals. CCH shall report the nature of the corrective action undertaken at Lower Laterals in the past year.

e. Annual Status Conference. No later than 90 Days after submission of the Annual Report each year, the Parties shall jointly request a status conference with the Court to review the status of the work being performed pursuant to this Consent Decree.

35. All Deliverables shall be submitted to the persons designated in Section XVI (Notices) of this Decree.

36. Each Deliverable submitted by CCH under this Consent Decree shall be signed by an official of the submitting party and include the following certification:

> I certify under penalty of law that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gathered and presented the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that to the best of my knowledge and belief the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing and willful submission of a materially false statement.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

37. The reporting requirements of this Consent Decree do not relieve CCH of any reporting obligations required by the Act or its implementing regulations, or by any other federal, State, or local law, regulation, permit, or other requirement.

IX. REVIEW AND APPROVAL OF DELIVERABLES

38. After review of the Deliverables submitted pursuant to Paragraphs 11

through 33, EPA, after consultation with DOH, shall, in writing, within 90 Days of submission of these Deliverables: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission. If EPA does not submit a decision in writing within the time specified, CCH shall have the right to invoke the procedures set forth in Section XII (Dispute Resolution) of this Decree.

39. If the submission is approved pursuant to Paragraph 38, CCH shall take all actions required by the Deliverable, in accordance with the schedules and requirements of the Deliverable as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 38(b) or (c), CCH shall, upon written direction of EPA, take all actions required by the approved Deliverable that EPA determines are technically severable from any disapproved portions, subject to CCH's right to dispute only the specified conditions or the disapproved portions, under Section XII (Dispute Resolution) of this Decree.

40. If the submission is disapproved in whole or in part pursuant to Paragraph 38, CCH shall, within 60 Days or such other time as CCH and EPA agree to in writing, correct all deficiencies and resubmit the Deliverable, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. Alternatively, CCH may invoke Section XII (Dispute Resolution) of this Decree.

41. If a resubmitted Deliverable, or portion thereof, is disapproved in whole or in part, and EPA determines that further attempts at revision would be futile, EPA may issue a Notice of Remaining Deficiencies, identifying with specificity the ways in which the Deliverable does not comply with the requirements of this Consent Decree and requiring CCH to invoke dispute resolution. CCH shall invoke Section XII (Dispute Resolution) of this Decree no later than 30 Days after receiving the Notice, unless the Notice is withdrawn.

42. <u>Permits and Approvals</u>. Where any compliance obligation under this

Consent Decree requires CCH to obtain a federal, State, or local permit or approval, CCH shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. CCH may seek relief under the provisions of Section XI (Force Majeure) of this Decree for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if CCH has submitted timely, accurate, and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

X. STIPULATED PENALTIES

43. If CCH fails to pay the civil penalty required to be paid under Section V (Civil Penalty) of this Decree when due, CCH shall pay a stipulated penalty of $500 per day for each day that the payment is late. Late payment of the civil penalty shall be made in accordance with Section V, Paragraph 10.a. and b. Stipulated payments shall be paid in accordance with Section X, Paragraphs 54 and 55. All transmittal correspondence shall state that any such payment is for late payment of the civil penalty due under this Decree, or for Stipulated Penalties for late payment, as applicable, and shall include the information set forth in Paragraph 10.a. and b.

44. Except as otherwise provided for in this Consent Decree, CCH shall be liable for stipulated penalties to the United States and the State for violations of this Consent Decree as specified below in Paragraphs 45-50. The violations specified below as subject to stipulated penalties include failing to perform obligations required by the terms of this Consent Decree, including follow-up action plans or schedules approved under this Consent Decree, according to the applicable requirements of this Consent Decree within the time schedules established or approved under this Consent Decree, including work plans or schedules approved under this Decree.

45. Compliance Milestones. For each violation of a compliance milestone

identified in Paragraphs 11 through 31 of this Decree, CCH shall be liable for stipulated penalties per day for each violation as set forth below:

Period of Noncompliance	Penalty Per Violation Per Day
Days 1-30	$500
Days 31-60	$1,000
Days over 60	$2,000

46. Interim Compliance Milestones. For each violation of an interim compliance milestone identified in Paragraphs 11 through 31 of this Decree, CCH shall be liable for stipulated penalties per day for each violation as set forth below:

Period of Noncompliance	Penalty Per Violation Per Day
Days 1-60	$250
Days over 60	$500

47. Delays in Submission of Deliverables or Annual Reports. CCH shall be liable for the following stipulated penalties for each failure to timely submit to the Governments a Deliverable or an Annual Report subject to a deadline under this Consent Decree:

Period of Noncompliance	Penalty Per Violation Per Day
Days 1-30	$250
Days 31-60	$500
Days over 60	$2,000

48. Annual Performance Requirements.

a. For failure to rehabilitate or replace the required minimum of miles per year of gravity sewers in Years 4 through 10 as required by Paragraph 20.d. and e., CCH shall be liable for a stipulated penalty of $10,000 for each mile below the annual performance requirement in Paragraph 20.d. and e. CCH shall increase performance over the subsequent two years to compensate for the amount of the underperformance except to the extent excused pursuant to Section XI (Force Majeure) of this Decree.

b. For failure to clean the required minimum miles of gravity main sewers in any year as set forth in Paragraph 22.a., CCH shall be liable for a stipulated penalty of $1,000 per mile below the annual performance requirement. CCH shall increase performance for the subsequent year by the amount of the underperformance except to the extent excused pursuant to Section XI (Force Majeure) of this Decree.

c. For failure to clean the required minimum of unique miles of gravity main sewers in any year as set forth in Paragraph 22.a., CCH shall be liable for a stipulated penalty of $1,000 per mile below the annual performance requirement. CCH shall increase performance for the subsequent year by the amount of the underperformance except to the extent excused pursuant to Section XI (Force Majeure) of this Decree.

d. For failure to complete 95 percent of the Grease Removal Device inspections that CCH must conduct in a year as required by Paragraph 23.a.ii., CCH shall be liable for a stipulated penalty of $250 per inspection missed or not performed in compliance with the requirements of Paragraph 23.a.ii. below the 95 percent threshold.

e. For failure to smoke test the minimum miles of gravity mains and laterals in any year as required by Paragraph 25.g., CCH shall be liable for a stipulated penalty of $2,000 per mile below the annual performance requirement, and shall increase performance for the subsequent year by the amount of the underperformance.

f. The requirement in subparagraphs a.-c. and e. above to increase performance in a subsequent year shall not increase the annual performance requirement set forth in Paragraphs 20.d. and e., 22.a., or 25.g. for purposes of assessing stipulated penalties for underperformance in that subsequent year.

49. Performance Requirements.

a. For failure to inspect and assess the required number of miles of

gravity main sewers as set forth in Paragraph 19.b., CCH shall be liable for a stipulated penalty of $1,500 for each full mile below the performance requirement.

b. For failure to rehabilitate or replace the required number of miles of gravity main sewers as set forth in Paragraph 20.c. and e., CCH shall be liable for a stipulated penalty of $7,000 for each full mile below the performance requirement in Paragraph 20.c. and e.

50. Spills. CCH shall be liable for stipulated penalties for certain Subject SSOs as provided in this Paragraph.

a. If CCH is liable for a stipulated penalty for noncompliance with a compliance milestone with respect to work required at a pump station or force main in Paragraphs 11 through 24, CCH shall pay a stipulated penalty for each Subject SSO from that pump station or force main during the period of noncompliance, in the amount of $4,000 for spills under 100,000 gallons and $10,000 for spills over 100,000 gallons.

b. If CCH materially and substantially fails to properly implement an applicable Spill Contingency Plan for a force main identified in Paragraph 11.c.ii. or c.iii. and a Subject SSO occurs as a result of that failure, CCH shall be liable for a stipulated penalty of $4,000 for Subject SSOs under 100,000 gallons and $8,000 for Subject SSOs over 100,000 gallons.

c. If CCH is liable for a stipulated penalty for noncompliance with a compliance milestone with respect to work required at a gravity sewer in Paragraph 18, for each wet weather Subject SSO from that gravity sewer during the period of noncompliance, CCH shall pay a stipulated penalty of $4,000 for Subject SSOs under 100,000 gallons and $8,000 for Subject SSOs over 100,000 gallons.

d. A Subject SSO will be subject to stipulated penalties under only one of the above subparagraphs a.-c. However, the applicability of one of these subparagraphs will in no way affect CCH's liability under any other provision of this Section.

51. Stipulated penalties under this Section shall begin to accrue on the day after performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree. Stipulated penalties shall be payable only upon a written demand for payment made by the United States, after consultation with the State, and shall be paid within 30 Days of receiving the United States' written demand.

52. The United States or the State may, in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due that sovereign under this Consent Decree. The determination by one sovereign to reduce or waive stipulated penalties shall not preclude the other sovereign from seeking stipulated penalties. In exercising their discretion under this Paragraph, the United States and the State will take into consideration the amount of time that has elapsed since they received notice of the underlying violation.

53. Fifty percent (50%) of each payment of stipulated penalties made pursuant to this Section shall be made to the United States, and fifty percent (50%) of each payment shall be made to the State, using the penalty payment procedures set forth in Paragraphs 54 and 55. The Governments may modify these payment procedures through written notice to CCH.

54. CCH shall pay stipulated penalties owing to the United States by certified or cashier's check in the amount due payable to the "U.S. Department of Justice," referencing DOJ No. 90-5-1-1-3825/1 and Civil Action No. 94-00765 DAE-KSC, and delivered to the office of the United States Attorney, District of Hawaii, Financial Litigation Unit, 300 Ala Moana Boulevard, Honolulu, Hawaii 96850, unless the United States directs CCH to pay by EFT in accordance with instructions provided by the Financial Litigation Office of the U.S. Attorney's Office of the District of Hawaii. If the United States directs payment by EFT,

CCH shall, at the time of payment, send written notice of payment and a copy of any transmittal documentation (which shall reference DOJ case number 90-5-1-1-3825/1 and Civil Action No. 94-00765 DAE-KSC) to the United States in accordance with Section XVI (Notices) of this Decree.

55. CCH shall pay stipulated penalties owing to the State by sending a certified or cashier's check made payable to the State of Hawaii. At the time of each payment, CCH shall simultaneously send written notice of payment and a copy of any transmittal documentation (which shall reference Civil Action No. 94-00765 DAE-KSC) to the State in accordance with Section XVI (Notices) of this Decree.

56. If CCH fails to pay stipulated penalties according to the terms of this Consent Decree, CCH shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due, subject to the following Paragraph.

57. Upon receipt of the United States' written demand for payment of a stipulated penalty, CCH may dispute its liability for such stipulated penalty pursuant to the dispute resolution provisions of Section XII (Dispute Resolution). Pending resolution of any such dispute, stipulated penalties continue to accrue if the obligation at issue has not been met and interest on any unpaid penalties accrue pursuant to the terms of Paragraph 56, provided, however, that the CCH may argue to the Court that stipulated penalties and interest should not run after the matter has been fully briefed and submitted to the Court, and provided that the Governments can argue the contrary. Upon the completion of dispute resolution, any stipulated penalties that are ultimately determined to be due, plus interest as applicable, shall be paid within 30 Days of the date of EPA's written decision or, if applicable, any Court order.

58. The payment of stipulated penalties shall not alter in any way CCH's obligation to complete the performance of all activities required under this Consent

Decree.

59. Payment of stipulated penalties as set forth above shall be in addition to any other rights or remedies that may be available to EPA or DOH by reason of CCH's failure to comply with requirements of this Consent Decree or any applicable federal, State, or local laws, regulations, NPDES permits, and all other applicable permits. Where a violation of this Consent Decree is also a violation of the Clean Water Act or comparable State law, CCH shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation; provided, however, that if the State collects a stipulated penalty for a Subject SSO under this Consent Decree, CCH shall not be subject to penalty for that Subject SSO in any collateral proceeding brought by the State. Furthermore, if the United States or the State has collected a stipulated penalty for a Subject SSO under this Consent Decree, the Intervenors shall not seek civil penalties in this action or in any collateral proceeding for that Subject SSO, provided that in the event the United States seeks additional civil penalties in this action or a collateral proceeding for that Subject SSO, Intervenors may seek to intervene in the United States' action to the extent provided by law and may seek to assert such civil penalty claims, to the extent permitted by law, so as not to exceed the scope or number of claims asserted, or the amount of civil penalty sought, by the United States. The payment of a stipulated penalty under this Consent Decree shall not be deemed an admission of a violation of any law, regulation or CCH's NPDES permits, or that any SSO was an unpermitted discharge in violation of the Clean Water Act.

XI. FORCE MAJEURE

60. A "Force Majeure event" is any event beyond the control of CCH, its contractors, or any entity controlled by CCH that delays the performance of any obligation under this Consent Decree despite CCH's best efforts to fulfill the obligation. "Best efforts" includes anticipating reasonably foreseeable force

majeure events and taking appropriate preventive actions before a Force Majeure event occurs. "Best efforts" also includes addressing the effects of any Force Majeure event (a) as it is occurring and (b) after it has occurred, to prevent or minimize any resulting delay to the extent reasonably practicable. "Force Majeure" does not include CCH's financial inability to perform any obligation under this Consent Decree.

61. CCH shall provide written notice to the Governments, as provided in Section XVI (Notices) of this Decree, within 30 Days of the time CCH first knew of, or by the exercise of due diligence, should have known of, a claimed Force Majeure event. The notice shall state the anticipated duration of any delay, its cause(s), CCH's past and proposed actions to prevent or minimize any delay, a schedule for carrying out those actions, and CCH's rationale for attributing any delay to a Force Majeure event. Failure to provide written notice as required by this Paragraph shall preclude CCH from asserting any claim of Force Majeure.

62. If the United States agrees that a Force Majeure event has occurred, it may agree to extend the time for CCH to perform the affected requirements for the time necessary to complete those obligations. An extension of time to perform the obligations affected by a Force Majeure event shall not, by itself, extend the time to perform any other obligation. When the United States agrees to an extension of time, the appropriate modification shall be made pursuant to Section XIX (Modification) of this Decree, and the modified dates shall be the basis for determining compliance with this Consent Decree, including for purposes of Section X (Stipulated Penalties).

63. If the United States does not agree that a Force Majeure event has occurred, or does not agree to the extension of time sought by CCH, the United States' position shall be binding, unless CCH invokes Dispute Resolution under Section XII of this Decree. In any such dispute, CCH bears the burden of proving, by a preponderance of the evidence, that each claimed force majeure event is a

Force Majeure event, that CCH gave the notice required by Paragraph 61, that the Force Majeure event caused any delay CCH claims was attributable to that event, and that CCH exercised best efforts to prevent or minimize any delay caused by the event. If the Court agrees that the event was a Force Majeure event, the dates for performance shall be adjusted to reflect the time the Court determines to be appropriate pursuant to the Dispute Resolution process, and the modified dates shall be the basis for determining compliance with this Consent Decree, including for purposes of Section X (Stipulated Penalties).

XII. DISPUTE RESOLUTION

64. Unless otherwise expressly provided for in this Consent Decree, all disputes under this Consent Decree are subject to dispute resolution and the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, such procedures shall not apply to actions by the United States or the State to enforce obligations of CCH that have not been disputed in accordance with this Section.

65. Informal Dispute Resolution. Any dispute subject to dispute resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Intervenors and/or CCH send a written Notice of Dispute to all other Parties. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 20 Days from the date the dispute arises, unless that period is modified by written agreement among all Parties. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be considered binding unless, within 30 Days after the conclusion of the informal negotiation period, CCH or the Intervenors invoke the dispute resolution procedures as set forth in Paragraphs 66 to 68 below.

