

Appendix F3: Priority-based Schedule for Inspecting/  
Maintaining Storm Drainage System, 2016





# **Priority-Based System Inspection and Maintenance Plan**

**For the City and County of Honolulu  
Municipal Separate Storm Sewer System  
National Pollutant Discharge Elimination System  
Permit No. HI S000002**

**Final**

**Revised February 2016**

**Prepared by  
Department of Facility Maintenance, Storm Water Quality Branch  
City and County of Honolulu**



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## **Definition and Acronyms**

City	City and County of Honolulu
CB	Catch Basin
CWB	Clean Water Branch, Department of Health, State of Hawaii
DOH	Department of Health, State of Hawaii
DFM	Department of Facility Maintenance, City and County of Honolulu (from July 1, 1998)
GDI	Grated Drain Inlet
MS4	Municipal Separate Storm Sewer System
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
Permit	National Pollutant Discharge Elimination System Permit No. HI S000002
ROH	Revised Ordinances of the City and County of Honolulu
State	State of Hawaii
SWQ	Storm Water Quality Branch, Department of Facility Maintenance, City and County of Honolulu
TMDL	Total Maximum Daily Load

## References

Draft “2014 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to 303(d) and 305(b), Clean Water Act (P.L. 97-117),” The Hawaii Department of Health, April 2014

Enforcement Records, City and County of Honolulu, Department of Facilities Maintenance, Storm Water Quality, 7/8/15.

“Field Screening Plan,” City and County of Honolulu, (to be submitted February 2016)

Location of Industrial Facilities, City and County of Honolulu, Department of Facilities Maintenance, Storm Water Quality, July 9, 2015.

Revised Ordinances of Honolulu, Chapter 14, Article 12, Drainage, Flood and Pollution Control, September 1996.

“Rules Relating to Soil Erosion Standards and Guidelines,” Department of Planning and Permitting, City and County of Honolulu, dated April 1999.

State of Hawaii Homeless Point-in-Time Count 2015. The State of Hawaii, Department of Human Services, Homeless Programs Office, April 2015

“Street Sweeping Pilot Study Plan,” City and County of Honolulu, (to be submitted February 2016)

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## **SECTION 1 – BACKGROUND**

### **1.1 Introduction**

The City and County of Honolulu (City) received from the State Department of Health (DOH) National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. HI S000002 which became effective on February 16, 2015.

The City's NPDES MS4 permit authorizes the City to discharge storm water runoff and certain non-storm water discharges [Part B.2] from the City's MS4, Municipal Building Complex, Kapolei Building Complex, and City facilities into State Waters in and around the Island of Oahu.

Allowable non-storm water discharges are as follows [Part B.2]

- ✓ *Water line flushing (using potable water);*
- ✓ *Landscape irrigation (using potable water);*
- ✓ *Diverted stream flows;*
- ✓ *Rising ground waters;*
- ✓ *Uncontaminated ground water infiltration*  
*(as defined in 40 CFR §35.2005(20)) to separate storm sewers;*
- ✓ *Uncontaminated pumped ground water;*
- ✓ *Discharges from potable water sources;*
- ✓ *Discharges from foundation drains;*
- ✓ *Air conditioning condensate;*
- ✓ *Irrigation water (using potable water);*
- ✓ *Springs;*
- ✓ *Water from crawl space pumps and footing drains;*
- ✓ *Lawn watering (using potable water);*
- ✓ *Individual residential car washing (using potable water);*
- ✓ *Flows from riparian habitats and wetlands;*
- ✓ *Dechlorinated swimming pool discharges;*
- ✓ *Street wash water without soaps/detergents (using potable water) and*
- ✓ *Discharges or flows from firefighting activities.*

As part of the permit requirements [Part D.1 .f.(l)(v)], states that

*"The Permittee shall review and update its priority-based schedule for inspection and maintaining storm drain lines, manholes, and inlets/catch basins based on findings from past inspections/maintenance activities. At a minimum, the City shall inspect 14,000 inlets/catchbasins/FY with a minimum of 1/3 maintained/cleaned and all inlets/catch basins shall be inspected at least once during the permit term (maintenance/cleaning may be conducted in lieu of inspections to satisfy this requirement). At a minimum, the City shall inspect 190,000 linear feet/FY of its storm drain lines with a minimum of 1/3 maintained/cleaned."*

As a result, R.M. Towill Corporation worked with the City's Department of Facilities Maintenance Storm Water Quality Branch (DFM-SWQ) in developing a priority-based system inspection and maintenance plan as detailed in the following document.

**1.2 Purpose**

The priority-based system inspection and maintenance plan will identify drain lines, manholes, and inlet/catch basins that require maintenance and/or cleaning. The plan will be developed to best utilize limited resources while protecting the receiving waters from potential flooding hazards and water quality degradation.

A ranking system will be utilized to assess the City’s MS4 and to develop a priority schedule for inspection, maintenance and cleaning. The priority-based system inspection and maintenance plan will also identify the frequency of inspections.

**1.3 Storm Water Structure Identification Convention**

Storm Water structures in the City’s MS4 are identified by outfall locations and are assigned ID’s corresponding to the outfall discharge location. Outfalls are located in one of five main districts on Oahu and consist of Honolulu, Leeward, Windward, Central Oahu, North Shore, and the Waianae Coast. A list of receiving water bodies are shown in Appendix E. A map of the outfall districts are shown in Appendix C. Outfall ID’s are identified by the following prefixes:

**Table 1 - District Outfall Identifying Prefix**

District	Prefix
Honolulu	H
Leeward	L
Windward	W
Central Oahu	C
Waianae Coast	WC

Example: HMAS 23-9961

The “H” signifies that this structure is in the Honolulu District. The “MAS” identifies this as an outfall discharging to Moanalua Stream. The “23” is the specific outfall number that this structure drains to. The “9961” is the structure number.

**SECTION 2 – PRIORITY-BASED RANKING PROCESS**

Scheduling of drain lines, manholes, and inlet/catch basins will be based on structure outfall ratings determined from the priority based ranking process which analyzes five priority based criteria. Criteria for the priority area inspections are discussed in the following sections and will include structures located in Total Maximum Daily Load (TMDL) water body areas, problematic areas such as Waikiki and Downtown-Chinatown, findings from previous and current inspection and maintenance activities, location of industrial and commercial facilities, documented storm water violations, and areas occupied by homeless persons.

The five priority based criteria will be analyzed for each of the outfalls and an overall rating will be assigned. Ratings for each of the outfalls will then be compared and a priority-based inspection and maintenance schedule will then be developed with the highest priority outfalls being scheduled first.

The priority-based system inspection and maintenance plan and schedule will be reviewed annually and updated as necessary. The changes, along with explanations of the changes shall be submitted within each respective annual report.

**SECTION 3 – PRIORITY-BASED SYSTEM CRITERIA**

The following criteria were used in determining the prioritized storm water structure inspection rating.

**3.1 Criteria 1 - Total Maximum Daily Load, Waikiki, and Downtown-Chinatown Areas**

Waikiki and Downtown-Chinatown are known problematic areas. Waikiki is a major tourist destination and thus has a high volume of pedestrians. Downtown-Chinatown is the center of business in Hawaii and home to a high number of homeless people.

