

STATE OF HAWAII

DEPARTMENT OF HEALTH

In the Matter of

CITY AND COUNTY OF HONOLULU,  
DEPARTMENT OF ENVIRONMENTAL  
SERVICES,

Appellant,

Sanitary Sewer Overflows Associated with  
Sand Island Wastewater Treatment Plant and  
Kailua Regional Wastewater Treatment Plant

Docket No. 2015-CW-EO-58

ADMINISTRATIVE ORDER ON  
CONSENT

ADMINISTRATIVE ORDER ON CONSENT

**I. INTRODUCTION**

This Administrative Order on Consent (“AOC”) is entered into voluntarily between the State of Hawaii, Department of Health (“DOH”), and the City and County of Honolulu by and through its Department of Environmental Services (“City”). This AOC is an administrative action taken by the DOH pursuant to its authority to regulate water pollution under the authority of Hawaii Revised Statutes (“HRS”) § 342D-9.

This AOC is entered into voluntarily by and between the DOH and the City to settle their disputes without the risks of adverse findings and conclusions, or a final order or judgment after litigation. The City’s participation in this AOC shall not constitute or be construed as an admission of fact, violation, fault, or liability. The City neither admits nor denies the factual allegations and legal conclusions set forth in this AOC (Sections II, III and IV in their entirety). This AOC settles and resolves all liability of the City under HRS Chapter 342D for all violations alleged in Section IV below, and, in particular, addresses three (3) sanitary sewer overflow (“SSO”) events that occurred on August 24, 2015.

**II. FACTUAL ALLEGATIONS**

The DOH alleges the following:

1. The City owns and operates the Sand Island Wastewater Treatment Plant (“Sand Island WWTP”), Kailua Regional Wastewater Treatment Plant (“KRWWTP”), Kaneohe Pre-Treatment Facility (“Kaneohe PTF”), and the sewage collection system located along Atkinson Drive, Honolulu, Hawaii.

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2. National Pollutant Discharge Elimination System (“NPDES”) Permit No. HI 0020117 (“Sand Island WWTP NPDES Permit”) authorizes the discharge of wastewater received via the City collection system and treated at the Sand Island WWTP via the Sand Island WWTP ocean outfall. The Sand Island WWTP NPDES Permit became effective on January 1, 2015 and expires on November 11, 2019.

3. NPDES Permit No. HI 0021296 (“KRWWTP NPDES Permit”) authorizes the discharge of wastewater received via the City collection system and treated by the KRWWTP via the combined Kailua/Kaneohe Mokapu ocean outfall. The KRWWTP NPDES Permit became effective on March 16, 2014 and expires on February 13, 2019.

4. The City is the sole Permittee under the Sand Island WWTP NPDES Permit and the KRWWTP NPDES Permit.

5. On August 24, 2015, approximately 462,050 gallons of a mixture of untreated sewage and rainwater overflowed from seven (7) sewer manholes located in the Ala Moana/Kakaako area of Honolulu, Hawaii. The wastewater entered into nearby storm drains or drainage channels before discharging into either the Ala Wai Small Boat Harbor or Kewalo Basin Small Boat Harbor.

6. Sewage contamination warning signs were posted for five (5) days near or around affected areas.

7. The SSO referenced in Paragraph 5 was caused by a combination of a large volume of storm water inflow and infiltration into the Sand Island WWTP’s sewage collection system resulting from an earlier than expected large rain event on August 24, 2015 and the reduction of pumping capacity at the City’s Ala Moana Pump Station related to construction activities ongoing at the time.

8. The size of the spill was affected by City personnel inadvertently turning off the high level alarms at the Ala Moana Pump Station, which are set to warn City personnel of potential spill conditions.

9. On August 24, 2015, approximately 4,950 gallons of untreated wastewater overflowed from a manhole located at the Kaneohe PTF to Kawa Stream.

10. Sewage contamination warning signs were posted for four (4) days near or around affected areas.

11. The SSO referenced in Paragraph 9 was caused by the combination of a large rain event occurring on August 24, 2015, the resulting storm water inflow and infiltration into the Kaneohe PTF’s sewage collection system, level sensor failure, and the lack of adequate pumping capacity due to pumps cycling on and off at the Kaneohe PTF.

