

***Appendix VI. Residential Management Areas and Patrol
Protocols***

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City of San Diego Residential Management Areas

ID	Residential Management Area (RMA)	Hydrologic Subarea (HSA)	Watershed Management Area (WMA)	Status	HOA/Mobile Home Park (Y/N)	Adjacent to ESA (Y/N)	Potential Pollutants Generated (Y/N) ¹							Generates pollutants for which receiving water body is impaired (Y/N)
							Heavy Metals	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Bacteria/ Viruses	
1	SAN PASQUAL 905.32	905.32	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
2	RANCHO BERNARDO 905.11	905.11	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
3	RANCHO BERNARDO 905.21	905.21	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
4	RANCHO BERNARDO 905.22	905.22	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
5	RANCHO BERNARDO 905.12	905.12	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
6	RANCHO BERNARDO 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
7	RANCHO PENASQUITOS 905.12	905.12	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
8	CARMEL MOUNTAIN 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
9	BLACK MOUNTAIN RANCH 905.12	905.12	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
10	BLACK MOUNTAIN RANCH 905.11	905.11	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
11	TORREY HIGHLANDS 905.11	905.11	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
12	NORTH CITY 905.11	905.11	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
13	DEL MAR HEIGHTS 905.11	905.11	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
14	DEL MAR HEIGHTS 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
15	CARMEL VALLEY 905.11	905.11	SAN DIEGUITO	Active			Y	Y	Y	Y	Y	Y	Y	
16	CARMEL VALLEY 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
17	TORREY HIGHLANDS 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
18	RANCHO PENASQUITOS 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
19	RANCHO PENASQUITOS 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
20	SABRE SPRINGS 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
21	MIRAMAR RANCH NORTH 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
22	MIRA MESA 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
23	MIRA MESA 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
24	SORRENTO VALLEY 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
25	UNIVERSITY CITY 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
26	TORREY PINES 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
27	TORREY PINES 906.30	906.30	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
28	TORREY PINES 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
29	MIRAMAR RANCH NORTH 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
30	SCRIPPS RANCH 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
31	RANCHO ENCANTADA 907.12	907.12	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
32	RANCHO ENCANTADA 906.20	906.20	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
33	SCRIPPS RANCH 906.10	906.10	PENASQUITOS	Active			Y	Y	Y	Y	Y	Y	Y	
34	SCRIPPS RANCH 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
35	UNIVERSITY CITY 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
36	LA JOLLA 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
37	LA JOLLA 906.30	906.30	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
38	PACIFIC BEACH 906.30	906.30	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
39	PACIFIC BEACH 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
40	MISSION BEACH 906.30	906.30	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
41	MISSION BAY PARK 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
42	BAY HO 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
43	NORTH CLAIREMONT 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
44	NORTH CLAIREMONT 906.50	906.50	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
45	CLAIREMONT MESA WEST 906.50	906.50	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
46	CLAIREMONT MESA EAST 906.50	906.50	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
47	KEARNY MESA 907.11	907.11	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
48	KEARNY MESA 906.50	906.50	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
49	KEARNY MESA 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
50	TIERRASANTA 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
51	SAN CARLOS 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
52	LAKE MURRAY 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
53	LAKE MURRAY 907.12	907.12	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
54	ALLIED GARDENS 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
55	GRANTVILLE 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
56	SERRA MESA 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
57	QUALCOMM 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	

¹Potential pollutants were populated based on information from Table 3-10 in the Copermittees' Baseline Long-Term Effectiveness Assessment.

City of San Diego Residential Management Areas

ID	Residential Management Area (RMA)	Hydrologic Subarea (HSA)	Watershed Management Area (WMA)	Status	HOA/Mobile Home Park (Y/N)	Adjacent to ESA (Y/N)	Potential Pollutants Generated (Y/N) ¹							Generates pollutants for which receiving water body is impaired (Y/N)
							Heavy Metals	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Bacteria/ Viruses	
58	BIRDLAND 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
59	LINDA VISTA 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
60	LINDA VISTA 906.50	906.50	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
61	BAY PARK 906.40	906.40	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
62	BAY PARK 906.50	906.50	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
63	MORENA 906.50	906.50	MISSION BAY/LA JOLLA	Active			Y	Y	Y	Y	Y	Y	Y	
64	MORENA 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
65	MISSION VALLEY WEST 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
66	MISSION VALLEY EAST 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
67	OCEAN BEACH 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
68	OCEAN BEACH 908.10	908.10	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
69	SUNSET CLIFFS 908.10	908.10	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
70	UNIVERSITY HEIGHTS 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
71	KENSINGTON 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
72	NORTH PARK 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
73	WOODED AREA 908.10	908.10	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
74	LA PLAYA 908.10	908.10	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
75	ADAMS NORTH 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
76	ROSEVILLE / FLEET RIDGE 908.10	908.10	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
77	COLLEGE WEST 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
78	DEL CERRO 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
79	COLLEGE EAST 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
80	POINT LOMA HEIGHTS 908.10	908.10	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
81	ROLANDO 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
82	EL CERRITO 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
83	COLINA DEL SOL 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
84	POINT LOMA HEIGHTS 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
85	TALMADGE 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
86	TERALTA EAST 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
87	TERALTA WEST 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
88	NORMAL HEIGHTS 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
89	LOMA PORTAL 908.10	908.10	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
90	NORMAL HEIGHTS 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
91	MIDWAY DISTRICT 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
92	NORTH PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
93	MIDWAY DISTRICT 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
94	OLD TOWN 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
95	OLD TOWN 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
96	MISSION HILLS 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
97	UNIVERSITY HEIGHTS 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
98	HILLCREST 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
99	MISSION HILLS 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
100	MIDTOWN 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
101	HILLCREST 907.11	907.11	SAN DIEGO RIVER	Active			Y	Y	Y	Y	Y	Y	Y	
102	LITTLE ITALY 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
103	PARK WEST 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
104	CORTEZ 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
105	CORE-COLUMBIA 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
106	MARINA 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
107	HORTON PLAZA 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
108	GASLAMP 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
109	EAST VILLAGE 908.21	908.21	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
110	EAST VILLAGE 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
111	GOLDEN HILL 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
112	SHERMAN HEIGHTS 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
113	GRANT HILL 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
114	STOCKTON 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
115	SOUTH PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	