**Table 2 – Waikiki and Downtown-Chinatown Areas**

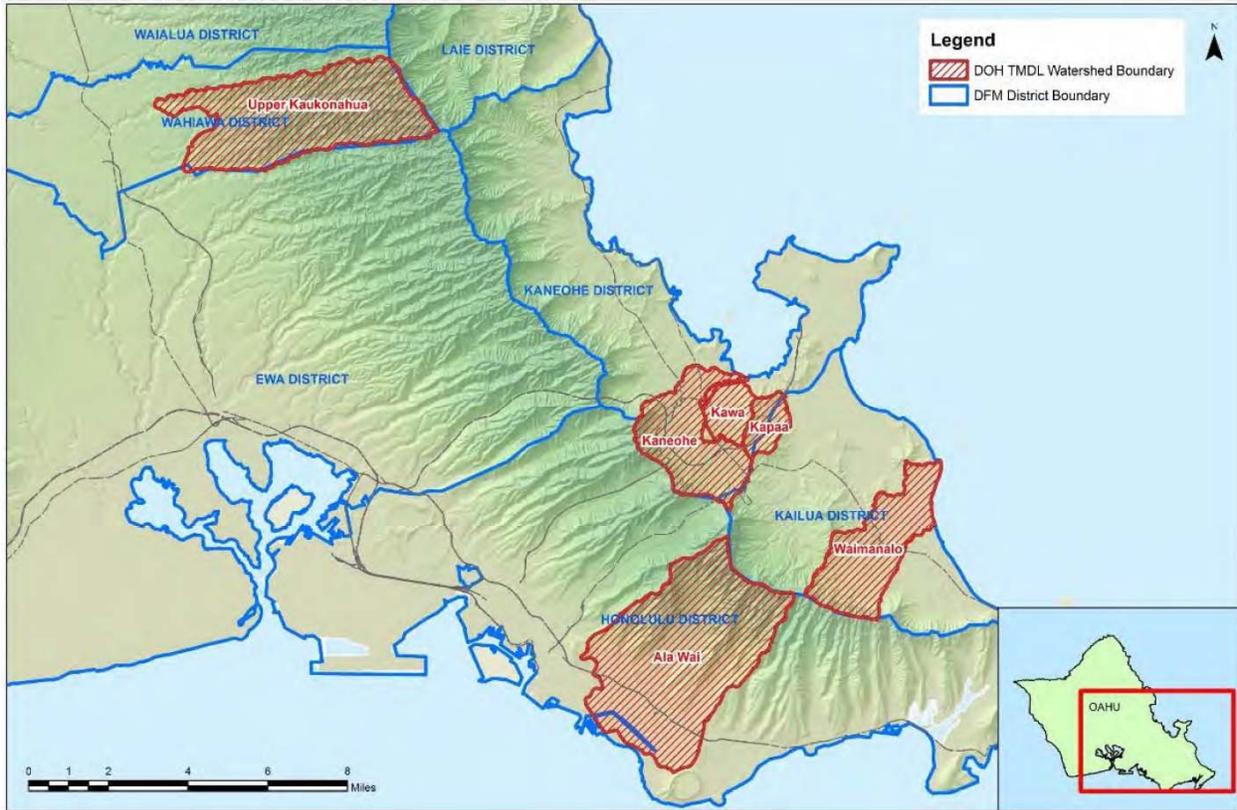
Receiving Water Bodies
Nuuanu Stream
Kapalama Stream
Honolulu Harbor
Ala Wai Canal
Ala Wai Harbor
Mamala (East) Bay

Approved Total Maximum Daily Load water bodies are established to achieve and maintain water quality standards in areas determined by State of Hawaii Department of Health. TMDL areas are shown in Figure 1 on the following page.

**Table 3 - Total Maximum Daily Load Water Bodies**

Assessed Water Body
Kamooalii (Trib to Kaneohe Stream)
Kaneohe
Kapaa
Kawa
N. Fork Kaukonahua
S. Fork Kaukonahua
Waimanalo
Ala Wai Canal and Boat Harbor

\*Reference: 2014 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to 303(d) and 305(b), Clean Water Act (P.L. 97-117).



**Figure 1 – TMDL Watershed Boundaries**

\*Reference: “Street Sweeping Pilot Study Plan,” City and County of Honolulu, (to be submitted February 2016)

- 1) Priority Criteria
  - a) Drainage structures located in Waikiki, Downtown-Chinatown, and TMDL outfalls will be assigned a priority rating of “Critical”.

### **3.2 Criteria 2 - Catch Basin and Grated Drain Inlet Severity (FY10-FY16)**

The database of previous and current inspections and maintenance activities were analyzed to determine the percentage of severe structures located in outfall areas. Severe structures are those structures (CB’s and inlets) which contained sediment and/or debris at the outlet pipe to a level of half full or greater. The results of the severe structures are indicated in Tables 4-6 on the following three pages.

**Table 4 - Catch Basin/Inlet Severe Inspections (FY10-FY15)**

Outfall	% Severe Inspections	Priority
LPBP	75.00	High
WCAA	50.00	High
WCUS	45.10	High
WCKK	40.00	High
WWAS	40.00	High
WPOH	35.78	High
WCMS	35.71	High
HAWH	33.77	High
HKB	30.81	High
WCPO	28.94	High
WCMA	27.78	High
WCKI	25.24	High
WKUS	23.81	High
WWAI	23.08	High
WCNI	22.64	High
WKWS (WKC)	21.65	High
HAML	20.87	High
LKWS	20.00	High
NKG	18.18	Medium
WPO	16.12	Medium
NPS	16.00	Medium
WKAB	15.58	Medium
LWBM	14.89	Medium
HEMB	14.73	Medium
LBPH	12.90	Medium
WMAA	12.50	Medium
HKS	12.00	Medium
HHB	11.92	Medium
WWES	11.76	Medium
NHG	11.11	Medium
HMIS	11.06	Medium
HKMS	10.58	Medium
LWMB	10.57	Medium
HAWC	10.40	Medium
HKL	9.76	Low
WPOK	9.09	Low
HMAS	9.01	Low

Outfall	% Severe Inspections	Priority
NPNS	8.41	Low
LAG	8.40	Low
LWAS	8.25	Low
LLG	8.16	Low
LWUS	8.06	Low
HKPW	8.00	Low
HWG	7.04	Low
WMIO	6.98	Low
HNUS	6.91	Low
HKKS	6.90	Low
WPOL	6.78	Low
HWNS	6.73	Low
WOAC	6.72	Low
CNFK	6.67	Low
NKAA	6.25	Low
WKKI	6.25	Low
HKAS	6.18	Low
HPMS	5.13	Low
LKLC	5.12	Low
HMB	5.01	Low
HWS	5.00	Low
LPHW	5.00	Low
LEGA	4.98	Low
LHIS	4.95	Low
LWOS	4.88	Low
CPOS	4.76	Low
HKKI	4.65	Low
LWIS	4.64	Low
LPG	4.60	Low
HKAE	4.52	Low
LWES	4.47	Low
HSL/SLB	4.30	Low
HKIS	4.29	Low
WKIP	4.27	Low
WKNB	4.17	Low
LOPM	4.10	Low
CWAS	4.09	Low

**Table 5 - Catch Basin/Inlet Severe Inspections (FY10-FY15, cont.)**

Outfall	% Severe Inspections	Priority
WKEB	3.88	Low
LKAS	3.50	Low
LPHE	3.10	Low
HPNS	2.99	Low
LEWA	2.94	Low
WMAS	2.87	Low
HPAS	2.76	Low
HWPS	2.75	Low
CSFK	2.73	Low
CKIS	2.68	Low
HPPS	2.63	Low
WWKB	2.63	Low
WNAP	2.56	Low
WIAS	2.52	Low
WKSS	2.46	Low
WKAS	2.26	Low
WHAS	2.21	Low
NPAS	2.17	Low
WMIS	2.13	Low
HKPE	2.00	Low
LKAP	1.79	Low
HKPM	1.68	Low
WPAS	1.65	Low
HWES	1.60	Low
HMS	1.58	Low
CWES	1.54	Low
LNHS	1.28	Low
HKC	1.21	Low
WAUS	1.13	Low
LEGB	0.91	Low
HMMS	0.85	Low
HKG	0.77	Low
HKWS	0.69	Low
WASB	0.44	Low
LEGC	0.40	Low
WKES	0.28	Low
HADC	0.00	Low

