

Appendix A

**Air Quality URBEMIS2007 Model Outputs and
Greenhouse Gas Emissions Calculations**

CONSERVATIVE ESTIMATE OF UNMITIGATED CONSTRUCTION EMISSIONS (pounds per day)

	ROC	NO _x	CO	SO _x	PM ₁₀ ^a	PM _{2.5} ^a	CO ₂
Demolition Emissions							
On-site Total	2.63	22.36	10.47	-	3.10	1.36	2,349.68
Fugitive Dust	-	-	-	-	2.10	0.44	-
Off-Road Diesel	2.63	22.36	10.47	-	1.00	0.92	2,349.68
Off-site Total	0.17	1.99	1.48	-	0.10	0.08	387.61
On-Road Diesel	0.15	1.95	0.75	-	0.09	0.08	294.33
Worker Trips	0.02	0.04	0.73	-	0.01	-	93.28
Grand Total	2.80	24.35	11.95	-	3.20	1.44	2,737.29
Site Grading Emissions							
On-site Total	3.08	26.09	12.53	-	7.73	2.50	2,671.12
Fugitive Dust	-	-	-	-	6.48	1.35	-
Off-Road Diesel	3.08	26.09	12.53	-	1.25	1.15	2,671.12
Off-site Total	0.32	3.68	2.61	0.01	0.17	0.15	701.15
On-Road Diesel	0.28	3.61	1.39	0.01	0.16	0.14	545.69
Worker Trip	0.04	0.07	1.22	-	0.01	0.01	155.46
Grand Total	3.40	29.77	15.14	0.01	7.90	2.65	3,372.27
Construction							
On-site Total	3.15	20.98	10.44	-	1.17	1.08	2,370.43
Off-Road Diesel, Bldg Cnst	3.15	20.98	10.44	-	1.17	1.08	2,370.43
Off-site Total	0.13	0.62	3.25	-	0.05	0.03	460.79
Worker Trips, Bldg Cnst	0.09	0.17	2.87	-	0.03	0.01	366.46
Vendor Trips, Bldg Cnst	0.04	0.45	0.38	-	0.02	0.02	94.33
Grand Total	3.28	21.60	13.69	-	1.22	1.11	2,831.22
Concrete							
On-site Total	1.01	6.71	4.27	-	0.53	0.49	659.97
Off-Road Diesel, Concrete	1.01	6.71	4.27	-	0.53	0.49	659.97
Off-site Total	0.13	0.62	3.25	-	0.05	0.03	460.79
On-Road Diesel, Concrete	0.04	0.45	0.38	-	0.02	0.02	94.33
Worker Trips, Concrete	0.09	0.17	2.87	-	0.03	0.01	366.46
Grand Total	1.14	7.33	7.52	-	0.58	0.52	1,120.76
Architectural Finishing							
On-site Total	44.83	-	-	-	-	-	-
Arch Coatings Off-Gas	44.83	-	-	-	-	-	-
Off-site Total	0.01	0.03	0.47	-	-	-	65.06
Worker Trips, Arch Coatings	0.01	0.03	0.47	-	-	-	65.06
Grand Total	44.84	0.03	0.47	-	-	-	65.06
On-site Emissions Totals							
Demolition	2.6	22.4	10.5	-	3.1	1.4	2,349.7
Site Grading	3.1	26.1	12.5	-	7.7	2.5	2,671.1
Construction	3.2	21.0	10.4	-	1.2	1.1	2,370.4
Concrete	1.0	6.7	4.3	-	0.5	0.5	660.0
Architectural Finishing	44.8	-	-	-	-	-	-
Maximum On-site Emissions	45	26	13	-	8	3	2,671
Localized Significance Threshold ^b	--	108	1,090	--	27	9	--
Exceed Threshold?	No	No	No	No	No	No	No
Regional Emissions Totals							
Demolition	2.8	24.4	12.0	-	3.2	1.4	2,737.3
Site Grading	3.4	29.8	15.1	0.0	7.9	2.7	3,372.3
Construction	3.3	21.6	13.7	-	1.2	1.1	2,831.2
Concrete	1.1	7.3	7.5	-	0.6	0.5	1,120.8
Architectural Finishing	44.8	0.0	0.5	-	-	-	65.1
Maximum Regional Emissions	45	30	15	0	8	3	3,372
Regional Significance Threshold	75	100	550	150	150	55	--
Exceed Threshold?	No	No	No	No	No	No	No

Notes:

URBEMIS print-out sheets and fugitive PM calculation worksheet are attached.

^a Fugitive PM₁₀ and PM_{2.5} emissions estimates take into account compliance with SCAQMD Rule 403 requirements for fugitive dust suppression, which require that no visible dust be present beyond the site boundaries.

^b The project site is located in SCAQMD SRA No. 20. These LSTs are based on the site location SRA, distance to nearest sensitive receptor location from the project site (100 meters), and project area that could be under construction on any given day (one acre).

Regional Emission Calculations (lbs/day)

	ROC	NOx	CO	SOx	PM10	PM2.5
Existing Condition						
Mobile	9.5	14.4	127.6	0.2	25.5	5.0
Area	0.4	0.2	3.2	0.0	0.0	0.0
Stationary	0.0	1.1	0.2	0.1	0.0	0.0
Total Existing	9.9	15.6	131.0	0.2	25.6	5.0
Project Condition						
Mobile	6.7	9.7	87.3	0.1	17.3	3.4
Area	0.5	0.4	3.4	0.0	0.0	0.0
Stationary	0.0	2.2	0.4	0.2	0.1	0.1
Total Project	7.3	12.3	91.0	0.3	17.4	3.4
Net Project Emissions						
Net Mobile	-2.8	-4.6	-40.3	0.0	-8.2	-1.6
Net Area	0.2	0.2	0.1	0.0	0.0	0.0
Net Stationary	0.0	1.1	0.2	0.1	0.0	0.0
Total Net	-2.7	-3.3	-40.0	0.1	-8.2	-1.6
SCAQMD Significance Threshold	55	55	550	150	150	55
Difference	(58)	(58)	(590)	(150)	(158)	(57)
Significant?	No	No	No	No	No	No

Electricity Usage

Land Use	Electricity				Emission Factors (lbs/MWh) ^b				
	1,000 Sqft	Usage Rate ^a (kWh/sq.ft/yr)	Total Electricity Usage (KWh/year)	Total Electricity Usage (MWh/Day)	CO <u>0.2</u>	ROC <u>0.01</u>	NOx <u>1.15</u>	PM10 <u>0.04</u>	SOx <u>0.12</u>
Existing									
Office	10.8	12.95	139,860	0.383	0.077	0.004	0.441	0.015	0.046
Retail	10.2	13.55	138,210	0.379	0.076	0.004	0.435	0.015	0.045
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.30	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.90	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.70	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
Total Existing			278,070	0.762	0.15	0.01	0.88	0.03	0.09
Project									
Office	42.0	12.95	544,418	1.492	0.298	0.015	1.715	0.060	0.179
Retail	4.0	13.55	54,241	0.149	0.030	0.001	0.171	0.006	0.018
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.3	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.9	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.7	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000	0.000
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
Total Project			598,659	1.640	0.33	0.02	1.89	0.07	0.20
Net Emissions From Electricity Usage					0.18	0.01	1.01	0.04	0.11

Summary of Stationary Emissions

	CO	ROC	NOx	PM10	SOx
Total Existing Emissions (lbs/day)	0.19	0.02	1.08	0.03	0.09
Total Project Emissions (lbs/day)	0.38	0.03	2.22	0.07	0.20
Total Net Emissions (lbs/day)	0.20	0.01	1.14	0.04	0.11

^a Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

^b Emission Factors from Table A9-11-B, CEQA Air Quality Handbook, SCAQMD, 1993.

^c Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

^d Emission Factors from Table A9-12-B, CEQA Air Quality Handbook, SCAQMD, 1993.

^e The emission factors for NOx in lbs per million cuft of natural gas are 120 for nonresidential uses and 80 for residential uses.

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: G:\Los Angeles\3_Projects_Air Quality\City of Newport Beach\WPI\Analysis\Existing.urb924

Project Name: WPI Existing

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.06	0.04	0.58	0.00	0.00	0.00	31.69

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1.82	2.80	22.97	0.02	4.65	0.90	2,681.01

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1.88	2.84	23.55	0.02	4.65	0.90	2,712.70

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.00	0.03	0.02	0.00	0.00	0.00	30.66
Hearth							
Landscape	0.04	0.01	0.56	0.00	0.00	0.00	1.03
Consumer Products	0.00						
Architectural Coatings	0.02						
TOTALS (tons/year, unmitigated)	0.06	0.04	0.58	0.00	0.00	0.00	31.69

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Bank (with drive-through)	1.66	2.57	21.06	0.02	4.27	0.83	2,460.46
General office building	0.16	0.23	1.91	0.00	0.38	0.07	220.55
TOTALS (tons/year, unmitigated)	1.82	2.80	22.97	0.02	4.65	0.90	2,681.01

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Bank (with drive-through)		148.15	1000 sq ft	10.20	1,511.13	13,559.37
General office building		11.01	1000 sq ft	10.80	118.91	1,210.19
					1,630.04	14,769.56

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.5	0.6	99.2	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	60.7	39.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Bank (with drive-through)				2.0	1.0	97.0
General office building				35.0	17.5	47.5

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: G:\Los Angeles\3_Projects_Air Quality\City of Newport Beach\WPI\Analysis\Existing.urb924

Project Name: WPI Existing

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.38	0.18	3.21	0.00	0.01	0.01	173.62

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	9.52	14.35	127.56	0.15	25.51	4.96	15,171.45

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	9.90	14.53	130.77	0.15	25.52	4.97	15,345.07

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.01	0.14	0.12	0.00	0.00	0.00	168.00
Hearth							
Landscape	0.25	0.04	3.09	0.00	0.01	0.01	5.62
Consumer Products	0.00						
Architectural Coatings	0.12						
TOTALS (lbs/day, unmitigated)	0.38	0.18	3.21	0.00	0.01	0.01	173.62

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Bank (with drive-through)	8.68	13.18	116.92	0.14	23.42	4.55	13,923.55
General office building	0.84	1.17	10.64	0.01	2.09	0.41	1,247.90
TOTALS (lbs/day, unmitigated)	9.52	14.35	127.56	0.15	25.51	4.96	15,171.45

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Temperature (F): 80 Season: Summer

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Bank (with drive-through)		148.15	1000 sq ft	10.20	1,511.13	13,559.37
General office building		11.01	1000 sq ft	10.80	118.91	1,210.19
					1,630.04	14,769.56

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.5	0.6	99.2	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	60.7	39.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Bank (with drive-through)				2.0	1.0	97.0
General office building				35.0	17.5	47.5

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Combined Annual Emissions Reports (Tons/Year)

File Name: G:\Los Angeles\3_Projects_Air Quality\City of Newport Beach\WPI\Analysis\WPI.urb924

Project Name: WPI

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (tons/year unmitigated)	0.40	2.75	1.69	0.00	0.11	0.15	0.26	0.02	0.14	0.16	351.29
2012 TOTALS (tons/year unmitigated)	0.51	0.11	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01	19.21

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.09	0.07	0.61	0.00	0.00	0.00	68.25

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1.27	1.90	15.69	0.02	3.17	0.62	1,823.40

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1.36	1.97	16.30	0.02	3.17	0.62	1,891.65

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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2012	0.51	0.11	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01	19.21
Building 12/15/2011-02/15/2012	0.02	0.11	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	18.49
Building Off Road Diesel	0.02	0.10	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	10.89
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56
Building Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.05
Coating 02/16/2012-03/16/2012	0.49	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72
Architectural Coating	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72

Phase Assumptions

Phase: Demolition 1/17/2011 - 1/28/2011 - Demolition

Building Volume Total (cubic feet): 0

Building Volume Daily (cubic feet): 5000

On Road Truck Travel (VMT): 69.44

Off-Road Equipment:

- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Mass Grading 1/31/2011 - 3/11/2011 - Grading

Total Acres Disturbed: 2.11

Maximum Daily Acreage Disturbed: 0.53

Fugitive Dust Level of Detail: Default

12.22 lbs per acre-day

On Road Truck Travel (VMT): 128.75

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Off Highway Tractors (267 hp) operating at a 0.65 load factor for 6 hours per day

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- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 4 hours per day

Phase: Building Construction 3/14/2011 - 12/14/2011 - Construction

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 1 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 6 hours per day
- 1 Pumps (53 hp) operating at a 0.74 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Building Construction 12/15/2011 - 2/15/2012 - Concrete

Off-Road Equipment:

- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Pumps (53 hp) operating at a 0.74 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Architectural Coating 2/16/2012 - 3/16/2012 - Architectural Coating

- Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
- Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
- Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
- Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
- Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.00	0.06	0.05	0.00	0.00	0.00	67.22
Hearth							
Landscape	0.04	0.01	0.56	0.00	0.00	0.00	1.03
Consumer Products	0.00						
Architectural Coatings	0.05						
TOTALS (tons/year, unmitigated)	0.09	0.07	0.61	0.00	0.00	0.00	68.25

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Bank (with drive-through)	0.65	1.01	8.26	0.01	1.68	0.33	964.89
General office building	0.62	0.89	7.43	0.01	1.49	0.29	858.51
TOTALS (tons/year, unmitigated)	1.27	1.90	15.69	0.02	3.17	0.62	1,823.40

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Bank (with drive-through)		148.15	1000 sq ft	4.00	592.60	5,317.40
General office building		11.01	1000 sq ft	42.04	462.86	4,710.76
					1,055.46	10,028.16

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.5	0.6	99.2	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	60.7	39.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Bank (with drive-through)				2.0	1.0	97.0
General office building				35.0	17.5	47.5

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: G:\Los Angeles\3_Projects_Air Quality\City of Newport Beach\WPI\Analysis\WPI.urb924

Project Name: WPI

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (lbs/day unmitigated)	3.40	29.77	15.14	0.01	6.50	1.40	7.90	1.36	1.29	2.65	3,372.28
2012 TOTALS (lbs/day unmitigated)	44.84	6.78	7.27	0.00	0.02	0.51	0.53	0.01	0.47	0.47	1,120.69

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.54	0.35	3.35	0.00	0.01	0.01	373.94

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	6.68	9.71	87.25	0.11	17.32	3.36	10,317.79

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	7.22	10.06	90.60	0.11	17.33	3.37	10,691.73