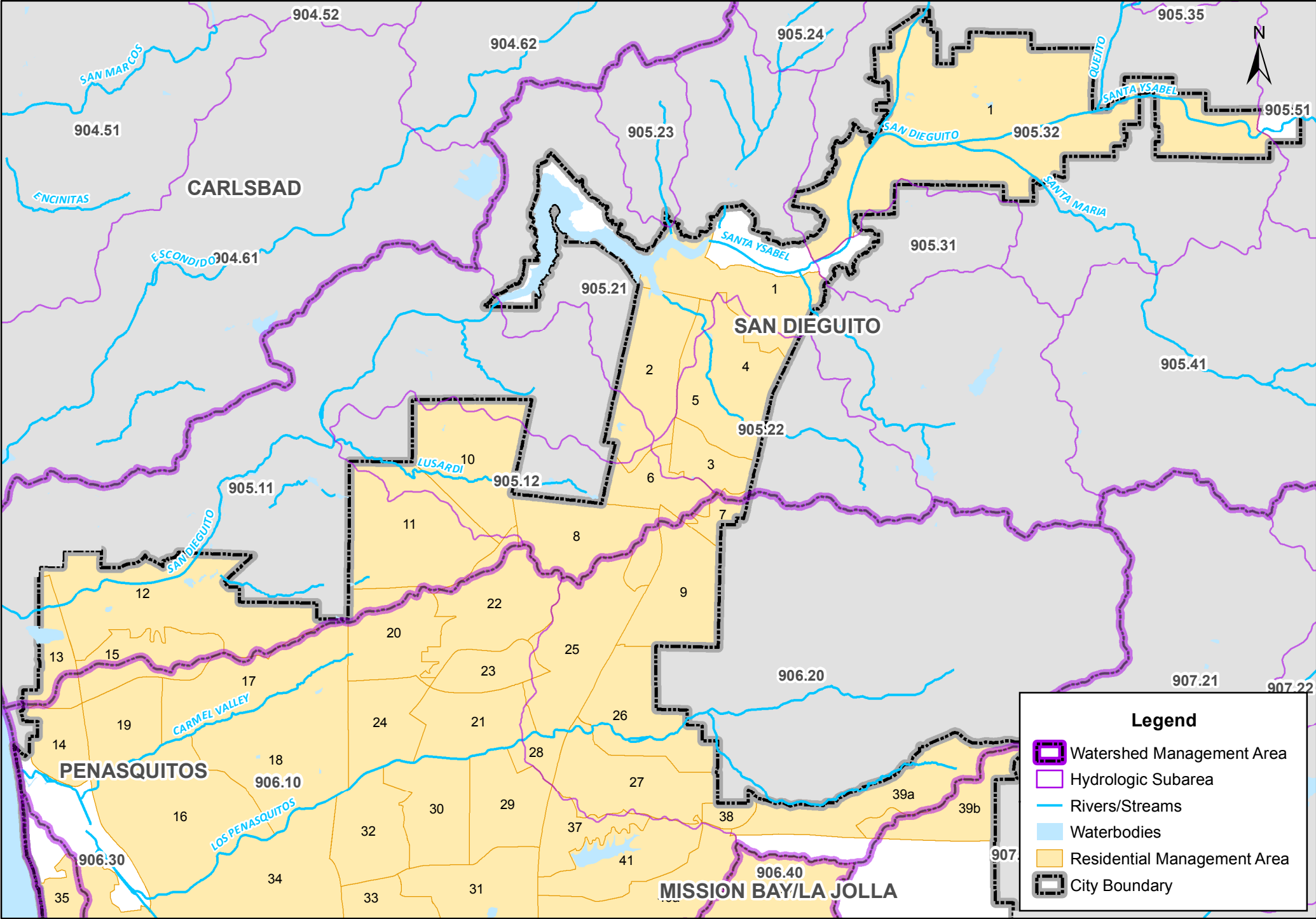
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City of San Diego Residential Management Areas

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							Heavy Metals	Organics	Oil & Grease	Sediment	Pesticides	Nutrients	Bacteria/ Viruses	
116	BURLINGAME 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
117	CASTLE 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
118	FAIRMONT VILLAGE 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
119	CHOLLAS CREEK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
120	REDWOOD VILLAGE/ROLANDO PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
121	OAK PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
122	BROADWAY HEIGHTS 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
123	ENCANTO 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
124	EMERALD HILLS 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
125	RIDGEVIEW/WEBSTER 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
126	SWAN CANYON 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
127	AZALEA/HOLLYWOOD PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
128	FAIRMONT PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
129	MT HOPE 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
130	MOUNTAIN VIEW 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
131	LOGAN HEIGHTS 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
132	BARRIO LOGAN 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
133	SHELLTOWN 908.31	908.31	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
134	SOUTHCREST 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
135	MOUNTAIN VIEW 908.31	908.31	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
136	LINCOLN PARK 908.31	908.31	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
137	LINCOLN PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
138	CHOLLAS VIEW 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
139	VALENCIA PARK 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
140	VALENCIA PARK 908.31	908.31	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
141	ALTA VISTA 908.32	908.32	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
142	ENCANTO 908.31	908.31	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
143	ENCANTO 908.32	908.32	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
144	BAY TERRACES 908.32	908.32	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
145	BAY TERRACES 909.12	909.12	SWEETWATER	Active			Y	Y	Y	Y	Y	Y	Y	
146	SKYLINE 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
147	JAMACHA LOMITA 908.22	908.22	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
148	SKYLINE 909.12	909.12	SWEETWATER	Active			Y	Y	Y	Y	Y	Y	Y	
149	PARADISE HILLS 908.32	908.32	PUEBLO SAN DIEGO	Active			Y	Y	Y	Y	Y	Y	Y	
150	PARADISE HILLS 909.12	909.12	SWEETWATER	Active			Y	Y	Y	Y	Y	Y	Y	
151	EGGER HIGHLANDS 910.20	910.20	OTAY	Active			Y	Y	Y	Y	Y	Y	Y	
152	EGGER HIGHLANDS 911.11	911.11	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	
153	NESTOR 910.20	910.20	OTAY	Active			Y	Y	Y	Y	Y	Y	Y	
154	NESTOR 911.11	911.11	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	
155	PALM CITY 910.20	910.20	OTAY	Active			Y	Y	Y	Y	Y	Y	Y	
156	TIJUANA RIVER VALLEY 911.11	911.11	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	
157	SAN YSIDRO 911.11	911.11	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	
158	OTAY MESA WEST 911.11	911.11	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	
159	OTAY MESA WEST 910.20	910.20	OTAY	Active			Y	Y	Y	Y	Y	Y	Y	
160	OCEAN CREST 910.20	910.20	OTAY	Active			Y	Y	Y	Y	Y	Y	Y	
161	OCEAN CREST 911.11	911.11	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	
162	OTAY MESA 911.11	911.11	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	
163	OTAY MESA 911.12	911.12	TIJUANA	Active			Y	Y	Y	Y	Y	Y	Y	

¹Potential pollutants were populated based on information from Table 3-10 in the Copermittees' Baseline Long-Term Effectiveness Assessment.

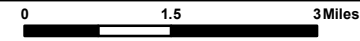
City of San Diego Residential Management Areas (Map 1)