Outfall	% Severe Inspections	Priority
LMAS	0.00	Low
LSHS	0.00	Low
NKIS	0.00	Low
NPOS	0.00	Low
NPUS	0.00	Low
NWDC	0.00	Low
WHIS	0.00	Low
WKEK	0.00	Low
WKHS	0.00	Low
WKSE	0.00	Low
WMLS	0.00	Low
WWOB	0.00	Low
LAS/LASS	--	N/A
LHS/LSH	--	N/A
LKCY	--	N/A
LKPA	--	N/A
LMBP	--	N/A
LMG/LKG	--	N/A
LPHM	--	N/A
WCMI	--	N/A

**Table 6 - Catch Basin/Inlet Severe Inspections (FY16)**

Outfall	% Severe Inspections	Priority
HKB	21.25	High
HKL	18.07	Medium
HAML	12.78	Medium
HKAS	10.44	Medium
HAWC	10.35	Medium
HHB	10.34	Medium
HEMB	9.52	Low
HAWH	8.82	Low
LWMB	8.16	Low
LWAS	7.05	Low
HSL/SLB	5.90	Low
LWUS	5.12	Low
HMAS	4	Low
LPHW	3.82	Low
CSFK	1.89	Low
WKIP	1.12	Low
WKAS	1.11	Low
CNFK	0	Low
WKEK	0	Low

1) Priority Criteria

Severe structures were assigned a priority rating depending on the percentage of severe structures located in the outfall.

- a) High >20% Severe Inspections
- b) Medium 10% < X ≤ 20% Severe Inspections
- c) Low ≤ 10% Severe Inspections

**3.3 Criteria 3 - Industrial and Commercial Facilities**

The location of industrial facilities in outfall areas was determined in order to determine the level of concentration of the facilities in each of the outfall areas. Higher concentrations of industrial facilities were located in Kalihi, Campbell and Mapunapuna areas. The results are indicated in Table 7 on the following page.

**Table 7 - Location of Industrial Facilities**

Area	#	Priority	Area	#	Priority
Aiea-Pearl City	17	Low	Kalihi	92	High
Airport	14	Low	Kaneohe	20	Low
Ala Moana	9	Low	Kapaa	3	Low
Campbell	67	High	Mapunapuna	65	High
Gentry	14	Low	Laie	1	Low
Halawa	36	Medium	Waialae	2	Low
Iwilei	47	Medium	Pearl City	20	Low
Kailua	3	Low	Wahiawa	18	Low
Kakaako	15	Low	Waipahu	29	Medium
Total			472		

\*Reference: City and County of Honolulu, Department of Facilities Maintenance, Storm Water Quality, July 9, 2015.

#### 1) Priority Criteria

The results of the industrial facility locations were determined and the outfall areas were assigned one of the following priority ratings:

- a) High >50 Industrial Facilities per Area
- b) Medium 25<X≤50 Industrial Facilities per Area
- c) Low ≤ 25 Industrial Facilities per Area

### 3.4 Criteria 4 - Previous Storm Water Violations

The database of notice of violations (NOVs) for illicit connections and illegal discharges were analyzed to determine the locations of the violations. The results are indicated in Table 8 below.

**Table 8 - Number of Notice of Violations per Community**

Community	#	Priority	Community	#	Priority
Central	30	Low	Makakilo-Kapolei	24	Low
East Honolulu	82	Medium	Moanalua-Aiea-Pearl City	64	Medium
Ewa Plain	28	Low	North Shore	20	Low
Hauula	2	Low	Urban Honolulu	354	High
Kailua	6	Low	Waipahu	40	Low
Kalaeloa Industrial	12	Low	Windward	72	Medium
Kalihi	2	Low	No Community Specified	234	N/A
Leeward	40	Low			
Total			1010		

\* Reference: City and County of Honolulu, Department of Facilities Maintenance, Storm Water Quality, 7/8/15.

1) Priority Criteria

Based on the number of NOV's per Community, the following priority ratings were assigned:

- a) High >100 NOV's per Community
- b) Medium  $60 < X \leq 100$  NOV's per Community
- c) Low  $\leq 60$  NOV's per Community

**3.5 Criteria 5 - Areas Heavily Occupied by Homeless**

Areas heavily occupied by the homeless were identified and assigned higher priority ratings over areas of lower concentrations of the homeless. Inspections in these areas will assist the City in monitoring and scheduling maintenance/cleaning of its MS4. The results are indicated in Table 9 below.

**Table 9 - Number of Unsheltered Homeless by Region**

Region	#	Priority
Downtown Honolulu	743	High
East Honolulu	367	Medium
Ewa	102	Low
Kaneohe to Waimanalo	145	Low
Wahiawa to North Shore	188	Low
Upper Windward	25	Low
Waianae Coast	369	Medium
Total	1939	

\*Reference: State of Hawaii Homeless Point-in-Time Count 2015. The State of Hawaii, Department of Human Services, Homeless Programs Office

1) Priority Criteria

Based on the number of unsheltered homeless per Region, the following priority ratings were assigned.

- a) High >500 Unsheltered Homeless per Community
- b) Medium  $200 < X \leq 500$  Unsheltered Homeless per Community
- c) Low  $\leq 200$  Unsheltered Homeless per Community

**SECTION 4 - PRIORITY AREA INSPECTION SCHEDULE FOR STORM DRAIN SYSTEM**

The storm water structures were categorized by outfall with the priority ranking criteria and priority ratings summarized in Appendix A. The outfalls were assigned one of the priority ratings listed below based on the priority ranking criteria presented in Section 3. Priority ratings consist of a numeric value and descriptor as shown below.

**1) Critical (4):**

- a) Outfalls located in Total Maximum Daily Load (TMDL) areas designated by DOH, Waikiki, and Downtown-Chinatown. Waikiki areas include: Ala Wai Canal, Ala Wai Harbor, and Mamala (East) Bay. Downtown-Chinatown areas include: Nuuanu Stream, Kapalama Stream, and Honolulu Harbor. TMDL areas include: Ala Wai Canal, Kawa Stream, Waimanalo Stream, Kapaa Stream, Kaneohe Stream, North and South Forks of Upper Kaukonahua Stream.

**2) High (3):**

- a) Areas that have reached “high” threshold for at least one of the priority based ranking criteria.

**3) Medium (2):**

- a) Areas that have reached “medium” threshold for at least one of the criteria and have not reached the “high” threshold for any of the criteria.

**4) Low (1):**

- a) Areas that have not reached the “high” or “medium” threshold for any of the criteria.

**4.1 Frequency**

Catch Basin, grated drain inlets, and drain line storm water inspections located in outfalls with a critical priority rating will be inspected annually. Inspections with high priority ratings shall be inspected twice during the permit period. Medium and Low level priority areas shall be inspected once during the permit term. The following table will be used in determining inspection frequency.

**Table 10 – Inspection Frequency**

<b>Priority</b>	<b>Inspection frequency</b>
Critical	Annually
High	Twice during permit term
Medium	Once during permit term
Low	Once during permit term

**4.2 Priority Schedule**

A priority schedule for inspection, maintenance and cleaning of drainage structures was developed for the current permit period from FY16 to FY20 based on the outfall priority ratings. The following priority schedule shall be used for the catch basin, grated drain inlet, and drain line storm water inspections. The priority schedule will be analyzed annually though the permit period and will be revised accordingly based on changes to priority ratings.