66. Formal Dispute Resolution. Intervenors or CCH shall invoke the dispute resolution procedures of these Paragraphs 66 to 68 within the time period

provided in Paragraph 65 above by serving on all the other Parties a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting the position and any supporting documentation relied upon by CCH or Intervenors when invoking formal dispute resolution.

67. A Party other than the Party that invoked the dispute resolution process of these Paragraphs 66 to 68 may also serve a Statement of Position within 30 Days after service of the Statement of Position that invoked the dispute resolution process of Paragraphs 66 to 68. A Statement of Position served pursuant to this Paragraph shall be accompanied by supporting materials, including, but not necessarily limited to, any factual data, analysis, or opinion and any documentation relied upon by the Party invoking the formal dispute resolution procedures.

68. The United States, after consultation with the State, shall serve its Statement of Position within 45 Days after service of the latter of CCH's or the Intervenors' Statement of Position. The United States' Statement of Position shall include, but may not necessarily be limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding unless Intervenors or CCH file a motion for judicial review of the dispute in accordance with the following Paragraphs.

69. Judicial Dispute Resolution. CCH or Intervenors may seek judicial review of the dispute against the United States by filing with the Court and serving on the United States (with copies to all other Parties), in accordance with Section XVI (Notices) of this Decree, a motion requesting judicial resolution of the dispute. The motion must be filed within 60 Days after service of the United States' Statement of Position pursuant to Paragraph 68. The motion shall contain a written statement of Intervenors' or CCH's position on the matter in dispute,

including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of this Consent Decree.

70. The United States shall have 60 Days in which to respond to Intervenors' or CCH's motion. Intervenors or CCH may file a reply memorandum to the extent permitted by the Local Rules.

71. In any dispute in this Court pursuant to Paragraphs 66 to 68, the Court shall first rule on the dispute between CCH and the United States. If CCH's position prevails over the United States' position, the dispute resolution process shall end. If the position of the United States prevails over CCH's position, the Court shall then consider any remaining dispute between the United States and Intervenors.

72. In any dispute in this Court under Paragraphs 66 to 68, when CCH initiates Judicial Dispute Resolution, it shall bear the burden of demonstrating by a preponderance of the evidence that CCH's position on the issues in dispute should prevail over the United States' position.

73. In any dispute in this Court under Paragraphs 66 to 68, when Intervenors initiate Judicial Dispute Resolution, they shall bear the burden of demonstrating that the United States' position is arbitrary and capricious.

74. Effect on Consent Decree Obligations. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of CCH under this Consent Decree, unless and until the final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 57, above. If CCH does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section X (Stipulated Penalties).

XIII. INFORMATION COLLECTION AND RETENTION

75. EPA, DOH, and their representatives, including attorneys, contractors, and consultants, shall have the right of entry on CCH's property at all reasonable times, upon presentation of credentials, to:

a. monitor the progress of activities required under this Consent Decree;

b. verify any data or information submitted to the Governments in accordance with the terms of this Consent Decree;

c. obtain samples and, upon request, splits of any samples taken by CCH or its representative, contractors, or consultants;

d. obtain documentary evidence, including photographs and similar data; and

e. assess CCH's compliance with this Consent Decree.

76. Upon request, CCH shall provide EPA, DOH, or their authorized representatives splits of any samples taken by CCH. Upon request, EPA and DOH shall provide CCH splits of any samples taken by EPA or DOH.

77. Until the termination of this Consent Decree, CCH shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all records and documents (including records or documents in electronic form, but excluding personnel records) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, that document CCH's performance of its obligations under this Consent Decree. This record retention requirement shall apply regardless of any CCH, corporate, or institutional document-retention policy to the contrary. At any time during this record-retention period, EPA or DOH may request copies of any documents or records required to be maintained under this Paragraph.

78. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by EPA or DOH pursuant to

applicable federal or State laws, regulations, or permits, nor does it limit or affect any duty or obligation of CCH to maintain records or information imposed by applicable federal or State laws, regulations, or permits.

XIV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

79. This Consent Decree resolves the civil claims of the United States and the State for the violations alleged in the Supplemental Complaint filed in this action through the date of lodging of the Decree.

80. This Consent Decree resolves the civil claims of the United States and the State for the violations alleged, and any stipulated penalties allegedly incurred by CCH, in Civ. No. 94-00765 DAE-KSC and Civ. No. 07-00235 DAE-KSC, through the date of lodging of the Decree. The Consent Decree also resolves the civil claims of the United States and the State for the violations alleged in EPA Order Nos. CWA-309-9-00-003, CWA-309-9-03-019, CWA-402-9-02-61, and CWA-402-9-03-28, as well as State of Hawaii Order Nos. 2004-CW-EO-01N and 04-WW-EO-2, through the date of lodging of the Decree. Upon the Effective Date of this Consent Decree, the foregoing Orders are terminated and of no further force or effect.

81. This Consent Decree and the "Stipulated Order for Dismissal With Prejudice; Attachment A (Memorandum of Understanding)" entered in the 2004 Case resolve the civil claims of the Intervenors for the violations that were or could have been alleged under the claims in: (1) the Supplemental Complaint filed in this action; (2) Civ. No. 94-00765 DAE-KSC; (3) Civ. No. 07-00235 DAE-KSC; and (4) the 2004 Case. This Consent Decree and the "Stipulated Order for Dismissal With Prejudice; Attachment A (Memorandum of Understanding)" entered in the 2004 Case fully resolve any claims of Intervenors for litigation costs (including attorneys' fees as provided in Paragraph 91 below) pursuant to CWA section 505(d), 33 U.S.C. § 1365(d), related to Intervenors' activities relating to the 1994 Complaint, Intervenors' 2004 Complaint, or the 2007 Complaint, including

any supplements or amendments thereto.

82. Upon the Effective Date of this Consent Decree, the 1995 Consent Decree is terminated and of no further force or effect. Within 10 Days after the Effective Date of this Consent Decree, the Parties shall file a joint Stipulation and Order of Dismissal with Prejudice to terminate Civ. No. 07-00235 DAE-KSC. Within 10 Days after the Effective Date of this Consent Decree, the Intervenors and CCH shall file a joint Stipulation and Order of Dismissal with Prejudice to terminate the 2004 Case.

83. The United States and the State reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated herein. This Consent Decree shall not be construed to prevent or limit the rights of the United States or the State to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal laws, regulations, or permit conditions, or under State law, regulations, or permit conditions, except as expressly specified herein. CCH reserves all legal and equitable defenses to enforcement under this Consent Decree, except as expressly stated herein.

84. The United States and the State further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, CCH's POTW, whether related to the violations addressed in this Consent Decree or otherwise.

85. In any subsequent administrative or judicial proceeding initiated by the United States or the State or the Intervenors for injunctive relief, civil penalties, or other appropriate relief relating to CCH's POTW, CCH shall not assert, and may not maintain, any defense based upon any contention that the claims raised by the United States or the State or the Intervenors in the subsequent proceeding were or should have been brought in the Supplemental Complaint or resolved in this Consent Decree except as expressly provided herein. Nothing in this Consent Decree shall constitute an admission of any fact or of any liability or a waiver of

any right, except as expressly stated herein.

86. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. CCH is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits. The United States and the State do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that CCH's compliance with any aspect of this Consent Decree will result in compliance with provisions of the CWA or applicable State law.

87. The Supplemental Complaint and this Consent Decree shall constitute and establish diligent prosecution by the United States and the State of Hawaii, under CWA section 505(b)(1)(B), 33 U.S.C. § 1365(b)(1)(B), and any other applicable federal or State law, of all matters alleged in the Supplemental Complaint arising from the beginning of the applicable statutes of limitation through the date of lodging of the Decree.

88. This Consent Decree does not limit or affect the rights of Defendant or of the Governments against any third parties not party to this Consent Decree, nor does it limit the rights of third parties not party to this Consent Decree against CCH, except as otherwise provided by law.

89. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

90. Nothing in this Consent Decree shall limit CCH's ability to modify its program for the design, planning, construction, operation, and maintenance of its Wastewater Collection System or Wastewater Treatment Plants in any fashion not inconsistent with this Decree.

XV. COSTS

91. The Parties shall bear their own costs of this action, including attorneys' fees, except that: (i) the United States and the State shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any stipulated penalties due but not paid by CCH; and (ii) Intervenors'

claims for attorneys' fees and costs in this action, in Sierra Club, et al. v. City and County of Honolulu, Civ. No. 04-00463 DAE-KSC, and in United States, et al. v. City and County of Honolulu, Civ. No. 07-00235 DAE-KSC, will be resolved by Magistrate Judge Kevin Chang after the lodging of the 2010 Consent Decree in United States, et al. v. City and County of Honolulu, Civ. No. 94-00765 DAE-KSC, in accordance with applicable principles of law, provided that Intervenors bring a motion for such fees and costs within the time and otherwise in accordance with Local Rule 54.3. This Court's disposition of any such motion for attorneys' fees and costs shall be final and without any right of appeal.

XVI. NOTICES

92. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and sent by certified mail, return receipt requested, or deposited with an overnight mail/delivery service, and addressed as follows:

To EPA:

Chief, Clean Water Act Compliance Office (WTR-7)
Water Division
Attn: Greg Arthur
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

To the United States:

Chief, Clean Water Act Compliance Office (WTR-7)
Water Division
Attn: Greg Arthur
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

and

Chief, Environmental Enforcement Section
Attn: Robert Mullaney
U.S. Department of Justice
301 Howard Street, Suite 1050
San Francisco, CA 94105
Re: DOJ No. 90-5-1-1-3825/1

To State of Hawaii or DOH:

Edward G. Bohlen
Deputy Attorney General
Department of the Attorney General, State of Hawaii
465 South King Street, Room 200
Honolulu, HI 96813

Hawaii Department of Health
Clean Water Branch
Attn: Enforcement Section Supervisor
919 Ala Moana Boulevard, Room 301
Honolulu, HI 96814

Wastewater Branch Chief
Hawaii Department of Health
919 Ala Moana Boulevard, Room 309
Honolulu, HI 96814

To CCH:

Carrie K.S. Okinaga, Esq.
Corporation Counsel
Dept. of the Corporation Counsel
City and County of Honolulu
530 South King Street, Room 10
Honolulu, HI 96813

and

Timothy E. Steinberger
Director
Department of Environmental Services
City and County of Honolulu
530 South King Street, Room 10
Honolulu, HI 96813

and

James J. Dragna, Esq.
Bingham McCutchen LLP
355 South Grand Avenue, Suite 4400
Los Angeles, CA 90071

To Intervenors:

Any notifications, submissions, or communications to the Intervenors pursuant to this Consent Decree shall be, to the extent feasible, sent via electronic mail transmission to the e-mail addresses listed below or, if electronic transmission is not feasible, via U.S. Mail or hand delivery to the following addresses:

Robert Harris
Director, Sierra Club, Hawaii Chapter
1040 Richards Street, Room 306

Mail: P.O. Box 2577
Honolulu, HI 96803
E-mail: robertharris@mac.com

Donna Wong
Hawaii's Thousand Friends
305 Hahani Street PMB 282
Kailua, HI 96734
E-mail: htf@lava.net

Christopher A. Sproul
Environmental Advocates
5135 Anza Street
San Francisco, CA 94121
E-mail: csproul@enviroadvocates.com

William Tam
Alston Hunt Floyd & Ing
American Savings Bank Tower, 18th Floor
1001 Bishop Street
Honolulu, HI 96813-3689
E-mail: wtam@ahfi.com

Mike Costa
Our Children's Earth Foundation
3701 Sacramento St. #194
San Francisco, CA 94118
E-mail: mike@ocefoundation.org

93. Any Party may, by written notice to the other Parties, change its designated notice recipient(s) or notice address(es) provided above. Any Party may designate electronic mail address(es) as an alternative means for receiving submittals provided for by Paragraph 92. If a Party has designated an electronic mail address for receipt of submittals, delivery to the designated address shall substitute for the means of transmitting submissions provided for by Paragraph 92; provided, however, if an electronic mail submission is not successfully delivered to a designated electronic mail address, the Party making the submission shall make the submission as provided for by Paragraph 92 unless an alternative means of transmission is agreed upon.

94. Notices submitted in accordance with this Section shall be deemed submitted on the date they are postmarked or, if sent electronically, they shall be deemed submitted upon transmission, but a notice is not effective if the sending Party learns that it did not reach the Party to be notified. Notwithstanding the

sender's receipt of a successful delivery notification, a recipient that fails to receive the submission may request delivery by other means. Such a request does not affect the timeliness of the original submission.

XVII. EFFECTIVE DATE

95. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court.

XVIII. RETENTION OF JURISDICTION

96. The Court shall retain jurisdiction over this case until termination of this Consent Decree for the purpose of resolving disputes arising under this Consent Decree pursuant to Section XII (Dispute Resolution), entering orders modifying this Consent Decree pursuant to Section XIX (Modification), or effectuating or enforcing compliance with the terms of this Consent Decree.

XIX. MODIFICATION

97. The terms of this Consent Decree, including compliance schedules, may be modified, as provided in this Paragraph, by a subsequent written agreement signed by the United States, the State, and CCH. Time extensions and modifications to proposed project scopes shall not be construed as material modifications to this Consent Decree. Any non-material modifications to the Consent Decree may be made, without Court approval, by a written agreement signed by the United States, the State, and CCH, and shall be effective upon service to all the Parties; provided, however, the Intervenors may raise the issue of the materiality of the modification by invoking dispute resolution pursuant to Section XII (Dispute Resolution) of this Decree. When a modification constitutes a material modification to any term of this Consent Decree, the United States, the State, and CCH shall file a joint motion to modify the Consent Decree with the Court and shall provide notice to all Parties. The Intervenors may oppose a motion for material modification by filing with the Court and serving on all Parties a statement of position regarding any material modification. The Court shall apply the standard set forth in Paragraph 73 in deciding the dispute. Any material

modification of this Consent Decree shall be effective upon approval by the Court.