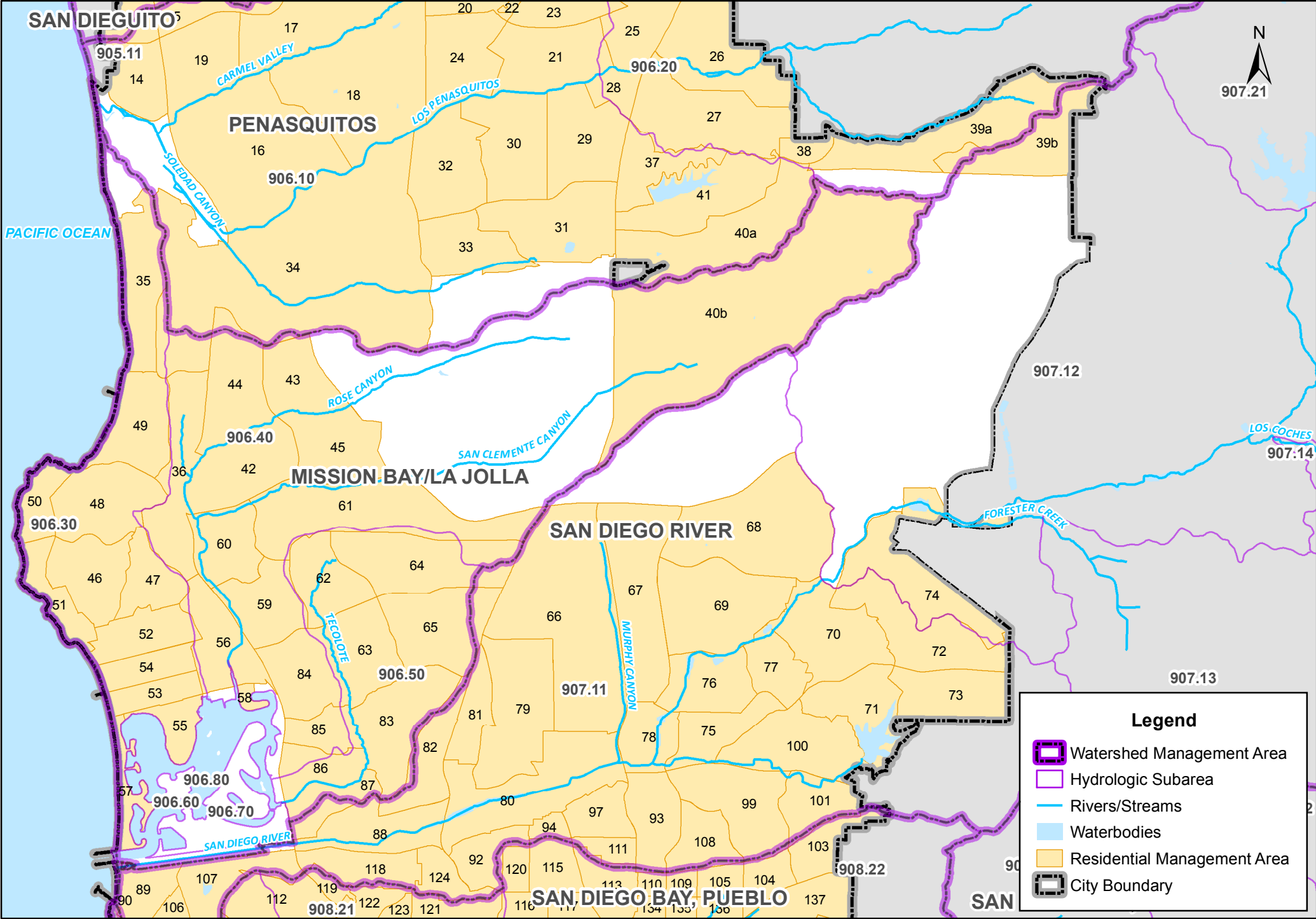
Legend

- Watershed Management Area
- Hydrologic Subarea
- Rivers/Streams
- Waterbodies
- Residential Management Area
- City Boundary

Base Data Sources: City of San Diego, SanGIS



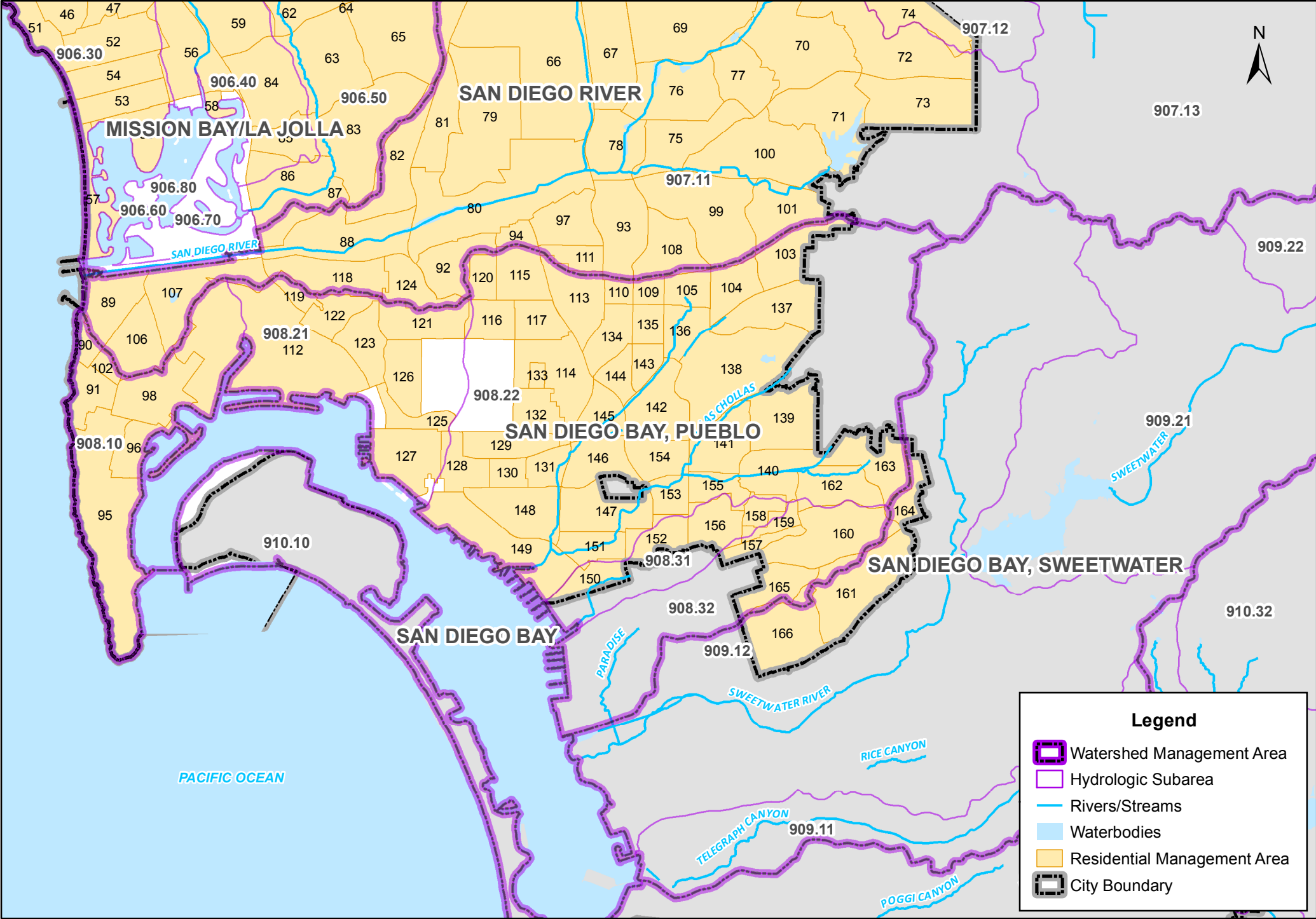
City of San Diego Residential Management Areas (Map 2)