12. On August 24, 2015, approximately 125,000 gallons of partially treated secondary wastewater overflowed from the KRWWTP to Nuupia Pond.

13. The SSO referenced in Paragraph 12 was caused by the combination of a large volume of storm water inflow and infiltration into the KRWWTP's sewage collection system resulting from a rain event occurring on August 24, 2015, and an operational hydraulic overload of the KRWWTP's solids contactor.

14. Sewage contamination warning signs were posted for eight (8) days near or around affected areas.

### **III. ALLEGED CONCLUSIONS OF LAW**

The DOH hereby alleges the following:

15. The DOH is an agency of the executive branch of government of the State of Hawaii, created and existing under HRS Chapter 321.

16. The United States Environmental Protection Agency ("EPA") has delegated to the State of Hawaii the authority to implement Hawaii's NPDES permit program under Section 402 of the Federal Water Pollution Control Act ("Clean Water Act"). 33 USC § 1251 to 1387.

17. The City is a "person" as defined by HRS § 342D-1.

18. The DOH administers Hawaii's Water Pollution law, HRS Chapter 342D, pursuant to HRS § 342D-2.

19. HRS § 342D-9 authorizes the Director of the DOH to order measures to be taken to correct violations, require progress reports, and impose penalties for violations of HRS Chapter 342D.

20. HRS § 342D-50(a) states: "No person, including any public body, shall discharge any water pollutant into state waters, or cause or allow any water pollutant to enter state waters except in compliance with this chapter, rules adopted pursuant to this chapter, or a permit or variance issued by the director."

21. HRS § 342D-50(d) states: "No person, including any public body, shall violate any rule adopted pursuant to this chapter or any permit or variance issued or modified pursuant to this chapter."

22. HRS § 342D-30(a) provides for civil penalties, and states: "Any person who violates this chapter, any rule, or any term of condition of a permit or variance issued pursuant to this chapter shall be fined not more than \$25,000 for each separate offense."

23. HRS § 342D-31(a) states: “In addition to any other administrative or judicial remedy provided by this chapter, or by rules adopted under this chapter, the director is authorized to impose by order the administrative penalties specified in HRS section 342D-30.”

24. The DOH has adopted rules pursuant to HRS Chapter 91 and its authority under HRS §§ 342D-4 and 5. These rules include Hawaii Administrative Rules (“HAR”) Title 11, Chapter 54, Water Quality Standards; and HAR Title 11, Chapter 55, Water Pollution Control.

25. HAR § 11-55-23(1) states: “All discharges authorized by the NPDES permit shall be consistent with the terms and conditions of the NPDES permit[.]”

#### **IV. ALLEGED VIOLATIONS**

The DOH hereby alleges the following:

##### Unauthorized Discharge of Pollutants to State Waters

26. The City reported the discharge of approximately 462,050 gallons of storm water mixed with raw sewage to State waters from seven (7) manholes located in the Ala Moana/Kakaako Area on August 24, 2015. The discharge was not authorized by a DOH-issued NPDES permit. Based on this information, the City violated HRS § 342D-50(a) on seven (7) counts.

27. The City reported the discharge of approximately 4,950 gallons of storm water mixed with raw sewage to State waters from one (1) manhole located in the Kaneohe PTF on August 24, 2015. The discharge was not authorized by a DOH-issued NPDES permit. Based on this information, the City violated HRS § 342D-50(a) on one (1) count.

28. The City reported the discharge of approximately 125,000 gallons of storm water mixed with partially treated sewage to State waters from the solids contactor located in the KRWWTP on August 24, 2015. The discharge was not authorized by a DOH-issued NPDES permit. Based on this information, the City violated HRS § 342D-50(a) on one (1) count.