XX. TERMINATION

98. This Consent Decree shall terminate as provided in this Section.

99. Section VI (Compliance Requirements: Wastewater Collection System) of this Decree shall terminate as provided in this Paragraph.

a. Nine and One-Half Year Report. Six months before the end of Year Ten, CCH shall submit to the Governments a report (the "Nine and One-Half Year Report") that certifies the following:

i. that CCH has met the interim compliance milestones in Paragraph 11.c. (Force Main Spill Contingency Planning), and obtained approval of the spill contingency plans required therein;

ii. that CCH has completed work required in the follow-up action plans to be completed by no later than June 30, 2020, as required by Paragraph 12;

iii. that CCH has Completed Construction of the Force Main Projects required by Paragraphs 13.d., 14.a, 15.a., and 16, and has both Completed Construction of the Kaneohe/Kailua Sewer Tunnel Project required by Paragraph 17.a. and completed the initial two-year operation period set forth in Paragraph 17.c., or, if applicable, has Completed Construction of the new Kaneohe/Kailua Force Main project provided for by Paragraph 17.d.;

iv. that CCH is maintaining backup force mains in good operating condition as required by Paragraphs 14.b., 15.b., 16, and, if applicable, 17.d.;

v. that CCH has Completed Construction of the 1999 Final Sewer I/I Plan projects required to be constructed by June 30, 2020, pursuant to Paragraph 18;

vi. that CCH has incorporated into its Capital Improvement Plan the projects that CCH had determined appropriate to program as a result of analysis or development pursuant to the Wet Weather I/I Assessment Update in

Paragraph 18.g.x.;

vii. that CCH has inspected and assessed the number of miles of gravity sewers required pursuant to Paragraph 19;

viii. that CCH has repaired, rehabilitated or replaced the number of miles of gravity sewers required pursuant to Paragraph 20; and

ix. whether there are any outstanding stipulated penalty assessments or pending dispute resolution proceedings with regard to CCH's Wastewater Collection System pursuant to the Consent Decree.

x. If any of requirements in subparagraphs i. through viii. have not been completed, the Nine and One-Half Year Report shall discuss CCH's plans to complete them by the end of Year Ten.

b. Ten Year Report. Within 60 Days after the end of Year Ten, CCH shall submit to the Governments a report (the "Ten Year Report") certifying that:

i. CCH has completed 650 miles of CCTV inspections as required by Paragraph 19;

ii. CCH has Completed Construction of 144 miles of projects as required by Paragraph 20;

iii. CCH has completed all projects identified by CCH in its Nine and One-Half Year Report pursuant to subparagraph a.x. above; and

iv. there are no outstanding stipulated penalty assessments or pending dispute resolution proceedings with regard to CCH's Wastewater Collection System pursuant to the Consent Decree.

c. The Governments shall use best efforts to approve or reject the Nine and One-Half Year Report and the Ten Year Report within 100 Days after they receive the reports. If the Governments approve CCH's certification that all of the requirements set forth in subparagraphs a.i. through viii. and subparagraphs b.i. through iv. are satisfied, then Section VI (Compliance Requirements: Wastewater Collection System) of this Decree shall terminate in its entirety. If the

Governments approve CCH's certification that any requirement set forth in subparagraphs a.i. through viii. and subparagraphs b.i. through iv. is satisfied, then CCH's obligation to perform that requirement under this Consent Decree is terminated. If the Governments reject, in whole or in part, the Nine and One-Half Year Report or Ten Year Report, they shall specify the grounds upon which the rejection is based. If the Governments reject the Nine and One-Half Year Report or Ten Year Report in whole or part, reject one or more certifications in the reports or do not respond within the 100-Day period, CCH may move the Court for approval of any certification in the Nine and One-Half Year Report or Ten Year Report that was not approved by the Governments. If CCH moves the Court, the standards set forth in Paragraph 72 shall apply. If the Court approves CCH's certification that all of the requirements set forth in subparagraphs a.i. through viii. and subparagraphs b.i. through iv. are complete, then Section VI (Compliance Requirements: Wastewater Collection System) of this Decree shall terminate in its entirety. If the Court approves CCH's certification that any of the requirements set forth in subparagraphs a.i. through viii. and subparagraphs b.i. through iv. are satisfied, then CCH's obligation to perform that requirement under this Consent Decree is terminated.

100. Section VII (Compliance Requirements: Wastewater Treatment Plants) of this Decree shall terminate as provided in this Paragraph.

a. After CCH has Completed Construction of secondary upgrades at either the Honouliuli or Sand Island Treatment Plant in accordance with the requirements of Section VII (Compliance Requirements: Wastewater Treatment Plants) of this Decree and achieved compliance for twelve consecutive months with the secondary treatment effluent quality requirements of 40 C.F.R. § 133.102 at that Treatment Plant, CCH shall submit to the Governments a Report of Completion, stating that CCH has satisfied those requirements as to that Treatment Plant, together with all necessary supporting documentation.

b. The Governments shall use best efforts to approve or reject the

Report of Completion within 90 Days after they receive it. If the Governments approve CCH's Report of Completion, all obligations of this Consent Decree as to the Treatment Plant that is the subject of the Report shall terminate. If the Governments reject, in whole or in part, the Report of Completion, they shall specify the grounds upon which the rejection is based. If the Governments reject the Report in whole or in part, or do not respond within the 90-Day period, CCH may move the Court for approval of the Report. If CCH moves the Court, the standard set forth in Paragraph 72 shall apply. If the Court approves the Report, all obligations of this Consent Decree as to the Treatment Plant that is the subject of the Report shall terminate.

101. After the certifications submitted by CCH pursuant to Paragraph 99 and the Reports submitted pursuant to Paragraph 100 have been approved by either: (i) the Governments or (ii) the Court, CCH may submit a Request for Termination to the Parties. After receipt of the Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether CCH has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States, after consultation with the State and the Intervenors, agrees that the Consent Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Consent Decree.

102. If the United States, after consultation with the State and the Intervenors, does not agree that this Consent Decree may be terminated, CCH may invoke Dispute Resolution under Section XII of this Decree. However, CCH shall not seek Dispute Resolution under Section XII of any dispute regarding termination until 60 Days after service of its Request for Termination.

XXI. PUBLIC PARTICIPATION

103. This Consent Decree shall be lodged with the Court for a period of not less than 30 days for public notice and comment in accordance with 28 C.F.R. § 50.7. CCH shall also publish notice of the lodging and comment period, in a

form approved by DOH and in a major Honolulu newspaper(s) as approved by DOH. CCH shall provide DOH with an affidavit indicating when and where the notice was published. The United States and the State reserve the right to withdraw or withhold consent if comments regarding this Consent Decree disclose facts or considerations indicating that this Consent Decree is inappropriate, improper, or inadequate. CCH and the Intervenors consent to entry of this Consent Decree without further notice.

XXII. SIGNATORIES/SERVICE

104. Each undersigned representative of CCH, the State, the Intervenors, and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

105. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis.

106. Intervenors and CCH agree not to oppose entry of this Consent Decree by the Court or to challenge any provision of this Consent Decree, unless the United States notifies CCH in writing that it no longer supports entry of this Consent Decree.

XXIII. INTEGRATION

107. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Decree, and this Consent Decree supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than Deliverables that are subsequently submitted pursuant to this Consent Decree, no other document and no other representation, inducement, agreement, understanding, or promise constitutes any part of this Consent Decree or the settlement it represents, nor shall they be used in construing the terms of this Consent Decree.

XXIV. APPENDICES

108. The following appendices are attached to and part of this Consent Decree:

"Appendix A" is the Small Force Mains List;

"Appendix B" is the Large Force Mains List;

"Appendix C" is the Site-Specific Spill Contingency Plan;

"Appendix D" is the Force Main Condition Assessment;

"Appendix E" is the Force Main Operation and Maintenance Program;

"Appendix F" is the Scope of the 1999 Final Sewer I/I Plan Projects;

"Appendix G" is the List of Deferred Projects from the Wet Weather I/I Assessment Update;

"Appendix H" is the Gravity Main Rehabilitation and Replacement Projects for Years One through Three;

"Appendix I" is the List of Currently Authorized Positions for CCH's Staffing Commitment;

"Appendix J" is the Equipment Inventory; and

"Appendix K" contains provisions of HAR Chapter 11-62 (as amended on April 15, 1997).

XXV. FINAL JUDGMENT

109. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court between and among the United States, the State, Intervenors, and Defendant. The Court finds that there

there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

Dated and entered this _____ day of _____, 2010.

_____
DAVID A. EZRA
UNITED STATES DISTRICT JUDGE

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. City and County of Honolulu.

For Plaintiff the United States of America:

Dated: 8/4/10

ROBERT G. DREHER
Acting Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice
Washington, DC 20530

Dated: August 10, 2010

ROBERT D. MULLANEY
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
301 Howard Street, Suite 1050
San Francisco, California 94105
Tel: (415) 744-6491
Fax: (415) 744-6476

For Plaintiff the United States of America (con't):

Dated: July 15, 2010

JARED BLUMENFELD
Regional Administrator
U.S. Environmental Protection Agency
Region 9

Of Counsel:

HUGH BARROLL
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region 9

For Plaintiff the United States of America (con't):

Dated: 7/30/10

CYNTHIA J. GILES
Assistant Administrator
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. City and County of Honolulu.

For Plaintiff the State of Hawaii:

Dated: JUL 2 2 2010

EDWARD G. BOHLEN
KATHLEEN S.Y. HO
Deputy Attorneys General
Department of the Attorney General,
State of Hawaii
465 South King Street, Room 200
Honolulu, Hawaii 96813
Tel: (808) 587-3050
Fax: (808) 587-3077

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. City and County of Honolulu.

For Defendant the City and County of Honolulu:

Dated: July 20, 2010

MAYOR, MUFI HANNEMANN

APPROVED:

19 July 2010

TIMOTHY E. STEINBERGER Date
Director
Department of Environmental Services

APPROVED:

7/19/10

CRAIG I. NISHIMURA Date
Director
Department of Design and Construction

APPROVED:

7/19/10

RIX MAURER III Date
Director
Department of Budget & Fiscal Services

APPROVED:

7-19-10

JEFFREY S. CUDIAMAT Date
Director
Department of Facility Maintenance

APPROVED:

7/19/2010

NOEL ONO Date
Director
Department of Human Resources

APPROVED AS TO FORM AND LEGALITY:

7/19/10

CARRIE K.S. OKINAGA Date
Corporation Counsel

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. City and County of Honolulu.

For Intervenors Sierra Club, Hawai'i Chapter, Hawai'i's Thousand Friends, and Our Children's Earth Foundation

Dated: July 20, 2010

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APPENDIX A
(Small Force Mains List)

APPENDIX A

Small Force Mains
(<1.3 MGD Average Daily Flow)

Aala Drive
Alala Point
Aliamanu # 1
Aliamanu # 2
Alii Bluffs
Coconut Grove
Enchanted Lake
Ewa Gentry
Grandview
Halekou
Heeia
Homelani Acres
Kahaluu
Kahaluu Housing
Kahanahou
Kahawai Stream
Kahuku Effluent
Kaneohe Bay # 2
Kaneohe Bay # 3
Kaneohe Bay # 4
Kaneohe Bay South #5
Kemoo Farm
Kukanono
Kuliouou
Laie
Lakeview Circle
Leanani
Makakilo
Maunawili Estates
Maunawili Park
Mililani
Miomio
Moana Park
Nakula Street
Nanakuli
Ohai Place
Pacific Palisades
Paiko Drive
Public Baths
Punawai
Sand Island Industrial Park
Sand Island Parkway
Uwalu
Waiawa Industrial Park
Waikalua
Waikapoki
Waipio
West Beach Resort #1
West Beach Resort #2
West Loch Estates
West Loch Fairways

APPENDIX B
(Large Force Mains List)

APPENDIX B

Large Force Mains

(≥1.3 MGD Average Daily Flow)

Ahuimanu
Ala Moana
Awa Street
Beachwalk
Ewa Beach
Fort DeRussy
Halawa
Hart Street
Kahala
Kailua Heights
Kailua Road
Kamehameha Highway
Kaneohe Bay #1
Kaneohe-Kailua
Kunia
Lualualei
Niu Valley
Pearl City – East
Pearl City - West
Waimalu
Waipahu – East
Waipahu - West

APPENDIX C
(Site-Specific Spill Contingency Plan)

APPENDIX C

Site Specific Spill Contingency Plan

The purpose of the Spill Contingency Plan is to establish measures and procedures to respond to a force main spill event in order to minimize discharges to surface waters, to prevent public exposure to the spilled wastewater, and to return the force main to full service as rapidly as possible. The Spill Contingency Plan must be: (1) specific to the location; (2) prepared in accordance with good engineering practices; and (3) be readily accessible so that it is a source of usable information for employees or response personnel during an actual emergency.

The contents of the Spill Contingency Plan shall include: Force Main Information; Response Procedures; Equipment, Parts, and Supplies; and Plan Updates. The contents are described as follows:

Force Main Information

This section of the Spill Contingency Plan shall contain salient information about the force main, including, location, diameter, length, material, elevations, design flows and pressures, fittings, parallel force mains, location of storm drain inlets and waterways, and a vicinity map of the force main, including nearby gravity sewers and pump stations that may be used for diversion of flows in the event the force main is damaged.

Schematic diagrams shall be included, depicting all valves, access points, and fittings that may be used in an emergency response to contain or divert sewage from the damaged force main.

This section of the Plan shall also describe monitoring and/or alarms at the force main (or its associated pump station) including, but not limited to, SCADA that could serve to notify CCH of a potential spill.

Spill Response

This section of the Spill Contingency Plan shall include a list of the actions that CCH anticipates taking in the event of a force main spill -- including tankering and diversion of flows within the system using parallel force mains or other facilities. This section shall describe the personnel CCH will have available to deploy in the event of a force main spill, the staff notification procedures, and anticipated response times.

This section of the Plan shall include a list of steps that CCH anticipates taking to minimize discharges from the force main to surface waters including, but not limited to, procedures for shutting down pumps, diversion of sewage to parallel force mains or nearby gravity sewers, spill containment, tankering, emergency discharge locations (to be used only if no other practicable contingencies exist), and notification to industrial/ commercial dischargers and residential customers in the service area to minimize water usage.

This section of the Plan shall include the steps that CCH anticipates taking to notify impacted agencies and the public of the location and size of the force main spill. It shall also include plans for warning members of the public in order to prevent public exposure to spilled wastewater, including, but not limited to, posting procedures.

This section of the Plan shall include the methods CCH anticipates using to clean up and mitigate the impacts of the spill. Procedures for the decontamination of spills sites and disposal of contaminated water, soil, equipment, and supplies shall be included.

Equipment, Parts and Supplies

This section of the Plan shall include a list of the equipment, parts and supplies needed to support the Plan including response and repair equipment, spare parts, and supplies that can be used in the event of a force main failure. The response equipment shall include portable pumps, hose or piping, sand bags (or equivalent barrier/diversion devices) and pipe plugs. The supplies shall include replacement pipe, valves and repair kits. The list shall identify the location of all such equipment, parts, and supplies.

Plan Updates

CCH shall review the Spill Contingency Plan annually, and shall revise the Spill Contingency Plan as necessary to address any pertinent changed conditions and to ensure the functionality of the key components of the Plan; provided however, such revisions shall not eliminate any element of the Spill Contingency Plan required by this Appendix.

CCH shall provide a copy of any revised Spill Contingency Plan to EPA and DOH.

APPENDIX D
(Force Main Condition Assessment)

APPENDIX D

Force Main Condition Assessment

I. OBJECTIVES

A. Conduct assessments of a force main for the purpose of locating conditions that may cause pipe leakage, failure or interruption of service. In determining the appropriate assessment methods, cost alone is not a basis for rejecting or selecting an assessment method, but is a factor to be considered in selecting from among appropriate assessment methods.

B. Conduct inspections of all accessible valves, fittings, and appurtenances associated with the force main for the purpose of locating conditions that may cause pipe leakage, failure or interruption of service.

C. For each inspection, document the findings of each condition discovered.

D. Assess the risk of pipe failure associated with each condition discovered.

E. Gather sufficient information on the force main to determine the appropriate course of action so that the force main can continue to function (either as a primary or back-up force main) without a material risk of failure.

F. Provide a plan with schedules for addressing each condition that poses a material risk of pipe failure or service interruption. Follow-up actions may include monitoring the situation, preventative maintenance, repair, rehabilitation or replacement.

II. SCREENING/PRELIMINARY RISK ASSESSMENT

A. Evaluate Previous Failures – Evaluate past force main failures, determine the likelihood of repeat failures, and identify portions of the force main at risk for a repeat failure.

B. Prior Condition Assessments – Evaluate past condition assessments and identify portions of the force main at risk of failure or in need of further assessment.

C. High Risk Pipe Configuration – Review force main plans to identify piping configurations at increased risk of failure including connections, joints and bends.

D. Identify Corrosion Risks – Identify locations along each pipeline that are at risk for corrosion of the internal or external pipe walls. CCH shall employ the

best available screening methods suitable for the force main, including, but not limited to, the following:

1. Identification of pipeline high points.

2. Identification of locations with failed cathodic protection, if installed.

3. Measurements of pipe-to-soil electrical potential.

4. Soil resistivity testing.

5. Examination of force main discharge manholes for signs of corrosion indicating corrosive wastewater.

E. Right-Of-Way Inspection – Inspect pipeline right-of-ways to look for signs of pipe damage or physical changes that may affect the condition of the force main. Right-of-way inspections shall include, but not be limited to, the following:

1. Examination of soils adjacent to pipelines to look for wet spots, unusual vegetation growth or other indications of leakage.