Base Data Sources: City of San Diego, SanGIS

0 1.5 3 Miles

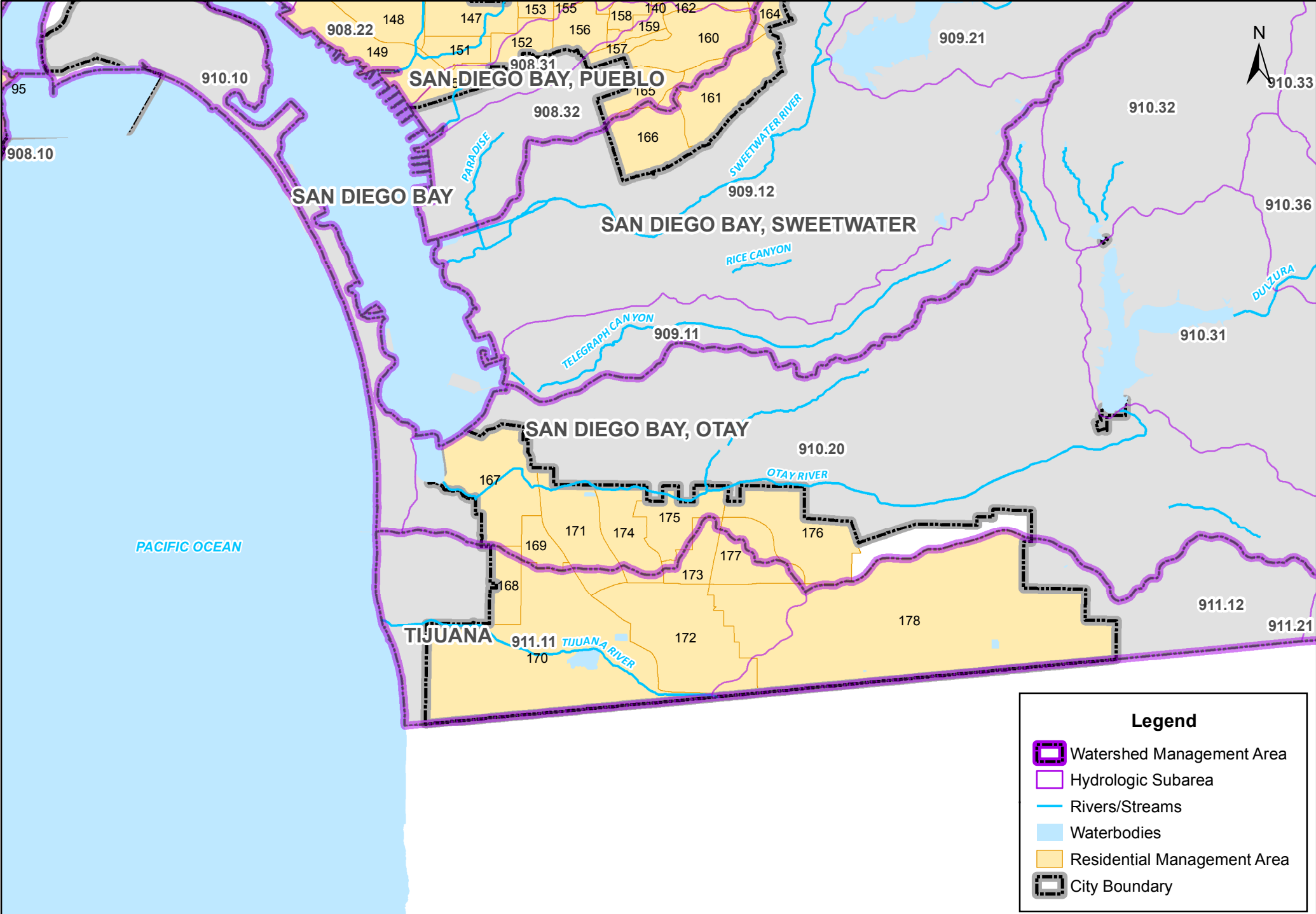
City of San Diego Residential Management Areas (Map 3)



Legend

- Watershed Management Area
- Hydrologic Subarea
- Rivers/Streams
- Waterbodies
- Residential Management Area
- City Boundary

City of San Diego Residential Management Areas (Map 4)



Base Data Sources: City of San Diego, SanGIS

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CITY OF SAN DIEGO

RESIDENTIAL MANAGEMENT AREA PATROL PROTOCOLS

SAN DIEGO, CALIFORNIA

June 2016



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Appendices

Appendix A – City of San Diego’s Required Best Management Practices for Residential Areas

Appendix B – Residential Management Area (RMA) Patrol Logs

Appendix C - Blank Residential Management Area (RMA) Patrol Forms

List of Acronyms and Abbreviations

BMP	Best Management Practice
City	City of San Diego
CIA	Common Interest Area
ERP	Enforcement Response Plan
GPS	Global Positioning System
HOA	Homeowner Association
ICID	Illegal Connection Illicit Discharge
JRMP	Jurisdictional Regional Monitoring Plan
MS4	Municipal Separate Storm Sewer System Permit
NOV	Notice of Violation
Officer	Code Compliance Officer
RMA	Residential Management Area
TCBMP	Treatment Control Best Management Practice

DRAFT

1 INTRODUCTION

The Residential Management Area (RMA) Patrol Program was developed to ensure that non-stormwater discharges or activities that would be associated with a potential violation within the City of San Diego (City) are identified and resolved in order to improve water quality in the City. The encompassing nature of the RMA Patrol Program is intended to engage City staff, contractors from multiple departments, and the general public through storm water hotline calls (and online or smart phone application reporting). The RMA Patrol Program adopts common inspection approaches such as drive-by general patrols, and targeted-site- or activity-specific patrols. Patrol of all inventoried existing development, including residential areas, is required according to the San Diego Regional Water Quality Control Board (Regional Board), and Section E.5.c of the 2013 Municipal Separate Storm Sewer (MS4) Permit¹. These RMA patrols are necessary in order to protect water resources and improve overall water quality within the City. Patrols are a proactive way the City can enforce compliance with the City of San Diego Municipal Code, discover and abate hotspots, and better educate residents regarding the City's clean water requirements.

RMA Patrol protocols have been prepared to assist the City with their non-stormwater patrol procedures. These protocols are intended to act as a user-guide for new employees and forms part of the City's Residential Management Area Program. The protocols have been organized so that Section 2 defines the different patrol types and identifies items of consideration as well as priority items that Code Compliance Officers should be focusing on, when conducting their routine patrols of certain areas. It also details what the Code Compliance Officers need to do before, during and after the patrol. Section 3 describes enforcement of violation issues as well as general compliance issues, and Section 4 identifies the data management and reporting requirements necessary to ensure accurate tracking of and responses to potential violations, and to ensure there is adequate adherence to the overall RMA Patrol Program.

¹ Municipal Stormwater Permit Order No. R9-2013-0001, NPDES No. CA50109266

2 PATROL TYPES

RMA patrols will be implemented and conducted by the City's Storm Water Division according to the following patrol types, currently termed Level 1 and Level 2 patrols.

Level 1 patrol will be the primary method of patrols and will be conducted by Code Compliance Officers (Officers), who evaluate whether minimum best management practices (BMPs), defined as methods to prevent or minimize water pollution, are being implemented appropriately. Officers will also identify any active discharges or potential sources of pollution that are observed.

Level 2 patrols will be conducted when Officers or other City staff drive through residential areas, while supporting other programs, such as the Jurisdictional Runoff Management Plan (JRMP) programs, and at the same time, identifying discharges and potential residential BMP implementation violations.

At a minimum, Officers will be expected to observe and document the following:

- Presence of actual non-storm water discharges,
- Presence of actual or potential discharge of pollutants,
- Presence of actual or potential illicit connections,
- Verification that the facility description in the inventory has not changed,
- Compliance with applicable local ordinances and permits related to non-storm water discharges, storm water discharges, and runoff, and
- Assessment of proper implementation of designated BMPs.

2.1 PATROL CONSIDERATIONS

The City's required minimum BMPs for residential areas and activities are listed in Appendix A of this document, and consist of:

- Pollution prevention BMPs,
- BMP operation and maintenance, and
- Pesticides, herbicides, and fertilizers BMPs.

Residential patrols will focus on these four primary land-use areas:

1. *Single-family residential*: An individual, freestanding building that consists of one dwelling unit, usually occupied by just one household or family.
2. *Multi-family residential*: A building where multiple separate housing units are contained within one building or complex.
3. *Common Areas/Open Space Areas*: Common Areas are those that are not owned by an individual owner of a residential unit but are shared by all owners such as landscaped areas in a planned community or the parking lots of a multi-residential development. Open Space Areas are any open piece of land that is typically accessible to the public, such as a park.
4. *Alleyways*: A passage between buildings that includes garages, trash storage and collection areas, storm water drainage areas, etc.

Officers will focus on these five priority issues:

- Non-storm water discharges
- Irrigation runoff

- Erosion, discharge, or tracking of dirt and sediment
- Pet waste
- Trash, debris, litter and yard waste

Awareness and understanding of characteristics and potential issues, specific to land use types and zones, will assist Officers in performing comprehensive patrols according to their particular patrol area. Considerations for the four primary land-use types within residential areas are summarized below.

2.1.1 Single-Family Residential

In single-family residential areas, the patrolling Officer should look to identify possible issues related to individual properties.