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 1/17/2011-1/28/2011	2.80	24.35	11.95	0.00	2.11	1.08	3.19	0.44	0.99	1.43	2,737.29
Active Days: 10											
Demolition 01/17/2011-01/28/2011	2.80	24.35	11.95	0.00	2.11	1.08	3.19	0.44	0.99	1.43	2,737.29
Fugitive Dust	0.00	0.00	0.00	0.00	2.10	0.00	2.10	0.44	0.00	0.44	0.00
Demo Off Road Diesel	2.63	22.36	10.47	0.00	0.00	1.00	1.00	0.00	0.92	0.92	2,349.68
Demo On Road Diesel	0.15	1.95	0.75	0.00	0.01	0.08	0.09	0.00	0.07	0.08	294.33
Demo Worker Trips	0.02	0.04	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.28
Time Slice 1/31/2011-3/11/2011	<u>3.40</u>	<u>29.77</u>	<u>15.14</u>	<u>0.01</u>	<u>6.50</u>	<u>1.40</u>	<u>7.90</u>	<u>1.36</u>	<u>1.29</u>	<u>2.65</u>	<u>3,372.28</u>
Active Days: 30											
Mass Grading 01/31/2011-03/11/2011	3.40	29.77	15.14	0.01	6.50	1.40	7.90	1.36	1.29	2.65	3,372.28
Mass Grading Dust	0.00	0.00	0.00	0.00	6.48	0.00	6.48	1.35	0.00	1.35	0.00
Mass Grading Off Road Diesel	3.08	26.09	12.53	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,671.12
Mass Grading On Road Diesel	0.28	3.61	1.39	0.01	0.02	0.14	0.16	0.01	0.13	0.14	545.69
Mass Grading Worker Trips	0.04	0.07	1.22	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.46
Time Slice 3/14/2011-12/14/2011	3.27	21.60	13.70	0.00	0.02	1.20	1.22	0.01	1.11	1.11	2,831.21
Active Days: 198											
Building 03/14/2011-12/14/2011	3.27	21.60	13.70	0.00	0.02	1.20	1.22	0.01	1.11	1.11	2,831.21
Building Off Road Diesel	3.15	20.98	10.44	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,370.43
Building Vendor Trips	0.04	0.45	0.38	0.00	0.00	0.02	0.02	0.00	0.02	0.02	94.33
Building Worker Trips	0.09	0.17	2.87	0.00	0.02	0.01	0.03	0.01	0.01	0.01	366.46
Time Slice 12/15/2011-12/30/2011	1.14	7.32	7.53	0.00	0.02	0.56	0.58	0.01	0.51	0.52	1,120.75
Active Days: 12											
Building 12/15/2011-02/15/2012	1.14	7.32	7.53	0.00	0.02	0.56	0.58	0.01	0.51	0.52	1,120.75
Building Off Road Diesel	1.01	6.71	4.27	0.00	0.00	0.53	0.53	0.00	0.49	0.49	659.97
Building Vendor Trips	0.04	0.45	0.38	0.00	0.00	0.02	0.02	0.00	0.02	0.02	94.33
Building Worker Trips	0.09	0.17	2.87	0.00	0.02	0.01	0.03	0.01	0.01	0.01	366.46

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Time Slice 1/2/2012-2/15/2012	1.04	<u>6.78</u>	<u>7.27</u>	<u>0.00</u>	<u>0.02</u>	<u>0.51</u>	<u>0.53</u>	<u>0.01</u>	<u>0.47</u>	<u>0.47</u>	<u>1,120.69</u>
Active Days: 33											
Building 12/15/2011-02/15/2012	1.04	6.78	7.27	0.00	0.02	0.51	0.53	0.01	0.47	0.47	1,120.69
Building Off Road Diesel	0.92	6.23	4.24	0.00	0.00	0.48	0.48	0.00	0.44	0.44	659.97
Building Vendor Trips	0.04	0.40	0.35	0.00	0.00	0.02	0.02	0.00	0.02	0.02	94.33
Building Worker Trips	0.08	0.15	2.67	0.00	0.02	0.01	0.03	0.01	0.01	0.01	366.39
Time Slice 2/16/2012-3/16/2012	<u>44.84</u>	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.06
Active Days: 22											
Coating 02/16/2012-03/16/2012	44.84	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.06
Architectural Coating	44.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.06

Phase Assumptions

Phase: Demolition 1/17/2011 - 1/28/2011 - Demolition
 Building Volume Total (cubic feet): 0
 Building Volume Daily (cubic feet): 5000
 On Road Truck Travel (VMT): 69.44
 Off-Road Equipment:
 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 6 hours per day
 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Mass Grading 1/31/2011 - 3/11/2011 - Grading
 Total Acres Disturbed: 2.11
 Maximum Daily Acreage Disturbed: 0.53
 Fugitive Dust Level of Detail: Default
 12.22 lbs per acre-day
 On Road Truck Travel (VMT): 128.75
 Off-Road Equipment:

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- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Off Highway Tractors (267 hp) operating at a 0.65 load factor for 6 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 4 hours per day

Phase: Building Construction 3/14/2011 - 12/14/2011 - Construction

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 1 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 6 hours per day
- 1 Pumps (53 hp) operating at a 0.74 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Building Construction 12/15/2011 - 2/15/2012 - Concrete

Off-Road Equipment:

- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Pumps (53 hp) operating at a 0.74 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Architectural Coating 2/16/2012 - 3/16/2012 - Architectural Coating

- Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
- Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
- Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
- Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
- Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.02	0.31	0.26	0.00	0.00	0.00	368.32
Hearth							
Landscape	0.25	0.04	3.09	0.00	0.01	0.01	5.62
Consumer Products	0.00						
Architectural Coatings	0.27						
TOTALS (lbs/day, unmitigated)	0.54	0.35	3.35	0.00	0.01	0.01	373.94

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Bank (with drive-through)	3.40	5.17	45.85	0.06	9.18	1.78	5,460.22
General office building	3.28	4.54	41.40	0.05	8.14	1.58	4,857.57
TOTALS (lbs/day, unmitigated)	6.68	9.71	87.25	0.11	17.32	3.36	10,317.79

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Temperature (F): 80 Season: Summer

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Bank (with drive-through)		148.15	1000 sq ft	4.00	592.60	5,317.40
General office building		11.01	1000 sq ft	42.04	462.86	4,710.76
					1,055.46	10,028.16

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.5	0.6	99.2	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	60.7	39.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Bank (with drive-through)				2.0	1.0	97.0
General office building				35.0	17.5	47.5

Table 6. Total estimated GHG emissions from construction

Year of Construction	Input Emissions					
	Off Road Emissions			On road Emissions		
	CO2 (metric tons/yr)	CH4 (metric tons/yr)	N2O (metric tons/yr)	CO2 (metric tons/yr)	Other (metric tons/yr)	CO2e (metric tons/yr)
2010	-	-	-	-	-	-
2011	263.5	0.0	0.0	55.2	2.9	324.0
2012	9.9	0.0	0.0	7.6	0.4	17.9
2013	-	-	-	-	-	-
2014	-	-	-	-	-	-
2015	-	-	-	-	-	-
2016	-	-	-	-	-	-
2017	-	-	-	-	-	-
2018	-	-	-	-	-	-
2019	-	-	-	-	-	-
2020	-	-	-	-	-	-
2021	-	-	-	-	-	-
2022	-	-	-	-	-	-
2023	-	-	-	-	-	-
2024	-	-	-	-	-	-
2025	-	-	-	-	-	-
2026	-	-	-	-	-	-
2027	-	-	-	-	-	-
2028	-	-	-	-	-	-
2029	-	-	-	-	-	-
2030	-	-	-	-	-	-
Total Construction Emissions	273.4	0.0	0.0	62.8	3.3	341.9

Sources: URBEMIS 2007; CCAR 2008.

8.5

Diesel Fuel	CO2	CH4	N2O
kg CO2/gal diesel	10.15	0.00058	0.00026
g/gal diesel construction equip		0.58	0.26
ratio	1	5.71429E-05	2.56158E-05

Source: CH4 and N2O from Construction

tons/metric ton	Percent other	GAS	CH4	N2O
0.90718474	5.00%	GWP	21	310

CH4 and N2O from Construction

Author: Brian Schuster

Date: August 11, 2008

Methodology:

Calculated ratio of CO2 emissions per gallon diesel fuel to CH4 and N2O to determine CH4 and N2O emissions from construction equipment

Used CCAR May 2008 Efs

Sources:

CCAR General Reporting Protocol May 2008 (pg. 93, 96)

CCAR General Reporting Protocol May 2008 (pg. 93, 96)

Assumptions:

Diesel Fuel	CO2	CH4	N2O		
kg CO2/gal diesel	10.15	0.00058	0.00026		
g/gal diesel construction equip		0.58	0.26		
ratio	1	5.71E-05	2.56158E-05	0.00006	0.00003

Gasoline	CO2	CH4	N2O		
kg CO2/gal gasoline	8.81				
g/mi passenger (2005)		0.0147	0.0079		
g/mi light truck (2005)		0.0157	0.0101		
ratio	1	0	0		

Greenhouse Gas Emissions

(Metric Tons per Year)

Project Condition	Year 2020 Business as Usual	AB32 Scoping Plan Reductions	Non-mitigated Year 2020 Emissions	Percent Reductions from BAU
Mobile-source	1,842	(548)	1,294	29.8%
Natural Gas Combustion	22	(2)	20	9.0%
Electricity Demand Related	275	(91)	184	33.0%
Water Consumption Related	1	(0)	1	33.0%
Total Project	2,139.40	(641.27)	1,498.14	30.0%

2020 GHG Emissions Percent Below Business as Usual	30.0%
AB 32 Percentage Below Business as Usual Target Percentage	28.5%
Meet/Exceed AB 32 GHG Reduction Target?	Yes

Summary of AB32 Scoping Plan Reductions

Mobile-Source

Pavley Emissions Standards	19.8%
Low Carbon Fuel Standard	7.2%
Vehicle Efficiency Measures	2.8%

Natural Gas

Transmission and Distribution Emission Reductions	7.4%
Extraction Emission Reductions	1.6%

Electricity/Water Pumping

Renewables Portfolio Standard	33.0%
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AB 32 Reduction Target Calculation

2020 California CO ₂ e Emissions Inventory BAU Forecast (MMT)	596.40
1990 California CO ₂ e Emissions Inventory (MMT)	426.60
AB 32 Reduction Target (MMT)	<u>169.8</u>
Required Reduction from Year 2020 BAU Emissions	28.5%

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate ^a (kWh/sq.ft/yr)	Total Electricity Usage		Emission Factors (lbs/MWh) ^b			
			(KWh/year)	(MWh/day)	CO ₂	CH ₄	N ₂ O	CO ₂ e
					804.54	0.0067	0.0037	21/310^c
Emissions from Electricity (lbs/day)								
Existing								
Office	10.8	12.95	139,860.00	0.38	308.28	0.00	0.00	308.66
Retail	10.2	13.55	138,210.00	0.38	304.65	0.00	0.00	305.02
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	0.0	47.45	-	-	-	-	-	-
Food Store	0.0	53.30	-	-	-	-	-	-
Warehouse	0.0	4.35	-	-	-	-	-	-
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.50	-	-	-	-	-	-
Elementary School	0.0	5.90	-	-	-	-	-	-
Hospital	0.0	21.70	-	-	-	-	-	-
Miscellaneous	0.0	10.50	-	-	-	-	-	-
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Existing			278,070.00	0.76	612.93	0.01	0.00	613.67
Project								
Office	42.0	12.95	544,418.00	1.49	1,200.02	0.01	0.01	1,202.09
Retail	4.0	13.55	54,240.65	0.15	119.56	0.00	0.00	119.89
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	0.0	47.45	-	-	-	-	-	-
Food Store	0.0	53.30	-	-	-	-	-	-
Warehouse	0.0	4.35	-	-	-	-	-	-
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.50	-	-	-	-	-	-
Elementary School	0.0	5.90	-	-	-	-	-	-
Hospital	0.0	21.70	-	-	-	-	-	-
Miscellaneous	0.0	10.50	-	-	-	-	-	-
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Project			598,658.65	1.64	1,319.58	0.01	0.01	1,321.98
Net Emissions From Electricity Usage					706.65	0.01	0.01	708.30

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate ^d (cu.ft/sq.ft/mo)	Total Natural Gas Usage		Emission Factors (kg/MMBtu) ^e			
			(cu.ft/mo)	(Btu/day) ^f	CO ₂	CH ₄	N ₂ O	CO ₂ e
					53.05	0.0059	0.0001	21/310^c
Emissions from Natural Gas (lbs/day)								
Existing								
Office	10.8	2.0	21,600.00	738,720.00	86.40	0.01	0.00	86.65
Retail	10.2	2.9	29,580.00	1,011,636.00	118.32	0.01	0.00	118.66
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	0.0	2.0	-	-	-	-	-	-
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	0.0	2.9	-	-	-	-	-	-
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Existing			51,180.00	1,750,356.00	204.71	0.02	0.00	205.31
Project								
Office	42.0	2.0	84,080.00	2,875,536.00	336.31	0.04	0.00	337.29
Retail	4.0	2.9	-	-	-	-	-	-
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	0.0	2.0	-	-	-	-	-	-
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	0.0	2.9	-	-	-	-	-	-
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Project			84,080.00	2,875,536.00	336.31	0.04	0.00	337.29
Net Emissions From Natural Gas Usage					131.60	0.01	0.00	131.98

Summary of Stationary Emissions

	CO ₂	CH ₄	N ₂ O	CO ₂ e
Total Existing Emissions (lbs/day)	817.64	0.03	0.00	818.98
Total Project Emissions (lbs/day)	1,655.88	0.05	0.01	1,659.27
Total Net Emissions (lbs/day)	838.24	0.02	0.01	840.28

^a Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

^b Emission Factors from Table C.1 and Table C.2, General Reporting Protocol, California Climate Action Registry, March 2007.

^c Global Warming Potential is 21 for CH₄ and 310 for N₂O, General Reporting Protocol, California Climate Action Registry, March 2007.

^d Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

^e Emission Factors from Table C.5 and Table C.6, General Reporting Protocol, California Climate Action Registry, March 2007.

^f 1 Cubic Foot of natural gas = 1,026 Btu. Energy Information Administration. Available http://www.eia.doe.gov/basics/conversion_basics.html

Mobile Sources

Vehicle Type	Percent Type	VMT by Type	Emission Factors ^a		CH ₄	N ₂ O	CO ₂ e 21/310 ^b
	100	14769.56	CH ₄	N ₂ O			
Existing							
Emissions from Mobile Sources (lbs/day)							
Light Auto	51.6	7,621.09	0.06	0.08	1.01	1.34	437.85
Light Truck < 3750 lbs	7.3	1,078.18	0.11	0.14	0.26	0.33	108.65
Light Truck 3751-5750 lbs	23.0	3,397.00	0.11	0.14	0.82	1.05	342.33
Med Truck 5751-8500 lbs	10.6	1,565.57	0.12	0.20	0.41	0.69	222.69
Lite-Heavy Truck 8501-10,000 lbs	1.6	236.31	0.12	0.20	0.06	0.10	33.61
Lite-Heavy Truck 10,001-14,000 lbs	0.5	73.85	0.12	0.20	0.02	0.03	10.50
Med-Heavy Truck 14,001-33,000 lbs	0.9	132.93	0.08	0.05	0.02	0.01	5.03
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	73.85	0.08	0.05	0.01	0.01	2.80
Other Bus	0.1	14.77	0.08	0.05	0.00	0.00	0.56
Urban Bus	0.1	14.77	0.08	0.05	0.00	0.00	0.56
Motorcycle	2.8	413.55	0.42	0.01	0.38	0.01	10.87
School Bus	0.1	14.77	0.08	0.05	0.00	0.00	0.56
Motor Home	0.9	132.93	0.11	0.14	0.03	0.04	13.40
Total Existing			1.57	1.36	3.05	3.63	1,189.41
Vehicle Type	Percent Type	VMT by Type	Emission Factors ^a		CH ₄	N ₂ O	CO ₂ e 21/310 ^b
	100	10028.16	CH ₄	N ₂ O			
Project							
Light Auto	51.6	5,174.53	0.06	0.08	0.68	0.91	297.29
Light Truck < 3750 lbs	7.3	732.06	0.11	0.14	0.18	0.23	73.77
Light Truck 3751-5750 lbs	23.0	2,306.48	0.11	0.14	0.56	0.71	232.43
Med Truck 5751-8500 lbs	10.6	1,062.98	0.12	0.20	0.28	0.47	151.20
Lite-Heavy Truck 8501-10,000 lbs	1.6	160.45	0.12	0.20	0.04	0.07	22.82
Lite-Heavy Truck 10,001-14,000 lbs	0.5	50.14	0.12	0.20	0.01	0.02	7.13
Med-Heavy Truck 14,001-33,000 lbs	0.9	90.25	0.08	0.05	0.02	0.01	3.42
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	50.14	0.08	0.05	0.01	0.01	1.90
Other Bus	0.1	10.03	0.08	0.05	0.00	0.00	0.38
Urban Bus	0.1	10.03	0.08	0.05	0.00	0.00	0.38
Motorcycle	2.8	280.79	0.42	0.01	0.26	0.01	7.38
School Bus	0.1	10.03	0.08	0.05	0.00	0.00	0.38
Motor Home	0.9	90.25	0.11	0.14	0.02	0.03	9.10
Total Project			1.57	1.36	2.07	2.46	807.58
Net Emissions From Mobile Sources					(0.98)	(1.17)	(381.83)

^a Emission factors from Table C.4, General Reporting Protocol, California Climate Action Registry, March 2007.

