

10.0 ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

10.1 Introduction

Illegal discharges/illicit connections (ID/IC) are potential sources of pollutants within municipal storm drain systems. The purpose of **DAMP Section 10.0** is to ensure that the Permittees have a programmatic framework for detecting and quickly responding to non-stormwater discharges to their storm drain systems. Since **DAMP Section 10.0** directly addresses one of the basic objectives of the NPDES Permits, it is a long-established part of the Program. With the Third Term Permits, the key elements of ID/IC have been significantly enhanced. In addition, a model sewage spill response program has been developed and has begun to be implemented in conjunction with OCSD.

10.2 Accomplishments

10.2.1 Illegal Discharges/Illicit Connections Program

The ID/IC Program provides guidance for Permittees when identifying, responding to and mitigating the effects of non-stormwater discharges and enforcing the ID/IC component of the Program for the protection of the environment. **DAMP Section 10.0** requires the Permittees to:

- Detect illegal discharges and illicit connections

A innovative Dry Weather Reconnaissance Program, based upon statistically derived benchmarks, was developed and implemented in both permit regions specifically to identify illegal discharges and illicit connections during the typically dry summer months of May through September using a suite of water quality analyses conducted in the field at designated random and targeted drains. The 2004-05 reporting period marked the third season of dry weather monitoring in the San Diego Region. With the approval of the Santa Ana Monitoring Program in July of 2005 by the Executive Officer of the Santa Ana Regional Board, dry weather monitoring in the Santa Ana Region commenced in May of 2006.

- Facilitate Public Reporting

Telephone and web-based reporting systems for the general public have been established and are advertised in the Stormwater Program's public education materials, Orange County "White Pages" telephone directories, and Permittee websites. A total of 3,408 complaints were received during the 2004-05 reporting period.

- Investigate

Each Permittee has designated Authorized Inspectors to investigate compliance with, detect violations of, and take actions pursuant to their Water Quality

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Ordinance. During the 2004-05 reporting period, the Permittees encountered and sought to mitigate discharges involving hydrocarbons (296 incidents), inorganic materials (264 incidents), metals (6 incidents), nutrients (43 incidents), 73 organic materials (73 incidents), discharge exceptions (133 incidents), pathogens (156 incidents), wastewater (624 incidents), pesticides (2 incidents), sediment (680 incidents), trash and debris (376 incidents), and 716 incidents involving miscellaneous types of materials for a total 3,369 incidents.

- Enforce

Enforcement actions are undertaken according to the adopted Water Quality Ordinances and accompanying Enforcement Consistency Guide. The Permittees reported a total of 3,528 enforcement actions, associated with ID/IC investigations during the 2004-05 reporting period.

- Undertake Training

To assist responsible municipal staff in understanding the Illegal Discharges/Illicit Connections Program, 10 training modules have been developed:

- 1) Program Management Training - Introductory
- 2) Program Management Training - Experienced
- 3) Authorized Inspector Training¹
- 4) Authorized Inspector Training - Introductory
- 5) Authorized Inspector - Field Implementation
- 6) Sewage Spill Response Training
- 7) Sewage Spill Response Training - Introductory
- 8) "Hands-On" Sewage Spill Response Training - Experienced
- 9) Fire Department Activities Training
- 10) Investigative Guidance Manual Training

In addition to the training modules, the Inspection Sub-Committee also provided training on various subjects relevant to the ID/IC program. This sub-committee meets bi-monthly to provide training to municipal inspectors and Authorized Inspectors in issues related to spill response, inspection and enforcement. In addition, this meeting serves as a forum for the coordination and discussion of ongoing difficult or new enforcement, investigation, or enforcement issues and to profile cases or incidents.

10.2.2 Model Sewage Spill Response Procedures

During the Third Permit term, the County and OCS D developed and implemented a coordinated sewage spill prevention and response demonstration project (The "Tustin

¹ This module was modified in the 2004-05 reporting period and divided into two modules, 1) Introductory and 2) Field Implementation.

Area Spill Control (TASC) Demonstration Project”). The TASC includes: 1) Development of sanitary sewer overflow (SSO) response procedures; 2) Selection of primary and backup sewage spill response contractors for containment and recovery of SSOs; and 3) SSO hands-on field response training for Permittee staff and municipal sewerage agency staff.

The TASC model program is currently in use in a limited portion of the County, however; one of the goals for TASC is to gradually phase the implementation of the project throughout the County so that the proactive interagency planning and coordination for sewage spill response can be implemented and/or improved in other watersheds

10.3 Assessment

The current and potential Program Effectiveness Assessment Outcome Levels that could be assessed within the current program are summarized in **Table 10-1**.