2. Observations of recent construction or road repairs that may have affected the structural integrity of the force main.

3. Observations of land movements (slides, rock falls, sink holes, settling) that may have affected the structural integrity of the force main.

4. Observations of other conditions, such as unusual surface loads, that may have affected the structural integrity of the force main.

III. ASSESSMENTS

A. Valves, Fittings and Appurtenances – Inspect and conduct functional analyses of, to the extent practicable, all valves, air-relief valves, drains, connections, fittings and appurtenances associated with the force main. Identify each valve, fitting or appurtenance that is not fully functional or functioning as intended. Identify conditions that present a material risk of pipe failure or interruption of service of the force main.

B. Cathodic Protection – Evaluate the integrity and adequacy of all installed cathodic protection systems. Identify each location where the protection has failed or where protection is inadequate. If cathodic protection is not installed on a force main, evaluate whether conditions warrant the installation of cathodic protection.

C. External Pipe Inspections

1. Locations – The exterior of the force main shall be inspected at:

   a) Each location where the pipe is exposed; and

   b) Each location determined to present a material risk of failure or interruption of service based on the screening analyses pursuant to section II (excavation may be necessary to reach these locations).

2. Inspection Methods

   a) At each location identified pursuant to section III.C.1 above, the pipe exterior shall be visually inspected for structural damage and the integrity of protective coatings.

   b) Additional inspections shall be conducted as needed to locate and assess pipe conditions that present a material risk of pipe failure or interruption of service. Special attention shall be focused on locations determined, pursuant to section II.D above, to present a material risk of pipe corrosion.

   c) The exterior of the force main shall be inspected using visual inspection and/or the best proven technology that is suitable to the particular pipe to identify conditions such as cracks, corrosion, erosion, or coating damage/delamination that pose a material risk of pipe failure or interruption of service. Best proven technology may include ultrasonic examination of pipe walls or pipe wall samples, or other methods for determining the extent of pipe corrosion.

D. Internal Pipe Inspections – Internal pipe inspections shall utilize the best proven inspection technology that is suitable to the particular pipe to identify conditions, such as cracks, corrosion, erosion, coating de-lamination, joint deflections, pipe deformation and debris accumulation, that pose a material risk of pipe failure or interruption of service. Internal force main inspections shall be conducted on the length of pipe that is practically accessible with the selected inspection method. At a minimum, CCH shall inspect the portions of pipe necessary to identify or characterize conditions that pose a material risk of pipe failure or interruption of service, including, but not limited to, all high points in the pipes, to the extent practicable. Where practicable, CCH shall conduct evaluations in the vicinity of all access points (air relief valves, discharge manholes and other valves and fittings that provide access). If any portion of a force main is not subjected to internal inspection, CCH shall provide an explanation in the final assessment report.

E. Operating Pressure Evaluations – The City shall evaluate the operating and transient pressure for the force main. The purpose of the evaluation is to determine if the design, construction, and materials are sufficient to withstand the maximum predicted transient pressures that may be expected to occur under normal, peak flow, and emergency (shut-down and start-up) conditions. This evaluation shall include, but not necessarily be limited to, a review of available pressure sensor data (SCADA and strip chart_ to evaluate normal operating pressures, and an evaluation, using transient pressures models or actual pressure measurements, of the transient pressures that occur during the range of anticipated operating conditions. Any actual pressure measurements shall be limited to the range of operating conditions that is both prudent and practicable.

F. Leak Detection - The City shall follow up on observed conditions that are likely to be the source of leakage. The methodologies employed will be appropriate to the type of condition and location of the suspected leakage.

IV. CONDITION ASSESSMENT REPORTS AND -ACTION PLANS

A. Assessment Methods – Describe the method and extent of each assessment conducted under section III, including valve, fitting and appurtenance inspections; cathodic protection evaluations; external and internal pipe inspections; operating pressure evaluations and leak detection tests. Describe each external and internal pipe inspection method utilized and the locations, including the length of pipe, where each method was employed. Provide justifications for the selection of inspection methods and locations. In an appendix to the report, provide a copy of the original field data.

B. Assessment Results and Findings

1. Assessment Results

a) Describe the results of the screening/preliminary risk assessments conducted pursuant to section II, including a listing of the pipe segments identified as having a material risk of pipe failure or interruption of service based on corrosion potential or other factors.

b) Describe the results of each assessment conducted under section III, including valve, fitting and appurtenance inspections; cathodic protection evaluations; external and internal pipe inspections; operating pressure evaluations and/or leak detection tests.

2. Findings of Conditions - Identify and quantify (where practicable) observed or measured conditions that constitute a material risk of pipe failure or service interruption. In describing such conditions, characterize the nature of the risk of failure associated with the condition, the likelihood and imminence (to the extent practicable) of the failure risk and the consequences should such a failure occur. The conditions to be addressed in this report may include:

a) Pipe conditions: cracks, holes, corrosion, erosion, coating de-lamination, joint deflections, pipe deformation and debris accumulation;

b) Valve, fitting and appurtenance conditions;

c) Cathodic protection system conditions; and

d) Leaks.

C. Follow-up Action Plan – Provide a proposed action plan to address conditions that constitute a material risk of pipe failure or service interruption as a primary or back-up force main. The action plan shall include, but not be limited to: 1) maintenance plan, 2) schedule for future assessments, 3) schedule for design and construction of repairs, rehabilitation, improvements or replacement as applicable. In developing the action plan, CCH shall consider what actions are necessary to achieve the objectives set forth above in Section I.

APPENDIX E
(Force Main Operation and Maintenance Program)

FORCE MAIN

OPERATION AND MAINTENANCE PLAN

May 11, 2010

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1. PURPOSE

The purpose of this Force Main Operation and Maintenance (O&M) Plan is to provide a listing of the programs and activities that CCH will employ to minimize the frequency and severity of SSOs that result from force main failures. Comprehensive details of the Performance Testing, Operational Inspections, and Predictive Maintenance are described in the individual pump station O&M manuals and the WTD Directives. This plan is subject to modification based on changes in field conditions and industry equipment standards. Inspection frequencies will increase or decrease depending on the equipment's condition when inspected.

2. ABBREVIATIONS

The following abbreviations are used in this plan.

CCH City and County of Honolulu
CSM Collection System Maintenance Division
DDC Department of Design and Construction
DPP Department of Planning and Permitting
ENV Department of Environmental Services
fps Feet per second
gpm Gallons per minute
MGD Million gallons per day
O&M Operation and Maintenance
SD Site Development Division
SRE Significant Rainfall Event
SSO Sanitary Sewer Overflow
WD Wastewater Division
WTD Division of Wastewater Treatment and Disposal

3. RESPONSIBILITIES

The responsibilities for implementing the elements of this plan are shown on Table 1.

Table 1: Responsibilities

Activity	Responsible Department/Division
Surface Marking	ENV/WTD
Trenching Permit Process	DPP/SD
Inspection during Construction	DDC/WD
Operation & Maintenance	ENV/WTD
Manage Outside Contractors during Emergency Maintenance and Repairs	DDC/WD
Manage Emergency Maintenance and Repairs	ENV/WTD
Support Emergency Maintenance and Repairs	ENV/CSM

4. O&M PROGRAM ELEMENTS

4.1. Surface Marking

The purpose of force main marking is to prevent inadvertent damage to force mains caused by excavation, drilling and other underground construction activities.

4.1.1. Buried Force Mains

The location of all buried force mains will be identified using surface markers at least every 100 feet. The markers will read:

- Caution
- Buried Sewage Pipe under Pressure.
- Call WTD Operations at (808) 847-8307 before digging

4.1.2. Underwater Force Mains

The entry and exit points for all underwater force mains will be identified using surface markers. The markers will read:

- Caution
- Submerged Sewage Pipe under Pressure
- Call WTD Operations at (808) 847-8307 before working in vicinity

4.1.3. Exposed Force Mains

The location of all exposed force mains will be identified using markers at least every 100 feet. The markers will read:

- Caution
- Sewage Pipe under Pressure
- Call WTD Operations at (808) 847-8307 if any problems

4.2. Location Information

4.2.1. Design Phase

CCH – DPP/Site Development Division will notify designers regularly working in the service area that Trenching Permits are required for any earthmoving, drilling, excavation, or other underground construction.

4.2.2. Construction Phase

Contractors are required to obtain a Trenching Permit from DPP for any earthmoving, drilling, excavation, or other underground construction. The contractor will notify DDC within seven days of permit approval of any nearby force main facilities.

4.2.3. Inspection during Construction

Drilling, excavation and underground construction activities that may impact the integrity of force mains will be inspected by DDC inspectors while the work is in progress to ensure that the contractor has implemented appropriate protection measures.

4.3. Performance Testing

Force main performance will be tested, as detailed in the WTD directives. The results of the performance testing will be compiled. Work orders will be issued to correct performance problems as appropriate. Back-up force mains identified, as "dry force mains" are not intended to need performance testing on a regular basis, and may remain dry without filling or pressurizing.

The data from the annual performance inspections will be maintained for use in evaluating changes in force main performance over time.

4.4. Operational Inspections

The purpose of operational inspections is to ensure that the force main facilities are operating normally.

A summary of operational inspections is shown in Table 2 and detailed in the WTD directives. Each of the operating inspections is discussed in greater detail below. Inspection of a "dry force main" is limited to the activities that can be done without filling or pressurizing the force main.

Records of operational inspections will be recorded in the computerized maintenance management system by asset.

Table 2: Summary of Force Main Operational Inspections and Frequencies

Force Main Feature	Inspection Activity	Frequency
Right-of-Way (buried and elevated)	Visually inspect right-of-way.	3 – 6 Months
Right-of-Way (underwater)	Visually inspect right-of-way (diver or remotely operated vehicle).	5 Years or following nearby underwater construction activities
Air/Vacuum Relief Valve	Inspect valves and piping for signs of corrosion, damage, leakage or odor. Observe valve operation during pump cycle.	Quarterly with further optimization of interval based on condition findings and equipment history.
Air/Vacuum Relief Valve	Flush Air/Vacuum relief valve assemblies.	Quarterly with further optimization of interval based on condition findings and equipment history.
Other Force Main Valves	Observe condition and exercise valves.	12 Months
Corrosion Protection (Impressed Current)	Measure potential and current readings.	3 Months
Corrosion Protection (Sacrificial Anode)	Measure pipe to soil potential.	3 Months
Electrolysis Test Stations	Measure pipe to soil potential.	12 Months
Force Main Pipe (external)	Visually inspect external pipe condition	12 Months

	where exposed.	
Force Main Pipe (internal)	Visually inspect internal pipe condition at discharge location.	12 months
Dissolved Sulfides in Force Main Effluent	Sample and analyze force main effluent for total dissolved sulfides or gaseous Hydrogen Sulfide.	12 Months
Pipe Protective Coating	Determine protective coating integrity by inspecting pipe visually and using a paint thickness gauge.	12 Months
	Analyze predictive maintenance data.	12 Months

4.4.1. Force Main Right-of-Way

The force main inspection consists of a detailed and methodical visual inspection of each force main right-of-way to identify loss of support, earth movement, condition of features (e.g., pressure manholes), nearby construction activities, early signs of leakage, vandalism or other conditions that could lead to a force main failure. The inspections will be conducted by walking the force main right-of-way for buried and elevated force mains and by a diver or remotely operated vehicle for underwater force mains. The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs.

4.4.2. Air and Vacuum Relief Valves

The air and vacuum relief valve inspection will consist of a detailed and methodical visual and operational inspection to identify whether the valves are functioning, that they are not leaking, that they are in serviceable condition and that they are adequately protected from damage. The visual and operational inspection will include cycling the valves manually and observing the valves in operation during a normal pumping cycle (pump stop, idle time and start). The isolation valves that are used to shut off the air and vacuum relief valves will be operated at the time of the inspection to verify that they operate properly. See Table 2 for intervals.

The air relief valve discharge will be directed into a container when the valve is manually cycled to contain any sewage that may be discharged. The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs.

The employee inspecting the valves would be in contact with an operator at the pump station who would cycle the pumps and communicate their status to the inspector.

The volume that is discharge when an air/vacuum relief valve is flushed is dependent on the size and type of valve. The volume for one flushing cycle is:

Size (inches)	Volume (gallons)
2	5
3	6
4	9
6	20

These quantities can be contained in one or more buckets. Alternatively, pressurized water can be applied to the valve to flush the contents of the valve body back into the force main in which case there is no discharge (see Figure 1)

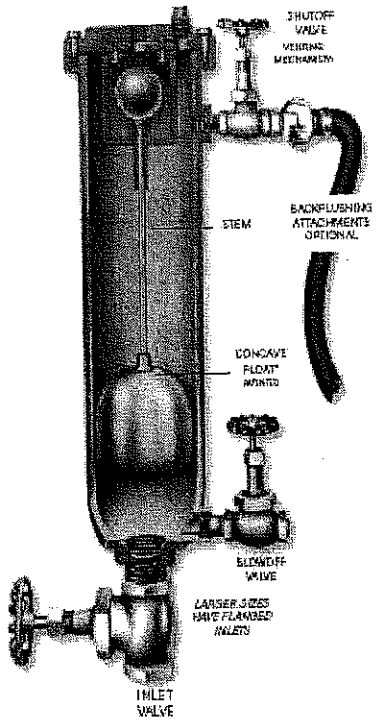

Figure 1: Air and Vacuum Relief Valve Assembly

CCH plans to have an inventory of air/vacuum relief valves and the field crews would have the small valves (2 and 3 inch) with them during the inspection/maintenance activities. The inspection crew can replace small valves. Larger valves are too heavy for a crew to replace and will require the use of a boom truck or other lifting device. The priority will be based on the time of year. Ideally, all air/vacuum relief valves should be operational before the wet weather season.

4.4.3. Isolation (Inlet) and Blow-Off Valves

The isolation and blow off valve inspection will consist of a detailed and methodical visual and operational inspection to determine the condition and operability of the valves. Valves will be exercised during this inspection. A tanker truck will be used to contain the sewage discharged from the blow off valves. See Table 2 for intervals.

The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs.

4.4.4. Significant Rainfall Event

The significant rainfall event (SRE) inspections will be conducted by WTD Pump Station personnel and consist of a detailed and methodical visual inspection to determine the condition of force mains where their reliability may be impacted by saturated soil conditions and/or heavy surface runoff. SRE inspections will be focused on specific collection system facilities. A SRE is defined as a rainfall event associated with a Flood Warning announcement. These inspections will be conducted in areas where rainfall has occurred within 48 hours after the end of the rainfall event. The results will be recorded in an inspection log that notes both locations and observations. Any identified corrective actions required will be initiated through a Corrective Action Work request within the computerized maintenance management system.

4.4.5. Corrosion Protection

The potential for corrosion and the functioning of the corrosion protection systems will be inspected as per Table 2. Corrective actions such as adjusting current settings, activating spare anodes, repair, and corrosion protection system replacement will be performed under the WTD's material maintenance management program. The procedures for the inspections follow:

4.4.5.1. Electrolysis Test Stations

The pipe-to-ground potential for metallic force mains with electrolysis test stations will be measured according to Table 2.

The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs. The results will be reviewed by a qualified engineer or technician or by a qualified corrosion-engineering consultant to evaluate the data.

4.4.5.2. Passive Corrosion Protection Systems

Passive corrosion protection systems employ sacrificial anodes. The pipe-to-ground potential will be measured according to Table 2.

The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs. The results will be reviewed by a qualified engineer or technician or by a qualified corrosion-engineering consultant to evaluate the data.

4.4.5.3. Active Corrosion Protection Systems

Active corrosion protection systems employ impressed currents. The pipe-to-ground potential and the system current will be measured according to Table 2.