Table 11 – Catch Basin/Inlet Priority Schedule FY16

Outfall		Priority	No. of Inlets/Catch Basins	Outfall		Priority	No. of Inlets/Catch Basins
Ala Moana Lagoon	HAML	High	194	Kewalo Basin	HKB	High	267
Ala Wai Canal	HAWC	Critical	959	Maile Stream	WCMS	High	211
Ala Wai Harbor	HAWH	Critical	47	Makaha Stream	WCMA	High	51
Halawa Stream, North Segment	LNHS	Medium	104	Makiki Stream	HMIS	Critical	217
Halawa Stream, South Segment	LSHS	Medium	57	Mamala (East) Bay	HEMB	Critical	136
Honolulu Harbor	HHB	Critical	353	Mamala (West) Bay	LWMB	High	570
Kaelepulu Stream	WKIP	Medium	763	Manoa Stream	HMS	Critical	701
Kahawai Stream	WWKB	Critical	33	Moanalua Stream	HMAS	High	254
Kamoolii Stream	WKEK	Critical	236	Nuuanu Stream	HNUS	Critical	408
Kanaka Stream	HKMS	Critical	65	Palolo Stream	HPMS	Critical	291
Kaneohe Stream	WKES	Critical	195	Pearl Harbor, West Loch	LPHW	Medium	723
Kapalama Stream	HKAS	Critical	382	Pukele Stream	HPPS	Critical	77
Kaukonahua Stream, North Fork	CNFK	Critical	168	Salt Lake	HSL/SLB	High	470
Kaukonahua Stream, South Fork	CSFK	Critical	239	Waiawa Stream	LWAS	Medium	533
Kawa Stream	WKAS	Critical	200	Waimalu Stream	LWUS	Medium	628
Kawainui (Kaelepulu) Stream	WKWS	High	311	Waimanalo Stream	WWAI	Critical	37
Keehi Lagoon	HKL	High	97	Waiomao Stream	HWPS	Critical	63
						Total	10040

Table 12 – Catch Basin/Inlet Priority Schedule FY17

Outfall		Priority	No. of Inlets/Catch Basins	Outfall		Priority	No. of Inlets/Catch Basins
Ala Wai Canal	HAWC	Critical	959	Kaukonahua Stream, South Fork	CSFK	Critical	239
Ahuimanu (Kahaluu) Stream	WAUS	Medium	104	Kawa Stream	WKAS	Critical	200
Ahuimanu Stream South Branch	WASB	Medium	142	Kawa Stream, East Branch	WKSE	Medium	42
Airport Drainage Canal	HADC	High	31	Kawiwa (Kaupuni) Stream	WCKK	High	17
Ala Wai Harbor	HAWH	Critical	47	LBPH	LBPH	High	44
Haiamoa Stream	WHIS	Medium	13	LMBP	LMBP	High	13
Halawa Stream	LHS/LSH	Medium	405	Makiki Stream	HMIS	Critical	217
Heeia Stream	WHAS	Medium	151	Mamala (East) Bay	HEMB	Critical	136
Honolulu Harbor	HHB	Critical	353	Manaiki (Moanalua) Stream	HMMS	High	62
Honouliuli Stream	LHIS	Medium	37	Manoa Stream	HMS	Critical	701
Kaalaea Stream	WCAA	High	4	Maunalua Bay	HMB	Medium	942
Kahaluu Stream	WKUS	High	21	Maunawili Stream	WMIS	Medium	146
Kahaluu Stream Segment	WKSS	Medium	77	Nanakuli Stream	WCNI	High	68
Kahanaiki (Maunawili) Stream	WKKI	Medium	65	Nuuanu Stream	HNUS	Critical	408
Kahauiki (Moanalua) Stream	HKKI	High	22	Pacific Ocean at Hauula	WPOH	High	72
Kahawai Stream	WWKB	Critical	33	Pacific Ocean off Barbers Point	LPBP	High	11
Kailua Bay	WKAB	Medium	75	Pacific Ocean off Waianae	WCPO	High	396
Kalihi Stream	HKIS	High	296	Palolo Stream	HPMS	Critical	291
Kamanaiki (Kalihi) Stream	HKKS	High	15	Pauoa (Nuuanu) Stream	HPNS	High	132
Kamoolii Stream	WKEK	Critical	236	Pukele Stream	HPPS	Critical	77
Kanaka Stream	HKMS	Critical	65	Ulehawa Stream, South Segment	WCUS	High	64
Kaneohe Stream	WKES	Critical	195	Waikane Stream	WWAS	High	5
Kapakahi Stream	LKWS	High	22	Waialele Stream	LWES	Medium	466
Kapalama Stream	HKAS	Critical	382	Wailani Stream	LWIS	Medium	834
Kapalama Stream, East Branch	HKAE	High	115	Waimanalo Stream	WWAI	Critical	37
Kapuni Stream	WCKI	High	168	Waiolani (Nuuanu) Stream	HWNS	High	180
Kaukonahua Stream, North Fork	CNFK	Critical	168	Waiomao Stream	HWPS	Critical	63
						Total	10064

Table 13 – Catch Basin/Inlet Priority Schedule FY18

Outfall		Priority	No. of Inlets/Catch Basins	Outfall		Priority	No. of Inlets/Catch Basins
Ala Wai Canal	HAWC	Critical	959	LOPM	LOPM	Low	317
Ala Wai Harbor	HAWH	Critical	47	Mailiili Stream	WCMI	Medium	23
Awanui Gulch	LAG	Low	236	Makaua Stream	WMAA	Medium	5
Honolulu Harbor	HHB	Critical	353	Makiki Stream	HMIS	Critical	217
Iolekaa (Heeia) Stream	WIAS	Medium	53	Mamala (East) Bay	HEMB	Critical	136
Kahawai Stream	WWKB	Critical	33	Manana (Waiawa) Stream	LMAS	Medium	64
Kaipapau Stream	WKEB	Medium	366	Manoa Stream	HMS	Critical	701
Kaiwi Channel	HKC	Medium	393	Muliwaiolena Stream	WMAS	Medium	101
Kalauao Stream	LKAS	Medium	176	NHG	NHG	Medium	9
Kaluanui Ridge Gulch	HKG	Medium	129	NKG	NKG	Medium	12
Kamoolii Stream	WKEK	Critical	236	NPS	NPS	Medium	20
Kanaka Stream	HKMS	Critical	65	Nuuanu Stream	HNUS	Critical	408
Kaneohe Stream	WKES	Critical	195	Nuuiipa Pond	WNAP	Medium	34
Kapakahi Stream	HKWS	Medium	76	NWDC	NWDC	Low	14

Kapalama Stream	HKAS	Critical	382	Omao (Maunawili) Stream	WMIO	Medium	40	
Kaukonahua Stream, North Fork	CNFK	Critical	168	Oneawa Channel	WOAC	Medium	117	
Kaukonahua Stream, South Fork	CSFK	Critical	239	Pacific Ocean at Kaaawa	WPOK	Medium	3	
Kaunala Stream	NKAA	Low	15	Pacific Ocean at Laiea	WPOL	Medium	39	
Kawa Stream	WKAS	Critical	200	Pacific Ocean off North Shore	NPNS	Low	138	
Keahala Stream, North Branch	WKHS	Medium	127	Palolo Stream	HPMS	Critical	291	
Keahala Stream, North Branch	WKNB	Medium	64	Panakauani Gulch	LPG	Medium	523	
Kiikii Stream	NKIS	Low	42	Paukauila Stream	NPAS	Low	46	
Kuapa Pond East Segment	HKPE	Medium	741	Paumalu Stream	NPUS	Low	7	
Kuapa Pond Middle Segment	HKPM	Medium	231	Pearl Harbor, Middle Loch	LPHM	Medium	2	
Kuapa Pond West Segment	HKPW	Medium	27	Poamoho (Kaukonahua) Stream	CPOS	Low	61	
Kuliouou Stream	HKS	Medium	122	Poamoho (Kaukonahua) Stream	NPOS	Low	25	
LEWA	LEWA	Low	71	Pukele Stream	HPPS	Critical	77	
LKAP	LKAP	Low	121	Waikele Stream Segment	CWES	Low	242	
LKLC	LKLC	Low	622	Waimanalo Stream	WWAI	Critical	37	
LKPA	LKPA	Low	46	Waiomao Stream	HWPS	Critical	63	
LLG	LLG	Low	43					
							Total	10350