^b Global Warming Potential is 21 for CH₄ and 310 for N₂O, General Reporting Protocol, California Climate Action Registry, March 2007.

Enter Data in all yellow highlighted cells

Water Importation using CAMX emission factors

SWP Energy Intensity: SWP west branch 9,232 kWh/MG (includes losses)
 MWD Energy Intensity: MWD west branch 1,013 kWh/MG (includes losses)
 Southern California Average N/A 9,727 kWh/MG (includes losses)

Category	Water acre/ft	Energy Use (kWh) Importation	CH4	N2O	CO2 (kg/year)	CO2e (metric tons/year)
Imported from SWP		0	0.00	0.00	0	0
Imported from MWD		0	0.00	0.00	0	0
OR						
Southern California Average	4	11,666	0.16	0.04	3,773	4

For all other Sources:

Emission Factor: CO2 0.323405 kg/kWh CAMX (eGRID)
 Emission Factor: CH4 0.000014 kg/kWh CAMX (eGRID)
 Emission Factor: N2O 0.000004 kg/kWh CAMX (eGRID)

Water Distribution (pumping)

Energy Intensity: 1,272 kWh/MG (includes losses)

	Water acre/ft	Energy Use (kWh) Distribution	CH4	N2O	CO2 (kg/year)	CO2e (metric tons/year)
	4	1,526	0.02	0.01	493	0

Water Treatment

Energy Intensity: 111 kWh/MG (includes losses)

Year	Water acre/ft	Energy Use (kWh) treatment	CH4	N2O	CO2 (kg/year)	CO2e (metric tons/year)
	3	120	0.00	0.00	39	0

Wastewater Treatment

Energy Intensity: 1,911 kWh/MG (includes losses)

	Water acre/ft	Energy Use (kWh) wastewater treatment	CH4	N2O	CO2 (kg/year)	CO2e (metric tons/year)
	3	2,065	0.03	0.01	668	1

Summary

Category	Energy Use (kWh)	CO2e (metric tons/year)
Water Supply and Conveyance	11,666	4
Water Treatment	120	0
Water Distribution	1,526	0
Wastewater Treatment	2,065	1
Total	15,377	5

Highlighted cells are used in calculations

GHG	GWP
CH4	21
N2O	310

Conversion Factors	
metric tons/ton	0.907185
tons/metric ton	1.102311
lbs/kg	2.204623
days/year	365.25
g/lb	453.5924
kWh/MWh	1,000
million gallons (MG)/acre foot	0.32585

Emission Factors	unit	source	
CO2	0.286165 kg/kWh	SCE 2007 average EF	286.17
CH4	30.601400 lb/GWh	CA Average (eGRID)	
CH4	0.000014 kg/kWh	CA Average (eGRID)	13.88
N2O	4.497600 lb/GWh	CA Average (eGRID)	
N2O	0.000002 kg/kWh	CA Average (eGRID)	2.04
CO2	712.985300 lb/MWh	CAMX (eGRID)	
CO2	0.323405 kg/kWh	CAMX (eGRID)	323.40
CH4	30.2365 lb/GWh	CAMX (eGRID)	
CH4	0.000014 kg/kWh	CAMX (eGRID)	13.72
N2O	8.0758 lb/GWh	CAMX (eGRID)	
N2O	0.000004 kg/kWh	CAMX (eGRID)	3.66

Table C-4: Potential Adjustments to WER Table 1-3, Electricity Use in Typical Urban Water Systems

Sector	Northern California (kWh/MG)			Southern California (kWh/MG)			Loss factor	MWD loss factor
	WER	Adjusted	w/Losses	WER	Adjusted	w/Losses		
Water Supply and Conveyance	150	1,811	2,117	8,900	8,324	9,727	16.9%	11.9%
Water Treatment	100	n/a	111	100	n/a	111	11.0%	
Water Distribution	1,200	n/a	1,272	1,200	n/a	1,272	6.0%	
Wastewater	2,500	1,911	1,911	2,500	1,911	1,911	0.0%	
Total	3,950	5,022	5,411	12,700	11,535	13,022	12.9%	
SWP west branch					7,900	9,232		
SWP east branch					9,900	11,569		
MWD west branch					906	1,013		
MWD east branch					540	604		

Electricity Emission Factors	1990	unit
CH4 EF:	0.0067	lb CH4/MWh
N2O EF:	0.0037	lb N2O/MWh
CO2 EF:	804.54	lb CO2/MWh
CH4 EF:	0.0000030	kg/kWh
N2O EF:	1.67829E-06	kg/kWh
CO2 EF:	0.364933206	kg/kWh

Appendix B
**Preliminary Water Quality
Management Plan**

**PRELIMINARY WATER QUALITY MANAGEMENT PLAN
(WQMP)**

**CITY OF NEWPORT BEACH
PUBLIC WORKS / ENGINEERING DEPARTMENT**

Rev March 22, 2010

PRELIMINARY WATER QUALITY MANAGEMENT PLAN (WQMP)

For:

SWC JAMBOREE AND CAMPUS

PA2008-164 FOR APN 445-151-09,08

**Prepared for:
WPI-Newport, LLC.
4699 Jamboree Road
Newport Beach, CA 92660
(949) 943-8550**

**Prepared by:
WARE MALCOMB
10 Edelman
Irvine, CA 92618
(949) 660-9128**

March 22, 2010

OWNER'S CERTIFICATION

WATER QUALITY MANAGEMENT PLAN

FOR PERMIT/PLANNING APPLICATION NUMBER PA2008-164

APN 445-151-08,09

This Water Quality Management Plan (WQMP) has been prepared for WPI-Newport, LLC by WARE MALCOMB. The WQMP is intended to comply with the requirements of the City of Newport Beach, Planning Department for APN 445-151-09 and 445-151-08, per application number PA2008-164 requiring the preparation of a Water Quality Management Plan. The undersigned is aware that Best Management Practices (BMPs) are enforceable pursuant to the City of Newport Municipal Codes.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Signed:

Name: John E. Young and Andrew Sun

Title: Managers

Company: WPI-Newport, LLC

Address: 4699 Jamboree Road, Newport Beach, CA 92660

Telephone #: (714) 662-6900

Date:

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Attachments

Attachment A..... Educational Materials

List each handout separately

SECTION I
Discretionary Permits

Section I Discretionary Permit(s) and Water Quality Conditions

This Preliminary Water Quality Management Plan (WQMP) has been prepared to provide specifications for the post-construction management of storm water runoff from the proposed Parking Structure with Office Building in the City of Newport Beach, California. The intent of this Preliminary WQMP is to obtain conceptual approval from the City of Newport Beach of the proposed Treatment Control BMPs. Per requirement from Public Works Department, Engineering Division of City of Newport Beach, this WQMP shall identify potential sources of pollutants, define Source Control, Site Design, and Treatment Control Best Management Practices to control or eliminate the discharge of pollutants into the surface water runoff and provide a monitoring program to address the long-term implementation of the compliance with the defined BMPs. This Preliminary WQMP has been prepared to reflect the best information available at this time. Further details on the proposed project, drainage system, selected BMPs and associated maintenance, educational materials, and other measures to reduce pollutants will be provided in the Final WQMP.

SECTION II
Project Description

Section II Project Description

PROJECT FEATURES

The WPI-Newport, LLC; Newport Business Plaza development is located on the north-east corner of the Jamboree Road and Campus Drive intersection in the City of Newport Beach, CA. The current building structures will be demolished to make room for entirely new structures.

The proposed structures for this site consist of three buildings totaling approximately 46,646 square feet. The three building will have shared common areas as well as shared parking. Parking will be achieved by the use of a parking structure that ties the three buildings together.

Drainage from all roof tops will be collected into roof down spouts and filtered through the use of down-spout filters (refer to the "Filtration Information" section after Section VI). These flows will then be allowed to flow at ground level into grassy swales until it drops into storm drain inlets. The inlets themselves will also have filters. This storm drain runoff will then be outlet into the curb and gutter of either Jamboree Road or Campus Drive. These flows will make their way into the public storm drain. Refer to Section VI for BMP Site map.

The owner of the property (WPI-Newport, LLC) will create a condominium map to either lease or sell the office spaces on the proposed buildings. A property management group will be created for the long term maintenance of the common areas and any BMP's that will be included in this report.

The Standard Industrial Codes for the property are 5812, 6021 and 4226. There are no loading docks located on the project or outdoor materials storage areas. Vehicle maintenance or repair will not be permitted.

SECTION III
Site Description

Section III Site Description

SITE LOCATION

The project site is located at 4699 Jamboree Road and 5190 Campus Drive, Newport Beach CA 92660 and has a total area of 1.765 Acres. The property is bounded by Campus Drive on the East, Jamboree Road on the South, and some building structures on the North and West. A vicinity Map is located in Section VI. The property is located in a developed area within the City of Newport Beach.

ZONING / LAND USE DESIGNATION

The property has a general land use designation of "MIXED-USE". A City of Newport Beach General Plan Index Map is attached to this report. See Section VI for the Map.

SOIL TYPE AND GROUNDWATER CONDITION

Based on the Groundwater Condition Report prepared by Krazen and Associates, Inc., dated June 10, 2005, "four borings were drilled and checked for presence of groundwater during and following the drilling operations. Free groundwater was encountered at a depth of approximately 32 to 33 feet below existing site grade. However, the EDR (Environmental Data Resource) report indicates the groundwater level is at a depth 21 feet below grade."

See attachment for a Copy of the said report.

PROJECT DRAINAGE

There are two existing drainage areas for the project site. The site historically drains from south to north. Runoff from the drainage area located on the top half of the property is collected via existing v-gutters that run from south-west-north of the parking area. Runoff collected from this drainage area will sheet flow out to Campus Drive. Roof Runoff from the other drainage area will flow to and infiltrate to the existing landscape area. Remaining runoff will then surface flow out to Campus drive as well. Runoff from Campus Drive will then flow to existing underground drainage system maintained by Orange County. It will then be discharged to a Dry Pond and Basin. An overflow is then connected to San Diego Creek which then leads to the Upper Newport Bay and until it reaches the Pacific Ocean.

Post development drainage will consist of 5 areas. One area at the approach of the parking lot entrance will cover the runoff from the uncovered portion of the building. This runoff will drain and will be mitigated by the Flogard Lo-pro trench drain with filter insert. Then this will be conveyed by a parkway drain to the existing gutter along Jamboree Road. Runoff from the roof will be divided into four drainage area. Each area will be filtered by Flogard Downspout Filter Assembly. Then this will be conveyed to a grassy swale then eventually to a catch basin and to the existing gutter along Jamboree Road and Campus Drive.

TMDLS, (303)D LISTED WATER BODIES AND ASSOCIATED POLLUTANTS OF CONCERN FOR ORANGE COUNTY

The 2006 OWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLS lists the following as pollutants of concerns for San Diego Creek, Upper and Lower Newport Bay.

San Diego Creek Reach 1

- Fecal Coliform, Selenium, Toxaphene

Newport Bay, Upper (Ecological Reserve)

- Clordane, Copper, DDT, Metals, PCB's, Sediment Toxicity

Newport Bay, Lower

- Clordane, Copper, DDT, PCB's, Sediment Toxicity

See Attachments for the complete list of 2006 OWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLS for Region 8.

ENVIRONMENTAL SENSITIVE AREAS (ESAs) AND AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBSs)

The project location does not fall into an environmentally sensitive area or on area of Special Biological Significance.

Section IV Best Management Practices (BMPs)

Source Control BMPs

Routine Non-Structural BMPs

Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
N1	Education for Property Owners, Tenants and Occupants	X		
N2	Activity Restrictions	X		
N3	Common Area Landscape Management	X		
N4	BMP Maintenance	X		
N5	Title 22 CCR Compliance (How development will comply)	X		
N6	Local Industrial Permit Compliance		X	Not an industrial project.
N7	Spill Contingency Plan	X		
N8	Underground Storage Tank Compliance		X	No underground storage tank for this project.
N9	Hazardous Materials Disclosure Compliance	X		
N10	Uniform Fire Code Implementation	X		
N11	Common Area Litter Control		X	No common area litter control for this project.
N12	Employee Training	X		
N13	Housekeeping of Loading Docks		X	No Loading docks for this project.
N14	Common Area Catch Basin Inspection		X	No common area catch basis for this project
N15	Street Sweeping Private Streets and Parking Lots	X		
N16	Commercial Vehicle Washing		X	No commercial vehicle washing for this project.

N1 - Education for Property Owners, Tenants and Occupants

Upon completion of the renovation improvements, the educational materials regarding the methods of preventing stormwater pollution will be disbursed by the Owner to the tenants and occupants, all maintenance and service contractors, and any other party having responsibility for implementing portions of this WQMP. This material must be distributed to all new employees, new maintenance personnel, etc, at the time of a new employee orientation and must be reviewed with all employees and applicable parties annually. The Owner is responsible for verifying annually that the enclosed material is current and for updating and implementing any new information that would be applicable to this type of improvement.

N2 - Activity Restriction

These restrictions shall include the following:

- Hazardous materials such as motor oil, paint, etc shall be disposed off in accordance with local regulations.
- Prohibit sweeping of sediments, trash and debris to the drain inlets.
- The Owner will be responsible for enforcing these activity restrictions.

N3 - Common Area Landscape Management

The Owner through a Management Property Office will be responsible by enlisting a Landscape contractor to ensure that the ongoing maintenance and use of fertilizers and pesticides of the on-site landscaping be consistent with the City of Newport requirements. The landscape contractor will inspect the irrigation system monthly to ensure that it is operating as indicated by the manufacturer's specifications. This will include but not limited to checking for over-spraying, proper direction of sprinkler heads, broken sprinkler heads, and broken irrigation lines that may cause underground water to erode landscape areas. When the landscape contractors are determined for this project, the Owner through the Management Property Office, will provide detailed information on the City's requirements regarding maintenance procedures. This information will be provided according to BMP12.

N4 - BMP Maintenance

The Owner will be responsible for implementing all BMPs and setting a schedule for maintaining of all BMP facilities. Refer to Section V for maintenance procedures and schedules.

N5 - Title 22 CCR Compliance

The Owner must ensure the proper signage will be posted at the appropriate areas regarding the correct disposal of hazardous materials. This must also be inspected regularly to ensure its implementation.

N7 - Spill Contingency

The Owner must develop procedures to prevent/mitigate spills to storm drain systems, develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures.

N9 - Hazardous Materials Disclosure Compliance

The Owner must ensure that the tenant will secure a Hazardous Materials Disclosure Compliance before the start of any tenant improvement for this specific project.

N10 - Uniform Fire Code Implementation

The Owner must ensure the compliance with Article 80 of the Uniform Fire Code enforced by the respective local fire protection agency.

N12 - Employee Training

The Property Management Company will provide educational training for their employees in the proper use, handling and clean-up of all waste materials while on the job. These educational materials must be reviewed with all new employees at the time of the new employee orientation and with all maintenance or service contractors at the start of the employment. All employees and contractors must review these same materials annually thereafter. The Property Management Company is responsible for verifying annually that the enclosed material is current and for updating and implementing any new information that would be applicable to this type of site.

N15 - Street Sweeping Private Street and Parking Lots

Street and parking areas will be cleaned once a week. The management property office will be responsible for contracting a local street sweeping company. Streets and Parking lots will be swept to maintain a clean site, free of trash, litter, silt, sand, and landscape debris.