WHAT OFFICERS SHOULD LOOK FOR

- Irrigation runoff
- Hose discharges
- Homeowner construction activities and materials
- Stockpiled materials
- Green waste – mulch/clippings
- Automotive parts and fluids improperly contained
- Unaddressed pet waste
- Uncontained trash, debris and litter
- Erosion, discharge or tracking of dirt and sediment

WHAT OFFICERS NEED TO DO

1. Inspect driveways and adjacent sidewalks.
2. Inspect landscaped areas/yards surrounding the property (front, side, and back) that are visible.
3. Inspect the property (building(s), garage, and any additional structures) to note whether additional BMPs are required.
4. Take extensive notes and pictures of any issues that are observed.

2.1.2 Multi-Family Residential

Multi-family residential areas include apartments, condominiums, town homes and other high-density areas. Patrolling multi-family residential areas may require the Officer to enter common areas of the residential units.

WHAT OFFICERS SHOULD LOOK FOR

- Irrigation runoff
- Hose discharges
- Improperly maintained trash areas
- Clogged drainage systems
- Excessive vehicle grease and oil and parking lots/areas
- Construction activities and materials
- Stockpiled materials
- Automotive parts and fluids improperly contained
- Unaddressed pet waste
- Uncontained trash, debris, and litter
- Dumpsters not closed or covered
- Erosion, discharge or tracking of dirt and sediment

WHAT OFFICERS NEED TO DO

1. Inspect driveways, adjacent sidewalks, and all parking lots/areas.

2. Inspect landscaped areas/yards surrounding the property (front, side, and back) that are visible.
3. Inspect property structures (building(s), garage, and any additional structures).
4. Inspect common areas (e.g. recreational facilities, pools, terraces).
5. Inspect drainage system, including all inlets, outlets, and swales.
6. Inspect trash enclosures, storage areas, and dumpsters on the property.
7. Take extensive notes and pictures of any issues that are observed.

2.1.3 Common Areas/Open Space Areas

Common areas and open space areas can also be found within residential areas that may or may not be associated with a single property owner.

WHAT OFFICERS SHOULD LOOK FOR

- Irrigation runoff
- Loose or unmanaged vegetation/debris
- Uncontained trash, debris, and litter
- Unaddressed pet waste
- Erosion, discharge or tracking of dirt and sediment

WHAT OFFICERS NEED TO DO

1. Inspect all areas of a common area/open space depending on the property layout, structures, and accessibility.
2. Take extensive notes and pictures of any issues that are observed.

2.1.4 Alleyways

Alleyways are characteristic of garages and parking areas, trash storage and collection, and surface conveyance for storm water drainage. Alleyways are important areas to be included in patrols, as issues found in alleyways are similar to those found in single- and multi-family residential areas. Since these areas are generally out of sight, sources of storm water pollution can be exacerbated within them. Therefore, the patrol program should include all alleyways during the residential patrols, if possible.

WHAT OFFICERS SHOULD LOOK FOR

- Non-storm water discharges
- Irrigation runoff
- Erosion, discharge or tracking of dirt and sediment
- Uncontained trash, debris, and litter
- Unaddressed pet waste

WHAT OFFICERS NEED TO DO

1. Inspect all areas of the alleyway depending on the property layout, structures, and accessibility.
2. Take extensive notes and pictures of any issues that are observed.

2.1.5 Priority Patrol Issues

The five types of issues that Code Compliance Officers should concentrate on and which take priority (while Officers are on patrol), are described further below:

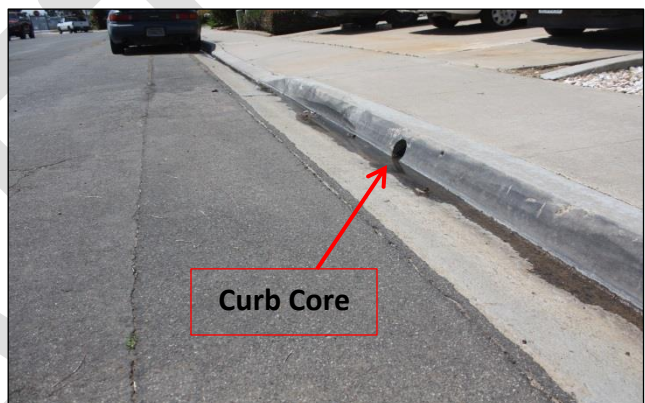
2.1.5.1 Unauthorized Non-Storm Water Discharges

Non-stormwater discharges, sometimes referred to as “dry weather flows,” are identified in Section E.2.a of the MS4 Permit. This type of runoff is not associated with a storm event and, when left untreated, can become a potential contributor of pollutants to storm drain systems. Unauthorized non-storm water discharges include, but are not limited to:

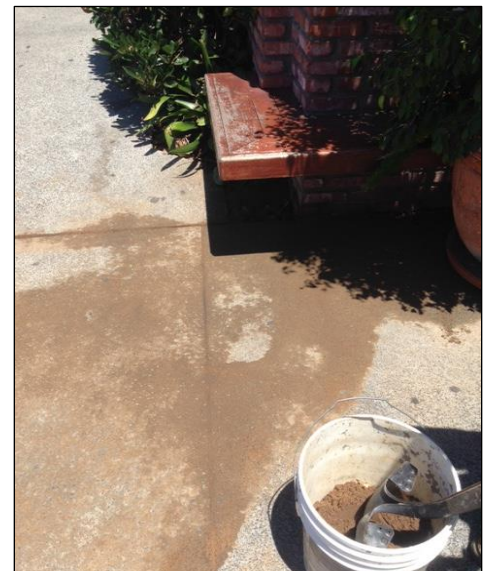
- Irrigation runoff,
- Sewage discharges or overflows,
- Runoff from hosing down impervious surfaces or car washing activities,
- Runoff from washing of trash bins
- Runoff from material storage areas (e.g., paints, chemicals, fuels, grease, oil, and hazardous materials),
- Discharge of pool water that is not dechlorinated, does not have a neutral pH, and does not have a path to the inlet clear of debris,
- Discharge of water containing sediment or construction-related waste, and
- Discharge of food-related wastes.

WHAT OFFICERS NEED TO DO

- Inspect residential area for evidence of stagnant water pools and/or runoff:
 - Evidence can frequently be found on sidewalks, curbs and gutters, and curb drains (pipes that discharge through the curb directly into the gutters). In some instances, an abundant supply of water may be observed downstream, and the flow must be followed in order to determine the source of the runoff.
- Inspect the discharged water’s characteristics:
 - If the water is discolored or has a sheen, texture, odor, or is soapy, the water may have come into contact with other materials or solutions.



Evidence of non-storm water discharge originating from curb core



Residual sediment from residential construction washing activities

Section A.1.e of the MS4 Permit lists authorized non-storm water discharges, such as foundation and footing drains, as well as water from crawl spaces and basement pumps (provided the discharges do not contact potential pollutants prior to entering the MS4).

2.1.5.2 Irrigation Runoff

Irrigation runoff is a high priority concern for both water quality and water conservation efforts, particularly considering the current drought conditions for Southern California. Irrigation runoff includes over-watering, overspray, and broken or leaking irrigation systems. Over-watering generates discharges because soils become saturated and can no longer absorb water, at which point, water flows across and off the irrigated surface, instead of infiltrating into the soil. Overspray occurs when irrigation systems are not maintained well, or are incorrectly installed, and are then applied to impervious surfaces (e.g., sidewalks, driveways, or streets), causing runoff into the storm drain system. Poorly maintained irrigation systems can develop above- or below-ground leaks, either of which can lead to oversaturation and runoff from the areas around the leaks. Poorly maintained irrigation systems can sometimes be identified through issues such as broken sprinkler heads, water spraying heavily on the sidewalk and street, puddling of water surrounding sprinkler heads, etc. Leaks often occur during landscaping activities, earthmoving, and grubbing, particularly if the irrigation system is poorly identified/marked.



