

Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections



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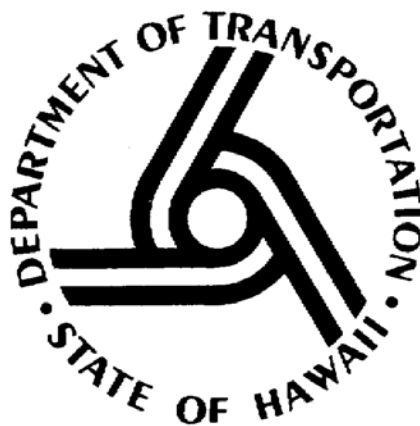
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

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Hawaii State Department of Transportation
Highways Division, Oahu District
Storm Water Management Program
NPDES Permit No. HI S000001
July 2019

Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections

**State of Hawaii Department of Transportation
Highways Division, Oahu District**



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July 2019
Version: Final

PRIORITIZED AREA PLAN FOR INDUSTRIAL AND COMMERCIAL FACILITY AND ACTIVITY INSPECTIONS

Purpose

This *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections* was developed to fulfill the requirement found in Part D.1.g.(4) of the National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. HI S000001, which was issued to the State of Hawaii Department of Transportation, Highways Division, Oahu District (DOT-HWYS) on September 27, 2013, and effective on October 28, 2013, and modified April 1, 2016.

The requirement reads as follows:

“On an annual basis, the Permittee shall modify the Plan based on updated information from its industrial and commercial inventory, finding from previous inspections, the number of industrial and commercial facilities in the area, the density of these facilities, previous storm water violations in the area, and water quality impairments in the area. The modified Plan shall set a schedule that ensures inspections will be completed in accordance with the schedule in Part.D.1.g.(5). This Plan shall be submitted with the Permittee’s annual report.”

Background

The original *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections* was completed and submitted as a part of the *Storm Water Management Program Plan* in March 2007. To develop this plan, information from the industrial and commercial inventory was analyzed using the Asset Management System (AMS), and priority areas for inspection were identified. These priority areas were delineated by watershed and were listed in Table 1 of the *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections (2007)*.

The original plan was structured so that watersheds with Waste Load Allocations (WLAs) were given the highest priority, watersheds with 303(d) stream intersections were given second highest priority, and non-WLA or non-high priority watersheds were given the lowest priority. Watersheds within each priority level were then ranked based on their site or facility densities. Those watersheds that had the highest density of sites or facilities were ranked or prioritized as first.

Updated Plan

Using the updated information from the industrial and commercial facilities inventory, priority areas for inspection were re-evaluated and ranked according to the relative risk that any discharge may be contaminated with pollutants. Similar to the original plan, watersheds with WLAs were given highest priority, watersheds with 303(d) stream intersections were given second highest priority, and all other watersheds were given lowest priority.

Watersheds within each priority level were first ranked based on the number of facilities within the priority area (see Appendix A, Table 1). Watersheds within each priority level were then ranked based on facility densities (Number of Facilities/Watershed Acres) (see Appendix A, Table 2). Watersheds within each priority level were then ranked based on the number of violations or deficiencies within the priority area (see Appendix A, Table 3). Finally, the watershed rankings noted in Tables 1, 2, and 3 were totaled. Priority areas were then delineated by the sum of these rankings (see Appendix A, Table 4). The priority area with the lowest sum was ranked highest priority.

Inspection Schedule

Industrial facilities with NPDES coverage will be inspected once every five years. Industrial facilities without NPDES coverage will be inspected twice every five years. Highly ranked commercial facilities will be inspected once every five years. Since the majority of the facilities identified in the industrial and commercial inventory have previously been inspected, the inspection schedule is determined by the aforementioned inspection frequency. Facilities within the industrial and commercial inventory that have not been previously inspected will be scheduled for inspection in accordance to the priority areas identified in Table 4 of Appendix A. Once all industrial and highly ranked commercial facilities within a priority area have been inspected, the Industrial and Commercial team will move on to the next priority area.