#### **V. ADMINISTRATIVE ORDER ON CONSENT**

Pursuant to the authority vested in the State of Hawaii, acting by and through the DOH under the HRS, EPA’s delegated authority, and rules adopted by the DOH, the DOH orders and the City AGREE AS FOLLOWS:

##### Corrective Action Requirements

##### **High Density Urban Area Storm Water Inflow Detection, Identification and Quantification Study**

29. The City shall conduct a study to detect, identify and quantify significant sources of storm water inflow to the City collection system in the high density or ultra-urbanized areas

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including Waikiki and Ala Moana. The Waikiki and Ala Moana areas are to be defined by the collection system tributaries serving those geographical areas. The purpose of this study is to address significant sources of storm water inflow which may be inundating the collection system and using sewage system capacity, increasing pumping demands and treatment plant upsets. Significant sources of storm water inflow are sources which are either intentionally plumbed to the City sewage collection system (e.g. storm water or ground water sumps plumbed to the sewage collection system, directly connected downspouts, etc.) or sewage infrastructure that may be utilized by their owner/operator to drain storm water into the sewage collection system (e.g. open clean-outs, parking lot floor drains, etc.).

30. No later than one hundred eighty (180) days after the effective date of this AOC, the City shall submit to the DOH a draft work plan for the detection, identification and quantification of significant sources of storm water inflow to the City sewage collection system from the high density urban areas identified in Paragraph 29, above. The draft work plan will set forth its defined scope and will utilize the tools the City has at its disposal to detect, identify and quantify inflow sources. These tools include but are not limited to, manhole inspections, smoke testing, closed circuit television inspections, smart manhole covers, Supervisory Control and Data Acquisition (“SCADA”) data, flow monitoring, rainfall monitoring, etc.

31. The DOH shall have sixty (60) days to review and comment on the draft work plan. The DOH will provide any comments in writing to the City for its consideration. The City is not required to seek approval for the final work plan or any subsequent updates provided that any changes to the work plan are made to improve the City’s capabilities and are made in good faith. If the work plan is updated, courtesy copies will be provided to the DOH upon request. Disputes over changes to updated versions of the work plan shall be resolved via the dispute resolution clause in this AOC, Paragraph 55.

32. Within sixty (60) days of receiving comments from DOH on the draft work plan, the City will incorporate DOH’s comments as appropriate into the draft work plan for implementation in the City’s final work plan. The total duration of the study and implementation of the work plan for the purposes of this AOC is not to exceed one (1) year from the date of implementation. Extensions to the maximum duration of one (1) year can be made if approved of in writing by the DOH. The City shall notify the DOH in writing upon completion of the study.

33. When an inspection indicates that an improper inflow connection is channeling flow to the Study Area, the City shall provide notice to the responsible party, requiring the responsible party to: (1) take corrective action to eliminate the improper connection within six (6) months after receipt of notification; and (2) provide certification of completion of the required corrective action. The City shall record information of its notice and the certification of completion in the City’s database.

34. Within ninety (90) days of the completion of the study, the City shall provide the DOH with a final report of the findings from the study. The report shall identify the significant sources of inflow found in each area, analyze the impact of the inflow sources on the City sewage collection and treatment systems, identify actions taken to address the sources and make recommendations of next steps to improve control and operation of the sewage collection system.

### **Revised Standard Operating Procedures (“SOPs”) to Improve Response to Spill Prevention Alarms**

35. Within sixty (60) days, the City shall revise SCADA SOPs such that:
- a. Collection Systems Maintenance (“CSM”) workers and Wastewater Treatment Plant operators must respond to spills before SCADA operators can turn a spill prevention or other high point alarm off.
  - b. SCADA operators will directly contact CSM workers or Wastewater Treatment Plant operators in the event that a critical alarm (alarms designed to prevent sewage spills), such as a wet well level trigger points, pump malfunction, etc., is not responded to by CSM or Wastewater Treatment Plant operators within 10 minutes. At a minimum, critical alarms shall include: Wastewater Pump Station/Pump power loss alarms, High/High-High wet well alarms and loss of communication alarms.

### **Upgrade of the City Sewage System SCADA System**

36. Within one (1) calendar year of the effective date of the AOC, the City shall upgrade its SCADA system to improve operation and control of the City sewage collection system and reduce the potential for future sewage spills. The upgrade shall include improved visualization and control software for the Sand Island WWTP SCADA Operations Control Center and dissemination of mobile devices for CSM personnel identified as those who respond to critical sewage system alarms. The upgraded SCADA system will, at a minimum, provide the following:

- a. **Improved Visualization.** The City shall upgrade its SCADA system software to provide better collection system visualization. This includes upgrades to allow SCADA operators to visualize the collection system in a sewage collection system “basin” view (improving the holistic management of the collection system in wet weather conditions) and improve alarm functionality (to reduce the possibility of operators disregarding an alarm designed to prevent overflows). The existing Sand Island WWTP SCADA Operations Control Center master pump station alarm screen (where all pump stations are depicted) does not

include pump station alarms from the “old” Barrington system. An interface shall be created to allow Barrington system alarms to be viewed on the SCADA master pump station alarm screen and sub-screens. For the SCADA master pump station alarm screen, a pump station icon will repeatedly blink if there is a critical alarm at that pump station (this blinking visual indication is not available in the Barrington system). The specific critical alarm will also blink on the pump station’s sub-screen.