Evidence of irrigation runoff from over-watering/overspray on residential properties

Irrigation runoff is often the transport mechanism for pollutants (e.g., bacteria, pesticides, fertilizers, trash, and debris) into the MS4. Minimizing over-irrigation prevents fertilizers and pesticides that may be applied to landscaping from being transported to the MS4. Eliminating runoff from residential irrigation is a significant and visible step toward reducing the amount of pollutants that reach receiving waters through the MS4. Runoff evidence can frequently be found on sidewalks, driveways, porches/patios, in curbs and gutters, and from curb drains. Water found originating from curb drains indicates that water is discharging through the on-site private drainage system.

WHAT OFFICERS NEED TO DO

- Inspect residential area(s) for evidence of broken sprinkler systems or malfunctioning irrigation systems.
- Take extensive notes and pictures of any issues that are observed.

2.1.5.3 Erosion of Dirt and Sediment

Pollutants readily attach to sediment that is transported and deposited in waterways negatively impacting stream habitats. The runoff mobilizing sediment simultaneously mobilizes nutrients present in the soil matrix and bound to the soil particles. Erosion is controlled by protecting areas where soil is exposed—including landscaping—with vegetative or physical stabilization measures, including mulch, gravel, or retaining walls, and it is this material which can dislodge and wind up in the waterways. Erosion evidence can frequently be found on sidewalks, driveways, and in curbs and gutters from sediment tracking.



Evidence of erosional issues entering residential roadway

WHAT OFFICERS NEED TO DO

- Inspect residential area(s) for exposed dirt, including dirt slopes that have not yet been landscaped or stabilized, dirt stockpiles, residual sediment on the foot of a slope, rilling, or minor gulying.
- Take extensive notes and pictures of any issues that are observed.

2.1.5.4 Unaddressed Pet Waste

Harmful bacteria present in pet waste can transmit diseases and poses a risk to both swimmers and surfers alike as well as inland and coastal wildlife. Pet waste must be picked up and disposed of properly as pet waste carries harmful bacteria that can reach the ocean, creeks and bays through the MS4 via storm water or non-storm water discharges.



WHAT OFFICERS NEED TO DO

- Inspect residential area(s) for pet waste that has not been properly disposed of and is left on residential yards or nearby walkways.
- Note whether the unaddressed pet waste is evidence of a one-time occurrence or a more significant, reoccurring issue (e.g. excessive amounts of unaddressed pet waste).



Evidence of unaddressed pet waste

Pet waste that has been left behind may not be the responsibility of the property owner where the waste was found. Therefore, patrolling Officers must be mindful that members of the public walking the neighborhood might not be picking up after their pets. Regardless of the responsible party, the patrolling Officer should note the location and severity of the issue.

2.1.5.5 Trash and Yard Waste

Trash and debris can enter waterways by the weather (wind, rain), littering, and careless maintenance of trash receptacles. If trash is not collected, trash and debris can end up in the storm drain system, where it flows untreated to creeks, bays, lagoons and the ocean.

WHAT OFFICERS NEED TO DO

- Inspect residential area(s) for:
 - Uncovered and/or overflowing trash containers or dumpsters
 - Excessive trash on the ground surrounding the trash container area or residential property
 - Leaking trash containers and/or staining on the ground
 - Excessive green waste on the property (e.g. grass clippings, brush, weeds, hedge trimmings, branches, leaves)
 - Discarded and unwanted items (e.g. couches, tires, bicycles, paint cans).
- Consider the trash circumstances, such as:
 - Bulk item pickup by private waste haulers
 - Trash collection days



Items not a part of the City's refuse collection services – consult the City's Environmental Services Department (858-694-7000) for more information.

Excessive amounts of trash, debris, and litter at multi-family residential properties

2.1.6 Level 1 Patrols

Level 1 patrols are conducted specifically for the purpose of evaluating residential BMP implementation and identifying water quality issues within residential areas. The patrols will be conducted by Code Compliance Officers trained to identify the City's required minimum BMPs (see Appendix A) and active or potential discharges. Level 1 patrols should be conducted by Officers with the respective authority to make immediate contact with responsible parties when a violation is observed.

In general, Level 1 patrols will follow these standard protocols:

1. Identify the RMA for patrol.
2. Complete the RMA log information for the particular RMA, name of Officer and date information.
3. Drive to the RMA and log the start time for patrol – the start time is important for Global Positioning System (GPS) tracking purposes.
4. Conduct patrol per the General Field Patrol Procedures subsection below.

5. When patrol is complete, log the end time for patrol – the end time is important for GPS tracking purposes.
6. Officer will return to the office and perform necessary follow-up including: property research and issuing education letters or Notice of Violations (NOVs).

2.1.6.1 General Field Patrol Procedures

The general field patrol procedures to be completed by the Officer before, during, and after patrol are listed below.

Before leaving for patrol:

- Take the physical RMA folder to record observations made in the field into the RMA patrol logsheets (Appendix B) provided in the folder, and
- Take blank Residential Patrol Forms (Appendix C) to document identified violations.

While on patrol:

- Drive through the assigned RMA at a reasonable/slow pace that allows for observation of focused water quality conditions.
- Visually scan the residential properties, as well as any common areas/open spaces, medians, streets, curbs and gutters, and other areas within RMAs for water quality issues.
- Be prepared to stop in order to photo document observed conditions and properly log observations.
- If necessary, it is recommended that Officers patrol areas on foot, particularly if the area is not easily accessible by vehicles.

After the patrol is completed:

- Officers provide completed logs, Residential Patrol Forms and associated documentation (photos) to the City's administrative staff that will then enter the observations into the City's SAP database.

City fleet vehicles are equipped with GPS trackers that have the ability to record geographical patrol information through each RMA. The GPS device will provide the start and stop locations for tracking and reporting purposes. Accompanying the GPS data is the patrol log that the Officer uses to record their name, assigned RMA, start and stop times and locations, and date of patrol. If there is an instance where no storm water observations were made during a patrol, the GPS data and corresponding logbook will verify that an inspection was completed (within the specific RMA), and therefore ensure that the City is in compliance with the MS4 Permit inspection requirements.

2.1.6.2 Violation Protocols

A summary of the steps used to identify a potential violation, provided below, will be used as part of the standard protocols and procedures. A flow chart of the steps is presented in **Figure 1**.

Step 1 - During a patrol, the observed potential violation, BMP deficiency, potential discharge, illegal connection and/or illicit discharge (ICID) will be documented through photographs and entered into the

patrol log (see Appendix B). If a discharge or BMP violation is observed, the Officer will record the following information using the Residential Patrol Form (see Appendix C):

- Adequately document the violation or unauthorized non-storm water discharges with as many photographs as necessary, documenting the source, flow path, quantity, and entrance to the MS4, to the extent possible
- Location/address of residential area or nearest street intersection if common area/open space
- Contact information of homeowner/tenant/property manager and whether contact was made with the property owner or tenant including the method of contact (i.e. verbal, door hanger, etc.)
- Violation date and time
- Weather conditions, particularly precipitation or recent precipitation
- Observations and findings of the investigation
- Enforcement action taken, and
- Follow up actions, if necessary.

Step 2 - Officers should attempt to stop active discharges if it is safe to do so, by engaging with property owners or tenants. Other methods of contact, such as door hangers identifying the violation, might be considered for use by City staff, as appropriate.

Step 3 - After collecting basic information, the Officer conducting the patrol will determine whether the violation constitutes the need to immediately contact administrative staff to create a case number or to create a case number themselves when they return to the office. In either scenario, the Officer shall log the issue in the RMA patrol log. The log can be turned into administrative staff at the end of the patrol to create cases for the Officers.

Step 4 - Officers shall complete their investigation including property research and document all necessary information in their case file.

Step 5 - City staff shall then issue any education letters, NOVs, citations, or other enforcement actions to the responsible parties. Through written notifications, the City will make the responsible party aware of the violation and educate them on the proper actions to correct it.