The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs. The results will be reviewed by a qualified engineer or technician or by a qualified corrosion-engineering consultant to evaluate the data.

4.4.6. Pipe and Discharge Manhole/Structure Condition

The pipe and discharge manhole/structure inspection will consist of a detailed and methodical visual inspection to determine the condition of the exposed portions of the force main and the condition of the discharge manhole/structure. The inspection will be conducted either visually or with the aid of mirrors and/or down-hole camera systems. The inspection of the exposed portions of the force main will include observations on the condition of the coating system.

The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs. The results will be reviewed by a qualified engineer or technician or by a qualified corrosion-engineering consultant to evaluate the data.

4.5. Pump Station/Force Main System Operations

The pump station/force main systems will be operated as described below.

4.5.1. Sulfide Monitoring

Force main effluent dissolved sulfides or effluent structure atmospheric hydrogen sulfide concentration will be measured as per Table 2.

The results will be recorded in a log that notes time, date, flow and total dissolved sulfide/atmospheric hydrogen sulfide concentration. The results will be reviewed by a qualified engineer or technician or by a qualified corrosion-engineering consultant to evaluate the data. Results will be recorded in the computerized maintenance management system by asset.

4.5.2. Pump Stations with Single Force Mains

Pump stations with single force mains will be operated in a manner to produce a high velocity to flush accumulated solids once per week. The desired flushing velocity is 3 feet per second (fps).

4.5.3. Pump Stations with Multiple Force Mains

Pump stations with multiple force mains will be operated in a manner to produce a high velocity to flush accumulated solids in the operational force main once per week (force mains are alternated periodically). The desired flushing velocity is 3 fps. Back-up force mains identified as "dry force mains" are not intended to need flushing or testing on a regular basis, and may remain dry without filling or pressurizing.

4.5.3.1. Dry Weather

During dry weather periods, these pump stations will normally be operated with one force main in service (if the force main capacity is adequate to handle dry weather flows). Force main operation will be alternated every week so each is flushed at least every other week. The transition from one force main to the other should be gradual in order to minimize potential downstream odor issues.

4.5.3.2. Wet Weather

During wet weather periods, all force mains may be operated when required to avoid collection system spills. During this situation, each of the force mains will be flushed once per week. During force main flushing, the flow will be diverted to one of the force mains for the day shift or as long as possible given the flow conditions at the time.

5. EMERGENCY OPERATIONS AND EMERGENCY RECOVERY FEATURES

Emergency operations will be undertaken in the event of a force main failure. The emergency operations may include some of the following activities as deemed appropriate and as may be more particularly described within site specific spill contingency plans or contained in individual pump station O&M manuals:

- Shut down the pump station and store flows in the wet well and upstream collection system;
- Transfer flows to parallel force main, if available;
- Drain the force main to minimize the quantity of the spill;
- Contain spilled sewage to the extent feasible;
- Effect emergency repairs using stored repair clamps and/or pipe sections;
- Employ specialty contractors to support CCH forces during the emergency;
- Employ pump truck operations to remove wastewater from the wet well and dispose of the wastewater at an appropriate location; and/or
- Pump around the force main break to convey the flow until repairs are complete.

In addition to these emergency operations activities, force mains will be provided with the following emergency recovery features:

5.1. All-Weather Access to Valves, Pressure Manholes and Discharge Manholes/Structures

Gravel or paved access within the City's right-of-way will be constructed where appropriative to allow O&M personnel and/or vehicles to have all-weather access to install temporary pumps and piping, to replace/repair valves and to repair exposed sections of the force main. Location maps are located in the respective individual pump station O&M manuals.

5.2. Pressure Manholes

Pressure manholes will be installed as needed on new and rehabilitated force mains approximately every 1,000 feet to allow for the installation of pump-around equipment and/or to provide access for internal inspection.

6. MAINTENANCE

The pump station/force main systems will be maintained as described below. Records of maintenance activities will be recorded in the computerized maintenance management system by asset.

6.1. Predictive Maintenance

The data from force main right-of-way inspections, pipe and discharge manhole/structure inspections and effluent sulfide monitoring will be used to focus the predictive maintenance program. Predictive maintenance will include periodic evaluations of pipe and structure coating systems and pipe wall thickness.

The results will be recorded in an inspection log that notes both locations and observations. Any significant or unusual situations will be recorded using photographs. The results will be reviewed by a qualified engineer or technician or by a qualified engineering consultant to evaluate the data.

Work orders will be issued to correct identified problems as appropriate.

6.2. Preventive Maintenance

The force main preventive maintenance program will include the following activities.

6.2.1. Air and Vacuum Relief Valves

The results of the air and vacuum relief valve operational inspections will be used to establish the appropriate preventive maintenance frequency for flushing and rehabilitating/replacing the valves. The initial inspection frequency is listed in Table 2 and the frequency adjusted based on the field data.

6.2.2. Isolation and Blow-off Valves

The results of the isolation and blow-off valve operational inspections will be used to identify valves that require maintenance, repair, rehabilitation or replacement.

6.2.3. Corrosion Protection System

The results from the corrosion protection system inspections will be used to establish the appropriate preventive maintenance frequency for the active corrosion protection systems and for replacing the anodes in the passive corrosion protection systems. The initial frequency will be 12 months for the active corrosion protection system.

The results from the pipe and discharge manhole/structure inspections will be used to establish the preventive maintenance frequency for the pipe and manhole/structure coating systems.

6.2.4. Force Main Cleaning

Force main cleaning will be accomplished using pigging, swabbing, or other appropriate methods.

Other methods of cleaning a force main include flushing with high flows or flushing with a high velocity sewer cleaner. The term swabbing includes forcing a loose fitting device through the force main (e.g. a coarse sand bag filled with ice). The term pigging includes forcing a pig through the force main.

The results from the Periodic Pump Station Performance Testing will be used to establish the preventive maintenance frequency for cleaning the force mains serving medium and large pump stations (medium pump stations are pump stations equal to or greater than 2 mgd but less than or equal 30 mgd in design capacity; large pump stations are pump stations that have a design capacity greater than 30 mgd). Force mains serving small pump stations with a rated capacity of less than 2 MGD will be cleaned every five years.

6.3. Corrective Maintenance

Planned repairs to force mains will be completed within the work order priority timeframe. Force mains that require frequent or significant repairs due to their condition will be considered for rehabilitation or replacement. Force main rehabilitation or replacement will be based on the repair history of the asset and will consider the replacement costs of the asset. Contractors will be employed to assist CCH staff when necessary to complete corrective maintenance.

The WTD priority system is:

- Priority 1 (Emergency/Regulatory Violation/Life Threatening/Safety
  - Emergency
  - Complete Immediately
  - Overtime is authorized
- Priority 2 (Urgent)
  - Emergency
  - Complete As-Soon-As-Practical with pre-approved work order
  - Overtime requires pre-approval
- Priority 3 (Predictive or Routine Maintenance)
  - Pre-determined frequency under work order system
  - Complete within 30 days
- Priority 4 (Corrective Maintenance)
  - Planned work order
  - Complete within 3 months
- Priority 5 (Special Projects/System Modifications)
  - Low priority maintenance or improvements
  - Complete within 1 year

6.4. Reactive Maintenance

Unplanned repairs to force mains will be completed within the work order priority timeframe as shown in Section 6.3. Corrective Maintenance. Contractors will be employed to assist CCH staff when necessary to complete unplanned repairs.

6.5 Spare Parts

Spare pipe, valves, and repair couplings will be stocked to support timely completion of maintenance, repairs, and emergency response. These spare parts, as per the O&M manual spare parts list, site specific spill contingency plans and pump station O&M manuals will be stocked at appropriate nearby locations and managed under the WTD material management program.

APPENDIX F
(Scope of the 1999 Final Sewer I/I Plan Projects)

Planning Project ID		Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
Subparagraph 18.b, Complete Construction no later than December 31, 2011						
SI-CS-05		Kalihi Valley Relief Sewer	05-0284	C1-Historic Wet Weather SSOs and/or Operational Problems	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-36		Lanakila Ave. Relief Sewer	08-0285	C2-Severe Hydraulic Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - CIPP Michels [IDIQ2]	Rehabilitate 6,634Lf of sewers by CIPP, 15 laterals, and 4 manholes by epoxy coating in the Kalihi/Nuuanu area. CIPP will be performed at Areas 1, 2.5, 3.1, 3.5, 4.1, 4.2, 4.3.
SI-CS-63A		Sand Island Basin Misc. Structural Rehabilitation - Phase 1	05-0284	B1-Severe Structural Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
Subparagraph 18.c, Complete Construction no later than December 31, 2013						
HN-CS-10B		Honouliuli Sewer Rehabilitation - 7D01C - Waimalu	09-0149	S1-Initiated in First 5-Year Block	Waimalu Sewer Rehabilitation Ph II, 7D01C (HN-CS-10Bp)	HN-CS-13 Waimalu Sewer Rehab/Recon 7DOIC (aka Waimalu Sewer Rehab Phase II) reconstruct 920 LF of *' PVC sewer, 309 LF of 12 " PVC sewer & 7 sewer manholes along Hekaha and Kanuku Streets.
HN-CS-13		Waimalu Sewer Replacement	09-0149	C3-Moderate Hydraulic Deficiencies	Waimalu Sewer Rehabilitation Ph II, 7D01C (HN-CS-10B)	HN-CS-13 Waimalu Sewer Rehab/Recon 7DOIC (aka Waimalu Sewer Rehab Phase II) reconstruct 920 LF of *' PVC sewer, 309 LF of 12 " PVC sewer & 7 sewer manholes along Hekaha and Kanuku Streets.
HN-TP-01		Honouliuli WWTP Upgrade	03-0417	C1-Historic Wet Weather SSOs and/or Operational Problems	Honouliuli WWTP Upgrade Phase 1 (HN-TP-01)	Construction of eight items: grit/pre-aeration tank alterations, rehab IPS wet well MH and extend catwalks, overflow weir at splitter box, repair roadways, repair concrete on 5 existing bldgs, replace AC waterline, and irrigation system improvements.
KK-PS-01		Enchanted Lake WWPS Upgrade	02-1305	C1-Historic Wet Weather SSOs and/or Operational Problems	Enchanted Lake WWPS Upgrade (KK-PS-01)	The modifications under this project will increase the capacity of the existing Enchanted Lake WWPS. The Enchanted Lake WWPS Was found to be undersized based on hydraulic modeling, due to a high rate of infiltration and inflow in the tributary area.
SI-CS-51A		Nimitz Hwy-Awa Structural Rehabilitation-Phase 1	02-1304	B1-Severe Structural Deficiencies	Sewer Manhole And Pipe Rehabilitation At Various Locations - Phase 2 (SI-CS-51A)	Structural rehabilitation of 10 sewer manholes at Nimitz Highway. Proj limits extend from Pacific St. to Iwilei Rd
SI-CS-53		Auahi St. Structural Rehabilitation	05-0271	B1-Severe Structural Deficiencies	Ala Moana Blvd/Auahi St Sewer Rehabilitation (SI-CS-53, SI-CS-54, SI-CS-55)	Planning and design services to address hydraulic and/or structural defects in sewer lines along Ala Moana Boulevard between Ward Avenue and Keawe Street. Project includes rehabilitation 2080 ft of 24-inch and 1980 ft of 36-inch sewers.
SI-CS-53		Auahi St. Structural Rehabilitation	05-0653	B1-Severe Structural Deficiencies	East End Relief Sewer (Sec. A & C) Ala Moana Crossing	Sliplining existing box sewer with approx 400LF, 60-inch ID pipe and grout annular space.

Planning Project ID		Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
SI-CS-54		Ala Moana Blvd-24 Structural Rehabilitation	05-0271	B1-Severe Structural Deficiencies	Ala Moana Blvd/Auahi St Sewer Rehabilitation (SI-CS-53, SI-CS-54, SI-CS-55)	Planning and design services to address hydraulic and/or structural defects in sewer lines along Ala Moana Boulevard between Ward Avenue and Keawe Street. Project includes rehabilitation 2080 ft of 24-inch and 1980 ft of 36-inch sewers.
SI-CS-55		Ala Moana Blvd-36 Structural Rehabilitation	05-0271	B1-Severe Structural Deficiencies	Ala Moana Blvd/Auahi St Sewer Rehabilitation (SI-CS-53, SI-CS-54, SI-CS-55)	Planning and design services to address hydraulic and/or structural defects in sewer lines along Ala Moana Boulevard between Ward Avenue and Keawe Street. Project includes rehabilitation 2080 ft of 24-inch and 1980 ft of 36-inch sewers.
SI-CS-57		Ala Moana Blvd-16 Structural Rehabilitation	03-0412	B1-Severe Structural Deficiencies	Ala Moana Blvd Sewer Reconstruction Emergency Project (SI-CS-57, SCIP 16 portion)	Emergency design to address structural and hydraulic deficiencies in 16-inch diameter sewer line in Ala Moana Boulevard near Ala Moana Shopping Center.
SI-CS-59		Waikiki Structural Rehabilitation	04-1159	B1-Severe Structural Deficiencies	Waikiki Sewer Rehabilitation/Reconstruction (SI-CS-59)	Proj involves the rehab or replacement of approx 3,150 lineal ft of 16-30 " diameter pipe using cured-in-place pipe(CIPP) or open-cut construction. Consultant will evaluate whether trenchless technologies (*read current proj status for continuation)
SI-PS-14		Kuliouou WWPS Modification	08-0098	A1-Already Being Implemented	Kuliouou Sewer Rehabilitation and WWPS Modifications - WWPS Modification (SI-PS-14)	Construct new generator room for new 50kW generator. New 1,000 gal AST, ventilation system and 12-inch PVC FM with flow tube box.
WH-TP-01		Wahiawa WWTP Influent Pump Station Upgrade and Equalization Facility	02-1306	C1-Historic Wet Weather SSOs and/or Operational Problems	Wahiawa WWTP Influent Pump Station and Equalization Facility (WH-TP-01)	Installationof a new influent pump station with a new equalization basin in preparation for the installation of a MBR system
WM-CS-02		Waimanalo Sewer Rehabilitation	06-0354	S1-Initiated in First 5-Year Block	Waimanalo Sewer Rehabilitation (WM-CS-02 portion) [IDIQ1]	Rehabilitation of 11,415 Lf of 6, 8 and 12-inch sewer by CIPP and 178 laterals. Installation of 150 lf of new 6-inch PVC sewer pipe.
Subparagraph 18.d, Complete Construction no later than December 31, 2014						
HN-TP-02		Mililani WWPTF Storage and Headworks Upgrade	00-0564	C2-Severe Hydraulic Deficiencies	Mililani WWPTF Headworks Upgrade (HN-TP-02)	Install new grinder channels and grinders, new bar screens, new air diffusers, new blowers, generator, drying beds, yard piping and ancillary improvements.
SI-CS-09		School St. Relief Sewer	04-1147	C1-Historic Wet Weather SSOs and/or Operational Problems	Kahanu St (SI-CS-38), School St (SI-CS-09) & Umi St (SI-CS-37) Relief Sewers	Rehabilitate and replace approximately 10,800 L.F. of sewerline in three locations for hydraulic and structural deficiencies.
SI-CS-18		Kalanianaole Hwy Relief Sewer	04-1454	C1-Historic Wet Weather SSOs and/or Operational Problems	Kalanianaole Highway Sewer Relief & Rehabilitation (SI-CS-18, SI-CS-62)	Project will analyze hydraulic and structural problems in Kal Hwy between the Kahala WWPS and Kawaikui Beach Park. DDC# 02-1651 Elelupe Rd/Kal Hwy, SMPR 36 (1,764LF of 8 and 10-inch sewers and one lateral) was also added to this project.
SI-CS-37		Umi St. Relief Sewer	04-1147	C1-Historic Wet Weather SSOs and/or Operational Problems	Kahanu St (SI-CS-38), School St (SI-CS-09) & Umi St (SI-CS-37) Relief Sewers	Rehabilitate and replace approximately 10,800 L.F. of sewerline in three locations for hydraulic and structural deficiencies.

