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



State of Hawaii, Department of Transportation Highways Division, Oahu District SWMPP, July 2021



## STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION, OAHU DISTRICT

#### STORM WATER MANAGEMENT PROGRAM

# PRIORITIZED AREA PLAN FOR INDUSTRIAL AND COMMERCIAL FACILITY AND ACTIVITY INSPECTIONS

MS4 NPDES Permit No. HI S000001





State of Hawaii, Department of Transportation Highways Division, Oahu District 727 Kakoi Street, Honolulu, Hawaii 96819

> July 2021 Version: Final

#### **RECORD OF REVISION**

Revision No.	Revision Date	Description	Sections Affected
Original Document	October 2014	Original	N/A
1	February 2015	Formatted Plan	All
2	September 2015	Updated Watersheds	Tables 1 – 4
3	September 2016	Updated Watersheds	Tables 1 – 4
4	September 2017	Updated Watersheds	Tables 1 – 4
5	August 2018	Updated Watersheds	Tables 1 – 4
6	July 2019	Updated Watersheds	Tables 1 – 4
7	July 2020	Updated Watersheds	Tables 1 – 4
8	July 2021	Reformatted Plan. Updated to reflect 2020 MS4 NPDES Permit.	All

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#### 1. 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 State of Hawaii Department of Transportation, Highways Division, Oahu District (DOT-HWYS) Municipal Separate Storm Sewer System (MS4) National Pollution Discharge Elimination System (NPDES) Permit No. HI S000001, effective date September 1, 2020.

The MS4 NPDES Permit Part D.1.g.(4) requirements are as follows.

"On an annual basis, the Permittee shall modify the Plan based on updated information from its industrial and commercial inventory, findings 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."

#### 2. 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.

#### 3. 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.

The targeted groups that DOT-HWYS will address during the permit term and their respective desired behaviors are shown in Appendix A Table 1.

Watersheds within each priority level were first ranked based on the number of facilities within the priority area (Appendix A Table 1). Watersheds within each priority level were then ranked based on facility densities, e.g., Number of Facilities/Watershed Acres (Appendix A Table 2). Watersheds within each priority level were further ranked based on the number of violations or deficiencies within the priority area (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 (Appendix A Table 4).

The priority area with the lowest sum was ranked highest priority.

#### 4. 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 Appendix A Table 4.

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.

Public.

### Appendix A

Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections

Tables 1-4



Table 1. Number of Facilities Per Area

Rank	Watershed	No. of Facilities
1	Ala Wai	55
2	Waikele	39
3	Kaneohe	24
4	Waimanalo	9
5	Kawa	7
6	Kapaa	0
7	Nuuanu	125
8	Kaukonahua	68
10	Kapalama Kalihi	53
11	Waimalu	49
12	Kaupuni	47
13	Moanalua	38
14	Kapakahi	29
15	Manoa-Palolo	22
16	Kalauao	19
17	Waiawa	18
18	Halawa	17
19	Kawainui	10
20	Helemano	8
21 21	Makiki	5
21	Aiea Makaiwa	5
24	Poamoho	4
24	Kahaluu segment	4
26	Wailele	3
26	Kaelepulu	3
28	Kaalaea	2
28	Waikane	2
28	Ahuimanu	2
31	Kahawainui	1
31	Kahaluu	1
31	Waianu	1
31	Keaahala Kaaawa	0
35 36	Mailiili	31
37	Kaloi	27
38	Keehi	17
38	Waialaenui	17
40	Ulehawa	15
41	Kahawai	12
42	Kalunawaikaala	9
43	Wailupe	8
44	Kamiloiki	5
44	Kaipapau	5
46 46	Manuwai	4
46	Paumalu Makaua	4
46	Waipuhi	4
46	Makaha	4
51	Haiamoa	3
51	Kamilonui	3
51	Kamaileunu	3
51	Nanakuli	3
51	Halehaa	3
51	Honouliuli	3
57	Oio	2
57 57	Malaekahana Hakipuu	2 2
57	Waialua	2
57	Kawela	2
62	Koko Crater	1
62	Waimea	1
62	Kuliouou	1
62	Niu	1
62	Maakua	1
62	Pahole	1
62	Punaluu	1
69	Kiikii	0
69	Waipio	0