Routine Structural BMPs

Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Provide storm drain system stenciling and signage	X		
Design and construct outdoor material storage areas to reduce pollution introduction		X	No outdoor material storage for this project.
Design and construct trash and waste storage areas to reduce pollution introduction	X		
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	X		
Protect slopes and channels and provide energy dissipation		X	Project site is flat. No slopes and channels needed.
Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)			
a. Dock areas		X	No dock areas for this project.
b. Maintenance bays		X	No Maintenance bays for this project.
c. Vehicle wash areas		X	No vehicle wash areas for this project.
d. Outdoor processing areas		X	No outdoor processing areas for this project.
e. Equipment wash areas		X	No Equipment wash areas for this project.
f. Fueling areas		X	No fueling areas for this project.
g. Hillside landscaping		X	No Hillside landscaping for this project.
h. Wash water control for food preparation areas	X		
i. Community car wash racks		X	No community car wash racks for this project.

Provide Storm Drain System Stenciling and Signage

Phrase "No Dumping - Drain to Ocean" or equally effective phrase to be stenciled on storm drain inlets to alert public to the destination of pollutants discharged into stormwater. It must be highly visible message and typically placed directly adjacent to storm drains inlets. The Property owner will be responsible for repair or replacement of the storm drain painted stencils after the initial painted stenciling is provided. The painted stencils will be inspected yearly and will be replaced when more than one letter cannot be read or missing.

Design and Construct Trash and Waste Storage

- Trash containers should be provided with attached lid to exclude rain or roof or awning to minimize direct precipitation.
- Trash enclosure area was designed to have paved impervious surface and not to allow run-on from adjoining area as to prevent off-site transport of trash.

Use Efficient Irrigation Systems and Landscape Design

To minimize the runoff of excess irrigation water, the following methods should be considered.

- Employ rain shutoff devices to prevent irrigation after precipitation.
- The timing and application methods of irrigation water shall be designed to minimize the runoff of excess irrigation water into the municipal storm drain system.

Wash water control for food preparation areas

- Collect grease and used cooking oil in labeled containers that have a screw type lid that can be securely closed.
- Keep containers closed except when adding grease or cooking oil to prevent spillage. DO NOT store containers near a storm drain. Provide secondary containment and a cover for all outdoor waste containers to prevent them from coming into contact with rain water or surface water flows.
- DO NOT dispose off grease or cooking oil to any storm drain or sanitary sewer system drain! Waste grease and cooking oil must be collected in labeled containers/bins and stored for pick-up and disposal by an appropriate vendor/ contractor.
- Keep outdoor trash cans/bins closed.
- Keep grease and cooking oil collection areas clean and orderly. Use "Dry" cleaning methods. (e.g. absorbents and sweeping or vacuuming) whenever feasible.

- If water is used to clean equipment or areas outside, **DO NOT ALLOW WASH WATER TO GET INTO STORM DRAINS.**
- **DO NOT** dispose of ice to storm water drains. Ice may be disposed of in a landscaped area where the water can infiltrate into the ground such as a lawn or dirt area with plants.
- Store and maintain appropriate spill cleanup materials in a location known to all personnel.

Site Design BMPs

The following table shows site design BMPs that are included in this project. A description of each BMPs follows:

Site Design BMPs			
Technique	Included?		Brief Description of Method
	Yes	No	
Minimize Impervious Area/Maximize Permeability (C-Factor Reduction)		X	
Minimize Directly Connected Impervious Areas (DCIAs) (C-Factor Reduction)		X	
Create Reduced or "Zero Discharge" Areas (Runoff Volume Reduction)		X	
Conserve Natural Areas (C-Factor Reduction)		X	

Existing area is already developed. Since existing area is developed, conservation of natural area will not be used. The proposed parking structure will be located on an already paved area although there is a slight increase of C-Factor due to the minimal change in landscape area.

Treatment BMPs

The following table shows treatment BMPs that are included in this project. A description of each BMP follows:

Treatment BMPs			
Name	Included?		If not applicable, state brief reason
	Yes	No	
Vegetated (Grass) Strips		X	Project site is already developed and has very limited space.
Vegetated (Grass) Swales	X		
Dry Detention Basin		X	Project site is already developed and has very limited space.
Wet Detention Basin		X	Project site is already developed and has very limited space.
Constructed Wetland		X	Project site is already developed and has very limited space.
Detention Basin/Sand Filter		X	Project site is already developed and has very limited space.
Porous Pavement Detention		X	Project site is already developed and has very limited space.
Porous Landscape Detention	X		
Infiltration Basin		X	Project site is already developed and has very limited space.
Infiltration Trench		X	Project site is already developed and has very limited space.
Media Filter		X	Project site is already developed and has very limited space.
Proprietary Control Measures	X		

Two references were used to determine the potential pollutants that the most effective and applicable treatment BMP should address. The Orange County Stormwater Program Exhibit 7.II-Model Water Quality Management Table 7.II-2,m "Anticipated and Potential Pollutants Generated by Land Use Type" lists the pollutants anticipated for Parking Lots and Commercial Development. The Associated pollutants consist of Bacteria/Virus, Heavy Metals, Nutrients, Pesticides, Organic Compounds, Sediments, Trash and Debris, Oxygen Demanding Substances, and Oil and Grease. A copy of the table can be found in the Attachments. The Model Water Quality Management also lists the 303(d) listed Water Bodies and Associated Pollutants of Concern for Orange County. The pollutants listed for this project can be found in Section III and the 303(d) table can be found in Attachments.

Once the pollutants that had to be removed were found, the next step was deciding which type of treatment control BMP would be used for this project. Table 7.II-6, Treatment control BMP Selection Matrix found in Attachment was used to decide which treatment control BMP is most feasible for this said project.

The project site is already developed therefore BMP's on-site were limited to a number of factors. Size, project scope and limits of construction are some of the factors that need to be considered when choosing and implementing treatment control BMP's.

It was determined that the most economical and efficient BMP that can be used for the project is the Downspout Filter Assembly, Vegetated grassy swale and Filter Inserts for the proposed Catchbasins. The proposed FloGard Downspout Filter will collect particulates and debris, metals and petroleum hydrocarbons (oils and grease) from roof runoff. This is most efficient for this property since there is a limited area outside the building perimeter. The proposed FloGard Lo Pro Matrix Filter and FloGard Lo Pro Trench Drain with filter insert will provide an effective way of filtering "first flush" on-site before it flows out to public street. The landscaped area will also be utilized as porous detention and portion of which will also accommodate grassy swale for more effective storm water mitigation from roof runoff. For additional Information please refer to Section VI for the unit's schematic drawings for installation, filter media specifications, operation and maintenance guidelines.

Anticipated and Potential Pollutants Generated by Land Use Type

Priority Project Categories and/or Project Features	General Pollutant Categories								
	Bacteria/Virus	Heavy Metals	Nutrients	Pesticides	Organic Compounds	Sediments	Trash & Debris	Oxygen Demanding Substances	Oil & Grease
Detached Residential Development	X		X	X		X	X	X	X
Attached Residential Development	P		X	X		X	X	P (1)	P (2)
Commercial/ Industrial Development >100,000 ft ²	P (3)		P (1)	P (1)	P (2)	P (1)	X	P (1)	X
Automotive Repair Shops		X			X (4)		X		X
Restaurants	X						X	X	X
Hillside Development >5,000 ft ² In SDRWQCB			X	X		X	X	X	X
Hillside Development >10,000 ft ² In SARWQCB			X	X		X	X	X	X
Parking Lots		X	P (1)	P (1)		P (1)	X	P (1)	X
Streets, Highways & Freeways		X	P (1)	P (1)	X (4)	X	X	P (1)	X

X = anticipated.

P = potential

(1) A potential pollutant if landscaping or open area exist on-site.

(2) A potential pollutant if the project includes uncovered parking areas.

(3) A potential pollutant if land use involves food or animal waste products.

(4) Including petroleum hydrocarbons.

(5) Including solvents.

**Table 7-II-6
Treatment Control BMP Selection Matrix⁽¹⁾**

Pollutant of Concern	Treatment Control BMP Categories					
	Biofilters	Detention Basins ⁽²⁾	Infiltration Basins ⁽³⁾	Wet Ponds or Wetlands	Filtration	Hydrodynamic Separator Systems ⁽⁴⁾
Sediment/Turbidity	H/M	M	H/M	H/M	H/M	H/M (L for Turbidity)
Nutrients	L	M	H/M	H/M	LM	L
Organic Compounds	U	U	U	U	H/M	L
Trash & Debris	L	M	U	U	H/M	H/M
Oxygen Demanding Substances	L	M	H/M	H/M	H/M	L
Bacteria & Viruses	U	U	H/M	U	H/M	L
Oil & Grease	H/M	M	U	U	H/M	L/M
Pesticides (non-soil bound)	U	U	U	U	U	L

(1) Cooperative periodic performance assessment may be necessary. This Treatment Control BMP table will be updated as needed and as knowledge of stormwater treatment BMPs improves. (2) For detention basins with minimum 36-48-hour drawdown time.
(3) Including trenches and porous pavement.
(4) Also known as hydrodynamic devices and baffle boxes.
L: Low removal efficiency
H/M: High or medium removal efficiency
U: Unknown removal efficiency

Sources: Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (1993), National Stormwater Best Management Practices Database (2001), and Guide for BMP Selection in Urban Developed Areas (2001).

Biofilters include:

- Grass swales
- Grass strips
- Wetland vegetation swales
- Bioretention

Detention Basins include:

- Extended/dry detention basins with grass lining
- Extended/dry detention basins with impervious lining

Infiltration Basins include:

- Infiltration basins
- Infiltration trenches

Wet Ponds and Wetlands include:

- Wet ponds (permanent pool)
- Constructed wetlands

Filtration Systems include:

- Media filtration
- Sand filtration

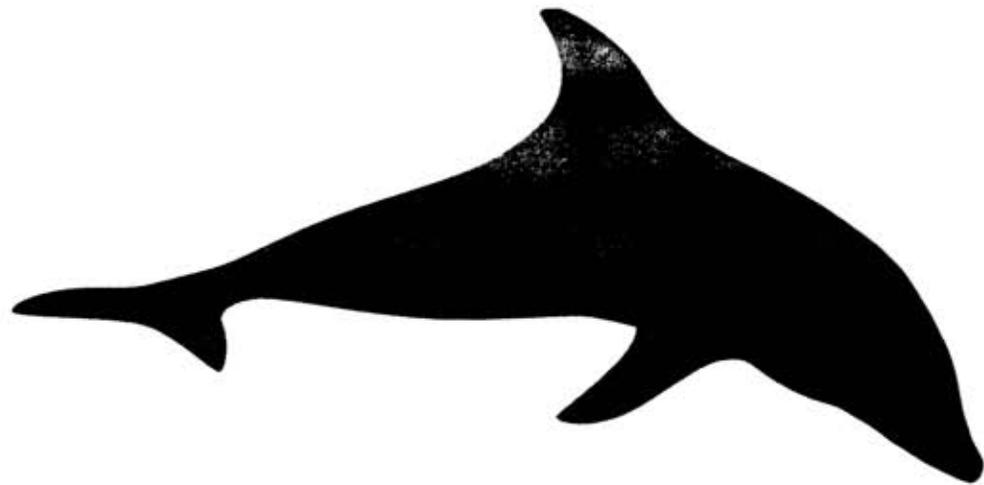
Hydrodynamic Separation Systems include:

- Swirl Concentrators
- Cyclone Separators



Sample Stencil 1

NO DUMPING

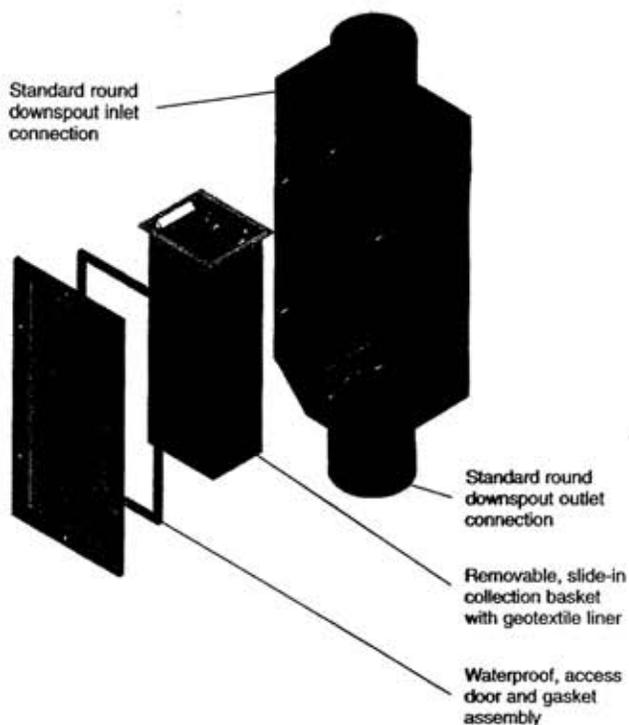


**DRAINS TO
OCEAN**

Innovative stormwater management products

FloGard®

DOWNSPOUT FILTER ASSEMBLY



FEATURES

- Removes non-soluble solids such as sediment, debris, metals, and hydrocarbons
- Uses the same effective filter medium as other FloGard filter products
- Custom size or shape downspout adapters available
- Easy, economical installation
- Easy, low cost maintenance

The **FloGard®** Downspout Filter is typically installed on commercial building downspout pipes for the removal of non-soluble pollutants normally found on building roofs and parking decks. The **FloGard** Downspout Filter is an effective filtering device at low flows, and incorporates a high flow bypass to insure that the downspout conveyance capacity is not impeded.

Constructed of corrosion-resistant stainless steel (Type 304), the **FloGard** Downspout Filter is designed to accept standard diameter downspout pipes. Downspout adapters are available upon request.

FloGard Downspout Filters can be flush mounted or recessed. The design features a pollutant collection basket for ease of maintenance.

Specifications

Model No.	Inlet ID (dia, in)	Box OD (in x in x in)	Solid Storage (cu ft)	Filtered Flow (gpm)	Bypass Capacity (gpm)
FG-DS4	4	14 x 29 x 7.5	0.35	30	145
FG-DS6	6	14 x 29 x 7.5	0.35	85	425
FG-DS8	8	22 x 33 x 17.5	1.70	185	915
FG-DS10	10	22 x 33 x 17.5	1.70	325	1,650

Storage capacity reflects 80% of maximum solids collection prior to impeding filtering bypass.

Filtered flow rate includes a safety factor of 2.

FloGard® Downspout Filters are available with standard Fossil Rock or other custom adsorbents.

FloGard® Series Filters should be used in conjunction with a regular maintenance program.

Refer to manufacturer's recommended guidelines.



IAPMO Listing No. 4868

City of Los Angeles Research Report #5584

The FloGard® Downspout Filter is approved for use in the City of Los Angeles.



KriStar Enterprises, Inc. • P.O. Box 6419 • Santa Rosa, CA 95406-1419
PH: 800-579-8819 • FAX: 707-524-8186 • www.kristar.com

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FloGard® Downspout Filter

A multi-model building-mounted filter designed to collect particulates, debris, metals and petroleum hydrocarbons from rooftop stormwater runoff.

The working chamber of the FloGard® Downspout Filter is made of a durable dual-wall geotextile fabric liner encapsulating an adsorbent which is easily replaced and provides for flexibility, ease of maintenance and economy. It is designed to collect particulates and debris, as well as metals and petroleum hydrocarbons (oils and greases). As with all FloGard® filters, the FloGard® Downspout Filter performs as an effective filtering device at low flows ("first flush") and, because of the built-in high flow bypass, will not impede the system's maximum design flow.

FloGard® Downspout Filters are available in sizes to fit common sizes of downspouts and may be mounted in (recessed) or on (flush) a wall.

FloGard® Downspout Filters are recommended for ultra-urban sites with little to no property area outside of the building perimeter. Examples of such areas are downtown buildings and parking garages.