Planning Project ID	Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
SI-CS-37	Umi St. Relief Sewer	10-0037	C1-Historic Wet Weather SSOs and/or Operational Problems	Kahanu St (SI-CS-38), School St (SI-CS-09) & Umi St (SI-CS-37) Relief Sewers - Umi St, Kalihi Stream [IDIQ2]	Rehabilitation of 830 LF of 15-inch pipe with CIPP and 21 manholes.
SI-CS-38	Kahanu St. Relief Sewer	04-1147	Wet Weather SSOs and/or Operational Problems	Kahanu St (SI-CS-38), School St (SI-CS-09) & Umi St (SI-CS-37) Relief Sewers	Rehabilitate and replace approximately 10,800 L.F. of sewerline in three locations for hydraulic and structural deficiencies.
SI-CS-38	Kahanu St. Relief Sewer	08-0890	Wet Weather SSOs and/or Operational Problems	Kahanu St (SI-CS-38), School St (SI-CS-09) & Umi St (SI-CS-37) Relief Sewers - Kahanu St, Kalihi St, Dillingham Blvd [IDIQ2]	Rehabilitation of 571 LF of 8-inch, 930 LF of 10-inch, 490 LF of 12-inch, and 1,665 LF of 15-inch by CIPP. Rehabilitation of 12 manholes.
SI-CS-62	Kalanianaole Hwy Structural Rehabilitation	04-1454	B1-Severe Structural Deficiencies	Kalanianaole Highway Sewer Relief & Rehabilitation (SI-CS-18, SI-CS-62)	Project will analyze hydraulic and structural problems in Kal Hwy between the Kahala WWPS and Kawaikui Beach Park. DDC# 02-1651 Elelupe Rd/Kal Hwy, SMPR 36 (1,764LF of 8 and 10-inch sewers and one lateral) was also added to this project.
SI-PS-16	Aliamanu No.1 WWPS Upgrade	08-0729	C1-Historic Wet Weather SSOs and/or Operational Problems	Aliamanu WWPS No. 1 & 2 Upgrade, Phase 1	Install flood proof walls of each stations as well as other minor modifications to prevent storm water intrusion into pump station and wet wells.
SI-PS-17	Aliamanu No.2 WWPS Upgrade	08-0729	C1-Historic Wet Weather SSOs and/or Operational Problems	Aliamanu WWPS No. 1 & 2 Upgrade, Phase 1	Install flood proof walls of each stations as well as other minor modifications to prevent storm water intrusion into pump station and wet wells.
Subparagraph 18.e, Complete Construction no later than December 31, 2016					
HN-CS-04	Renton Road Sewer and Manhole Rehabilitation	pvt	B1-Severe Structural Deficiencies	Private Developer Project	Private Developer to replace eastern portion of trunk sewer
HN-CS-05B	Waipahu Manhole and Pipe Rehabilitation	06-0090	B2-Less Urgent Structural Deficiencies	Leeward Area Sewer & Manhole Rehabilitation (HN-CS-05B Waipahu, HN-CS-05C Ewa, SMPR 87p)	Proj. involves Cured-in-place Pipe(CIPP) rehab of approx. 181 lineal ft. of 24" diameter pipe & 63 lineal ft. of 30" diameter pipe. (*read below in current project status for more)
HN-CS-05C	Ewa Manhole Rehabilitation	06-0090	B2-Less Urgent Structural Deficiencies	Leeward Area Sewer & Manhole Rehabilitation (HN-CS-05B Waipahu, HN-CS-05C Ewa, SMPR 87p)	Proj. involves Cured-in-place Pipe(CIPP) rehab of approx. 181 lineal ft. of 24" diameter pipe & 63 lineal ft. of 30" diameter pipe.
HN-CS-10A	Honouliuli Sewer Rehabilitation - 7D01A - Waiau	06-0664	S2-Initiated in Second 5-Year Block	Waiau Area Sewer Rehabilitation/Reconstruction (HN-CS-10A)	The objective is to reduce WWI/I to minimize relief requirements downstream of this basin. Project will rehab 596' of 6", 5001' of 8", and 16' of 10" and replace 1591' of 8", 675' of 10", 615' of 12" and 479' of 18" pipes.
HN-CS-10C	Honouliuli Sewer Rehabilitation - 7F05 - Foster Village	05-0275	S2-Initiated in Second 5-Year Block	Foster Village Sewer Rehabilitation/Reconstruction (HN-CS-10C)	Rehabilitation of model basin 7F05 (66 acres) to reduce WWI/I. This project includes I/I source detection to rehabilitate and/or reconstruct 15,216 lf of sewerline and 95 manholes.

Planning Project ID		Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
KK-CS-04		Oneawa St Structural Rehabilitation	05-0281	B2-Less Urgent Structural Deficiencies	Kailua/ Kaneohe Sewer Manhole And Pipe Structural Rehabilitation, Phase 1 (KK-CS-04, KK-CS-06, KK-CS-09 portion, KK-CS-12B portion)	Plan and design the sewer rehabilitation improvements. Project includes rehabilitation and replacement of approximately 1735 lf of pipe and 58 manholes.
KK-CS-06		Kailua Beach Park Structural Rehabilitation	05-0281	B2-Less Urgent Structural Deficiencies	Kailua/ Kaneohe Sewer Manhole And Pipe Structural Rehabilitation, Phase 1 (KK-CS-04, KK-CS-06, KK-CS-09 portion, KK-CS-12B portion)	Plan and design the sewer rehabilitation improvements. Project includes rehabilitation and replacement of approximately 1735 lf of pipe and 58 manholes.
KK-CS-09		Kaneohe Bay Drive Structural Rehabilitation	08-0222	B2-Less Urgent Structural Deficiencies	Kailua/ Kaneohe Sewer Manhole and Pipe Structural Rehabilitation - Kaneohe Bay Drive 44-505 (KK-CS-09 portion) [IDIQ2]	Rehabilitate 1,572LF of 10 & 15-inch sewers by CIPP.
KK-CS-12B		Kailua-Kaneohe Manhole and Pipe Structural Rehabilitation-Phase 2	05-0281	B2-Less Urgent Structural Deficiencies	Kailua/ Kaneohe Sewer Manhole And Pipe Structural Rehabilitation, Phase 1 (KK-CS-04, KK-CS-06, KK-CS-09 portion, KK-CS-12B portion)	Plan and design the sewer rehabilitation improvements. Project includes rehabilitation and replacement of approximately 1735 lf of pipe and 58 manholes.
KK-CS-12B		Kailua-Kaneohe Manhole and Pipe Structural Rehabilitation-Phase 2	08-0455	B2-Less Urgent Structural Deficiencies	Sewer Manhole And Pipe Rehabilitation At Various Locations - Phase 3 (KK-CS-12A portion, KK-CS-12B portion)	Reconstruction of 334 ft of 21" sewer withing Bay View Golf Park. Proj will address maintenance issues due ti sags in existing pipe.
SI-CS-30		Date Street Relief Sewer	06-0092	C4-Minor Hydraulic Deficiencies	Moiliili/Kapahulu Sewer Structural Rehabilitation/Reconstruction (SI-CS-30, SI-CS-58)	Rehabilitation of approx. 3,670Lf of pipe, 530Lf of pipeline replacement, and rehabilitation of 4 manholes. Existing 12" -24" sewer lines(apprx. 3390 ft length) along Date St from Pumehano St to Kapiolani Blvd (*see current proj status for more)
SI-CS-43		North King Street Relief Sewer	06-0636	C2-Severe Hydraulic Deficiencies	Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (SI-CS-08, 43p, 51B, 52; SCIP 13B; SMPR 58, 70, 71, 72, 73p)	Rehab/replacement of 262 MH and 3,719 LF of 6-in, 18710 LF of 8-in, 3,015 LF of 10-in, 1,211 LF of 12-in, 1,685 LF of 18-in, 2,484 LF of 24-in, and 1,782 LF of 36-in sewer lines. *Subject to completion of CCTV.*
SI-CS-50		Airport Structural Rehabilitation	06-0063	B2-Less Urgent Structural Deficiencies	Airport Sewer Structural Rehabilitation/Reconstruction, Phase 1, 42-inch (SI-CS-50)	Rehabilitate approximately 1,850Lf of corroded and structurally deteriorated 42" pipe, from Kam Hwy WWPS to intersection of Lagoon Dr. & Aolele St.
SI-CS-50		Airport Structural Rehabilitation	09-0464	B2-Less Urgent Structural Deficiencies	Airport Sewer Structural Rehabilitation/Reconstruction, Phase 2, 36-inch	Investigate/analyze approx. 6500 lf of 36-inch RCP pipe on Aolele street, between Lagoon drive and Rodgers Blvd. design for rehab/recon per investigation results.
SI-CS-51B		Republican St-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2	05-0284	B2-Less Urgent Structural Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-51B		Republican St-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2	06-0636	B2-Less Urgent Structural Deficiencies	Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (SI-CS-08, 43p, 51B, 52; SCIP 13B; SMPR 58, 70, 71, 72, 73p)	Rehab/replacement of 262 MH and 3,719 LF of 6-in, 18710 LF of 8-in, 3,015 LF of 10-in, 1,211 LF of 12-in, 1,685 LF of 18-in, 2,484 LF of 24-in, and 1,782 LF of 36-in sewer lines. *Subject to completion of CCTV.*

Planning Project ID		Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
SI-CS-52		Dillingham Blvd - Iwilei Structural Rehabilitation	05-0284	B2-Less Urgent Structural Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-52		Dillingham Blvd - Iwilei Structural Rehabilitation	06-0636	B2-Less Urgent Structural Deficiencies	Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (SI-CS-08, 43p, 51B, 52; SCIP 13B; SMPR 58, 70, 71, 72, 73p)	Rehab/replacement of 262 MH and 3,719 LF of 6-in, 18710 LF of 8-in, 3,015 LF of 10-in, 1,211 LF of 12-in, 1,685 LF of 18-in, 2,484 LF of 24-in, and 1,782 LF of 36-in sewer lines. *Subject to completion of CCTV.*
SI-CS-58		Moiliili-Kapahulu Structural Rehabilitation	06-0092	B2-Less Urgent Structural Deficiencies	Moiliili/Kapahulu Sewer Structural Rehabilitation/Reconstruction (SI-CS-30, SI-CS-58)	Rehabilitation of approx. 3,670Lf of pipe, 530Lf of pipeline replacement, and rehabilitation of 4 manholes. Existing 12" -24" sewer lines(apprx. 3390 ft length) along Date St from Pumehano St to Kapiolani Blvd (*see current proj status for more)
SI-CS-60		Old Tunnel Structural Rehabilitation	08-0107	B2-Less Urgent Structural Deficiencies	Old Sewer Tunnel Rehabilitation (SI-CS-60)	Rehabilitate 13 deteriorated sewer manholes.

Subparagraph 18.f, Conduct Evaluation, Develop Recommendations and Submit Report four (4) years from Effective Date of CD

HN-CS-07	*	Waimalu Wastewater System Relief	06-0667	C3-Moderate Hydraulic Deficiencies	Honouliuli/Waipahu/Pearl City Wastewater Facilities Plan	I/I Plan concept to construct 17,000LF of 48-inch trunk sewer from Halawa Heights to Newtown.
HN-CS-08	*	Pearl City Trunk Sewer Relief	06-0667	C4-Minor Hydraulic Deficiencies	Honouliuli/Waipahu/Pearl City Wastewater Facilities Plan	I/I Plan concept to expand the capacity of the Pearl City Trunk Sewer to 34 mgd.
HN-CS-09	*	Pacific Palisades Relief Sewer	09-0393	C3-Moderate Hydraulic Deficiencies	Pacific Palisades Relief Sewer (HN-CS-09)	Construction of 10,000 lf of 18" and 21" gravity sewer line from existing Pacific Palisades WWPS to existing Waiawa WWPS. Demolish existing Pacific Palisades WWPS.
HN-CS-14		Waipahu Sewer Replacement/Relief	03-0440	C1-Historic Wet Weather SSOs and/or Operational Problems	Waipahu Sewer Replacement/Relief (HN-CS-14, SMPR 87 portion)	Plan & design a replacement/relief line for Waipahu area, 3997 lf of 8"; 149 lf of 10"; 37 lt of 12"; The project area is along Awamoku St, Awaiki St, through a residential easement to Awanei St.
HN-PS-01		Waipio WWPS Upgrade	06-0669	C2-Severe Hydraulic Deficiencies	Waipio WWPS Upgrade (HN-PS-01)	The project expands the Waipio WWPS from 1.58 mgd to 4.3 mgd to accommodate both the current and future (2030) peak wet weather design flows
HN-PS-04	*	Pearl City WWPS Relief	06-0667	S2-Initiated in Second 5-Year Block	Honouliuli/Waipahu/Pearl City Wastewater Facilities Plan	I/I Plan concept to relocate the Pearl City WWPS and upgrading it to 46 mgd.
KK-CS-01	*	Kalaheo Ave Relief Sewer	08-0741	C3-Moderate Hydraulic Deficiencies	Kalaheo Avenue Relief Sewer (KK-CS-01)	This project includes approximately 1,870 LF of 48-inch relief sewer parallel to the existing 54-inch trunk sewer between Mokapu Blvd and Kainui Drive to accommodate future (2020) peak design flow.