WLA 303(d) Other

Table 2. Density Per Area

Rank	Watershed	Density
1	Waikele	0.0283
2	Ala Wai	0.0134
3	Kaneohe	0.0066
4	Kawa	0.0042
5	Waimanalo	0.0030
6	Kapaa	0.0000
7 8	Nuuanu	0.2364 0.0330
9	Kaukonahua Kapalama	0.0330
10	Kapaiailia Kalihi	0.0180
11	Moanalua	0.00114
12	Waiawa	0.0098
13	Waimalu	0.0097
14	Manoa-Palolo	0.0088
15	Kaupuni	0.0079
16	Kapakahi	0.0061
17	Halawa	0.0052
18	Kawainui	0.0038
19	Makaiwa	0.0026
20	Makiki	0.0024
20	Kalauao	0.0024
22	Helemano	0.0017
23	Poamoho Kaelepulu	0.0014 0.0014
25	Kaeiepuiu Keaahala	0.0014
26	Waikane	0.0013
26	Aiea	0.0012
28	Kaalaea	0.0009
28	Kahaluu segment	0.0009
30	Ahuimanu	0.0008
31	Kahaluu	0.0006
31	Wailele	0.0006
33	Waianu	0.0005
34	Kahawainui	0.0003
35	Kaaawa	0.0000
36	Mailiili	0.0160
37	Kaloi	0.0140
38	Waialaenui Keehi	0.0089 0.0066
40	Ulehawa	0.0056
41	Kalunawaikaala	0.0030
42	Wailupe	0.0039
43	Kahawai	0.0037
44	Kamiloiki	0.0028
45	Manuwai	0.0021
46	Makaua	0.0019
46	Waipuhi	0.0019
48	Haiamoa	0.0017
48	Nanakuli	0.0017
50	Kaipapau	0.0016
51	Kamaileunu	0.0014
52	Paumalu	0.0013
53 54	Honouliuli	0.0012
54	Kamilonui Halehaa	0.0011 0.0011
56	Halipuu Hakipuu	0.0011
57	Oio	0.0010
57	Makaha	0.0009
59	Kawela	0.0009
60	Malaekahana	0.0007
60	Waialua	0.0007
62	Kuliouou	0.0006
62	Koko Crater	0.0006
64	Maakua	0.0003
64	Pahole	0.0003
64	Niu	0.0003
64	Waimea	0.0003
68	Punaluu	0.0002
69	Kiikii	0.0000
69	Waipio	0.0000