Table 14 – Catch Basin/Inlet Priority Schedule FY19

Outfall		Priority	No. of Inlets/Catch Basins	Outfall		Priority	No. of Inlets/Catch Basins	
Ala Wai Canal	HAWC	Critical	959	LMBP	LMBP	High	13	
Aiea Stream	LAS/LASS	Medium	357	Maile Stream	WCMS	High	211	
Airport Drainage Canal	HADC	High	31	Makaha Stream	WCMA	High	51	
Ala Moana Lagoon	HAML	High	194	Makakilo Gulch	LMG/LKG	Low	419	
Ala Wai Harbor	HAWH	Critical	47	Makiki Stream	HMIS	Critical	217	
Honolulu Harbor	HHB	Critical	353	Mamala (East) Bay	HEMB	Critical	136	
Kaalaea Stream	WCAA	High	4	Mamala (West) Bay	LWMB	High	570	
Kahaluu Stream	WKUS	High	21	Manaiki (Moanalua) Stream	HMMS	High	62	
Kahauiki (Moanalua) Stream	HKKI	High	22	Manoa Stream	HMS	Critical	701	
Kahawai Stream	WWKB	Critical	33	Moanalua Stream	HMAS	High	254	
Kalihi Stream	HKIS	High	296	Nanakuli Stream	WCNI	High	68	
Kamanaiki (Kalihi) Stream	HKKS	High	15	Nuuanu Stream	HNUS	Critical	408	
Kamoolii Stream	WKEK	Critical	236	Pacific Ocean at Hauula	WPOH	High	72	
Kanaka Stream	HKMS	Critical	65	Pacific Ocean off Barbers Point	LPBP	High	11	
Kaneohe Stream	WKES	Critical	195	Pacific Ocean off Waianae	WCPO	High	396	
Kapakahi Stream	LKWS	High	22	Palolo Stream	HPMS	Critical	291	
Kapalama Stream	HKAS	Critical	382	Pauoa (Nuuanu) Stream	HPNS	High	132	
Kapalama Stream, East Branch	HKAE	High	115	Pia Stream	HPAS	Medium	133	
Kapuni Stream	WCKI	High	168	Puha Stream (Inoaole)	WPAS	Medium	67	
Kaukonahua Stream, North Fork	CNFK	Critical	168	Pukele Stream	HPPS	Critical	77	
Kaukonahua Stream, South Fork	CSFK	Critical	239	Salt Lake	HSL/SLB	High	470	
Kawa Stream	WKAS	Critical	200	Ulehawa Stream, South Segment	WCUS	High	64	
Kawainui (Kaelepulu) Stream	WKWS	High	311	Waikakalaua (Waikele) Stream	CWAS	Low	515	
Kawiwa (Kaupuni) Stream	WCKK	High	17	Waikane Stream	WWAS	High	5	
Keehi Lagoon	HKL	High	97	Waimanalo Stream	WWAI	Critical	37	
Kewalo Basin	HKB	High	267	Waiolani (Nuuanu) Stream	HWNS	High	180	
LBPH	LBPH	High	44	Waiomao Stream	HWPS	Critical	63	
							Total	10481

Table 15 – Catch Basin/Inlet Priority Schedule FY20

Outfall		Priority	No. of Inlets/Catch Basins	Outfall		Priority	No. of Inlets/Catch Basins	
Ala Wai Canal	HAWC	Critical	959	Manoa Stream	HMS	Critical	701	
Ala Wai Harbor	HAWH	Critical	47	Nuuanu Stream	HNUS	Critical	408	
Honolulu Harbor	HHB	Critical	353	Palolo Stream	HPMS	Critical	291	
Kahawai Stream	WWKB	Critical	33	Pearl Harbor, East Loch	LPHE	Medium	879	
Kamoolii Stream	WKEK	Critical	236	Pukele Stream	HPPS	Critical	77	
Kanaka Stream	HKMS	Critical	65	Waialaenui Gulch	HWG	Medium	72	
Kaneohe Stream	WKES	Critical	195	Waialaenui Stream	HWS	Medium	109	
Kapalama Stream	HKAS	Critical	382	Waihee (Kahaluu) Stream	WWES	Medium	17	
Kaukonahua Stream, North Fork	CNFK	Critical	168	Wailupe Stream	HWES	Medium	217	
Kaukonahua Stream, South Fork	CSFK	Critical	239	Waimanalo Bay	WWOB	Medium	2	
Kawa Stream	WKAS	Critical	200	Waimanalo Stream	WWAI	Critical	37	
Kipapa (Waikele) Stream	CKIS	Low	2032	Waimano (Waiawa) Stream	LWOS	Medium	266	
LEGA	LEGA	Low	494	Waiomao Stream	HWPS	Critical	63	
LEGB	LEGB	Low	127	West Beach Marina	LWBM	Medium	157	
LEGC	LEGC	Low	135	WMLS	WMLS	Medium	3	
Makiki Stream	HMIS	Critical	217	WPO	WPO	Medium	55	
Mamala (East) Bay	HEMB	Critical	136					
							Total	9372

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# APPENDIX A

## Outfall Determination By District

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**Central**

Criteria 2: CB and GDI Severity							
Outfall	Criteria 1: Total Maximum Daily Load, Waikiki, and Downtown-Chinatown Areas	FY 10-15	FY16	Criteria 3: Industrial and Commercial Facilities	Criteria 4: Stormwater Complaints	Criteria 5: Homeless	Determination
CKIS	--	Low	--	Low	Low	Low	Low
CNFK	Critical	Low	Low	Low	Low	Low	Critical
CPOS	--	Low	--	Low	Low	Low	Low
CSFK	Critical	Low	Low	Low	Low	Low	Critical
CWAS	--	Low	--	Low	Low	Low	Low
CWES	--	Low	--	Low	Low	Low	Low

**North Shore**

Criteria 2: CB and GDI Severity							
Outfall	Criteria 1: Total Maximum Daily Load, Waikiki, and Downtown-Chinatown Areas	FY 10-15	FY16	Criteria 3: Industrial and Commercial Facilities	Criteria 4: Stormwater Complaints	Criteria 5: Homeless	Determination
NHG	--	Medium	--	Low	Low	Low	Medium
NKAA	--	Low	--	Low	Low	Low	Low
NKG	--	Medium	--	Low	Low	Low	Medium
NKIS	--	Low	--	Low	Low	Low	Low
NPAS	--	Low	--	Low	Low	Low	Low
NPNS	--	Low	--	Low	Low	Low	Low
NPOS	--	Low	--	Low	Low	Low	Low
NPS	--	Medium	--	Low	Low	Low	Medium
NPUS	--	Low	--	Low	Low	Low	Low
NWDC	--	Low	--	Low	Low	Low	Low

**Waianae Coast**

Criteria 2: CB and GDI Severity							
Outfall	Criteria 1: Total Maximum Daily Load, Waikiki, and Downtown-Chinatown Areas	FY 10-15	FY16	Criteria 3: Industrial and Commercial Facilities	Criteria 4: Stormwater Complaints	Criteria 5: Homeless	Determination
WCKI	--	High	--	Low	Low	Medium	High
WCKK	--	High	--	Low	Low	Medium	High
WCMA	--	High	--	Low	Low	Medium	High
WCMI	--	--	--	Low	Low	Medium	Medium
WCMS	--	High	--	Low	Low	Medium	High
WCNI	--	High	--	Low	Low	Medium	High
WCPO	--	High	--	Low	Low	Medium	High
WCUS	--	High	--	Low	Low	Medium	High