Planning Project ID		Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
KK-CS-13	*	Alii Shores Relief Sewer	03-0414	C2-Severe Hydraulic Deficiencies	Alii Shores Sewer Rehabilitation (KK-CS-10)	Rehabilitation of approx. 2,356 LF of 36" corroded pipe and 8 corroded manholes between Mahalani St. and Wena St., and Kulauni St. near Puohala Elem. School.
KK-CS-13	*	Alii Shores Relief Sewer	08-0095	C2-Severe Hydraulic Deficiencies	Kaneohe Sewer Relief/Rehabilitation, C2 Projects (KK-CS-13, 20, 21, 22, 23, 25)	Alii Shores (4200Lf 18-inch); Kaha St (470Lf 10", 1320Lf 12"); Kahuhipa St (440Lf 12", 5430Lf 15"); Namoku St (1060Lf 12"); Puohala (650Lf 10", 780Lf 12", 1710Lf 15"); Makahio St (760Lf 10", 1260Lf 12", 890Lf 21", 200Lf 24").
KK-CS-15	*	Hele St Relief Sewer	09-0532	C3-Moderate Hydraulic Deficiencies	Hele Street Sewer Relief/ Rehabilitation; Kailua (KK-CS-15)	Solve hydr def in Hele St area that incl relief sewer to replace exist. 10" 900 lf on Kina St from Kuuna to Hele St. 10" 370 lf, 12" 590 lf, 15" 990 lf, and 18" 570 lf on Hele St from Loho St to Keolu Dr. 18" 740 lf on Keolu Dr from Hele to Nanialii St.
KK-CS-20	*	Kaha St Relief Sewer	08-0095	C2-Severe Hydraulic Deficiencies	Kaneohe Sewer Relief/Rehabilitation, C2 Projects (KK-CS-13, 20, 21, 22, 23, 25)	Alii Shores (4200Lf 18-inch); Kaha St (470Lf 10", 1320Lf 12"); Kahuhipa St (440Lf 12", 5430Lf 15"); Namoku St (1060Lf 12"); Puohala (650Lf 10", 780Lf 12", 1710Lf 15"); Makahio St (760Lf 10", 1260Lf 12", 890Lf 21", 200Lf 24").
KK-CS-21	*	Kahuhipa St Relief Sewer	08-0095	C2-Severe Hydraulic Deficiencies	Kaneohe Sewer Relief/Rehabilitation, C2 Projects (KK-CS-13, 20, 21, 22, 23, 25)	Alii Shores (4200Lf 18-inch); Kaha St (470Lf 10", 1320Lf 12"); Kahuhipa St (440Lf 12", 5430Lf 15"); Namoku St (1060Lf 12"); Puohala (650Lf 10", 780Lf 12", 1710Lf 15"); Makahio St (760Lf 10", 1260Lf 12", 890Lf 21", 200Lf 24").
KK-CS-22	*	Namoku St Relief Sewer	08-0095	C2-Severe Hydraulic Deficiencies	Kaneohe Sewer Relief/Rehabilitation, C2 Projects (KK-CS-13, 20, 21, 22, 23, 25)	Alii Shores (4200Lf 18-inch); Kaha St (470Lf 10", 1320Lf 12"); Kahuhipa St (440Lf 12", 5430Lf 15"); Namoku St (1060Lf 12"); Puohala (650Lf 10", 780Lf 12", 1710Lf 15"); Makahio St (760Lf 10", 1260Lf 12", 890Lf 21", 200Lf 24").
KK-CS-23	*	Puohala Relief Sewer	08-0095	C2-Severe Hydraulic Deficiencies	Kaneohe Sewer Relief/Rehabilitation, C2 Projects (KK-CS-13, 20, 21, 22, 23, 25)	Alii Shores (4200Lf 18-inch); Kaha St (470Lf 10", 1320Lf 12"); Kahuhipa St (440Lf 12", 5430Lf 15"); Namoku St (1060Lf 12"); Puohala (650Lf 10", 780Lf 12", 1710Lf 15"); Makahio St (760Lf 10", 1260Lf 12", 890Lf 21", 200Lf 24").
KK-CS-25	*	Makahio St Relief Sewer	08-0095	C2-Severe Hydraulic Deficiencies	Kaneohe Sewer Relief/Rehabilitation, C2 Projects (KK-CS-13, 20, 21, 22, 23, 25)	Alii Shores (4200Lf 18-inch); Kaha St (470Lf 10", 1320Lf 12"); Kahuhipa St (440Lf 12", 5430Lf 15"); Namoku St (1060Lf 12"); Puohala (650Lf 10", 780Lf 12", 1710Lf 15"); Makahio St (760Lf 10", 1260Lf 12", 890Lf 21", 200Lf 24").
KK-PS-02	*	Waikalua WWPS Upgrade	08-0115	C2-Severe Hydraulic Deficiencies	Waikalua WWPS Upgrade (KK-PS-02)	Expand the Waikalua WWPS from 0.36 mgd to 0.96 mgd in order to accommodate future (2020) peak flow.
KK-PS-10		Kahanahou Pump Station Upgrade	08-0734	C3-Moderate Hydraulic Deficiencies	Kahanahou WWPS Upgrade (KK-PS-10)	I/I Plan concept to expand the Kahanahou WWPS from 0.68 mgd to 1.29 mgd in order to accommodate future (2020) peak flow.
KK-PS-12		Waikapoki WWPS Upgrade	06-0102	C2-Severe Hydraulic Deficiencies	Waikapoki WWPS Upgrade (KK-PS-12)	I/I Plan concept to expand the Waikapoki WWPS from 1.30 mgd to 3.29 mgd in order to accommodate future (2020) peak flow.
SI-CS-01		Airport Relief Sewer	04-1139	C3-Moderate Hydraulic Deficiencies	Aliamanu WWPS No. 1 & 2 Upgrade (SI-PS-16, SI-PS-17) and Airport Relief Sewer (SI-CS-01)	Upgrade WWPS to accommodate hydraulic load and rehab/reconstruct 2250 lf of gravity sewerline on the discharge end of the WWPS.
SI-CS-08	*	Dillingham Blvd - Iwilei Relief Sewer	06-0636	C4-Minor Hydraulic Deficiencies	Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (SI-CS-08, 43p, 51B, 52; SCIP 13B; SMPR 58, 70, 71, 72, 73p)	Rehab/replacement of 262 MH and 3,719 LF of 6-in, 18710 LF of 8-in, 3,015 LF of 10-in, 1,211 LF of 12-in, 1,685 LF of 18-in, 2,484 LF of 24-in, and 1,782 LF of 36-in sewer lines. *Subject to completion of CCTV.*
SI-CS-10	*	College Walk - 30 Replacement Sewer	08-0083	C4-Minor Hydraulic Deficiencies	Chinatown Sewer Rehabilitation (SI-CS-10, SI-CS-22 portion, SCIP 09 portion, SCIP 10 portion, SMPR 59)	The project area includes an estimated 34,330 lineal feet of 6 to 30-inch sewers, 169 sewer manholes, and connected sewer laterals. CCTV will be completed under the ENV/CSM IDIQ3 contract.

Planning Project ID		Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
SI-CS-15	*	Manoa Relief Sewer	08-0102	C2-Severe Hydraulic Deficiencies	Manoa Sewer Relief/Rehabilitation (SI-CS-15)	The project area includes an estimated 18,451 lineal feet of 8 to 36-inch sewers, 113 sewer manholes, one siphon, and connected sewer laterals. CCTV will be completed under the ENV/CSM IDIQ3 contract.
SI-CS-17	*	Palolo Relief Sewer	08-0108	C2-Severe Hydraulic Deficiencies	Palolo Valley Sewer Rehabilitation (SI-CS-17)	The project area includes an estimated 16,037 lineal feet of 6 to 18-inch sewers, 88 sewer manholes, one siphon, and connected sewer laterals. CCTV will be completed under the ENV/CSM IDIQ3 contract.
SI-CS-22	*	River Street Relief Sewer	08-0083	C3-Moderate Hydraulic Deficiencies	Chinatown Sewer Rehabilitation (SI-CS-10, SI-CS-22 portion, SCIP 09 portion, SCIP 10 portion, SMPR 59)	The project area includes an estimated 34,330 lineal feet of 6 to 30-inch sewers, 169 sewer manholes, and connected sewer laterals. CCTV will be completed under the ENV/CSM IDIQ3 contract.
SI-CS-22	*	River Street Relief Sewer	08-0331	C3-Moderate Hydraulic Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1E (Area 5A - Lower Nuuanu)SI-CS-22	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-27	*	Waiomao Stream Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to install relief sewers between Waiomao Stream and Kipona Place.
SI-CS-28		Auwaiolimu St. Relief Sewer	05-0284	C4-Minor Hydraulic Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-29		Nuuanu Relief Sewer	05-0284	C3-Moderate Hydraulic Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-36		Lanakila Ave. Relief Sewer	05-0284	C2-Severe Hydraulic Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-39		Kalani Street Relief Sewer	05-0284	C2-Severe Hydraulic Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-42	*	Dowsett Highlands Relief Sewer	05-0284	C3-Moderate Hydraulic Deficiencies	Kalihi/Nuuanu Area Sewer Rehabilitation - Medium and Low Priority Sewers (SI-CS-04p, SI-CS-05p, SI-CS-28p, SI-CS-29p, SI-CS-36p, SI-CS-39p, SI-CS-40p, SI-CS-42p, SI-CS-51Bp, SI-CS-52p, SI-CS-63ap	Structural and hydraulic rehabilitation of the existing deficient gravity sewers in the collection system of Lower Kalihi, Pacific Heights, Punchbowl and the Liliha area.
SI-CS-42	*	Dowsett Highlands Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan Concept to install relief sewers Ewa side of Dowsett and Nuuanu.
SI-PS-01	*	Kamehameha Hwy WWPS Upgrade	09-0531	C3-Moderate Hydraulic Deficiencies	Kamehameha Highway WWPS Upgrade (SI-PS-01)	Evaluate and solve: required capacity of Kamehameha Highway Wastewater Pump Station for future wet weather storm flows, other needed improvements, and required capacity in the tributary and downstream areas.
SI-PS-04	*	Awa St WWPS Upgrade	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to expand the capacity from 8.17 mgd to 12.4 mgd.

Planning Project ID		Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
SI-PS-06	*	Ala Moana WWPS Force Main No. 3	06-0065	S2-Initiated in Second 5-Year Block	Ala Moana WWPS Force Main No. 3 (SI-PS-06 portion)	Construct a new 78-inch diameter force main.
SI-PS-06	*	Ala Moana WWPS Upgrade to 2020 Peak Flow (SI-PS-06 portion)	08-0074	S2-Initiated in Second 5-Year Block	Ala Moana WWPS - Upgrade To 2020 Peak Flow (SI-PS-06 portion)	I/I Plan concept to expand the capacity to 189 mgd.
SI-PS-16	*	Aliamanu No.1 WWPS Upgrade	04-1139	C1-Historic Wet Weather SSOs and/or Operational Problems	Aliamanu WWPS No. 1 & 2 Upgrade (SI-PS-16, SI-PS-17) and Airport Relief Sewer (SI-CS-01)	Upgrade WWPS to accommodate hydraulic load and rehab/reconstruct 2250 lf of gravity sewerline on the discharge end of the WWPS.
SI-PS-17	*	Aliamanu No.2 WWPS Upgrade	04-1139	C1-Historic Wet Weather SSOs and/or Operational Problems	Aliamanu WWPS No. 1 & 2 Upgrade (SI-PS-16, SI-PS-17) and Airport Relief Sewer (SI-CS-01)	Upgrade WWPS to accommodate hydraulic load and rehab/reconstruct 2250 lf of gravity sewerline on the discharge end of the WWPS.
WH-PS-02		Uwalu WWPS Upgrade	08-0113	C2-Severe Hydraulic Deficiencies	Uwalu WWPS Upgrade (WH-PS-02)	Plan and design pump station upgrade.

NOTES: * CCH shall submit, as part of the report, the proposed scope or a design alternatives report.

APPENDIX G
(List of Deferred Projects from Wet Weather I/I Assessment Update)

7/15/2010

Planning Project ID	Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
Subparagraph 18.g. Deferred Projects considered by Wet Weather I/I Assessment Update					
Final Sewer I/I Plan, Block 3 Projects					
HN-CS-06	Honouliuli Relief Sewers	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers for Waipahu Trunk.
HN-CS-11	Halawa Relief Sewers	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers in Halawa.
HN-CS-12	Aiea Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers in Aiea Recreation Park.
HN-CS-15	Pearl City Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers near Pearl City Stream.
HN-CS-16	Mililani Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Makaimoimo Street.
HN-CS-17	Waipio Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Waimakua Drive.
HN-CS-18	Aiea Heights Relief Sewers	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Iliee Street and Alvah Scott Elem School.
KK-CS-08	Enchanted Lake Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Akumu Street.
KK-CS-19	Maunawili Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Auloa Road, Maunawili Loop and Aloha Oe Drive.

Planning Project ID	Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
Subparagraph 18.g. Deferred Projects considered by Wet Weather I/I Assessment Update					
KK-CS-26	Keaahala Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers between William Henry Rd and Waikapoki Rd.
KK-CS-27	Waikapoki Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Mahalani Circle.
KK-PS-14	Maunawili Estates WWPS Upgrade	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to expand capacity of Maunawili Estates WWPS from 0.79 mgd to 1.17 mgd.
KK-TP-04	Ahuimanu WWPTF Upgrade	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to expand the capacity of Ahuimanu WWPTF to 6.5 mgd.
KK-TP-05	Ahuimanu WWPTF Storage	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct wet weather basin of 1.70 mg.
SI-CS-03	Republican St. Relief Sewer	NONE	S3-Initiated in Third 5-Year Block		I/I Plan concept to construct relief sewers along Republican Street.
SI-CS-04	Auiki St. Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Auiki Street.
SI-CS-07	Nimitz Highway-Awa Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Nimitz Hwy.
SI-CS-12	Cooke St. Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Cooke Street.
SI-CS-13	Ward Ave Relief Sewer	NONE	S3-Initiated in Third 5-Year Block		I/I Plan concept to construct relief sewers along Ward Ave.
SI-CS-21	Nenue Street Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Nenue Street.

Planning Project ID	Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
Subparagraph 18.g. Deferred Projects considered by Wet Weather I/I Assessment Update					
SI-CS-24	Lowrey Avenue Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Lowrey Ave and Manoa Rd.
SI-CS-26	9th Avenue Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along 9th Ave.
SI-CS-29	Nuuanu Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers within Nuuanu area.
SI-CS-32	Kaimuki Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Olokele Ave.
SI-CS-33	Ahui St. Relief Sewer	PVT_KCI	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Ahui Street
SI-CS-45	Fort DeRussy Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers within the Fort DeRussy area.
SI-CS-46	Saratoga Road Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Saratoga Road.
SI-CS-47	Iolani Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers from Iolani School to Manoa Stream.
SI-CS-49	Waikiki Relief Sewer	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers within the Waikiki area.
SI-PS-13	Niu Valley WWPS Upgrade	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to expand the capacity of Niu Valley WWSP from 2.27 mgd to 3.62 mgd.

Planning Project ID	Planning Project Name	DDC Serial No.	EPA Sched Code	Project Title	Scope
Subparagraph 18.g. Deferred Projects considered by Wet Weather I/I Assessment Update					
SI-PS-15	Paiko Drive WWPS Upgrade	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to expand the capacity of Paiko Dr WWPS from 0.25 mgd to 0.42 mgd.
WH-CS-02	Whitmore Village Relief Sewers	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Ihiihi Ave and Uakanikoo Street.
WH-PS-01	Grandview WWPS Upgrade	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to expand the capacity of Grandview WWPS from 0.07 mgd to 0.1 mgd.
WN-TP-01	Waianae WWTP Influent Pump Station Upgrade	NONE	C3-Moderate Hydraulic Deficiencies		I/I Plan concept to increase the capacity of the IPS to 15.8 mgd.
Final Sewer I/I Plan, Block 4 Projects					
KK-CS-14	Lanikai Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Mokula Drive.
KK-CS-16	Iana St Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Auwinula Rd.
KK-CS-17	Akumu St Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Keolu Drive.
KK-CS-18	Pohakupu Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Kailua Road, Ulupii St and Ulupuni Street.
KK-PS-03	Aala WWPS Upgrade	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to expand the capacity of Aala WWPS from 0.72 mgd to 0.94 mgd.
KK-PS-08	Maunawili WWPS Upgrade	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to expand the capacity of Maunawili WWPS from 2.23 mgd to 2.46 mgd.
SI-CS-02	Salt Lake Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers within the Salt Lake area.

Planning Project ID	Planning Project Name	DDC Serial No	EPA Sched Code	Project Title	Scope
Subparagraph 18.g, Deferred Projects considered by Wet Weather I/I Assessment Update					
SI-CS-14	Makiki Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Wilder Ave.
SI-CS-16	Lewers Street Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Lewers St and Ala Wai Blvd.
SI-CS-19	Niu Valley Shopping Center Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers within the Niu Valley Shopping Center area.
SI-CS-20	Pueo Street Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Pueo St.
SI-CS-23	Alakea St. Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Alakea Street.
SI-CS-25	Huapala Street Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Huapala St.
SI-CS-34	Mahiole Street Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Mahiole St.
SI-CS-44	Alewa Heights Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers within the Alewa Heights area.
SI-CS-48	Kalia Road Relief Sewer	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Kalia Rd.
SI-PS-07	Moana Park WWPS Upgrade	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to expand the capacity of Moana Park WWPS from 1.26 mgd to 1.63 mgd.
SI-PS-09	Fort DeRussy WWPS Force Main Replacement	NONE	C4-Minor Hydraulic Deficiencies		Remaining portion to be reevaluated. Portion along Kalakaua Ave from Ala Wai Canal to the East End Relief Sewer was completed in 2009.
WN-CS-02	Auyong Homestead Rd Sewer Replacement/Rehabilitation	NONE	C4-Minor Hydraulic Deficiencies		I/I Plan concept to construct relief sewers along Auyong Rd.