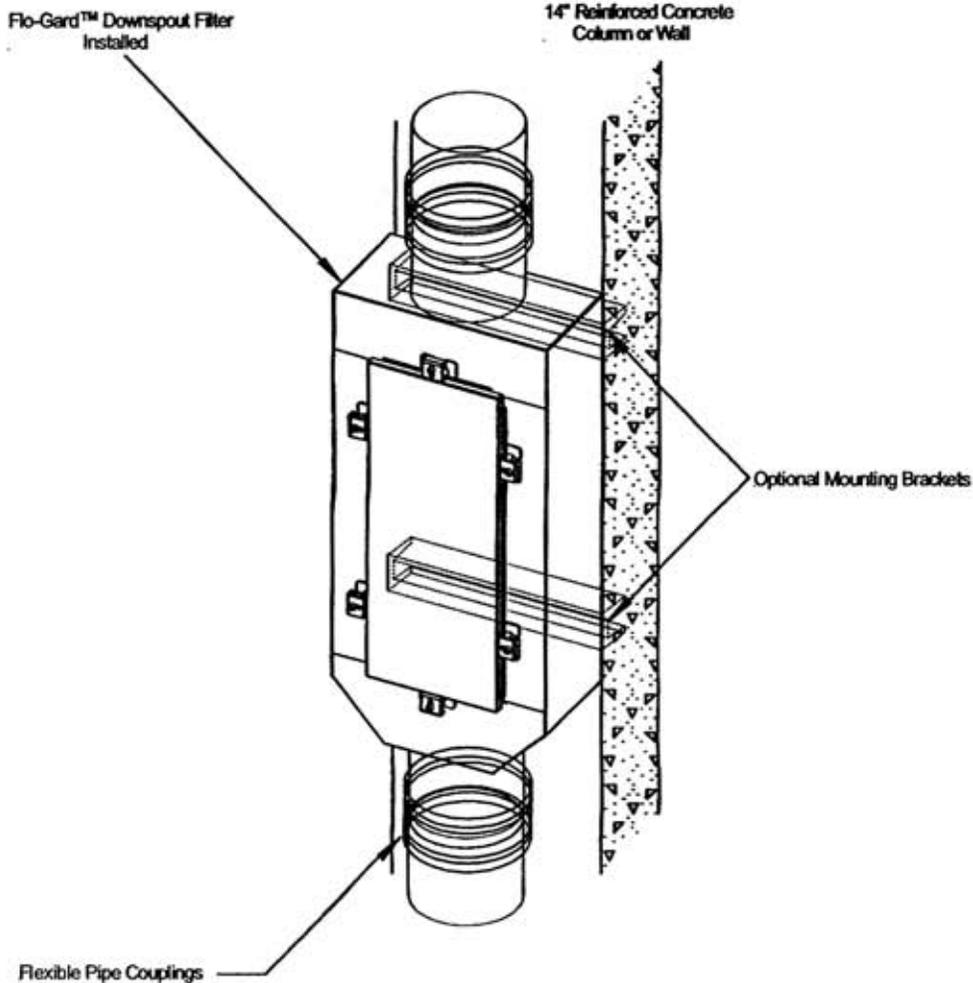
See full specifications for details.



IAPMO Listing No. 4868

Questions? Contact Kristar at (800) 579-8819.

06/06



NOTES:

1. Flo-Gard™ Downspout Filter is available to fit most industry-standard downspouts (see specifications).
2. Filter insert shall have adequate bypass capacity to allow downspout to flow unimpeded at all times.
3. Filter assembly shall be constructed from stainless steel (Type 304).
4. Filter medium shall be zeolite installed and maintained in accordance with manufacturer recommendations.

FLO-GARD™ DOWNSPOUT FILTER
FOR 4"/6" DOWNSPOUTS
 (Concrete Wall Surface Installation)

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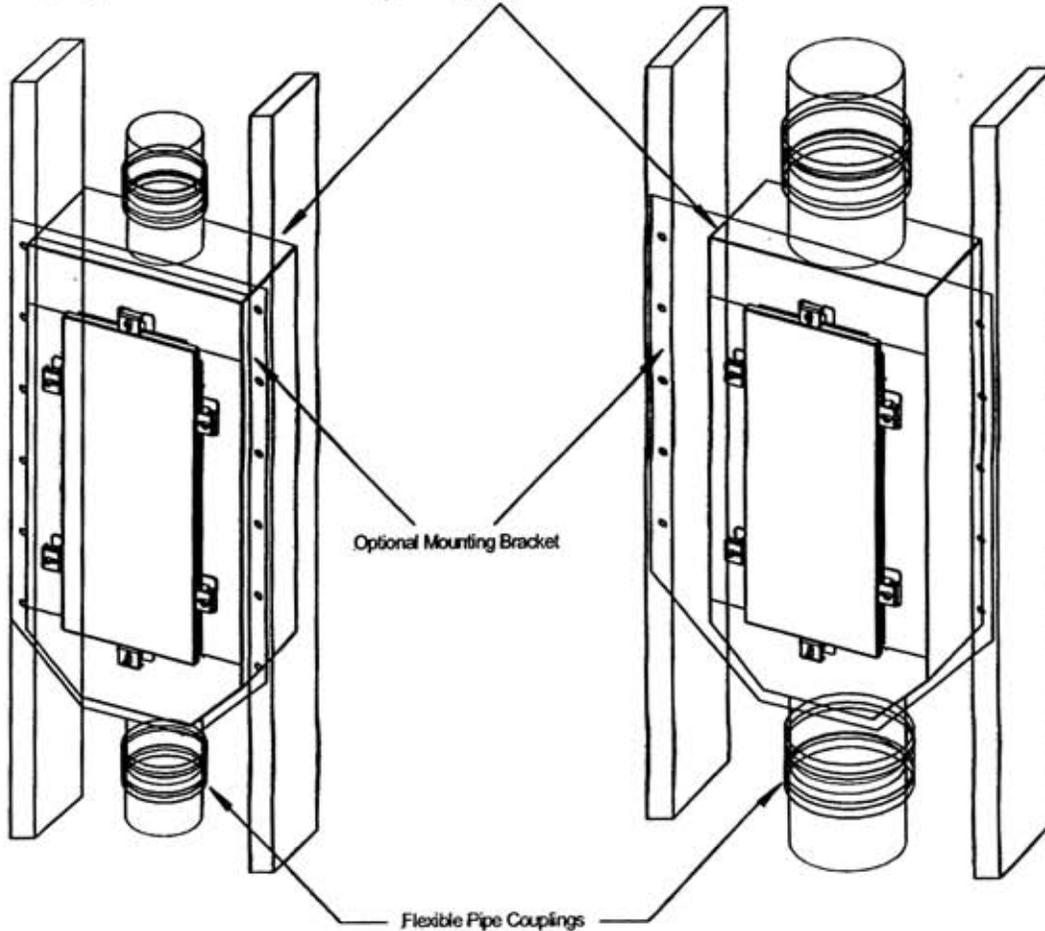
06/04

US PATENT

2x6 - 16" spacing

Flo-Gard™ Downspout Filter
Installed

2x8 - 24" spacing



NOTES:

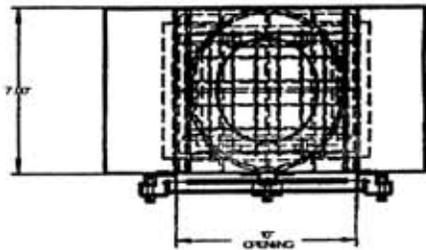
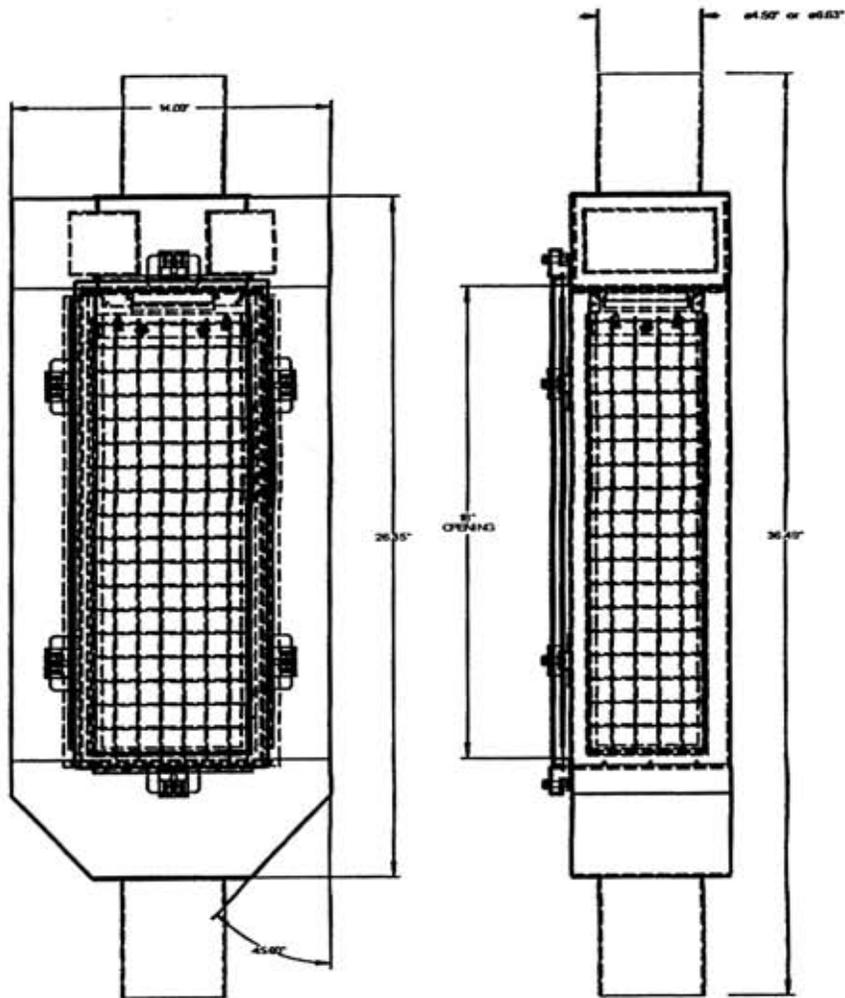
1. Flo-Gard™ Downspout Filter is available to fit most industry-standard downspouts (see specifications).
2. Filter insert shall have adequate bypass capacity to allow downspout to flow unimpeded at all times.
3. Filter assembly shall be constructed from stainless steel (Type 304).
4. Filter medium shall be zeolite installed and maintained in accordance with manufacturer recommendations.

FLO-GARD™ DOWNSPOUT FILTER
FOR 4"/6" DOWNSPOUTS
(Wood Framing Recessed Installation)

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06/04

US PATENT



NOTES:

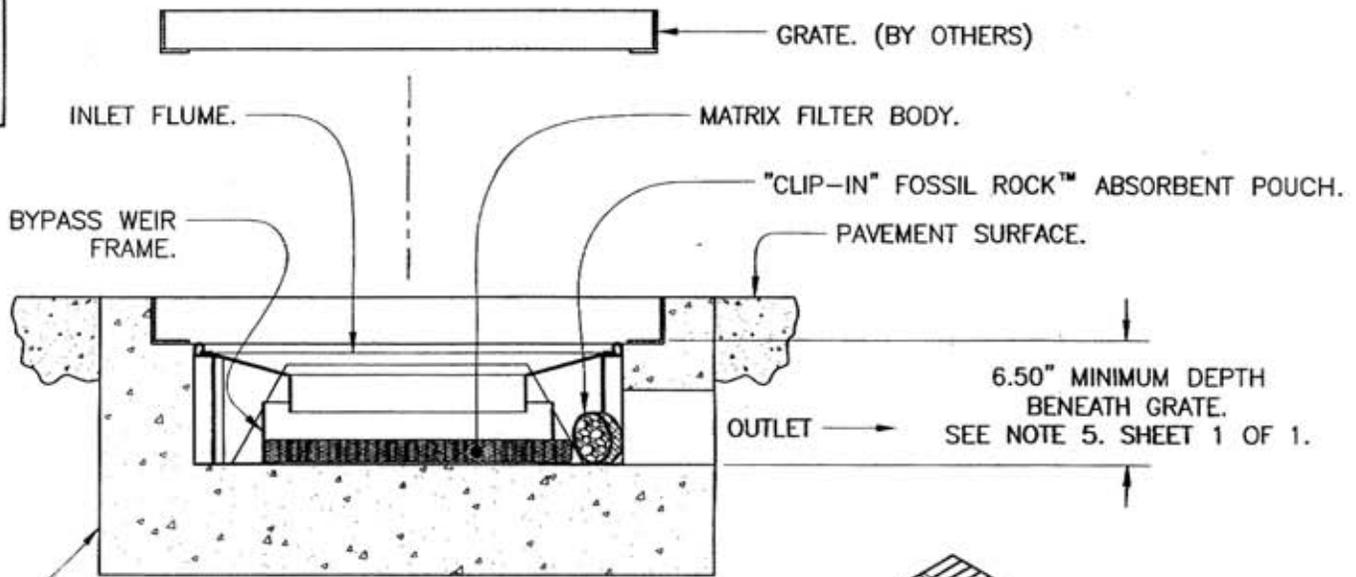
1. Flo-Gard™ Downspout Filter is available to fit most industry-standard downspouts (see specifications).
2. Filter insert shall have adequate bypass capacity to allow downspout to flow unimpeded at all times.
3. Filter assembly shall be constructed from stainless steel (Type 304).
4. Filter medium shall be zeolite installed and maintained in accordance with manufacturer recommendations.

FLO-GARD™ DOWNSPOUT FILTER
FOR 4" / 6" DOWNSPOUTS
 (Models FF-DS4 & FF-DS6)

KriStar Enterprises, Inc., Santa Rosa, CA (800) 579-8819

06/04

FG-LP-0001



SECTION VIEW
SCALE: 2X

SHALLOW CONCRETE CATCH BASIN. (BY OTHERS)

GRATE. (BY OTHERS)

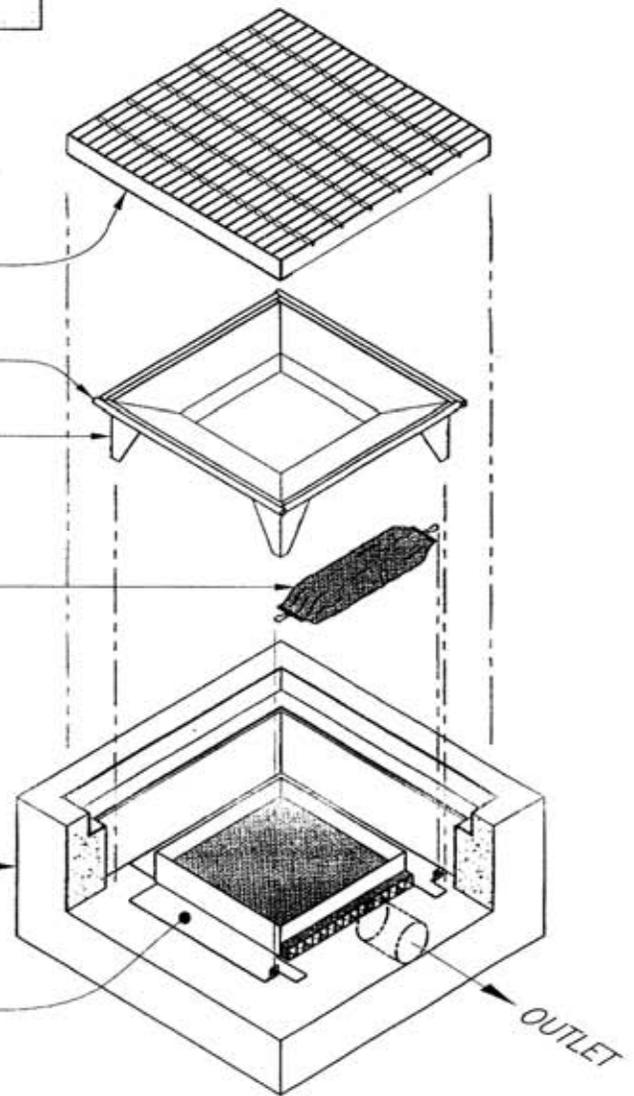
RUBBER GASKET.