10.3.1 Illegal Discharges/Illicit Connections Program

Detection: The San Diego Dry Weather Monitoring Program has been conducted over 3 summers. Over this period there have been 585 site visits to 67 locations comprising 3 visits to the random sites and five visits to the targeted sites each season. Investigations, prompted by findings of elevated contaminant concentrations, were triggered on 18 occasions. These results show that approximately 25% of the 67 monitoring sites have exhibited evidence of contamination in dry weather flow at levels significantly above background levels.

The approval of the Santa Ana Monitoring Program (including the Dry Weather Reconnaissance Program) in July of 2005 by the Executive Officer of the Santa Ana Regional Board meant that the dry weather monitoring in the Santa Ana Region commenced in May of 2006. The 2006-07 Unified Report will present the first opportunity to review the effectiveness of this monitoring effort through comparison of the North and South County efforts.

Reporting: RWQCB staff have acknowledged that the Permittees’ field inspectors are trained to detect illegal discharges as part of their daily activities and, indeed, the majority of illegal discharges are detected by Permittee staff. The RWQCB staff also has noted that most Permittees have hotline numbers to receive water pollution complaints and incident information from the public and use database software to document the reported incidents which assists with the tracking of water pollution complaints by source. These RWQCB staff findings point to the overall robustness of the Permittees’ efforts to facilitate reporting.

Headline Indicator - Number of Complaints: The Permittees reported a total of 3,408 complaints/incidents during the 2004-05 reporting period. This total represents an 11% decrease from 2003-04 (3,837 complaints), and a 110% increase from 2002-03 (1,621 complaints) (**Table 10.2; Figure 10.1**).

Level 1: Implement Program

Level 3: Behavior Change

While the year-to-year comparison suggests some inconsistent reporting of this indicator, the overall pattern of a peak in the 2003-4 period (which is reproduced across other metrics) tends to suggest the positive impact of the Program (i.e. that there has been an overall reduction in the number of incidents and thereby a commensurate decline in the number of complaints). The increasing use of the "hotline" appears to indicate increasing awareness regarding this reporting mechanism.

Enforcement: Enforcement actions are undertaken according to the adopted Water Quality Ordinance and accompanying Enforcement Consistency Guide. In instances of noncompliance, the Permittee may adopt one of four types of remedies, including educational letters, administrative remedies, criminal remedies, or other civil or criminal remedies, as appropriate.

Headline Indicator - Number and Level of Enforcement Actions: The Permittees reported a total of 3,528 enforcement actions during the 2004-05 reporting period (**Table 10.3; Figure 10.2**). This represents an 18.9% decrease from the total reported in 2003-04 (4,351 enforcement actions), and an increase of 63% from the total reported 2002-03 (2,167 enforcement actions).

Level 1: Implement Program

Level 3: Behavior Change

The pattern in the number of enforcement arising from ID/IC investigations follows the pattern observed in other metrics of a peak of activity in the 2003-04 reporting period. An increase in the use of citations over the Third Term permit term is one feature of the changing approach to enforcement representing a shift from the prior educational emphasis.

Training: The Permits require that staff be adequately trained. In response, the Permittees developed a number of training modules (as outlined in 10.2.1) that are offered by the County throughout the year. Although the Permittees stated that the training has been helpful, they noted that the modules need to be updated and that new training topics and more advanced training are desired.

ROWD Commitment:

- Prepare a defined expertise and competencies for Authorized Inspector positions and develop a training program to meet these requirements.

10.3.2 Model Sewage Spill Response Procedures

The 2006-07 Unified Report will present the first opportunity to review the effectiveness of initial implementation of the TASC model program. Based on field experience on actual spills, the intent is to expand the geographical implementation of the program, initially with the area coincident with the boundaries of OCSD.

10.4 Summary

The Permittees' program for responding to complaints regarding ID/IC is a long established element of the Program. The major efforts regarding this element over the period of the Third Term Permits relate to the Dry Weather Reconnaissance Program, the continued facilitation of public reporting of complaints, the designation and training of designated Authorized Inspectors, and the development of TASC.

The incidence of complaints appears to have peaked in the 2003-04 reporting period and subsequently declined, which suggest a positive overall Program impact. Based primarily upon the interest of the Permittees and of RWQCB staff, the sole commitment arising out of the effectiveness assessment is for the development of defined experience and competencies for Authorized Inspector positions and development of a training program to meet these requirements.