**Honolulu**

Outfall	Criteria 1: Total Maximum Daily Load, Waikiki, and Downtown-Chinatown Areas	Criteria 2: CB and GDI Severity		Criteria 3: Industrial and Commercial Facilities	Criteria 4: Stormwater Complaints	Criteria 5: Homeless	Determination
		FY 10-15	FY16				
HADC	--	Low	--	Low	High	High	High
HAML	--	High	Medium	Low	High	High	High
HAWC	Critical	Medium	Medium	Low	High	High	Critical
HAWH	Critical	High	Low	Low	High	High	Critical
HEMB	Critical	Medium	Low	Low	High	High	Critical
HHB	Critical	Medium	--	Medium	High	High	Critical
HKAE	--	Low	Medium	Low	High	High	High
HKAS	Critical	Low	Medium	High	High	High	Critical
HKB	--	High	High	Low	High	High	High
HKC	--	Low	--	Low	Medium	Medium	Medium
HKG	--	Low	--	Low	Medium	Medium	Medium
HKIS	--	Low	--	High	High	High	High
HKKI	--	Low	--	High	High	High	High
HKKS	--	Low	--	High	High	High	High
HKL	--	Low	Medium	High	High	High	High
HKMS	Critical	Medium	--	Low	High	High	Critical
HKPE	--	Low	--	Low	Medium	Medium	Medium
HKPM	--	Low	--	Low	Medium	Medium	Medium
HKPW	--	Low	--	Low	Medium	Medium	Medium
HKS	--	Medium	--	Low	Medium	Medium	Medium
HKWS	--	Low	--	Low	Medium	Medium	Medium
HMAS	--	Low	Low	High	Medium	High	High
HMB	--	Low	--	Low	Medium	Medium	Medium
HMIS	Critical	Medium	--	Low	High	High	Critical
HMMS	--	Low	--	Low	High	High	High
HMS	Critical	Low	--	Low	High	High	Critical
HNUS	Critical	Low	--	Medium	High	High	Critical
HPAS	--	Low	--	Low	Medium	Medium	Medium
HPMS	Critical	Low	--	Low	High	High	Critical
HPNS	--	Low	--	Low	High	High	High
HPPS	Critical	Low	--	Low	High	High	Critical
HSL/SLB	--	Low	Low	Low	High	High	High
HWES	--	Low	--	Low	Medium	Medium	Medium
HWG	--	Low	--	Low	Medium	Medium	Medium
HWNS	--	Low	--	Low	High	High	High
HWPS	Critical	Low	--	Low	High	High	Critical
HWS	--	Low	--	Low	Medium	Medium	Medium

**Leeward**

Outfall	Criteria 1: Total Maximum Daily Load, Waikiki, and Downtown-Chinatown Areas	Criteria 2: CB and GDI Severity		Criteria 3: Industrial and Commercial Facilities	Criteria 4: Stormwater Complaints	Criteria 5: Homeless	Determination
		FY 10-15	FY16				
LAG	--	Low	--	Low	Low	Low	Low
LAS/LASS	--	--	--	Low	Medium	Low	Medium
LBPH	--	Medium	--	High	Low	Low	High
LEGA	--	Low	--	Low	Low	Low	Low
LEGB	--	Low	--	Low	Low	Low	Low
LEGC	--	Low	--	Low	Low	Low	Low
LEWA	--	Low	--	Low	Low	Low	Low
LHIS	--	Low	--	Medium	Low	Low	Medium
LHS/LSH	--	--	--	Medium	Medium	Low	Medium
LKAP	--	Low	--	Low	Low	Low	Low
LKAS	--	Low	--	Low	Medium	Low	Medium
LKCY	--	Low	--	High	Low	Low	High
LKLC	--	Low	--	Low	Low	Low	Low
LKPA	--	--	--	Low	Low	Low	Low
LKWS	--	High	--	Low	Low	Low	High
LLG	--	Low	--	Low	Low	Low	Low
LMAS	--	Low	--	Low	Medium	Low	Medium
LMBP	--	--	--	High	Low	Low	High
LMG/LKG	--	--	--	Low	Low	Low	Low
LNHS	--	Low	--	Medium	Medium	Low	Medium
LOPM	--	Low	--	Low	Low	Low	Low
LPBP	--	High	--	High	Low	Low	High
LPG	--	Low	--	Medium	Low	Low	Medium
LPHE	--	--	--	Low	Medium	Low	Medium
LPHM	--	Low	--	Medium	Low	Low	Medium
LPHW	--	Low	Low	Medium	Low	Low	Medium
LSHS	--	Low	--	Medium	Medium	Low	Medium
LWAS	--	Low	Low	Low	Medium	Low	Medium
LWBM	--	Medium	--	Low	Low	Low	Medium
LWES	--	Low	--	Medium	Low	Low	Medium
LWIS	--	Low	--	Medium	Low	Low	Medium
LWMB	--	Medium	Low	High	Low	Low	High
LWOS	--	Low	--	Low	Medium	Low	Medium
LWUS	--	Low	Low	Low	Medium	Low	Medium

**Windward**

Outfall	Criteria 1: Total Maximum Daily Load, Waikiki, and Downtown-Chinatown Areas	Criteria 2: CB and GDI Severity		Criteria 3: Industrial and Commercial Facilities	Criteria 4: Stormwater Complaints	Criteria 5: Homeless	Determination
		FY 10-15	FY16				
WASB	--	Low	--	Low	Medium	Low	Medium
WAUS	--	Low	--	Low	Medium	Low	Medium
WHAS	--	Low	--	Low	Medium	Low	Medium
WHIS	--	Low	--	Low	Medium	Low	Medium
WIAS	--	Low	--	Low	Medium	Low	Medium
WCAA	--	High	--	Low	Medium	Low	High
WKAB	--	Medium	--	Low	Medium	Low	Medium
WKAS	Critical	Low	Low	Low	Medium	Low	Critical
WKEB	--	Low	--	Low	Medium	Low	Medium
WKEK	Critical	Low	Low	Low	Medium	Low	Critical
WKES	Critical	Low	--	Low	Medium	Low	Critical
WKHS	--	Low	--	Low	Medium	Low	Medium
WKIP	--	Low	Low	Low	Medium	Low	Medium
WKKI	--	Low	--	Low	Medium	Low	Medium
WKNB	--	Low	--	Low	Medium	Low	Medium
WKSE	--	Low	--	Low	Medium	Low	Medium
WKSS	--	Low	--	Low	Medium	Low	Medium
WKUS	--	High	--	Low	Medium	Low	High
WKWS (W	--	High	--	Low	Medium	Low	High
WMAA	--	Medium	--	Low	Medium	Low	Medium
WMAS	--	Low	--	Low	Medium	Low	Medium
WMIO	--	Low	--	Low	Medium	Low	Medium
WMIS	--	Low	--	Low	Medium	Low	Medium
WMLS	--	Low	--	Low	Medium	Low	Medium
WNAP	--	Low	--	Low	Medium	Low	Medium
WOAC	--	Low	--	Low	Medium	Low	Medium
WPAS	--	Low	--	Low	Medium	Low	Medium
WPO	--	Medium	--	Low	Medium	Low	Medium
WPOK	--	Low	--	Low	Medium	Low	Medium
WPOH	--	High	--	Low	Medium	Low	High
WPOL	--	Low	--	Low	Medium	Low	Medium
WWAI	Critical	High	--	Low	Medium	Low	Critical
WWAS	--	High	--	Low	Medium	Low	High
WWES	--	Medium	--	Low	Medium	Low	Medium
WWKB	Critical	Low	--	Low	Medium	Low	Critical
WWOB	--	Low	--	Low	Medium	Low	Medium