- b. **Improved Response to Critical Alarms by CSM.** The City shall upgrade the SCADA and associated alarm system to allow for remote management by City CSM staff. The purpose of this upgrade is to improve the responsiveness, efficiency and effectiveness of City staff to address critical alarms at pump stations located throughout the City’s jurisdiction. The City shall upgrade its SCADA system to allow CSM pump station operators to view pump station status and access pump station alarms remotely (through the use of mobile devices). The City shall change its operating procedures such that CSM pump station operators will be the only personnel authorized to acknowledge (turn off) critical alarms or to direct SCADA operators to acknowledge (turn off) critical alarms. The City shall provide and put into service no less than seven (7) mobile devices for use by CSM positions responsible for addressing and responding to the critical alarms identified in Paragraph 35 of this AOC. Each City collection system district (Windward, Leeward and Metro) will be provided a minimum of two (2) mobile devices each for use by CSM personnel. One (1) mobile device will be provided to the City Pump Station Superintendent.
- c. **Improved Notification Capability.** The City shall upgrade the SCADA system such that CSM pump station operators may receive automatic notifications via mobile devices. At a minimum, the automated notifications must provide relevant information including pump station name, critical alarm description, and time stamp.

### **Revised Sewage Spill Volume Estimate Procedures**

37. Within thirty (30) days of the effective date of the AOC, the City shall submit a revised SSO volume estimation methodology that the City will implement as part of its sewage spill response procedures. The revised methodology shall:

- Estimate spill volume that considers the reported time as the start time;
- Attempt to incorporate additional sources of information available to estimated spill volume;
- Promote accurate spill volume reporting at the time of initial reporting; and,

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- Differentiate between initial spill volume estimation methods and final spill volume estimation methods.

38. The City shall provide the methodology for review by the DOH-CWB. DOH will have sixty (60) days to review and comment and will provide any comments in writing to the City for its consideration. Upon receipt of any written technical comments from the DOH-CWB, the City will have sixty (60) days to address the comments and make any revisions necessary before re-submitting the revised methodology for review by the DOH-CWB. The City shall implement the SSO volume estimate methodology upon completion of review and acceptance by the DOH-CWB. The City is not required to seek approval for iterative versions of the methodology provided that any changes to the initially reviewed methodology are made to improve the City's capabilities and are made in good faith. Courtesy copies of updated methodologies will be provided to the DOH upon request.

#### Reporting

39. All reports or plans required by this AOC must be signed by an authorized person as set forth in HAR § 11-55-7.

40. All reports or plans required by this AOC must include the following statement at the end of the report or plan along with the required signature of the authorized signatory and date:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

41. All reports, schedules or plans required by this AOC must be submitted to the DOH at the following mailing address:

Clean Water Branch  
Department of Health  
919 Ala Moana Blvd. Room 301  
Honolulu, Hawaii 96814

Attn: Enforcement Section Supervisor

#### Monetary Penalty

42. No later than ninety (90) days after the effective date of this AOC, the City shall pay a monetary penalty of one hundred thousand dollars (\$100,000.00) to the DOH. The payment must be made via a government or cashier's check for the total amount. The check shall be made

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payable to "State of Hawaii" and include the AOC Docket Number, 2015-CW-EO-58 and include the note "Monetary Penalty." The payments must be either hand delivered or sent by certified mail to:

Clean Water Branch  
Environmental Management Division  
Department of Health  
919 Ala Moana Boulevard, Room 301  
Honolulu, HI 96814-4920

Attn: Enforcement Section Supervisor

43. The penalty payment must include a cover letter stating the purpose of the payment and include the AOC Docket Number: 2015-CW-EO-58.