INLET FLUME.

"CLIP-IN" FOSSIL ROCK™ ABSORBENT POUCH.

SHALLOW CONCRETE CATCH BASIN. (BY OTHERS)

MATRIX FILTER ELEMENT & BYPASS WEIR FRAME ASSEMBLY.



TITLE

FloGard® LoPro™
SHALLOW CATCH BASIN
FILTER INSERT



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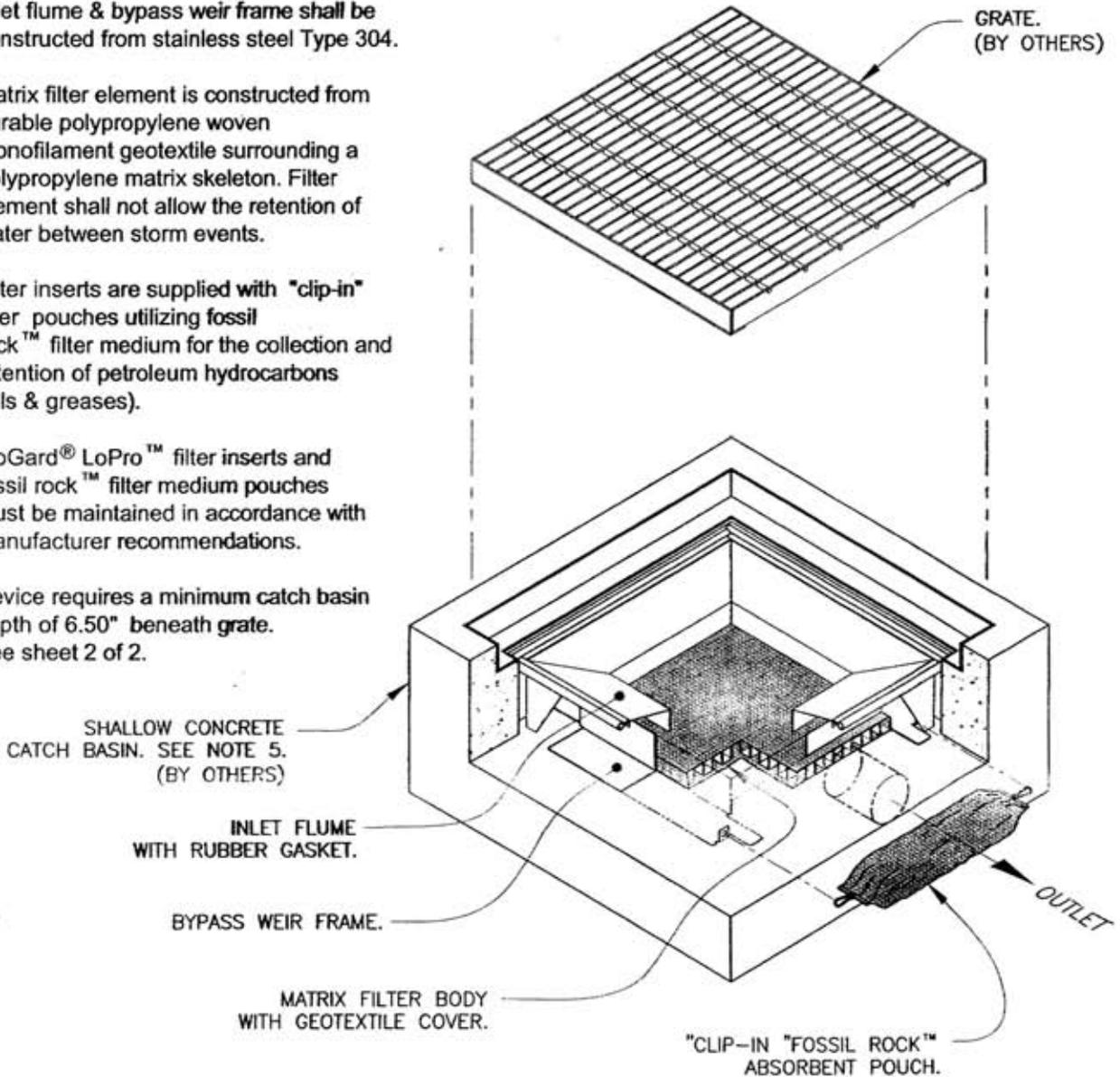
DRAWING NO. FG-LP-0001	REV A	ECO 0025 3/20/07	DATE JPR 12/18/06	SHEET 2 OF 2
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FG-LP-0001

SPECIFIER CHART				
MODEL	CATCH BASIN ID	SOLIDS STORAGE CAPACITY CUBIC FEET	FILTERED FLOW CUBIC FEET / SECOND	TOTAL BYPASS CAPACITY CUBIC FEET / SECOND
FG-M1818	18" X 18"	0.1	0.1	1.0
FG-M2424	24" X 24"	0.3	0.3	1.7
FG-M2436	24" X 36"	0.4	0.5	2.3
FG-M3636	36" X 36"	0.8	0.9	4.1
FG-M3648	36" X 48"	1.1	1.3	4.6
FG-M4848	48" X 48"	1.6	1.8	6.6

NOTES:

1. Inlet flume & bypass weir frame shall be constructed from stainless steel Type 304.
2. Matrix filter element is constructed from durable polypropylene woven monofilament geotextile surrounding a polypropylene matrix skeleton. Filter element shall not allow the retention of water between storm events.
3. Filter inserts are supplied with "clip-in" filter pouches utilizing fossil rock™ filter medium for the collection and retention of petroleum hydrocarbons (oils & greases).
4. FloGard® LoPro™ filter inserts and fossil rock™ filter medium pouches must be maintained in accordance with manufacturer recommendations.
5. Device requires a minimum catch basin depth of 6.50" beneath grate. See sheet 2 of 2.



TITLE

FloGard® LoPro™
 SHALLOW CATCH BASIN
 FILTER INSERT



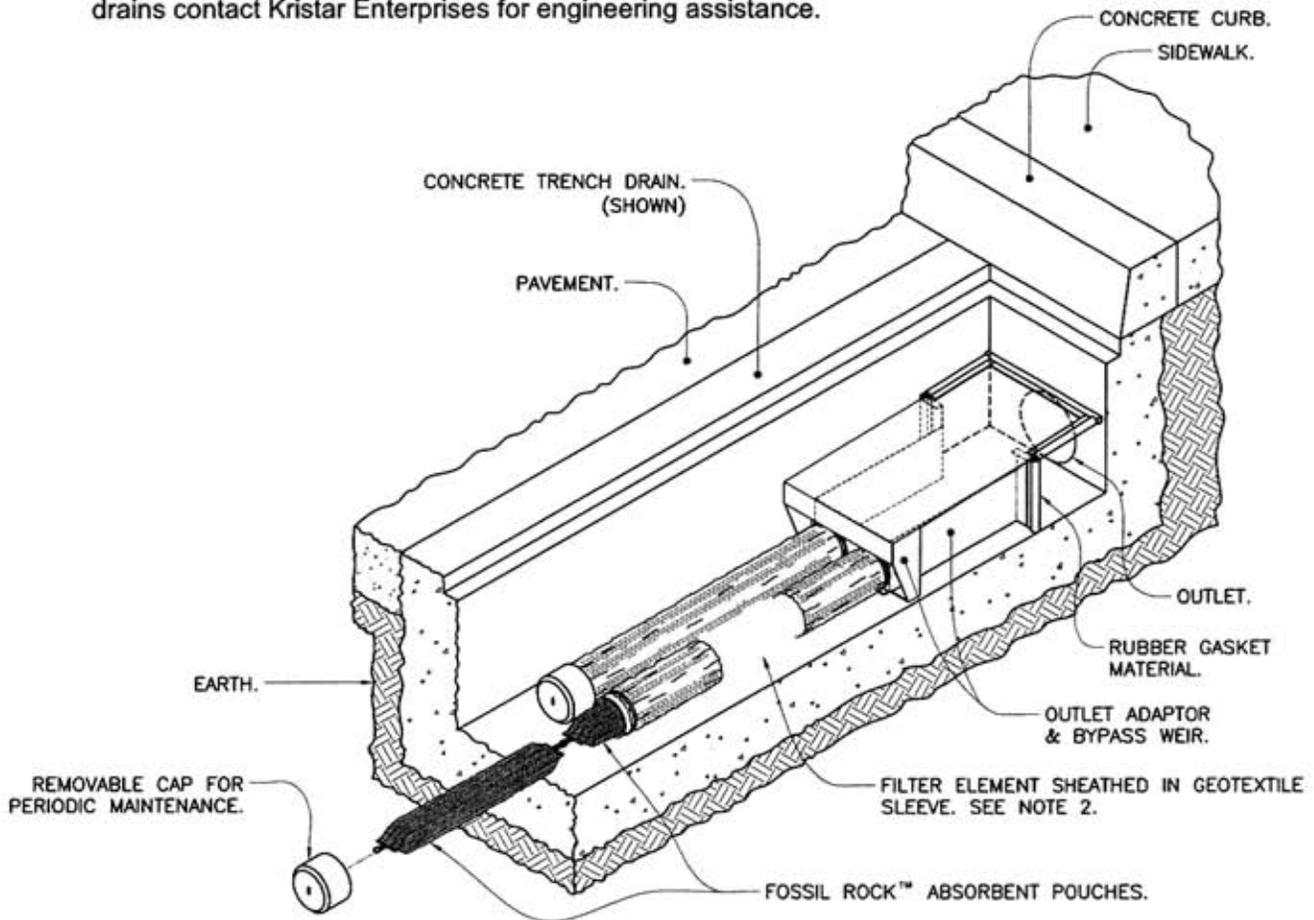
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DRAWING NO. FG-LP-0001	REV A	ECC 0025	DATE 3/20/07	DATE JPR 12/18/06	SHEET 1 OF 2
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NOTES:

1. Filter outlet adapter shall be constructed from stainless steel Type 304.
2. Filter element is constructed from polypropylene woven monofilament geotextile surrounding a perforated filter housing. Filter element shall not allow the retention of water between storm events.
3. Filter inserts are supplied with "clip-in" filter pouches utilizing Fossil Rock™ filter medium for the collection and retention of petroleum hydrocarbons (oils & greases).
4. FloGard® LoPro™ filter inserts and Fossil Rock™ filter medium pouches must be maintained in accordance with manufacturer recommendations.
5. Outlet adapter can accommodate outlet openings at right angles and/or bottom outlet openings.
6. For alternate outlet adapter configurations used for extremely shallow trench drains contact Kristar Enterprises for engineering assistance.



TITLE

FloGard® LoPro™

TRENCH DRAIN FILTER INSERT

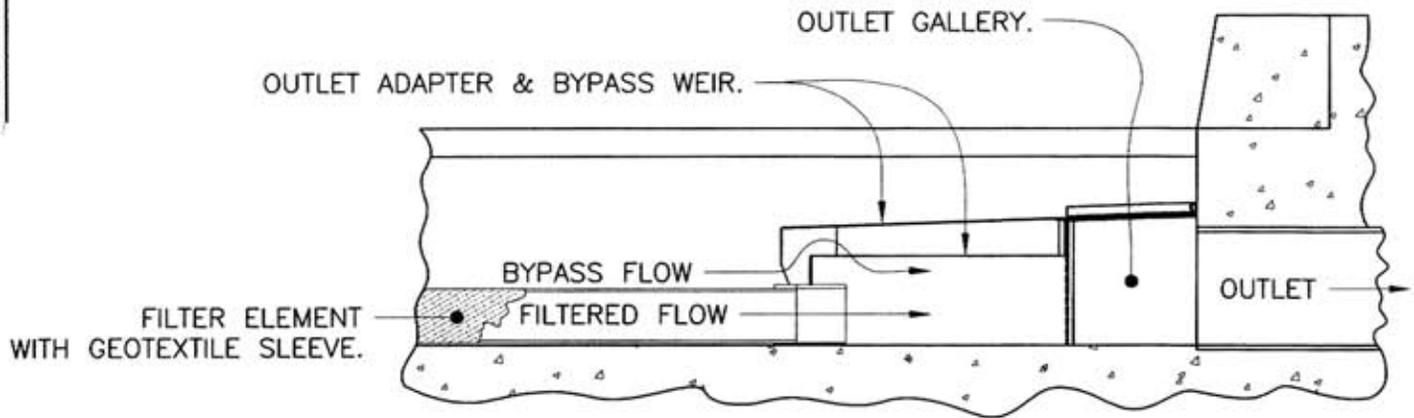


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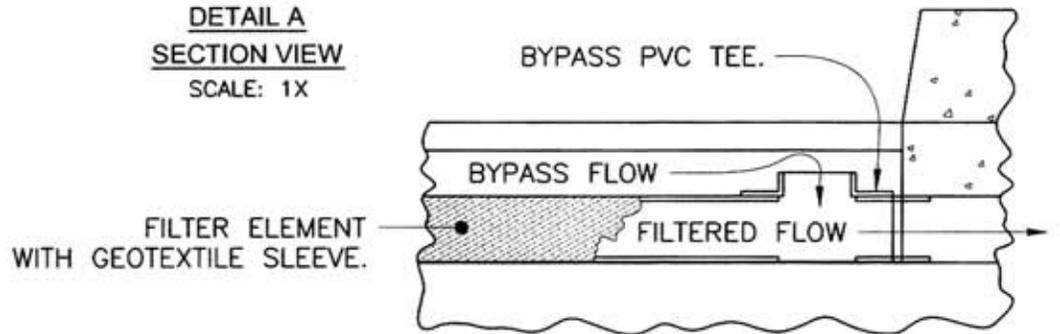
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DRAWING NO. FG-LP-0002	REV E	ECO 0059	JPR	DATE 12/30/08	JPR	DATE 2/21/07	SHEET 1 OF 2
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DETAIL A
SECTION VIEW
SCALE: 1X



DETAIL B
SECTION VIEW
ALTERNATE ADAPTER CONFIGURATION
SCALE: 1X

SPECIFIER CHART

MODEL	FILTER TYPE	TRENCH WIDTH "ID" (CLEAR OPENING)	MINIMUM TRENCH DEPTH (FROM BOTTOM OF GRATE)	SOLIDS STORAGE CAPACITY CUBIC FEET **	FILTERED FLOW CUBIC FEET / SECOND **	TOTAL BYPASS CAPACITY CUBIC FEET / SECOND
FG-TDOF3	PIPE *	3.0	6.5	0.1	0.5	0.1
FG-TDOF4	PIPE *	4.0	6.5	0.2	0.5	0.1
FG-TDOF6	PIPE	6.0	6.5	0.4	0.5	0.2
FG-TDOF8	PIPE	8.0	6.5	0.7	0.5	0.3
FG-TDOF10	PIPE	10.0	6.5	0.9	0.5	0.5
FG-TDOF12	PIPE	12.0	6.5	0.9	1.0	0.6
FG-TDOF18	PIPE	18.0	6.5	1.3	1.5	1.1
FG-TDOF24	PIPE	24.0	6.5	1.8	2.0	1.5
FG-TDOA6	PANEL	6.0	4.5	0.4	0.2	0.2
FG-TDOA8	PANEL	8.0	4.5	0.7	0.2	0.3
FG-TDOA10	PANEL	10.0	4.5	0.8	0.3	0.5
FG-TDOA12	PANEL	12.0	4.5	1.0	0.4	0.6
FG-TDOA18	PANEL	18.0	4.5	1.4	0.8	1.1
FG-TDOA24	PANEL	24.0	4.5	1.8	1.1	1.5

* ALTERNATE ADAPTER CONFIGURATION. SEE DETAIL B.
**CAPACITY PER 4-FT. SEGMENT USED.

FloGard® LoPro™
TRENCH DRAIN FILTER INSERT



KriStar Enterprises, Inc.