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## APPENDIX B

# Outfall Determination By Priority Rating

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**Critical**

<b>Outfall</b>		<b>Determination</b>
Kaukonahua Stream, North Fork	CNFK	Critical
Kaukonahua Stream, South Fork	CSFK	Critical
Ala Wai Canal	HAWC	Critical
Ala Wai Harbor	HAWH	Critical
Mamala (East) Bay	HEMB	Critical
Honolulu Harbor	HHB	Critical
Kapalama Stream	HKAS	Critical
Kanaka Stream	HKMS	Critical
Makiki Stream	HMIS	Critical
Manoa Stream	HMS	Critical
Nuuanu Stream	HNUS	Critical
Palolo Stream	HPMS	Critical
Pukele Stream	HPPS	Critical
Waiomao Stream	HWPS	Critical
Kawa Stream	WKAS	Critical
Kamooalii Stream	WKEK	Critical
Kaneohe Stream	WKES	Critical
Waimanalo Stream	WWAI	Critical
Kahawai Stream	WWKB	Critical

**High**

<b>Outfall</b>		<b>Determination</b>
Airport Drainage Canal	HADC	High
Ala Moana Lagoon	HAML	High
Kapalama Stream, East Branch	HKAE	High
Kewalo Basin	HKB	High
Kalihi Stream	HKIS	High
Kahauiki (Moanalua) Stream	HKKI	High
Kamanaiki (Kalihi) Stream	HKKS	High
Keehi Lagoon	HKL	High
Moanalua Stream	HMAS	High
Manaiki (Moanalua) Stream	HMMS	High
Pauoa (Nuuanu) Stream	HPNS	High
Salt Lake	HSL/SLB	High
Waiolani (Nuuanu) Stream	HWNS	High
LBPH	LBPH	High
LKCY	LKCY	High
Kapakahi Stream	LKWS	High
LMBP	LMBP	High
Pacific Ocean off Barbers Point	LPBP	High
Mamala (West) Bay	LWMB	High
Kaalaea Stream	WCAA	High
Kahaluu Stream	WKUS	High
Kawainui (Kaelepulu) Stream	WKWS (WKC)	High
Pacific Ocean at Hauula	WPOH	High
Waikane Stream	WWAS	High
Kapuni Stream	WCKI	High
Kawiwa (Kaupuni) Stream	WCKK	High
Makaha Stream	WCMA	High
Maile Stream	WCMS	High
Nanakuli Stream	WCNI	High
Pacific Ocean off Waianae	WCPO	High
Ulehawa Stream, South Segment	WCUS	High

**Medium**

Outfall		Determ.	Outfall		Determ.
Kaiwi Channel	HKC	Medium	NKG	NKG	Medium
Kaluanui Ridge Gulch	HKG	Medium	NPS	NPS	Medium
Kuapa Pond East Segment	HKPE	Medium	Ahuimanu Stream South Branch	WASB	Medium
Kuapa Pond Middle Segment	HKPM	Medium	Ahuimanu (Kahaluu) Stream	WAUS	Medium
Kuapa Pond West Segment	HKPW	Medium	Heeia Stream	WHAS	Medium
Kuliouou Stream	HKS	Medium	Haiamoa Stream	WHIS	Medium
Kapakahi Stream	HKWS	Medium	Iolekaa (Heeia) Stream	WIAS	Medium
Maunaloa Bay	HMB	Medium	Kailua Bay	WKAB	Medium
Pia Stream	HPAS	Medium	Kaipapau Stream	WKEB	Medium
Wailupe Stream	HWES	Medium	Keaahala Stream, North Branch	WKHS	Medium
Waialaenui Gulch	HWG	Medium	Kaelepulu Stream	WKIP	Medium
Waialaenui Stream	HWS	Medium	Kahanaiki (Maunawili) Stream	WKKI	Medium
Aiea Stream	LAS/LASS	Medium	Keaahala Stream, North Branch	WKNB	Medium
Honouliuli Stream	LHIS	Medium	Kawa Stream, East Branch	WKSE	Medium
Halawa Stream	LHS/LSH	Medium	Kahaluu Stream Segment	WKSS	Medium
Kalauao Stream	LKAS	Medium	Makaua Stream	WMAA	Medium
Manana (Waiawa) Stream	LMAS	Medium	Muliwaiolena Stream	WMAS	Medium
Halawa Stream, North Segment	LNHS	Medium	Omao (Maunawili) Stream	WMIO	Medium
Panakaauani Gulch	LPG	Medium	Maunawili Stream	WMIS	Medium
Pearl Harbor, East Loch	LPHE	Medium	WMLS	WMLS	Medium
Pearl Harbor, Middle Loch	LPHM	Medium	Nuuipa Pond	WNAP	Medium
Pearl Harbor, West Loch	LPHW	Medium	Oneawa Channel	WOAC	Medium
Halawa Stream, South Segment	LSHS	Medium	Puha Stream (Inoaole)	WPAS	Medium
Waiawa Stream	LWAS	Medium	WPO	WPO	Medium
West Beach Marina	LWBM	Medium	Pacific Ocean at Kaaawa	WPOK	Medium
Waikele Stream	LWES	Medium	Pacific Ocean at Laiea	WPOL	Medium
Wailani Stream	LWIS	Medium	Waihee (Kahaluu) Stream	WWES	Medium
Waimano (Waiawa) Stream	LWOS	Medium	Waimanalo Bay	WWOB	Medium
Waimalu Stream	LWUS	Medium	Mailiili Stream	WCMI	Medium
NHG	NHG	Medium			

**Low**

<b>Outfall</b>		<b>Determination</b>
Kipapa (Waikele) Stream	CKIS	Low
Poamoho (Kaukonahua) Stream	CPOS	Low
Waikakalaua (Waikele) Stream	CWAS	Low
Waikele Stream Segment	CWES	Low
Awanui Gulch	LAG	Low
LEGA	LEGA	Low
LEGB	LEGB	Low
LEGC	LEGC	Low
LEWA	LEWA	Low
LKAP	LKAP	Low
LKLC	LKLC	Low
LKPA	LKPA	Low
LLG	LLG	Low
Makakilo Gulch	LMG/LKG	Low
LOPM	LOPM	Low
Kaunala Stream	NKAA	Low
Kiikii Stream	NKIS	Low
Paukauiia Stream	NPAS	Low
Pacific Ocean off North Shore	NPNS	Low
Poamoho (Kaukonahua) Stream	NPOS	Low
Paumalu Stream	NPUS	Low
NWDC	NWDC	Low