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Table 10.1: Current Outcome Levels and Suggested Actions or Outcomes to Achieve Potential Outcome Levels

ID/IC Program Component	Effectiveness Assessment Outcome Levels					
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	Implement Program	Increase Awareness	Behavior Change	Load Reduction	Runoff Quality	Receiving Water Quality
Detection of ID/IC	✓ Identify ID/IC	✓ Track number of complaints by source, facility type, or pollutant	✓ Reduced occurrences of ID/IC			
Enforcement	✓ Issue EAs	✓ Track number of Enforcement Actions	✓ Track number and type of Enforcement Actions	^P Discharge is eliminated	^P Change in runoff quality	
Training	✓ Track # and type of training	^P Surveys				
<p><u>Key:</u> ✓ = Currently Achieved Outcome Level ^P = Potentially Achievable Outcome Level</p>						

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Table 10.2: Source of Complaints/Incidents, Comparison of 2002-03, 2003-04, and 2004-05

PERMITTEE	City Staff	City Staff	City Staff	Other	Other	Other	Hotline	Hotline	Hotline	Public	Public	Public	Busin-	Busin-	Busin-	Other	Other	Other	TOTAL	TOTAL	TOTAL
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
Aliso Viejo	21	38	11	2	3	2	6	4	7	2	12	15	4	3	2	0	0	0	35	60	37
Anaheim	34	117	156	3	45	2	0	95	56	19	0		0	26	13	0	0	0	56	283	227
Brea	NA	3	8	NA	1	20	NA	0	10	NA	0	16	NA	0		NA	0		NA	4	54
Buena Park	5	8	24	1	5	3	0	0	0	4	28	35	0	0	1	0	0	0	10	41	63
Costa Mesa	2	21		0	0	14	10	0		286	27	18	70	14		10	90		378	152	32
Cypress	5	18	14	0	2	3	11	0	7	1	10	7	0	3	4	0	0	0	17	33	35
Dana Point	NA	2	24	NA	13	7	NA	2	6	NA	12	33	NA	0	3	NA	6		NA	35	73
Fountain Valley	29	50	47	5	2	2	16	6	11	8	1	2	0	0		0	0		58	59	62
Fullerton	51	43	1	0	0		0	0		26	30	2	0	0		0	0		77	73	3
Garden Grove	26	15	208	2	5	41	4	10	2	19	84	89	3	6	12	0	0		54	120	352
Huntington Bch	108	387	140	9	11	10	9	0	0	323	51	59	9	1	1	0	0	0	458	450	210
Irvine	32	61	49	4	96	79	0	0	0	33	31	64	0	0	0	0	0		69	188	192
La Habra	0	6	32	0	0	1	0	0		21	19		0	0		0	0		21	25	33
La Palma	27	69	53	1	0	0	1	2	0	4	25	13	0	0	1	0	0	0	33	96	67
Laguna Beach	25	25	23	4	13	13	56	66	55	0	0	0	0	0	0	0	0	0	85	104	91
Laguna Hills	7	11	20	0	1	2	0	1	0	7	0	0	1	0	0	0	0	0	15	13	22
Laguna Niguel	NA	18	14	NA	1	6	NA	2	3	NA	10	2	NA	0	1	NA	0	0	NA	31	26
Laguna Woods	12	13	84	6	1	8	0	0	0	22	65	18	0	3	10	0	0	0	40	82	120
Lake Forest	2	27	35	4	6	16	0	3	3	11	16	44	0	2	7	0	0	0	17	54	105
Los Alamitos	0	0	0	1	12		0	3	0	2	0	0	0	0	0	0	0		3	15	0
Mission Viejo	NA	NA	0	NA	NA	0	NA	NA	0	NA	NA	111	NA	NA	0	NA	NA	0	NA	NA	111
Newport Beach	NA	NA	100	NA	NA	5	NA	NA	30	NA	NA	60	NA	NA	10	NA	NA	95	NA	NA	300
Orange	17	76	35	0	6	3	0	0	257	0	59	0	1	9	0	0	0	0	18	150	295
Placentia	9	58	50	0	1	1	0	1	1	5	13	24	0	0	2	0	0	69	14	73	147
R S Margarita	0	4	11	0	1	18	0	5	4	7	3	12	3	0	1	0	0	0	10	13	46
San Clemente	NA	581	NA	NA	6	NA	NA	0	NA	NA	92	NA	NA	0	NA	NA	0	NA	NA	679	NA
S J Capistrano	12	7	8	1	2	1	4	9	10	17	13	26	0	1	1	0	0		34	32	46
Santa Ana	7	6	37	6	7	7	0	0		7	3	6	0	0	2	0	0		20	16	52
Seal Beach	NA	NA	17	NA	NA		NA	NA		NA	NA	14	NA	NA		NA	NA		NA	NA	31
Stanton	NA	0	0	NA	8	0	NA	0		NA	40		NA	2		NA	0		NA	50	0
Tustin	9	19	37	0	0	0	0	0	0	4	8	9	1	0	0	13	0	0	27	27	46
Villa Park	NA	4	5	NA	0	0	NA	0	0	NA	6	10	NA	0	0	NA	0	0	NA	10	15
Westminster	0	26	18	8	8	3	0	19	7	0	65	21	0	33	3	0	0	0	8	151	52
Yorba Linda	6	23	5	1	1	0	0	0	0	23	26	13	0	1	0	0	0	1	30	51	19
County of Orange	12	494	273	1	40	24	4	15	94	17	85	53	0	25	0	0	8	0	34	667	444
TOTALS	458	2,230	1,539	59	297	291	121	243	563	868	834	776	92	129	74	23	104	165	1,621	3,837	3,408