**Prioritized Area Plan for Industrial and Commercial Facility and Activity
Inspections**

APPENDIX A: TABLES 1 – 4

Table 1. Number of Facilities Per Area

Rank	Watershed	No. of Facilities	Legend
1	Ala Wai	62	WLA
2	Waikele	46	WLA
3	Kaneohe	27	WLA
4	Waimanalo	11	WLA
5	Kawa	8	WLA
6	Kapaa	0	WLA
7	Nuuanu	113	303(d)
8	Kapalama	67	303(d)
9	Kaukonahua	62	303(d)
10	Kalihi	53	303(d)
11	Waimalu	51	303(d)
12	Kaupuni	42	303(d)
13	Moanalua	31	303(d)
13	Kapakahi	31	303(d)
15	Waiawa	21	303(d)
15	Kalauao	21	303(d)
17	Halawa	19	303(d)
18	Kahawai	11	303(d)
19	Kawainui	9	303(d)
20	Manoa-Palolo	8	303(d)
21	Honouliuli	6	303(d)
22	Kaipapau	5	303(d)
23	Makiki	4	303(d)
23	Poamoho	4	303(d)
23	Ahimanu	4	303(d)
26	Aiea	3	303(d)
27	Kaelepu	2	303(d)
27	Kawela	2	303(d)
27	Kaalaea	2	303(d)
27	Waikane	2	303(d)
27	Helemano	2	303(d)
27	Punaluu	2	303(d)
27	Waialele	2	303(d)
34	Kiikii	1	303(d)
34	Kahaluu segment	1	303(d)
34	Kahawainui	1	303(d)
34	Kahaluu	1	303(d)
34	Waianu	1	303(d)
39	Kaaawa	0	303(d)
40	Kaloi	29	Other
41	Mailiili	28	Other
42	Waialaenui	16	Other
43	Ulehawa	13	Other
44	Kechi	12	Other
45	Kalunawaikaala	9	Other
46	Wailupe	8	Other
47	Manuwai	6	Other
48	Makaiwa	5	Other
48	Kamiloiki	5	Other
50	Paumalu	4	Other
50	Koko Crater	4	Other
52	Makaua	3	Other
52	Oio	3	Other
52	Haiamoa	3	Other
52	Kamilonui	3	Other
52	Kamaileunu	3	Other
52	Malackahana	3	Other
52	Waipuhi	3	Other
52	Nanakuli	3	Other
60	Hakipuu	2	Other
60	Halehaa	2	Other
62	Waimea	1	Other
62	Kuliouou	1	Other
62	Niu	1	Other
62	Maakua	1	Other
62	Pahole	1	Other
62	Makaha	1	Other
68	Waipio	0	Other

Table 2. Density Per Area

Rank	Watershed	Density	Legend
1	Waikele	0.0334	WLA
2	Ala Wai	0.0151	303(d)
3	Kaneohe	0.0074	Other
4	Kawa	0.0048	
5	Waimanalo	0.0036	
6	Kapaa	0.0000	
7	Nuuanu	0.2137	
8	Kaukonahua	0.0301	
9	Kapalama	0.0198	
10	Waiawa	0.0115	
11	Kalihi	0.0114	
12	Waimalu	0.0100	
13	Moanalua	0.0081	
14	Kaupuni	0.0070	
15	Kapakahi	0.0065	
16	Halawa	0.0058	
17	Kawainui	0.0034	
17	Kahawai	0.0034	
19	Manoa-Palolo	0.0032	
20	Kalauao	0.0027	
21	Honouliuli	0.0024	
22	Makiki	0.0019	
23	Kaipapau	0.0016	
23	Ahuimanu	0.0016	
25	Poamoho	0.0014	
26	Waikane	0.0012	
27	Kaelepulu	0.0009	
27	Kaalaea	0.0009	
29	Kawela	0.0008	
30	Aiea	0.0007	
31	Kahaluu	0.0006	
32	Punaluu	0.0005	
32	Waianu	0.0005	
34	Wailele	0.0004	
34	Helemano	0.0004	
36	Kahawainui	0.0003	
36	Kiikii	0.0003	
38	Kahaluu segment	0.0002	
39	Kaaawa	0.0000	
40	Kaloi	0.0151	
41	Maiiili	0.0145	
42	Waialaenui	0.0084	
43	Ulehawa	0.0048	
44	Kalunawaikaala	0.0047	
44	Keehi	0.0047	
46	Wailupe	0.0039	
47	Manuwai	0.0032	
48	Kamiloiki	0.0028	
49	Makaiwa	0.0026	
50	Koko Crater	0.0023	
51	Haiamoa	0.0017	
51	Nanakuli	0.0017	
51	Makaua	0.0014	
51	Kamaileunu	0.0014	
51	Waipuhi	0.0014	
56	Oio	0.0013	
56	Paumalu	0.0013	
58	Kamilonui	0.0011	
59	Malackahana	0.0010	
59	Hakipuu	0.0010	
61	Halehaa	0.0007	
62	Kuliouou	0.0006	
63	Maakua	0.0003	
63	Pahole	0.0003	
63	Niu	0.0003	
63	Waimca	0.0003	
67	Makaha	0.0002	
68	Waipio	0.0000	