Step 6 - If follow-up is necessary, the Officer shall note when the follow-up should be completed to verify the issue has been addressed and close out the case.

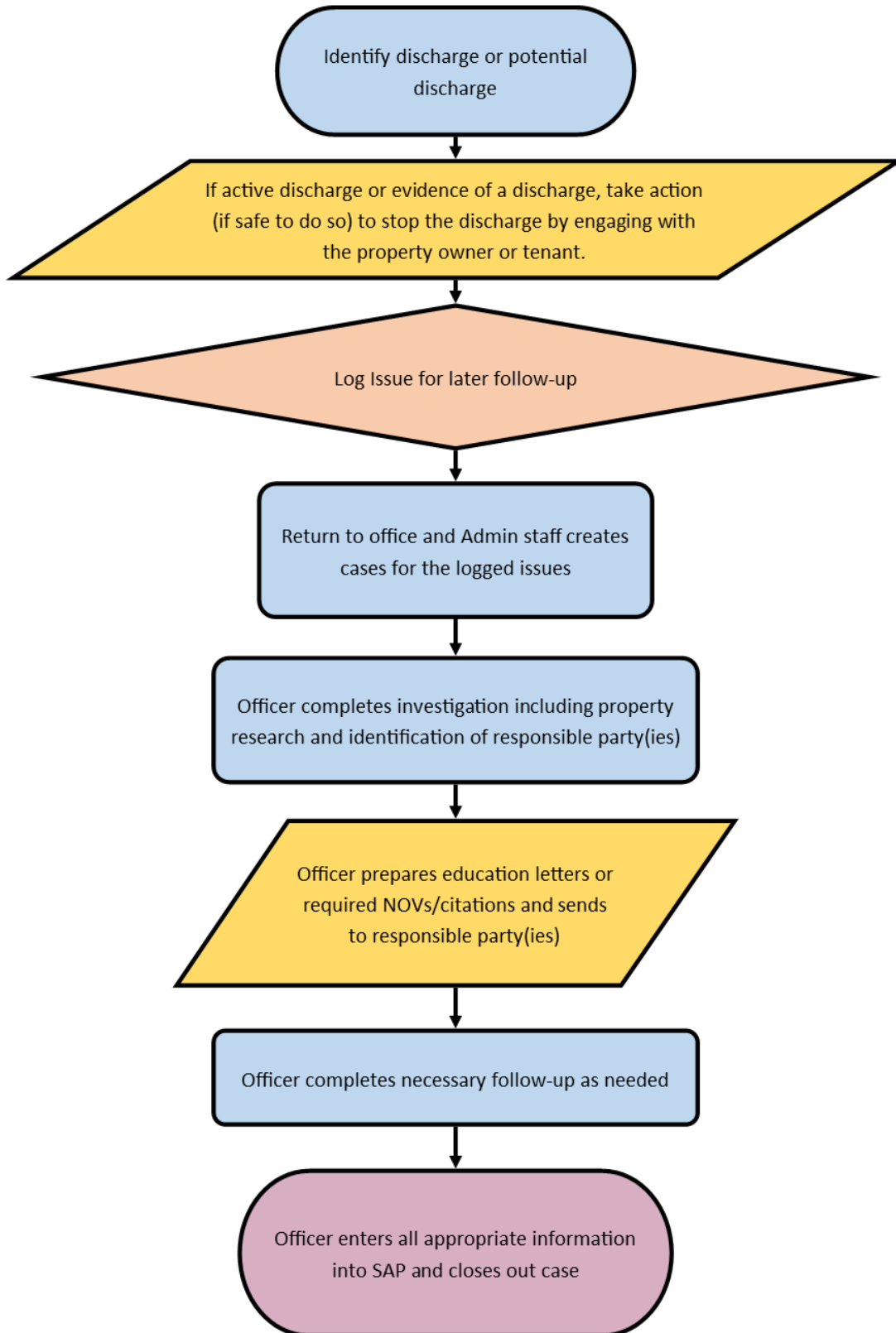


Figure 1 – Process for Identifying Storm Water Issues

2.1.6.3 Site/Activity Specific Patrols

Site/activity-specific patrols are a type of Level 1 RMA patrol where Officers conduct patrols targeting specific activities or sites. Although specific issues, e.g. irrigation runoff from areas that are sometimes inaccessible, trigger these patrols, all BMP evaluations and observations for discharges remain the same.

2.1.6.3.1 Irrigation Runoff Patrols

Officers will conduct early morning and weekend patrols to identify irrigation runoff issues when irrigation activities are most likely occurring. During patrols, Officers will:

- Drive through assigned RMAs and document violations by taking photographs as well as documenting the site's address where runoff occurred
- Obtain contact information for property owners or tenants for the specific address
- Record descriptions of violations and log them using the Residential Patrol Forms (Appendix C) that are provided in their RMA folder.

Because inspections will be conducted during early morning hours, safety of the Officers, as well as homeowners, needs to be the number one priority. In addition, respect for homeowners should be taken into account and it is recommended that contact not be made during early morning hours. Any violations observed would warrant the generation of an education letter, NOV, citation, or other enforcement action by the Code Compliance Officer, depending on the severity of the violation, to inform the responsible party of the irrigation runoff violation and educate them on how to correct it.

Although the primary purpose of the patrol is to identify irrigation runoff issues (one of the five focused water quality conditions), the Officers conducting irrigation runoff patrols will also identify BMP implementation violations and any water quality issues while conducting patrols. These issues will be recorded on the Residential Area Patrol Form in the respective RMA folder and enforcement should ensue.

2.1.6.3.2 Homeowners Associations/Common Interest Areas

To ensure that high-density residential areas where Homeowners Associations (HOAs) or Common Interest Areas (CIAs) exist are complying with minimum BMPs, patrols occur at select prioritized HOAs. City staff will investigate those areas by meeting with the HOA and inspecting the properties to identify any violations. During the patrol, the Officer will:

- Provide the HOAs with educational brochures and fact sheets informing them of the responsibility to follow minimum BMPs that are required by the MS4 Permit and Municipal Code.
 - This process ensures that HOAs are receiving appropriate and up-to-date education materials and are engaged in continued contact with the City to guarantee that they are complying with BMP expectations.
- Identify BMP implementation violations and any water quality issues while conducting the patrols.
- Record issues on the Residential Area Patrol Form, follow-up, and complete any necessary enforcement actions.

As implementation within the first permit term is completed, a list of gated communities will be verified through patrol activity and utilization of available resources (fire department data, treatment control BMP inventory, etc.), and the RMA inventory will be updated as necessary.

2.1.7 Level 2 Patrols

Level 2 patrols are conducted by City staff while in the field conducting routine, non-storm water work. Staff conducting Level 2 patrols may include, but are not limited to, water meter readers, biologists conducting monitoring activities, Code Compliance Officers investigating complaints, and structural treatment control BMP inspectors. The purpose of Level 2 patrols is to conduct coincidental patrols of active discharges while routine fieldwork is occurring.

2.1.7.1 Urban Runoff/Public Hotline Report Investigations

Urban runoff/public hotline report investigations are considered to be both Level 1 and Level 2 patrols. Officers might be sent to investigate a specific area that was identified in an urban runoff/public hotline report (which would be considered a Level 1 patrol) and, along the way, the Officer might observe an active discharge in an area other than the one in which their initial patrol occurred (which would be considered a Level 2 patrol).

If the Officer is responding to a Level 2 patrol issue, they will follow the steps listed below:

- Photo document the violation in question and gather the appropriate contact information, as identified in Section 2.1.6.2 above.
- Following a consistent approach with the Level 1 requirements, Officers are able to initiate immediate follow-up with the responsible party regarding the violation, make that party aware of the violation, and educate them on the proper action to take to correct it.
- Once the Officer has taken photos, collected and recorded the appropriate information on the patrol log and residential patrol form, and established contact with the responsible party, Officers will provide all violation data to the administrative staff to enter into the City's database and complete the patrol.