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Section V **Inspection/Maintenance Responsibility for BMPs**

The Property Owner/managers will be responsible for the operation, inspection and maintenance of each Source Control, Site Design and Treatment Control BMP's outlined in this document.

Name: John E. Young and Andrew Sun

Title: Managers

Company Name: WPI - Newport, LLC

Company Address: 4699 Jamboree Road
Newport Beach, CA 92660

Telephone Number: (949) 943-8550



FloGard® Downspout Filter / Installation Guide

FloGard® Downspout Filters are typically installed in commercial or industrial building and parking structure downspout (downrain) pipes for the removal of non-soluble pollutants normally found on building roofs (sediment, gravel, hydrocarbons, etc.) from water runoff from the roof.

Key elements of installation are:

- * Install in new or existing downspouts.
- * Install at a level in the downspout that is accessible from the ground and that will provide easy access to the door of the device and easy removal of the collection basket. This may be on (surface mounted), or in (recessed/flush mounted), an interior or exterior wall.
- * Flo-Gard Downspout Insert filter is designed to accept 4", 6", 8" or 10" diameter downspout pipes (o.d. matches Sch 40 iron pipe). Larger downspout pipe sizes may be accommodated with custom designs.
- * Cut a section from the downspout large enough to allow for the vertical height of the Downspout Filter plus connection stubs, as well as room for any needed pipe fittings.
- * Depending on the alignment of the downspout pipe with a recessed/flush mounted Downspout Filter, fittings (such as two 45-degree elbows, top and bottom) may be necessary.
- * Attach Downspout Filter connection stubs to the downspout using flexible banded couplings.
- * See installation detail for guidance on surface mounting and recessed/flush mounting.

Questions? Contact KriStar at (800) 579 8819



GENERAL SPECIFICATIONS FOR MAINTENANCE OF *FLOGARD® DOWNSPOUT FILTERS*

SCOPE:

Federal, State and Local Clean Water Act regulations and those of insurance carriers require that stormwater filtration systems be maintained and serviced on a recurring basis. The intent of the regulations is to ensure that the systems, on a continuing basis, efficiently remove pollutants from stormwater runoff thereby preventing pollution of the nation's water resources. These Specifications apply to the FloGard® Downspout Filter.

RECOMMENDED FREQUENCY OF SERVICE:

Drainage Protection Systems (DPS) recommends that installed FloGard® Downspout Filters be serviced on a recurring basis. Ultimately, the frequency depends on the amount of runoff, pollutant loading and interference from debris (leaves, vegetation, cans, paper, etc.); however, it is recommended that each installation be serviced a minimum of three times per year, with a change of filter medium once per year. DPS technicians are available to do an on-site evaluation, upon request.

RECOMMENDED TIMING OF SERVICE:

DPS guidelines for the timing of service are as follows:

1. For areas with a definite rainy season: Prior to, during and following the rainy season.
2. For areas subject to year-round rainfall: On a recurring basis (at least three times per year).
3. For areas with winter snow and summer rain: Prior to and just after the snow season and during the summer rain season.
4. For installed devices not subject to the elements (washracks, parking garages, etc.): On a recurring basis (no less than three times per year).

SERVICE PROCEDURES:

1. The FloGard® Downspout Filter shall be visually inspected for defects and possible leakage.
2. The FloGard® Downspout Filter access door shall be opened. The filter tray shall be carefully pulled out using the handle and set on the floor over a drop cloth.
3. The collected materials in the upper filter shall be inspected, and then removed from the liner using an industrial vacuum or by dumping into an appropriate DOT approved container.
4. When all of the collected materials have been removed from the upper filter, it shall be removed to allow access to the lower filter medium.
5. The filter liner, gaskets, stainless steel frame and mounting brackets, etc. shall be inspected for continued serviceability. Minor damage or defects found shall be corrected on-the-spot and a notation made on the Maintenance Record. More extensive deficiencies that affect the efficiency of the filter (torn liner, door gasket damage, etc.), if approved by the customer representative, will be corrected and an invoice submitted to the representative along with the Maintenance Record.
6. The filter medium shall be inspected for defects and continued serviceability and replaced as necessary. See below for disposal.
7. The filter components and tray shall be replaced in the housing and the door closed and secured.

REPLACEMENT AND DISPOSAL OF EXPOSED FILTER MEDIUM AND COLLECTED DEBRIS

The frequency of filter medium exchange will be in accordance with the existing DPS-Customer Maintenance Contract. DPS recommends that the medium be changed at least once per year. During the appropriate service, or if so determined by the service technician during a non-scheduled service, the filter medium will be replaced with new material. Once the exposed pouches and debris have been removed, DPS has possession and must dispose of it in accordance with local, state and federal agency requirements.

Note: As the generator, the landowner is ultimately responsible for the proper disposal of the exposed filter medium and debris. Because the filter media likely contain petroleum hydrocarbons, heavy metals and other harmful pollutants, the materials must be treated as an EPA Class 2 Hazardous Waste and properly disposed of. DPS relieves the landowner of the actual disposal task, and provides certification of its completion in accordance with appropriate regulations.

DPS also has the capability of servicing all manner of storm drain filters, catch basin inserts and catch basins without inserts, underground oil/water separators, stormwater interceptors and other such devices. All DPS personnel are highly qualified technicians and are confined space trained and certified. Call us at (888) 950-8826 for further information and assistance.



GENERAL SPECIFICATIONS FOR MAINTENANCE OF *FLOGARD® LOPRO TRENCH DRAIN FILTERS*

SCOPE:

Federal, State and Local Clean Water Act regulations and those of insurance carriers require that stormwater filtration systems be maintained and serviced on a recurring basis. The intent of the regulations is to ensure that the systems, on a continuing basis, efficiently remove pollutants from stormwater runoff thereby preventing pollution of the nation's water resources. These Specifications apply to the FloGard® LoPro Trench Drain Filter.

RECOMMENDED FREQUENCY OF SERVICE:

Drainage Protection Systems (DPS) recommends that installed FloGard® LoPro Trench Drain Filters be serviced on a recurring basis. Ultimately, the frequency depends on the amount of runoff, pollutant loading and interference from debris (leaves, vegetation, cans, paper, etc.); however, it is recommended that each installation be serviced a minimum of three times per year, with a change of filter medium once per year. DPS technicians are available to do an on-site evaluation, upon request.

RECOMMENDED TIMING OF SERVICE:

DPS guidelines for the timing of service are as follows:

1. For areas with a definite rainy season: Prior to, during and following the rainy season.
2. For areas subject to year-round rainfall: On a recurring basis (at least three times per year).
3. For areas with winter snow and summer rain: Prior to and just after the snow season and during the summer rain season.
4. For installed devices not subject to the elements (wash racks, parking garages, etc.): On a recurring basis (no less than three times per year).

SERVICE PROCEDURES:

1. The trench drain grate(s) shall be removed and set to one side.
2. The service shall commence with collection and removal of sediment and debris (litter, leaves, papers, cans, etc.)
3. The trench drain shall be visually inspected for defects and possible illegal dumping. If illegal dumping has occurred, the proper authorities and property owner representative shall be notified as soon as practicable.
4. Using an industrial vacuum, the collected materials shall be removed from the filter liner. (Note: DPS uses a truck-mounted vacuum for servicing FloGard® LoPro Trench Drain Filters.)
5. When all of the collected materials have been removed, the filter assembly shall be removed from the drainage inlet. The outer filter liner shall be removed from the filter assembly and filter medium pouches shall be removed by unsnapping the tether from the interior ring and set to one side. The filter liner, PVC body and fittings shall be inspected for continued serviceability. Minor damage or defects found shall be corrected on the spot and a notation made on the Maintenance Record. More extensive deficiencies that affect the efficiency of the filter (torn liner, etc.), if approved by the customer representative, will be corrected and a quote submitted to the representative along with the Maintenance Record.
6. The filter liner and filter medium pouches shall be inspected for defects and continued serviceability and replaced as necessary and the pouch tethers re-attached to the PVC body interior ring.
7. The grate(s) shall be replaced.

REPLACEMENT AND DISPOSAL OF EXPOSED FILTER MEDIUM AND COLLECTED DEBRIS

The frequency of filter medium pouch exchange will be in accordance with the existing DPS-Customer Maintenance Contract. DPS recommends that the medium be changed at least once per year. During the appropriate service, or if so determined by the service technician during a non-scheduled service, the filter medium pouches will be replaced. Once the exposed pouches and debris have been placed in the container, DPS has possession and must dispose of it in accordance with local, state and federal agency requirements.

DPS also has the capability of servicing all types of catch basin inserts and catch basins without inserts, underground oil/water separators, stormwater interceptors and other treatment devices. All DPS personnel are highly qualified technicians and are confined space trained and certified. Call us at (888) 950-8826 for further information and assistance.

04/07



GENERAL SPECIFICATIONS FOR MAINTENANCE OF *FLOGARD® LOPRO MATRIX FILTERS*

SCOPE:

Federal, State and Local Clean Water Act regulations and those of insurance carriers require that stormwater filtration systems be maintained and serviced on a recurring basis. The intent of the regulations is to ensure that the systems, on a continuing basis, efficiently remove pollutants from stormwater runoff thereby preventing pollution of the nation's water resources. These Specifications apply to the FloGard® LoPro Matrix Filter.

RECOMMENDED FREQUENCY OF SERVICE:

Drainage Protection Systems (DPS) recommends that installed FloGard® LoPro Matrix Filters be serviced on a recurring basis. Ultimately, the frequency depends on the amount of runoff, pollutant loading and interference from debris (leaves, vegetation, cans, paper, etc.); however, it is recommended that each installation be serviced a minimum of three times per year, with a change of filter medium once per year. DPS technicians are available to do an on-site evaluation, upon request.

RECOMMENDED TIMING OF SERVICE:

DPS guidelines for the timing of service are as follows:

1. For areas with a definite rainy season: Prior to, during and following the rainy season.
2. For areas subject to year-round rainfall: On a recurring basis (at least three times per year).
3. For areas with winter snow and summer rain: Prior to and just after the snow season and during the summer rain season.
4. For installed devices not subject to the elements (wash racks, parking garages, etc.): On a recurring basis (no less than three times per year).

SERVICE PROCEDURES:

1. The catch basin grate(s) or cover shall be removed and set to one side.
2. The service shall commence with collection and removal of sediment and debris (litter, leaves, papers, cans, etc.).
3. The catch basin shall be visually inspected for defects and possible illegal dumping. If illegal dumping has occurred, the proper authorities and property owner representative shall be notified as soon as practicable.
4. Using an industrial vacuum, the collected materials shall be removed from the filter liner and interior of the catch basin. (Note: DPS uses a truck-mounted vacuum for servicing FloGard® LoPro Matrix Filters.)
5. When all of the collected materials have been removed, the filter assembly shall be removed from the drainage inlet. The outer filter liner shall be removed from the filter assembly and filter medium pouches shall be removed by unsnapping the tether from the stainless steel hooded outlet cover and set to one side. The filter liner, PVC body and fittings shall be inspected for continued serviceability. Minor damage or defects found shall be corrected on the spot and a notation made on the Maintenance Record. More extensive deficiencies that affect the efficiency of the filter (torn liner, etc.), if approved by the customer representative, will be corrected and a quote submitted to the representative along with the Maintenance Record.
6. The filter liner and filter medium pouches shall be inspected for defects and continued serviceability and replaced as necessary and the pouch tethers re-attached to the stainless steel hooded outlet cover assembly.
7. The grate(s) or cover shall be replaced.

REPLACEMENT AND DISPOSAL OF EXPOSED FILTER MEDIUM AND COLLECTED DEBRIS

The frequency of filter medium pouch exchange will be in accordance with the existing DPS-Customer Maintenance Contract. DPS recommends that the medium be changed at least once per year. During the appropriate service, or if so determined by the service technician during a non-scheduled service, the filter medium pouches will be replaced with new pouches. Once the exposed pouches and debris have been removed, DPS has possession and must dispose of it in accordance with local, state and federal agency requirements.

Note: As the generator, the landowner is ultimately responsible for the proper disposal of the exposed filter medium and debris. Because the filter media likely contain petroleum hydrocarbons, heavy metals and other harmful pollutants, the materials must be treated as an EPA Class 2 Hazardous Waste and properly disposed of. DPS relieves the landowner of the actual disposal task, and provides certification of its completion in accordance with appropriate regulations.

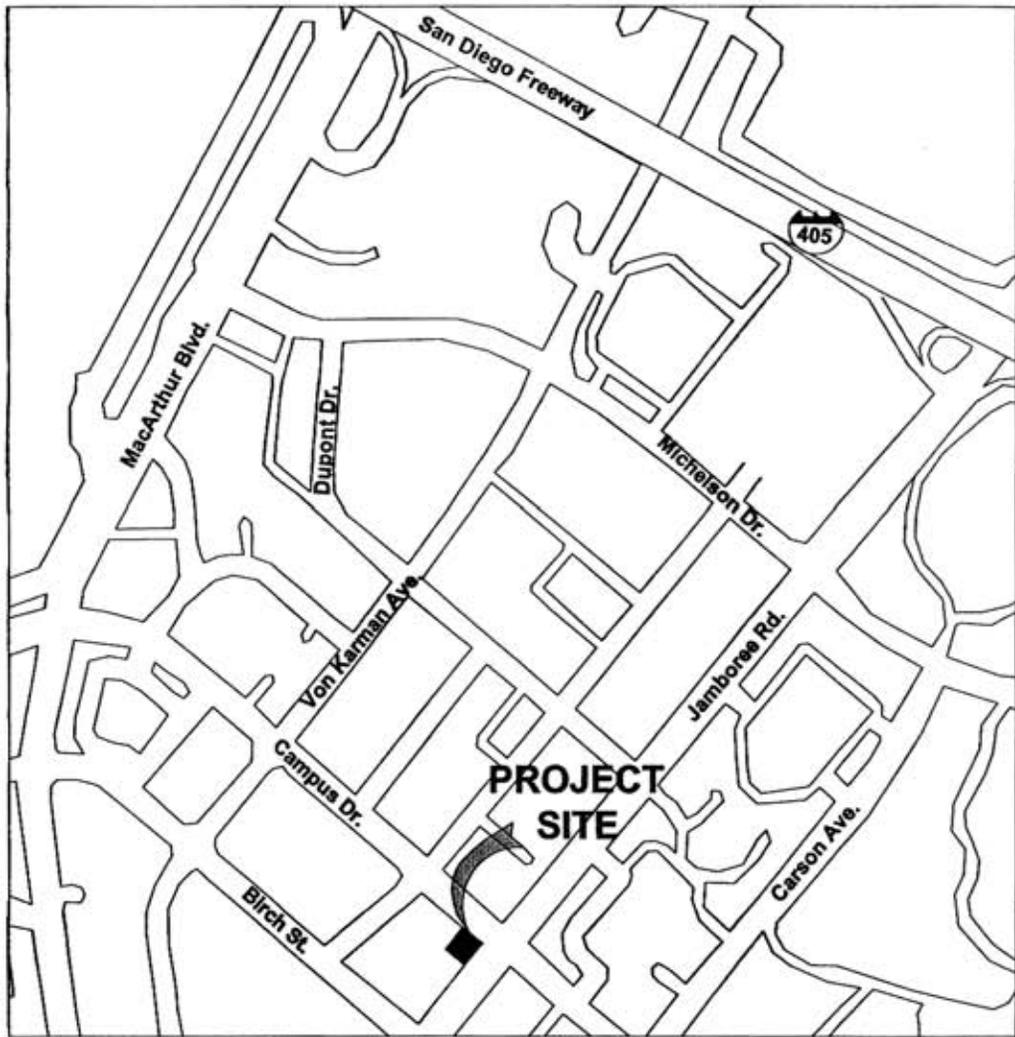
DPS also has the capability of servicing all types of catch basin inserts and catch basins without inserts, underground oil/water separators, stormwater interceptors and other treatment devices. All DPS personnel are highly qualified technicians and are confined space trained and certified. Call us at (888) 950-8826 for further information and assistance.