Stipulated Penalties

44. After the effective date of this AOC, CCH shall pay to the DOH the following stipulated penalties upon written demand by the DOH:

- a. \$500 stipulated penalty for each day a required submittal, deliverable or payment pursuant to paragraphs this AOC is submitted late. Demands for stipulated penalties must be made by the DOH-CWB in writing when the DOH determines that a stipulated penalty is warranted. The DOH may waive demand as appropriate.

45. The requirement to pay stipulated penalties remains in effect until this AOC is terminated in writing by the DOH.

46. Within sixty (60) days after receiving the DOH's written notice of a demand for a stipulated penalty under Paragraph 44 of this AOC, the City shall pay to the DOH the full amount of any stipulated penalty that is due. Stipulated penalties shall be paid by check made payable to the "State of Hawaii," reference this AOC number, and be sent to the DOH at the address in Paragraph 42.

47. If the DOH assesses stipulated penalties under this AOC and notifies the City of the reason for and amount of the stipulated penalty, and the City refuses to pay the amount assessed, the DOH shall be entitled to an order for the amount of the stipulated penalty, subject to the City bringing an appeal before a DOH Hearings Officer. In such action, the City may dispute the occurrence of the violation before the Hearings Officer.

48. If the DOH collects a stipulated penalty under this AOC, the City shall not be subject to penalty for the act or omission for which the City paid the stipulated penalty in any collateral proceeding brought by the DOH. Furthermore, if the DOH has collected a stipulated penalty under this AOC, DOH shall not seek civil penalties in any action or collateral proceeding

for the act or omission for which the City paid the stipulated penalty. The payment of a stipulated penalty under this AOC shall not be deemed an admission of a violation of any law, regulation or NPDES permits.

Delay and Force Majeure

49. If any event occurs that may delay completion of corrective actions and cause a failure to meet a compliance deadline, including a “Force Majeure Event” as defined in Paragraph 50 below, the City shall notify the DOH in writing within ten (10) days after the City becomes aware of the event. The notice must be sent to the address listed in Paragraph 42. The notice of delay must include: (a) an explanation of the reasons for the delay; (b) the expected duration of the delay; and (c) a description of all actions taken or to be taken to prevent or minimize the delay and a schedule for implementation of those actions.

50. A “Force Majeure Event” is any event beyond the control of the City, its contractors, or any entity controlled by the City that delays the performance of any obligation under this AOC despite the City’s best efforts to fulfill the obligation. “Best efforts” includes anticipating reasonably foreseeable Force Majeure Events and taking appropriate preventative 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. A Force Majeure Event does not include the City’s financial inability to perform any obligation under this AOC.

51. If the DOH agrees that a Force Majeure Event has occurred, it may agree to extend the time for the City 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 DOH agrees to an extension of time, the extended time agreed upon shall be the basis for determining compliance with the terms of the AOC, including for purposes of Paragraph 44.

52. The DOH will review the notice submitted by the City under Paragraph 49 and will exercise its enforcement discretion to determine if it is appropriate to waive all or a portion of any stipulated penalties. Such determination shall be submitted to the City in writing.

53. The City’s failure to fulfill the requirements of this AOC by the specified timeframes, as agreed upon herein, will constitute a violation of HRS § 342D-9(c) and may result in the DOH ordering additional corrective action or seeking a court order requiring additional corrective action and assessing additional administrative and/or civil penalties.

Appeal waiver

54. The City waives its right to administrative appeal or judicial review of the Factual Allegations and Alleged Conclusions of Law alleged herein and agrees that this AOC is the final and binding resolution on the issues raised.

Dispute Resolution

55. The parties agree to ask the DOH Hearings Officer to take and retain jurisdiction of this matter for the limited purpose of adjudicating and resolving disputes between the DOH and the City regarding corrective action, stipulated penalties, or other provisions of this AOC. If informal negotiations have failed to yield agreement, the dispute resolution procedure shall be invoked upon written notice to the other party and to the Hearings Officer, which shall inform them of a dispute and describe the nature of the dispute. The DOH shall provide the City with a written summary of its position regarding the dispute. The position of the DOH shall be binding unless, within thirty (30) calendar days of the City's receipt of the Department's written summary, the City files a petition with the Hearings Officer, with service to the DOH. The DOH shall file with the Hearings Officer a response to the petition within thirty (30) calendar days of the Department's receipt of the filed copy of the petition, with service to the City. In resolving the dispute between the City and the Department, the Hearings Officer shall uphold the position of the Department if it is supported by a preponderance of the evidence in the administrative record. The City may appeal the Hearing Officer's decision as a final decision and order in a contested case proceeding in accordance with HRS § 91-14(a).