Table 3. Violations Per Area

Rank	Watershed	Violations	Legend
1	Ala Wai	12	WLA
2	Kaneohe	7	303(d)
2	Waikele	7	Other
4	Kawa	1	WLA
5	Kapaa	0	WLA
5	Waimanalo	0	WLA
7	Nuuanu	17	303(d)
8	Moanalua	10	303(d)
9	Kalihi	9	303(d)
10	Waimalu	8	303(d)
11	Kalauao	5	303(d)
12	Kapalama	4	303(d)
12	Kapakahi	4	303(d)
12	Kaukonahua	4	303(d)
12	Kawainui	4	303(d)
12	Waiawa	4	303(d)
17	Halawa	3	303(d)
17	Kahaluu	3	303(d)
17	Makiki	3	303(d)
17	Kahawai	3	303(d)
21	Aiea	2	303(d)
21	Kaalaea	2	303(d)
23	Kaupuni	1	303(d)
23	Wailele	1	303(d)
23	Kaipapau	1	303(d)
23	Honouliuli	1	303(d)
23	Kahaluu segment	1	303(d)
23	Poamoho	1	303(d)
29	Ahuimanu	0	303(d)
29	Kaelepulu	0	303(d)
29	Kawela	0	303(d)
29	Punaluu	0	303(d)
29	Waianu	0	303(d)
29	Kiikii	0	303(d)
29	Manoa-Palolo	0	303(d)
29	Waikane	0	303(d)
29	Kaaawa	0	303(d)
29	Kahawainui	0	303(d)
29	Helemano	0	303(d)
40	Keehi	5	Other
41	Mailiili	4	Other
42	Kaloi	2	Other
42	Wailupe	2	Other
42	Waialaenui	2	Other
42	Makaiwa	2	Other
46	Kalunawaikaala	1	Other
46	Paumalu	1	Other
46	Ulehawa	1	Other
46	Kamilonui	1	Other
50	Manuwai	0	Other
50	Oio	0	Other
50	Kamiloiki	0	Other
50	Koko Crater	0	Other
50	Makaua	0	Other
50	Haiamoa	0	Other
50	Kamaileunu	0	Other
50	Malackahana	0	Other
50	Waimea	0	Other
50	Waipuhi	0	Other
50	Hakipuu	0	Other
50	Halehaa	0	Other
50	Kuliouou	0	Other
50	Niu	0	Other
50	Maakua	0	Other
50	Pahole	0	Other
50	Waipio	0	Other
50	Makaha	0	Other
50	Nanakuli	0	Other

Table 4. Updated Priority Area

Rank	Watershed	Table Totals
1	Ala Wai	4
2	Waikole	5
3	Kaneohe	8
4	Kawa	13
5	Waimanalo	14
6	Kapaa	17
7	Nuuanu	21
8	Kapalama	29
8	Kaukonahua	29
10	Kalihi	30
11	Waimalu	33
12	Moanalua	34
13	Waiawa	37
14	Kapakahi	40
15	Kalauao	46
16	Kawainui	48
17	Kaupuni	49
18	Halawa	50
19	Kahawai	52
20	Makiki	62
21	Honouliuli	65
22	Kaipapau	68
22	Manoa-Palolo	68
24	Poamoho	71
25	Ahuimanu	75
25	Kaalaea	75
27	Aiea	77
28	Kahaluu	82
28	Waikane	82
30	Kaelepulu	83
31	Wailele	84
32	Kawela	85
33	Punaluu	88
34	Helemano	90
35	Kahaluu segment	95
35	Waiana	95
37	Kahawainui	99
37	Kiikii	99
39	Kaaawa	107
40	Kaloi	122
41	Mailili	123
42	Waialaenui	126
43	Keehi	128
44	Ulehawa	132
45	Wailupe	134
46	Kalunawaikaala	135
47	Makaiwa	139
48	Manuwai	144
49	Kamiloiki	146
50	Koko Crater	150
51	Paumalu	152
52	Makua	153
52	Haiamoa	153
52	Kamaileunu	153
52	Waipuhi	153
52	Nanakuli	153
57	Kamilonui	156
58	Oio	158
59	Malaekahana	161
60	Hakipuu	169
61	Halehaa	171
62	Kuliouou	174
63	Maakua	175
63	Pahole	175
63	Niu	175
63	Waimea	175
67	Makaha	179
68	Waipio	186

Legend
WLA
303(d)
Other