NA = Not Available

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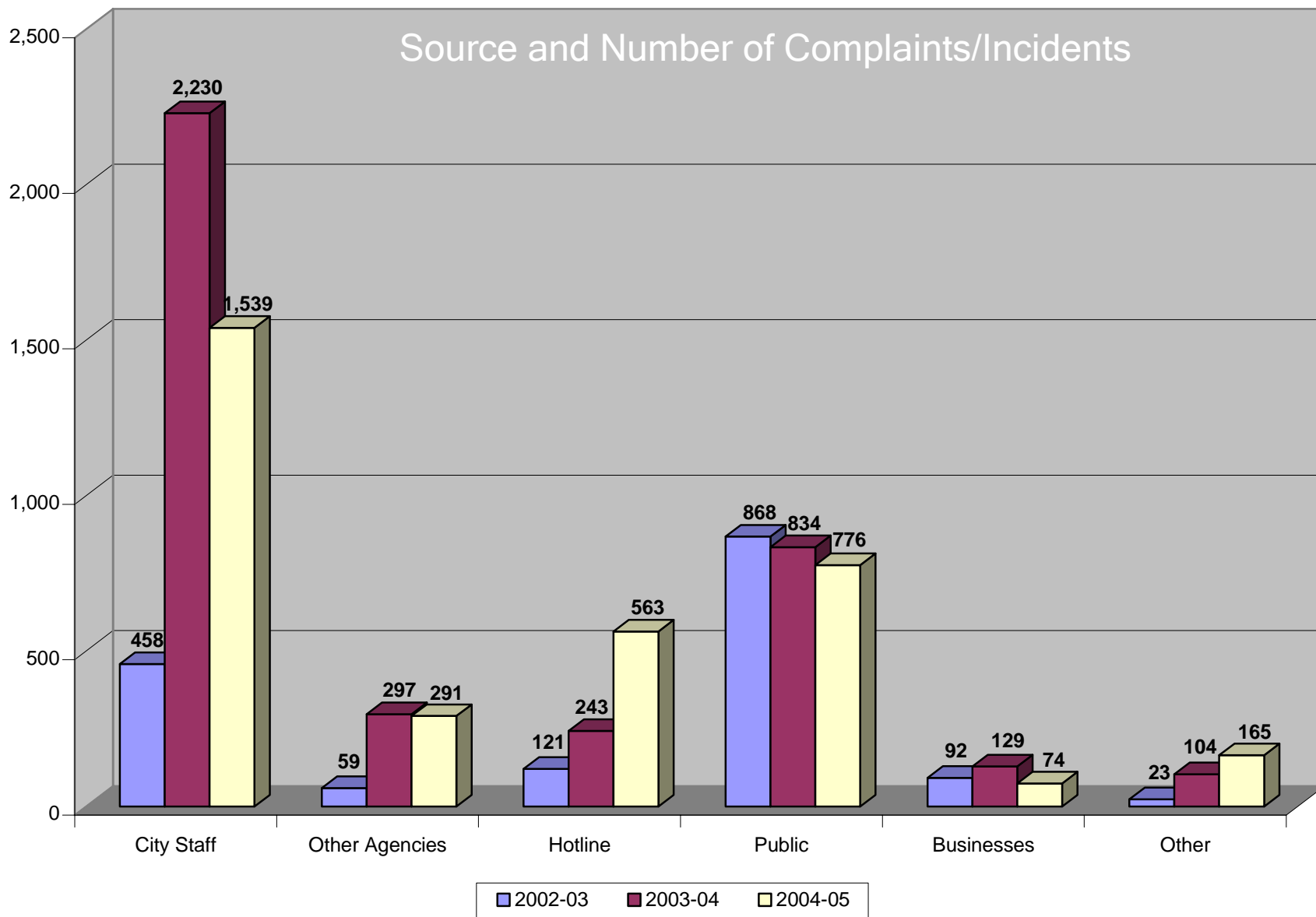
Table 10.3: Permittee Enforcement Actions, Comparison of 2002-03, 2003-04 and 2004-05