APPENDIX H

(Gravity Main Rehabilitation/Replacement Projects: Years One through Three)

City and County of Honolulu

APPENDIX H - GRAVITY MAIN PROJECTS YEARS 1-3

Capital Project List

Project Title	DDC Serial No.	I/I Plan No.	Contractor	New Gravity (miles)	Rehab Gravity (miles)
Alii Shores Sewer Rehabilitation	03-0414	KK-CS-10	Michels Corporation	0.0000	0.4335
Amelia Street Sewer Relief	05-0980	SI-CS-40	D & C Construction Inc	0.2697	0.0000
Fort Weaver Road Manhole and Pipe Rehabilitation	03-0415	HN-CS-03	Michels Corporation	0.1498	0.8379
Halona Street Relief Sewer, Kalihi	02-1300	SI-CS-41	Ideal Construction Inc	0.4545	0.3902
Houghtailing Street Area Sewer	04-1144	SI-CS-06	Ideal Construction Inc	0.5515	3.7519
Ilimalia Loop Mokapu Blvd Reconstructed Sewer	00-0534	KK-CS-02	Michels Corporation	0.0000	0.5714
Kailua/Kaneohe Sewer Rehabilitation - Ph 1	03-0418	KK-CS-09p	Frank Coluccio Construction	0.0816	2.1890
Kailuana Place Sewer Rehabilitation	02-1659	--	Civil Mechanical Contractor	0.0227	0.9205
Kalaheo Ave/ Mokapu Road/ Aikahi Loop Sewer Rehab	06-0083	KK-ZZ-02p	Insituform Technologies Inc	0.0000	0.6439
Kalakaua Ave Sewer Rehabilitation	02-1656	--	Ideal Construction Inc	0.2775	0.0000
Kalihi Valley Reconstructed Sewer	00-0550	SI-CS-05p	Ideal Construction Inc	0.2680	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1A [Area 2A - Middle Kalihi]	06-0086	SI-CS-39p	RMY Construction Inc	1.5795	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1B [Area 2B - Middle Kalihi]	08-0328	--	Frank Coluccio Construction	0.7917	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1C [Area 3 - Upper Kalihi]	08-0329	SI-CS-05p	RMY Construction Inc	1.0720	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1D [Area 4, 7, & 8 - Lanakila, Punchbowl South and Pacific Hts]	08-0330	SI-CS-36p	Integrated Construction Inc	0.2481	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1E [Area 5A - Lower Nuuanu]	08-0331	SI-CS-22p	Ideal Construction Inc	0.3144	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1F [Area 5B - Lower Nuuanu]	08-0332	--	MIRA Image Construction	0.3314	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1G [Area 5C - Lower Nuuanu]	08-0333	--	Ron's Construction Corporation	0.5966	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1H [Area 6 - Punchbowl North]	08-0334	--	MIRA Image Construction	0.3920	0.0000
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1I [Area 9 - Upper Nuuanu]	08-0335	--	Ron's Construction Corporation	0.2936	0.0000
Kaneohe Bay Drive Trunk Sewer Reconstruction	02-1286	KK-CS-09p	Frank Coluccio Construction	0.3466	0.2633
Kapiolani Area Revised Sewer System	00-0559	--	Frank Coluccio Construction	0.5244	0.3485
Kuliouou Sewer Rehabilitation and WWPS Modifications - Sewer Rehabilitation	00-0561	--	Frank Coluccio Construction Co	0.2212	2.9892
Peterson Lane and Pua Lane Sewer Rehabilitation	05-0457	--	RMY Construction Inc	0.7235	0.1070
Renton Road Sewer and Manhole Rehabilitation	03-0427	HN-CS-04p	Michels Corporation	0.0000	2.3616
Saint Louis Heights Sewer Rehabilitation	02-1284	SI-CS-31	Insituform Technologies Inc	0.0920	8.8733
Sand Island Basin Miscellaneous Sewer Rehabilitation, Phase 1 (SI-CS-63A, SI-CS-63B)	02-1301	SI-CS-63Ap, SI-CS-63B	Frank Coluccio Construction	0.0000	0.3402
Sewer Manhole And Pipe Rehabilitation At Various Locations	04-1994	HN-CS-05A, KK-CS-12Ap, KK-CS-12Bp, WH-CS-01, WN-CS-01p	Civil Mechanical Contractor	0.0000	0.0407

City and County of Honolulu

APPENDIX H - GRAVITY MAIN PROJECTS YEARS 1-3

Capital Project List

Project Title	DDC Serial No.	I/I Plan No.	Contractor	New Gravity (miles)	Rehab Gravity (miles)
Waimalu Sewer Rehabilitation Ph I, 7D01C	02-1299	HN-CS-10Bp, HN-CS-13p	Frank Coluccio Construction	1.1761	0.0000
Waimanalo Sewer Rehabilitation	03-0439	WM-CS-01p, WM-CS-02p	Ideal Construction Inc	0.3390	0.0000
Waipahu Street/Plantation Village Sewer Reconstruction	02-1287	--	James W Glover Ltd	0.3985	0.0000
Wanaao Road/Keolu Drive Reconstructed Sewer (KK-CS-07, KK-ZZ-03)	02-1557	KK-CS-07, KK-ZZ-03	Frank Coluccio Construction Co	1.6746	0.0000
Wilhelmina Rise Sewer Rehabilitation	00-0607	--	Parsons RCI Inc.	0.0644	8.1610
Ala Moana and Kapiolani Trunk Sewer Replace/Rehabilitation, Phase 1B,1C,1D - Kapiolani Blvd Water and Sewer System Improvements	00-0516	SI-CS-56	Board Of Water Supply	0.2614	0.9848
			Totals Capital Projects	13.5165	34.2078

Indefinite Delivery Indefinite Quantity (IDIQ) Work Order List

IDIQ Work Order Title	DDC Serial No.	I/I Plan No.	Delivery Order (DO)	New Gravity (miles)	Rehab Gravity (miles)
Beretania Street 1617 (SUB 7736, McCully) FY08-12-20	08-0459	--	DO-ENV-0801684	0.0000	0.1138
Foster Village (Aliamanu) FY08-02-24	09-0135	HN-CS-10Cp	DO-ENV-0902137	0.0000	2.2104
Halekoa Drive 1509 (SUB 5254, Waialae) FY08-09-06	08-0402	--	DO-ENV-0700662	0.0000	0.1141
Houghtailing, Area 1 (Liliha) FY07-10-01	08-0397	--	DO-ENV-0700895	0.0000	0.3379
Houghtailing, Area 2 (Liliha) FY07-10-01	09-0039	--	DO-ENV-0700896	0.0000	0.6489
Houghtailing, Area 3 (Liliha) FY07-10-01	08-0398	--	DO-ENV-0700904	0.0000	0.9715
Kahala / Pilialoha Place 1687 (Moanalua) FY 09-11-17	08-0982	--	DO-ENV-0900843	0.0000	0.1269
Kahala Avenue 4783 (SUB 5281, 5285, W aialae) FY07-05-29	05-0278	SI-CS-61	BB-5181	0.0000	0.2798
Kalihi Valley, Area 1 (Kalihi) FY 07-09-24	08-0396	--	DO-ENV-0700848	0.0000	1.2896
Kalihi Valley, Area 2 (Kalihi) FY 07-09-24	09-0040	SI-CS-05p, SI-CS-63Ap	DO-ENV-0700849	0.0000	0.5632
Kalihi Valley, Area 3 (Kalihi) FY 07-09-24	09-0041	SI-CS-05p	DO-ENV-0700850	0.0000	1.0969
Kalihi Valley, Area 4 (Kalihi) FY 07-09-24	09-0042	--	DO-ENV-0700851	0.0000	0.7713
Kalihi-Nuuanu, Area 1 F Y07-07-20	08-0285	SI-CS-36p	DO-ENV-0700462	0.0000	0.0571
Kalihi-Nuuanu, Area 2.1 F Y07-07-20	08-0297	--	DO-ENV-0700465	0.0000	0.2965
Kalihi-Nuuanu, Area 2.3 F Y07-07-20	08-0297	--	DO-ENV-0700471	0.0000	0.3138
Kalihi-Nuuanu, Area 2.4 F Y07-07-20	08-0297	--	DO-ENV-0700472	0.0000	0.2449
Kalihi-Nuuanu, Area 2.5 F Y07-07-20	08-0285	SI-CS-36p	DO-ENV-0700463	0.0000	0.0761
Kalihi-Nuuanu, Area 3.1 F Y07-07-27	08-0285	SI-CS-36p	DO-ENV-0700473	0.0000	0.2185
Kalihi-Nuuanu, Area 3.3 F Y07-07-27	08-0297	--	DO-ENV-0700620	0.0000	0.4330
Kalihi-Nuuanu, Area 3.4 F Y07-07-27	08-0297	--	DO-ENV-0700476	0.0000	0.2373
Kalihi-Nuuanu, Area 3.5 F Y07-07-27	08-0285	SI-CS-36p	DO-ENV-0700479	0.0000	0.0462
Kalihi-Nuuanu, Area 4.1 F Y07-07-31	08-0285	SI-CS-36p	DO-ENV-0700480	0.0000	0.2784
Kalihi-Nuuanu, Area 4.2 F Y07-07-31	08-0285	SI-CS-36p	DO-ENV-0700485	0.0000	0.3083
Kalihi-Nuuanu, Area 4.3 F Y07-07-31	08-0285	SI-CS-36p	DO-ENV-0700486	0.0000	0.2348
Kalihi-Nuuanu, Area 5.3 F Y07-08-01	08-0297	--	DO-ENV-0700495	0.0000	0.2213
Kalihi-Nuuanu, Area 6.2 F Y07-08-01	08-0297	--	DO-ENV-0700525	0.0000	0.1786
Kalihi-Nuuanu, Area 6.4 F Y07-08-01	08-0297	--	DO-ENV-0700532	0.0000	0.1443
Kalihi-Nuuanu, Area 7.2 F Y07-08-06	08-0297	--	DO-ENV-0700574	0.0000	0.2856
Kaneohe Bay Drive 44-505 (SUB 4267, 4268, 4270, 4271, Kaneohe) FY07-05-17	08-0222	KK-CS-09p	DO-ENV-0700439	0.0000	0.2978
Kaneohe Bay Drive Trunk Sewer, Sewerline B (Kaneohe) FY07-09-13	08-0394	--	DO-ENV-0700970	0.0000	0.3039
Kilani Avenue 211, Illima Street 91 (SUB W186, Wahiawa) FY08-01-02	08-0460	--	DO-ENV-0801651	0.0000	0.0909

City and County of Honolulu

APPENDIX H - GRAVITY MAIN PROJECTS YEARS 1-3

Indefinite Delivery Indefinite Quantity (IDIQ) Work Order List

IDIQ Work Order Title	DDC Serial No.	I/I Plan No.	Delivery Order (DO)	New Gravity (miles)	Rehab Gravity (miles)
Komo Mai Drive 1860 (SUB 2094, 2095, Pearl City) FY08-06-13	08-0462	--	DO-ENV-0802714	0.0000	0.2708
Leighton Street 815 (SUB 5114, 5116, Kuli ouou) FY08-06-18	08-0210	--	DO-ENV-0802727	0.0000	0.2561
Makalii Place 350, Kailua Road (SUB 4612, 4661, Kai lua) FY07-05-17	08-0223	KK-CS-06p	BB-5183	0.0000	0.2129
Mikiola Drive / Alakai Street / Likeke Place (Kaneohe) FY-07-09-28	08-0395	KK-CS-09p	DO-ENV-0700906	0.0000	0.4053
Mulehu Street 94-436 (SUB 0446, Mililani) FY09-09-30	08-0981	HN-CS-05Bp	DO-ENV-0900556	0.0000	0.0396
Nanamoana Street 44- 121 (SUB 3994, Kaneohe) F Y07-06-06	08-0260	--	BB-5188	0.0000	0.0212
Waialae Iki, Area 4 (Kuliouou) FY07-11-15	08-0408	--	DO-ENV-0701322	0.0000	0.5375
Waialae Iki, Area 5 (Kuliouou) FY07-11-15	09-0043	--	DO-ENV-0701323	0.0000	0.2962
Waialae Iki, Area 6 (Kuliouou) FY07-11-15	09-0044	--	DO-ENV-0701324	0.0000	0.2786
Waimalu Sewer Rehabilitation (Aiea) FY 09-06-29	09-0653	HN-CS-10Bp, HN-CS-13p	DO-ENV-1000243	0.0000	0.4561
Waimanalo Sewers (SUB HAWN, PRIV, 2017, 2013, Waimanalo) FY07-10-05	08-0403	WM-CS-01p, WM-CS-02p	DO-ENV-0700963	0.0000	0.3705
Waipahu Depot Street, Farrington Highway (SUB 0887, Waipahu) FY09-09-30	08-0980	HN-CS-05Bp	DO-ENV-0900557	0.0000	0.0145
			Totals IDIQ	0.0000	15.9509
			Totals Capital Projects	13.5165	34.2078

Total Gravity Mains (miles)	**63.6751**

Note: p = portion of the project

APPENDIX I
(List of Currently Authorized Positions for CCH's Staffing Commitment)

APPENDIX I

CSM Required Staffing

Below are the currently funded positions to implement the duties of CCH's CSM program to operate and maintain the gravity sewer portion of CCH's Wastewater Collection System:

Non-Field Positions	20
Field Positions	134
Total	154

APPENDIX J
(Equipment Inventory)

APPENDIX J

CSM Required Equipment Inventory

EQUIPMENT	INVENTORY WITH 1 SPARE
VACTORS	10
CESSPOOL TRUCKS	5
RODDERS	8
CCTV VANS	4
TANKERS *	4

* Tankers are within the Division of Wastewater Treatment & Disposal

APPENDIX K

(Provisions of HAR Chapter 11-62 (as amended on April 15, 1997))

Appendix K

Hawaii Administrative Regulations Chapter 11-62, Appendix C
(As amended on April 15, 1997)

C.2.a. Applicability. Any wastewater spill which enters into state waters from . . . [CCH's] wastewater system.

C.4.a. Applicability. Any wastewater spill from . . . [CCH's] wastewater system onto the ground and that does not enter state waters but is in an area which is or may be accessible to the public.
(1) In this appendix, the public includes hotel, apartment, and condominium residents and guests, or condominium apartment owners at their own condominium, and management personnel and building or facility staff, unless the person is specifically an operator of the wastewater system or a manager of the property.
(2) In this appendix, areas inaccessible to the public include areas:
(a) Confined within a fenced or walled (six foot high with locked gate or door) area; and
(b) Contact with the spill is limited to wastewater system operating personnel and management personnel for the property owner or lessee.
(3) Exclusion. Spills of R-1 water provided the owner/agent demonstrates that the spill was of R-1 water and that BMPs as approved by the director were implemented.

C.5.a. Applicability. All wastewater spills from . . . [CCH's] wastewater system that does not enter state waters and are in areas inaccessible to the public.
(1) The public and inaccessibility are described in section 4.a.
(2) Exclusion. Spills of R-1 water provided the owner/agent demonstrates that the spill was of R-1 water and that BMPs as approved by the director were implemented.

C.5.c. Reporting. For spills of a thousand gallons or more, and for spills occurring more than twice within a 12 month period within the confines or fence line of . . . [CCH's] wastewater system, the owner/agent shall report to the WWB under section 9.a.

C.5.d. Recording. The owner/agent shall record and tabulate the date and time of the spill, the amount released, the cause(s) for the spill, clean up efforts, and remedial actions taken to prevent future spills for all spills greater than 50 gallons as they happen. The owner/agent shall keep the records and tabulations on site and make the records and tabulation available to the director for inspection and copying.