WLA 303(d) Other

**Table 3. Violations Per Area** 

Rank	Watershed	Violations
1	Ala Wai	15
2	Waikele	10
3	Kaneohe	8
4	Kawa	2
5	Kapaa	0
5	Waimanalo	0
7 8	Nuuanu Kalihi	23 15
9	Moanalua	12
10	Waimalu	11
11	Kalauao	7
11	Kapalama	7
13	Waiawa	5
14	Kapakahi	4
14 14	Kaukonahua Kawainui	4
17	Halawa	3
17	Kahaluu	3
17	Makiki	3
20	Aiea	2
20	Kaalaea	2
20	Makaiwa	2
20	Poamoho	2
24	Kaupuni Wailele	1
24	Kahaluu segment	1
24	Manoa-Palolo	1
28	Ahuimanu	0
28	Kaelepulu	0
28	Waianu	0
28	Waikane	0
28 28	Kaaawa	0
28	Kahawainui Helemano	0
28	Keaahala	0
36	Keehi	5
36	Mailiili	5
20	Kahawai	3
38		_
39	Kaloi	2
39 39	Kaloi Wailupe	2 2
39 39 39	Kaloi Wailupe Waialaenui	2 2 2
39 39 39 42	Kaloi Wailupe Waialaenui Kalunawaikaala	2 2 2 1
39 39 39	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu	2 2 2
39 39 39 42 42	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui	2 2 2 1 1
39 39 39 42 42 42 42 42	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau	2 2 2 2 1 1 1
39 39 39 42 42 42 42 42 42	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli	2 2 2 1 1 1 1 1 1
39 39 39 42 42 42 42 42 42 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli	2 2 2 1 1 1 1 1 1 0
39 39 39 42 42 42 42 42 42 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai	2 2 2 1 1 1 1 1 0 0
39 39 39 42 42 42 42 42 42 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki	2 2 2 1 1 1 1 1 1 0 0
39 39 39 42 42 42 42 42 42 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater	2 2 2 1 1 1 1 1 0 0
39 39 39 42 42 42 42 42 42 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki	2 2 2 1 1 1 1 1 0 0 0
39 39 39 42 42 42 42 42 42 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulchawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua	2 2 2 1 1 1 1 1 0 0 0
39 39 39 42 42 42 42 42 42 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana	2 2 2 1 1 1 1 1 0 0 0 0 0 0
39 39 39 42 42 42 42 42 42 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 42 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 44 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 44 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waipuhi Hakipuu Halehaa	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 44 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu Halehaa Kuliouou	2 2 2 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 48 48 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu Halehaa Kuliouou Niu Maakua Pahole	2 2 2 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 42 48 48 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu Halehaa Kuliouou Niu Maakua Pahole Waipio	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 48 48 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulchawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu Halehaa Kuliouou Niu Maakua Pahole Waipio	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 42 44 48 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu Halehaa Kuliouou Niu Maakua Pahole Waipio Makaha Nanakuli	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 44 48 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulchawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu Halehaa Kuliouou Niu Maakua Pahole Waipio Makaha Nanakuli Kawela	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 44 48 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulehawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waipuhi Hakipuu Halehaa Kuliouou Niu Maakua Pahole Waipio Makaha Nanakuli Kawela Punaluu	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0
39 39 39 42 42 42 42 44 48 48 48 48 48 48 48 48 48	Kaloi Wailupe Waialaenui Kalunawaikaala Paumalu Ulchawa Kamilonui Kaipapau Honouliuli Manuwai Oio Kamiloiki Koko Crater Makaua Haiamoa Kamaileunu Malaekahana Waimea Waipuhi Hakipuu Halehaa Kuliouou Niu Maakua Pahole Waipio Makaha Nanakuli Kawela	2 2 2 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0

WLA 303(d) Other

**Table 4. Updated Priority Area** 

Rank	Watershed	Table Totals
1	Ala Wai	4
2	Waikele	5
3	Kaneohe	9
5	Kawa Waimanalo	13 14
6	Kapaa	17
7	Nuuanu	21
8	Kalihi	28
9	Kapalama	29
10	Kaukonahua	30
11	Moanalua	33
12	Waimalu	34
13 14	Waiawa	42 44
15	Kapakahi Kalauao	47
16	Kawainui	51
16	Kaupuni	51
18	Halawa	52
19	Manoa-Palolo	53
20	Makiki	58
21	Makaiwa	60
22	Aiea	67
22	Poamoho	67
24 25	Helemano Kaalaea	70 76
25	Kaalaea Kahaluu segment	76
27	Kanaidu segment Kaelepulu	77
28	Kahaluu	79
29	Wailele	81
30	Waikane	82
31	Keaahala	84
32	Ahuimanu	86
33	Waianu	92
34	Kahawainui	93
35 36	Kaaawa	98 108
36	Mailiili Kaloi	113
37	Keehi	113
39	Waialaenui	115
40	Ulehawa	122
40	Kahawai	122
42	Wailupe	124
43	Kalunawaikaala	125
44	Kamiloiki	136
44	Kaipapau Manuwai	136 139
47	Makaua	140
47	Waipuhi	140
47	Paumalu	140
50	Honouliuli	146
51	Haiamoa	147
51	Nanakuli	147
51	Kamilonui	147
54	Kamaileunu	150
55 56	Makaha Halehaa	151 153
57	Halenaa Hakipuu	153
58	Oio	162
59	Kawela	164
60	Malaekahana	165
60	Waialua	165
62	Kuliouou	172
62	Koko Crater	172
64	Maakua	174
64 64	Pahole Niu	174 174
64	Waimea	174
68	Punaluu	178
69	Waipio	186
	1	

Legend
WLA
303(d)
Other