Permittee	EL	EL	EL	NON	NON	NON	ACO	ACO	ACO	CDO	CDO	CDO	Mis	Mis	Mis	Inf	Inf	Inf	IOC	IOC	IOC	Other	Other	Other	TOTAL	TOTAL	TOTAL
	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05
Aliso Viejo	0	3	7	27	4	19	0	0	1	0	17	2	0	0	0	0	0	0	4	38	79	3	0	0	34	62	108
Anaheim	0	1	13	20	39	34	11	39	28	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	35	79	75
Brea	0	11	6	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	13	8
Buena Park	8	5	2	0	10	21	0	16	47	0	0	20	0	0	0	0	0	0	0	0	6	0	0	0	8	31	96
Costa Mesa	22	9	7	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14	2	0	0	0	24	26	9
Cypress	5	10	3	10	21	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	7	17	31	35
Dana Point	NA	14	24	NA	19	12	NA	0	9	NA	0	1	NA	0	0	NA	0	0	NA	0	1	NA	0	18	NA	33	65
Fountain Valley	12	391	71	4	8	6	21	12	15	6	6	9	0	0	0	0	0	0	0	0	0	40	0	50	83	417	151
Fullerton	0	0	NA	23	59	NA	5	0	NA	0	0	NA	0	0	NA	0	14	NA	26	0	NA	0	0	NA	54	73	NA
Garden Grove	21	19	75	2	11	39	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	23	32	115
Huntington Bch	60	61	96	54	47	127	5	5	0	1	0	0	0	0	0	0	0	0	0	0	30	0	0	2	120	113	255
Irvine	32	14	0	0	88	0	24	33	0	0	0	0	0	0	0	0	0	0	0	0	0	14	5	0	70	140	0
La Habra	0	0	0	0	1	15	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	50	19	32	50	20	51
La Palma	18	41	31	8	24	15	0	2	4	0	0	1	0	2	0	0	0	0	0	0	2	0	0	14	26	69	67
Laguna Beach	0	5	2	71	62		52	83	0	0	0	0	1	0	0	0	57	0	0	37	0	60	0	114	184	244	116
Laguna Hills	8	6	16	5	11	20	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	16	18	36
Laguna Niguel	NA	8	10	NA	1	4	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	9	14
Laguna Woods	27	30	15	11	13	18	1	1	0	0	1	0	0	0	0	0	0	0	0	6	2	1	0	0	40	51	35
Lake Forest	90	2	2	3	23	42	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	93	25	45
Los Alamitos	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Mission Viejo	134	15	5	58	139	31	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	0	193	154	39
Newport Beach	6	8	20	250	618	209	200	315	0	0	0	0	0	0	0	0	0	0	0	0	166	300	550	1100	756	1491	1495
Orange	0	75	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	2
Placentia	8	20	7	0	11	19	3	3	0	3	1	0	0	0	1	0	0	0	0	0	0	0	31	41	14	66	68
R S Margarita	10	7	48	0	0	13	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	10	8	66
San Clemente	72	430	175	37	160	98	0	10	0	1	9	11	0	0	0	0	0	0	2	0	45	8	10	2	120	619	331
S J Capistrano	24	6	0	9	2	0	0	7	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	34	16	0
Santa Ana	1	4	1	2	9	18	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	14	2	0	19	16	20
Seal Beach	4	35	0	21	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	3	6	0	28	82	31
Stanton	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0
Tustin	0	169	38	16	27	21	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	0	27	201	60
Villa Park	15	0	3	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	15	10	15
Westminster	13	55	35	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	52	15	55	92
Yorba Linda	1	2	0	21	34	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	22	41	9
County of Orange	5	4	3	20	12	12	2	9	4	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	30	27	19
TOTALS	600	1,460	715	675	1,502	845	327	544	110	16	36	49	4	3	1	0	71	1	34	96	368	511	639	1,439	2,167	4,351	3,528

NA = Not Available EL = Educational Letter ACO = Administrative Compliance Order Mis = Misdemeanor IOC = Issuance of Citation
 NON = Notice of Non-Compliance CDO = Cease and Desist Order Inf = Infraction

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Figure 10.1: Source of Complaints/Incidents, Comparison of 2002-03, 2003-04, and 2004-05



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Figure 10.2: Permittee Enforcement Actions, Comparison of 2002-03, 2003-04 and 2004-05