2.1.7.2 Biologists/Outfall Monitoring

Biologists have an opportunity to observe the City's outfalls and MS4 system for active discharges while performing their routine fieldwork. Outfall monitoring might require follow-up for outfall discharges, which can occur in residential areas. If an active discharge (or other violation) is observed, biologists are asked to take photographs of the alleged violation and contact the City of San Diego's storm water hotline (619-235-1000) to report it. Officers will respond to the violation report and follow up with the responsible party.

2.1.7.3 Water Meter Readers

Meter readers visit all residential streets in the City's jurisdiction every 2 months and, therefore, have high exposure to residential areas. During their routine work, like biologists, meter readers are more likely to observe a violation of a residential BMP or stormwater violation. In addition, because of the drought,

water meter readers will also be identifying water waste, typically in the form of irrigation runoff, for water conservation efforts.

If a potential violation is observed, water meter readers are responsible for contacting the storm water hotline at **(619) 235-1000** to report the observation. Officers will respond to the violation report and follow up with the responsible party. If the meter reader observes an active discharge occurring somewhere other than where the initial investigation was to occur, then the investigator should contact the City's storm water hotline to report residential violations. Officers will respond to the violation report and follow up with the responsible party.

2.1.7.4 Structural Control BMPs

Approximately 300 treatment control BMPs (TCBMPs) are contained in the City's inventory and are inspected by City staff or a designee annually. Per the MS4 Permit, TCBMPs are to be inspected at various frequencies based on their priority during the Permit cycle. During inspections of treatment control systems, an inspector might observe an active discharge in RMAs. If a potential residential violation is observed, the inspector should contact the City's storm water hotline at **(619) 235-1000** to report it. Officers will respond to the violation report and follow up with the responsible party.

2.2 PATROL FOLLOW-UP

The City will implement all follow-up actions necessary to require and confirm compliance with the applicable BMPs, local ordinances, and permits, where feasible. The City's Code Compliance Staff of the Storm Water Division will conduct follow-up patrols in response to valid complaints, as needed, which will be tracked in the respective departmental electronic database.

Code Compliance Officers will have a variety of follow-up actions that they can use to address observed or reported violations of the City's Storm Water Ordinance, including:

- Education,
- Written warnings,
- NOVs,
- Administrative citations, and
- Civil penalties.

3 ENFORCEMENT

The City will enforce its legal authority for all inventoried RMAs, as necessary, to achieve compliance with the MS4 Permit as described in this document. Enforcement of the minimum BMPs for residential areas will be implemented by the Code Compliance Officers of the Storm Water Division. The City will continue to use escalated enforcement mechanisms (as described in the City's JRMP), when necessary to address particularly problematic activities and areas.

Enforcement of storm water issues by Code Compliance Staff and City personnel will follow the process listed below:

- Immediately address any issues of storm water concerns as feasible, and provide education, as appropriate.

- Implement voluntary compliance to immediately eliminate an ICID once the source has been identified.
- Code Compliance Officer will investigate violations of the City's Municipal Code.
- Document violations and, depending on the nature and severity of the violation, implement enforcement which might consist of any of the enforcement measures described in the Enforcement Response Plan (ERP) contained in the City's JRMP.

The residential program has been designed to ensure that adequate City enforcement, complaint investigation, and complaint reporting is conducted so that pollutants associated with residential activities and areas are minimized to the Maximum Extent Practicable (MEP). If compliance is not achieved, City Staff will contact the responsible party to determine why the violations have not been corrected. The MS4 Permit requires that violations are corrected within 30-days of the responsible party becoming aware of them or that the rationale explaining why the corrections have not been made is recorded. The City requires corrections be made immediately. Follow-up patrols are documented in the Code Compliance Officer's activity log and investigation reports.

4 DATA MANAGEMENT AND REPORTING

A significant element of the RMA Patrol Program is data collection, analysis, and reporting. Effective data management is required to ensure successful implementation of the program, to provide the ability to demonstrate permit compliance, and to support continuous improvement through adaptive management. In addition to helping meet the specific program requirements, effective data management will help mitigate the impacts of integrating the new program into an already burdened compliance and enforcement process.

Three main data-generating activities comprise the RMA Patrol Program: patrols, violations, and enforcement. Each of the activities has specific data elements that need to be collected and communicated to ensure program success and compliance.

Per MS4 Permit Sections E.5.c.(3) and E.5.c(1)(b), the City must record and track patrol findings at all inventoried existing development and implement all follow-up actions (i.e., education and outreach, re-patrol, and enforcement). The City must track all patrols and follow-ups in an electronic database or tabular format of all inventoried existing development (see MS4 Permit Section 4.0).

Patrol records must include, at a minimum:

- Name and location of area (address and Hydrologic Sub-Area) consistent with the inventory name and location
- Patrol and follow-up date(s)
- Patrol method(s) (e.g., drive-by, on-site)
- Observations and findings from the patrol(s)
- For on-site patrols of existing development by City staff or contract staff, the records must also include, as applicable:
 - Description of any problems or violations found during the patrol(s)
 - Description of enforcement actions issued in accordance with the Enforcement Response Plan pursuant to MS4 Permit Section E.6

- The date problems or violations were resolved

This section establishes the specific data elements that need to be collected as part of the RMA Patrol Program and, where possible, standardizes data collection methods and formats.

4.1 VIOLATION TRACKING

Potential violations can be discovered through both Level 1 and Level 2 patrols. Since the two levels vary in their specific focus, but share the need to report potential violations, there is a 2-pronged process for reporting and tracking violations.

Level 1: Patrols are the primary method of evaluating BMP implementation and identifying water quality issues within residential areas. Specific and detailed data must be collected when potential violations are observed during the patrols. This data has been captured and standardized in the RMA Patrol Form, provided in Appendix C.

Level 2: Patrols will be a source of potential violations observed while City staff is in the field conducting routine work. To minimize any additional burden on the City staff, reporting violations will follow the current process of reporting them through the storm water hotline and will not require any additional data elements to be collected beyond what is currently captured. The RMA Patrol Program will leverage the following SAP data fields (the following are the SAP field names) that are currently collected via the hotline:

- Description
- Location
- Equipment
- Program/Section
- Work Center
- Status
- Zip Code
- Priority
- Thomas Bros
- Council District
- Reported Date
- Reported Time
- Entered by
- Notification Long Text
- Partner Information
- Item Number
- Item
- Code Grp
- Code
- Description
- Quantity

4.2 ENFORCEMENT TRACKING

Enforcement activities for the RMA Patrol Program will be carried out by the Code Compliance Officers. The process and data collection method for enforcement of the minimum BMPs for residential areas will be integrated into the existing enforcement process and all patrols will be documented in the Officer's activity log and investigation reports. This approach will ensure that the violation has been or will be corrected within 30-days of the responsible parties becoming aware of the violation, or a rationale will be provided on why the corrections have not or cannot be made will be recorded, as the Permit requires.

Given the variety of City staff that will be involved in collecting data in support of the RMA Patrol Program, it is essential that each type of data—patrol, violation, and enforcement—be collected in a consistent

manner and in a standard format. This objective can be accomplished through the use of paper forms and maps as well as documented protocols. Since the majority of the data is collected and used in the field, using a mobile device promotes data consistency and quality as well as collection efficiency. Additionally, using electronic data collection in the field, via a mobile application, enables the automated transfer of the data to a centralized database that can streamline the process of reporting and enforcing violations as well as provide a platform for collaboration across Program stakeholders (i.e., the City and the public). It also facilitates integrated reporting to easily demonstrate progress and enable continuous improvement through adaptive management.

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