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## APPENDIX C

### Outfall Area Map

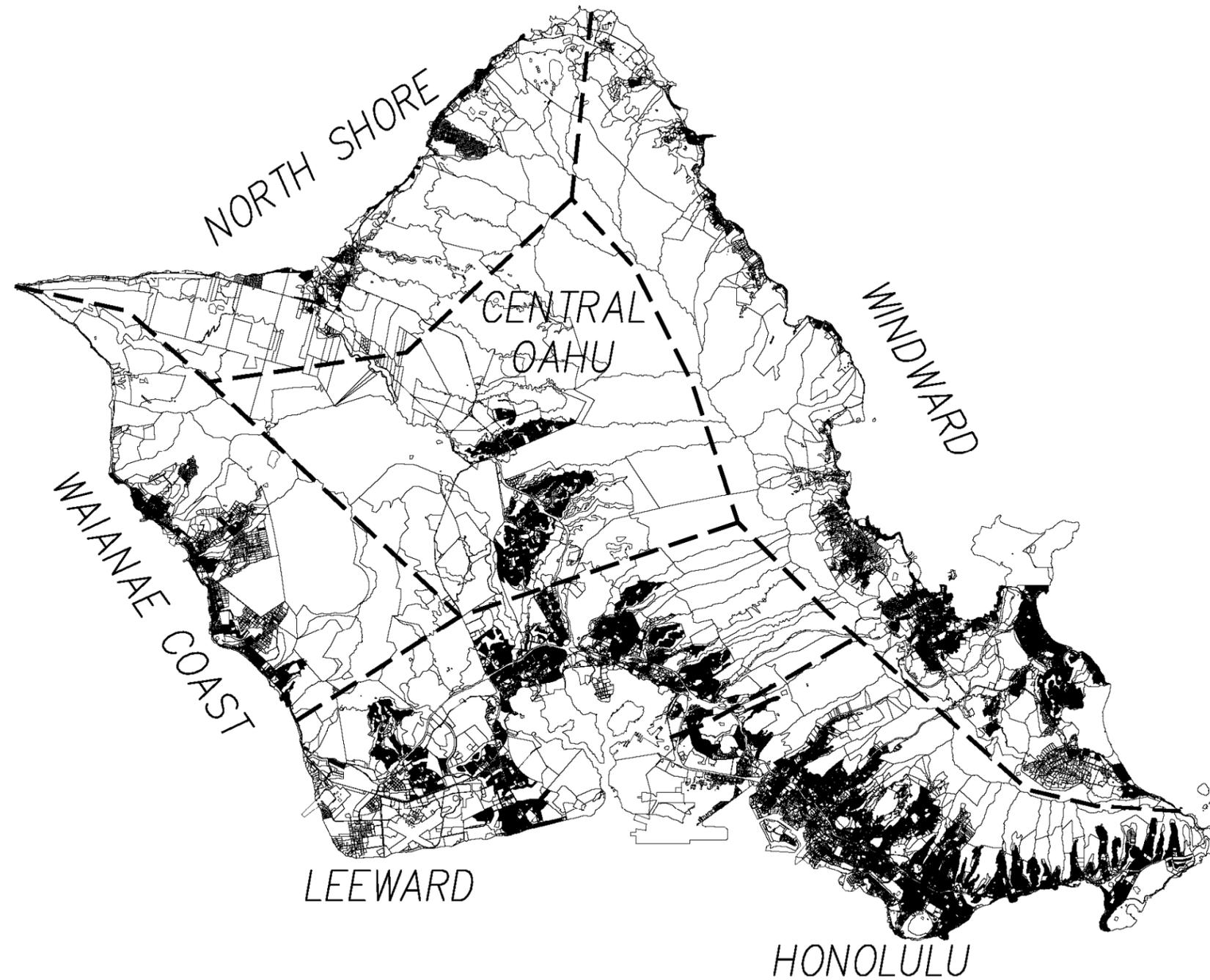
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OUTFALL AREA MAP

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# APPENDIX D

## Watershed Map

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## APPENDIX E

### Receiving Waters Inventory

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**Central District**

<b>Receiving Waters</b>	<b>ID</b>
Kaukonahua Stream, North Fork	CNFK
Kaukonahua Stream, South Fork	CSFK
Kipapa (Waikele) Stream	CKIS
Poamoho (Kaukonahua) Stream	CPOS
Waikele Stream segment	CWES
Waikakalaua (Waikele) stream	CWAS

**North Shore District**

<b>Receiving Waters</b>	<b>ID</b>
Kaiaka Bay	NKB
Kaukonahua Stream	NKAS
Kaunala Stream	NKAA
Kiikii Stream	NKIS
Pacific Ocean off North Shore	NPNS
Paukauila Stream	NPAS
Paumalu Stream	NPUS
Poamoho (Kaukonahua) Stream	NPOS
Waiialua Bay	NWB

**Waianae District**

<b>Receiving Waters</b>	<b>ID</b>
Kaupuni Stream	WCKI
Kawiwa (Kaupuni) Stream	WCKK
Maili Stream	WCMS
Mailiilii Stream	WCMI
Makaha Stream	WCMA
Nanakuli Stream	WCNI
Pacific Ocean	WCBP
Pacific Ocean off Waianae	WCPO
Ulehawa Stream	WCUA
Ulehawa Stream, North Segment	WCUN
Ulehawa Stream, South Segment	WCUS

**Honolulu District**

<b>Receiving Waters</b>	<b>ID</b>
Airport Drainage Canal	HADC
Ala Moana Lagoon	HAML
Ala Wai Boat Harbor	HAWH
Ala Wai Canal	HAWC
Honolulu Harbor	HHB
Kahauiki (Moanalua) Stream	HKKI
Kaiwi Channel	HKC
Kalihi Stream	HKIS
Kaluanui Ridge Gulch	HKG
Kamanaiki (Kalihi) Stream	HKKS
Kanaka (Makiki) Stream	HKMS
Kapakahi (Waialaenui) Stream	HKWS
Kapalama stream	HKAS
Kapalama stream East Branch	HKAE
Keehi Lagoon	HKL
Kewalo Basin	HKB
Kuapa Pond East Segment	HKPE
Kuapa Pond Middle Segment	HKPM
Kuapa Pond West Segment	HKPW
Kuliouou stream	HKS
Makiki stream	HMIS
Mamala (East) Bay	HEMB
Manaiki (Moanalua) Stream	HMMS
Manca Stream	HMS
Maunalua Bay	HMB
Moanalua stream	HMAS
Nuuanu Stream	HNUS
Palolo (Manca) Stream	HPMS
Pauoa (Nuuanu) Stream	HPNS
Pia Stream	HPAS
Pukele (Palolo) Stream	HPPS
Salt Lake	HSL
Waialaenui Stream	HWS
Waialaenui Gulch	HWG
Wailupe stream	HWES
Waiolani (Nuuanu) Stream	HWNS
Waiomao (Palolo) Stream	HWPS

**Leeward District**

<b>Receiving Waters</b>	<b>ID</b>
Aiea Stream	LAS
Aiea, Stream segment	LASS
Awanui Gulch	LAG
Halawa Stream	LHS
Halawa stream, North Segment	LNHS
Halawa Stream, South Segment	LSHS
Honouliuli stream	LHIS
Kalauao Stream	LKAS
Kapakahi (Waikele) stream	LKWS
Makakilo Gulch	LMG
Mamala (West) Bay	LWMB
Manana (Waiawa) Stream	LMAS
Panakauani Gulch	LPG
Pacific Ocean off Barbers Point	LPBP
Pearl Harbor, East Loch	LPHE
Pearl Harbor, Middle Loch	LPHM
Pearl Harbor, West Loch	LPHW
Waiawa Stream	LWAS
Waikele Stream	LWES
Wailani Stream	LWIS
Waimalu Stream	LWUS
Waimano (Waiawa) Stream	LWOS
West Beach Marina	LWBM

**Windward District**

<b>Receiving Waters</b>	<b>ID</b>
Ahuimanu (Kahaluu} stream	WAUS
Ahuimanu Stream south Branch	WASB
Haiamoa Stream	WHIS
Heeia Stream	WHAS
Iolekaa (Heeia) Stream	WIAS
Kaalaea Stream	WCAA
Kaelepulu Stream	WKIP
Kahaluu Stream	WKUS
Kahaluu stream Segment	WKSS
Kahanaiki (Maunawili} Stream	WKKI
Kahawai (Waimanalo) Stream	WWKB
Kailua Bay	WKAB
Kaipapau Stream	WKAU
Kamooalii (Kaneohe} Stream	WKEK
Kaneohe Bay	WKEB
Kaneohe Stream	WKES
Kawa Stream	WKAS
Kawa Stream, East Branch	WKSE
Kawainui (Kaelepulu} stream	WKWS
Keaahala Stream	WKHS
Keaahala Stream, North Branch	WKNB
Kii Marsh	WKII
Maakua	WMLU
Makaua Stream	WMAA
Maunawili stream	WMIS
Muliwaiolena Stream	WMAS
Nuupia Pond	WNAP
Omao (Maunawili) Stream	WMIO
Oneawa Channel	WOAC
Pacific Ocean at Hauula	WPOH
Pacific Ocean at Kaaawa	WPOK
Pacific Ocean at Kahuku	WPKP
Pacific Ocean at Laie	WPOL
Puha Stream (Inoaole}	WPAS
Waihee (Kahaluu} Stream	WWES
Waikane Stream	WWAS
Waimanalo Bay	WWOB
Waimanalo Stream	WWAI

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