Additional Provisions

56. The City enters into this AOC freely and voluntarily, under no coercion or duress, and is fully aware that in so doing, it is subject to the requirements of this AOC that apply to it.

57. This AOC binds DOH and the City, and the DOH and the City's respective agents, successors, assigns, and trustees.

58. Each of the signatories to this AOC represents that he or she is authorized to enter into this AOC and to bind the parties represented by him or her to the terms of this AOC.

59. None of the requirements of this AOC are intended to relieve the City from its obligation to comply with all applicable State, Federal, and local statutes, rules, ordinances orders and permit conditions. DOH retains all rights to take, direct or order any and all actions necessary to protect public health and the environment, including the right to bring enforcement actions under applicable statutes or regulations.

60. DOH reserves all of its statutory and regulatory powers, authorities, rights, defenses and remedies, both legal and equitable, which may pertain to the City's failure to comply with any requirements of this AOC, including without limitation the assessment of penalties under HRS § 342D-30 and 31.

61. Except as provided herein, this AOC shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, claims and/or authorities, civil or criminal, that DOH has under statutory, regulatory or common law authority.

62. This AOC is not intended to be nor shall it be construed as a permit. Compliance with this AOC shall not relieve the City of its obligations to comply with HRS Chapter 342D or any other applicable local, State, or Federal laws and regulations.

63. Should any provision of this AOC be declared or be determined by any court to be illegal or invalid, the validity of the remaining parts, terms, or provisions shall not be affected thereby and the illegal or invalid part, term, or provision shall be deemed not to be a part of this AOC.

64. This AOC does not limit or affect the rights of the City or the DOH against any third parties.

65. Effective Date. This AOC becomes effective upon signature by authorized representatives of the City and the Director of Health or her designee.

66. Modifications. This AOC shall not be modified except in writing, signed by all parties.

67. Costs. Each party shall bear its own costs and attorneys' fees.

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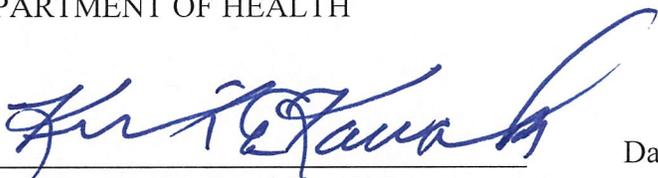
IN WITNESS WHEREOF, the City and the DOH have duly executed this presents as of the day and year subscribed below.

CITY AND COUNTY OF HONOLULU

By   
KIRK CALDWELL  
Its Mayor

Date MAR 13 2017

STATE OF HAWAII  
DEPARTMENT OF HEALTH

  
KEITH E. KAWAOKA, D.Env  
Deputy Director  
Environmental Health  
State of Hawaii

Date 2 Mar 17

APPROVED AS TO FORM AND LEGALITY:

  
EDWARD G. BOHLEN  
Deputy Attorney General

APPROVED AS TO FORM AND LEGALITY:

  
COURTNEY K. SUE-AKO  
Deputy Corporation Counsel

## ACRONYMS AND ABBREVIATIONS

AOC	Administrative Order on Consent
CCH	City and County of Honolulu
CITY	City and County of Honolulu, Department of Environmental Services
CSM	Collection Systems Maintenance
CWB	State of Hawaii Department of Health, Clean Water Branch
DOH	State of Hawaii Department of Health
EPA	United States Environmental Protection Agency
HAR	Hawaii Administrative Rules
HRS	Hawaii Revised Statutes
KRWWTP	Kailua Regional Wastewater Treatment Plant
NPDES	National Pollutant Discharge Elimination System
PTF	Pre-Treatment Facility
SCADA	Supervisory Control and Data Acquisition
SOP	Standard Operating Procedures
SSO	Sanitary Sewer Overflow
WWTP	Wastewater Treatment Plant