04/07

Section VI **Location Map, Plot Plan & BMP Details**

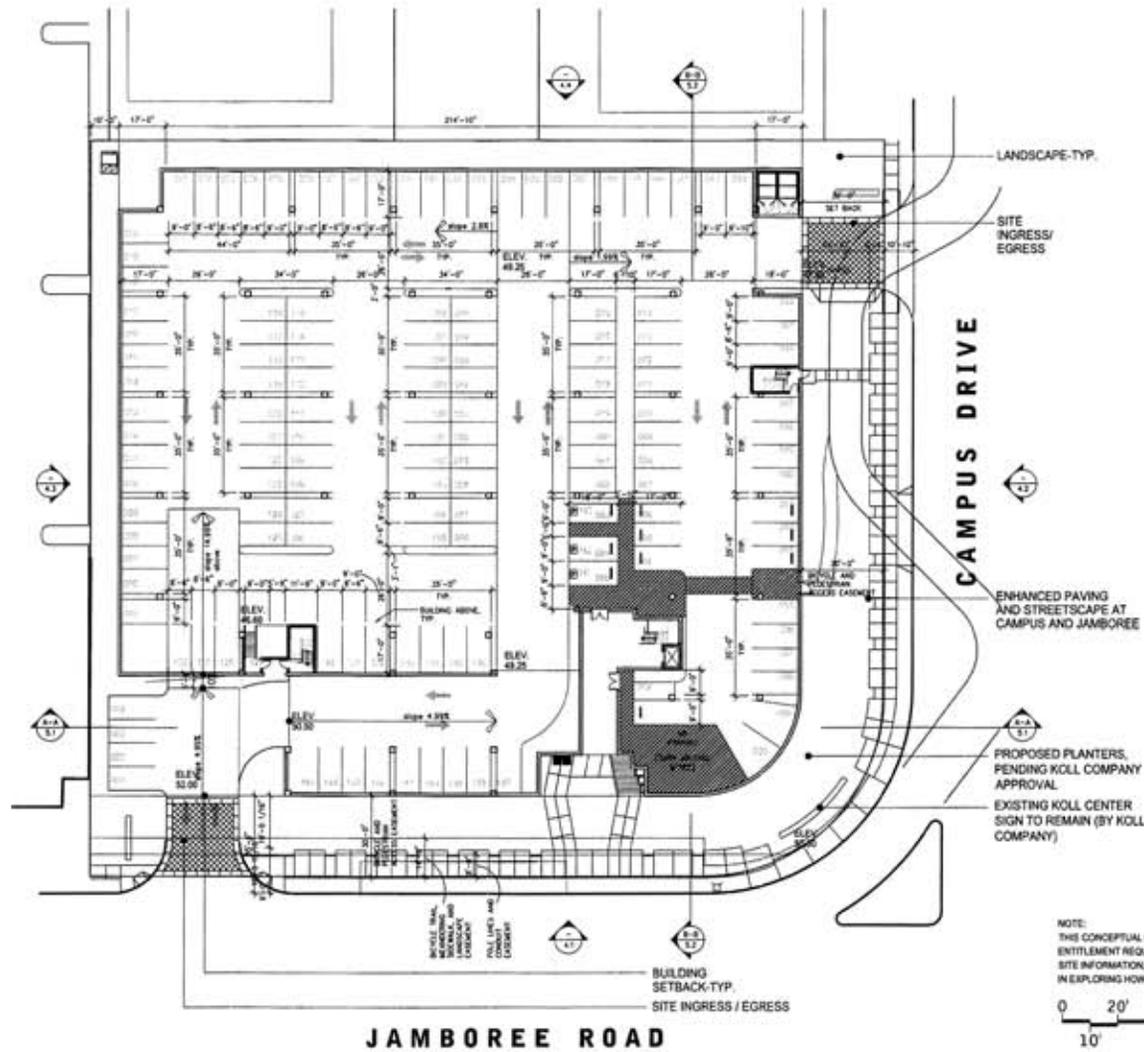
SWC CAMPUS AND JAMBOREE

**4669 JAMBOREE ROAD AND 5190 CAMPUS DRIVE,
NEWPORT BEACH, CA**

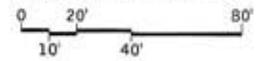


VICINITY MAP
NTS





NOTE:
THIS CONCEPTUAL DESIGN PLAN IS BASED UPON A PRELIMINARY REVIEW OF
ENTITLEMENT REQUIREMENTS AND ON UNVERIFIED AND POSSIBLY INCOMPLETE
SITE INFORMATION AND IS INTENDED MERELY TO ASSIST
IN EXPLORING HOW THE SITE MIGHT BE DEVELOPED.



Newport Business Plaza
Newport Beach, CA

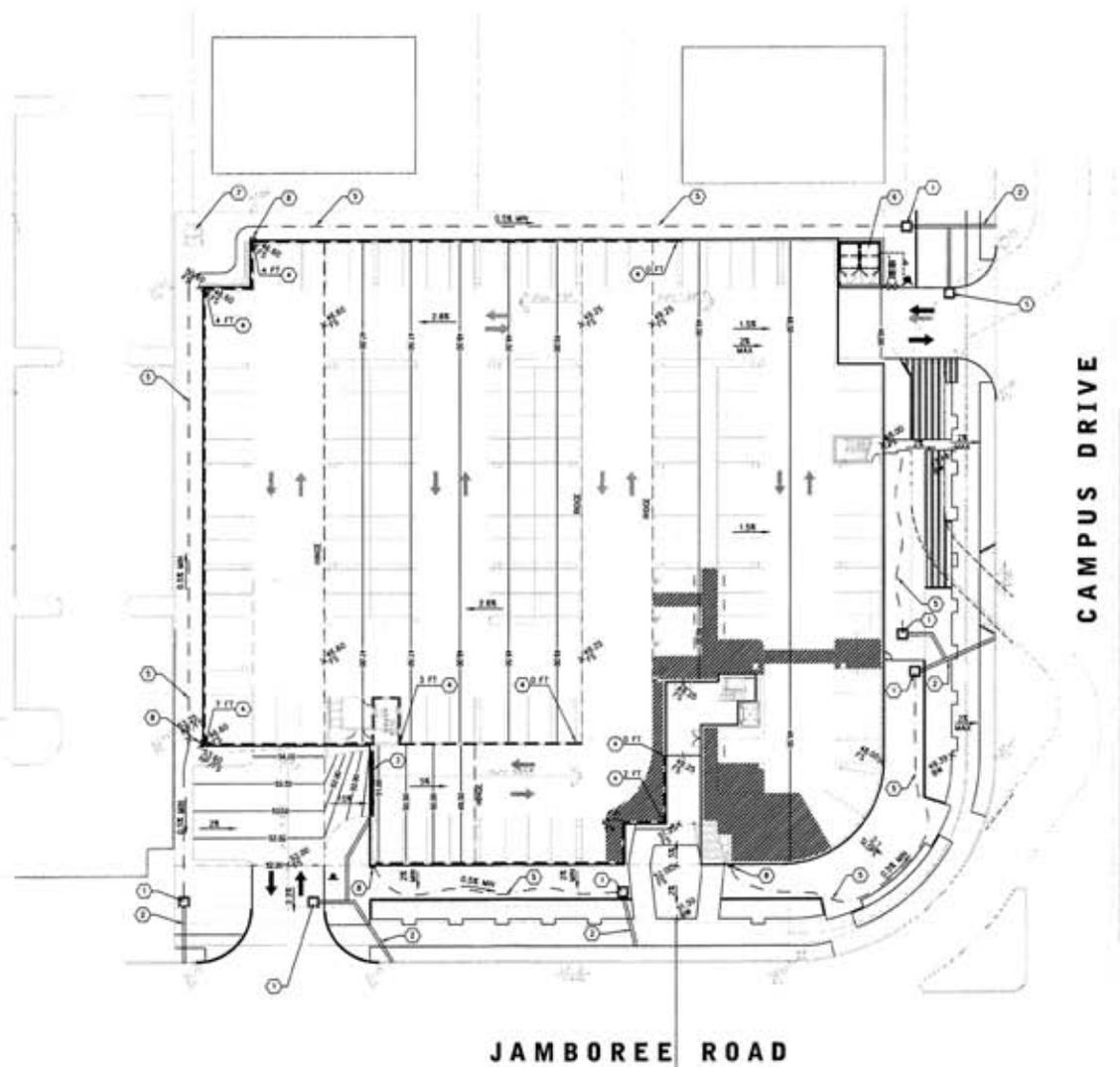
Grade Level Site Plan
scheme: 4

2.1

IRV07-0075-01
06-19-09

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PLAN SPECIFIC NOTES

- STORM DRAIN INLET (GRASSY FILTER INLETS)
- ROADWAY CURB
- FLOODING LO PRO TRENCH DRAIN WITH FILTER INSERT
- RETAINING WALL HEIGHT AS NOTED ON PLAN
- PROPOSED BOUNDARY WITH SLOPE 0.3%
- PROPOSED TRASH ENCLOSURE
- PROPOSED TRANSFORMER
- FLOODING DOWNSPOUT FILTER ASSEMBLY



WPI-NEWPORT, LLC
a California limited liability company

Newport Business Plaza
Newport Beach, CA

BMP SITEPLAN

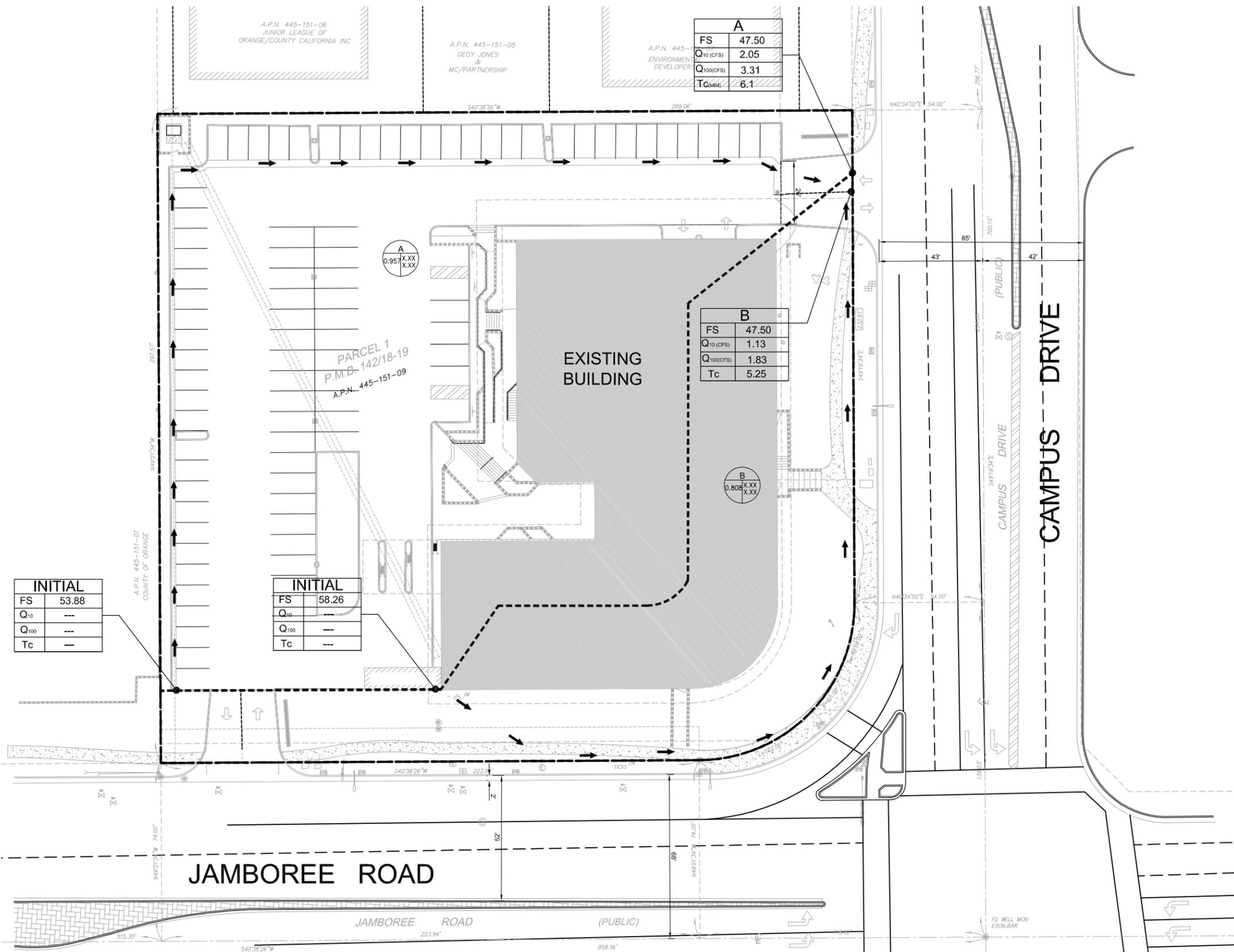
scheme: 4

C2.0

IRV07-0075-01
03-19-10

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LEGEND

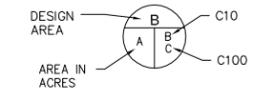
EXISTING		PROPOSED
---	PROPERTY LINE	---
- - - -	EASEMENT	- - - -
====	CURB & GUTTER	====
---5750---	CONTOURS	---5750---
○	MANHOLE	⊙
====	STORM DRAIN	====
====	ROOF DRAIN	====
□	INLET	□
<	FLARED END SECTION	◁
- - - -	ELECTRICAL	- - - -
- - - -	FIBER OPTIC	- - - -
- - - -	GAS	- - - -
- - - -	IRRIGATION	- - - -
- - - -	SANITARY SEWER	- - - -
- - - -	TELEPHONE	- - - -
- - - -	WATER	- - - -
⊕	FIRE HYDRANT	⊕

DIA	=	DIAMETER	MH	=	MANHOLE
E	=	EASTING	N	=	NORTHING
ELEV	=	ELEVATION	PR	=	PROPOSED
EX	=	EXISTING	RFD	=	ROOF DRAIN
HGL	=	HYDRAULIC GRADE LINE	STA	=	STATION
IN	=	INLET	STM	=	STORM
INV	=	INVERT	WQ	=	WATER QUALITY
			WTR	=	WATER

LEGEND

====	HYDROLOGIC AREA
-----	TRIBUTARY AREA

DIRECTION OF FLOW ←



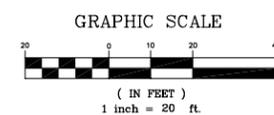
PRE DEVELOPMENT

IMPERVIOUS AREA 1.385 AC.
PERVIOUS AREA 0.380 AC.

AREA SUMMARY

IMPERVIOUS AREAS:
 BUILDING COVERAGE 0.484 AC (27.5%)
 PARKING/DRIVEWAYS/HARDSCAPES ... 0.901 AC (51.0%)
TOTAL AREA 1.385 AC (78.5%)

PERVIOUS AREAS:
 LANDSCAPE AREA 0.380 AC (21.5%)



Jamboree / Campus Center
Newport Beach, CA

PRE DEVELOPMENT DRAINAGE PLAN

C10.00

IRV07-0075-02
REV 05.06.10

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JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

PRE-DEVELOPMENT DRAINAGE FLOW

BASIN A

At=	0.63 ac.
L=	146.47 ft.
H=	0.94 ft.
Tc=	6.1 mins.
I=	3.62 in./hour
Ap=	0
Fp=	0.2
C=	0.9

At= Total Basin Area
L= Longest path of travel
H= Difference in height at travel ends
Tc= Time of Concentration(from table)
I= Intensity at Tc (from table)
Ap= pervious area fraction
Fp Max loss rate
C= 0.90 or applicable value

$F_m = A_p \times F_p$	
Fm=	0 in/hr

Soil's Group	A	B	C	D
Fp	0.4	0.3	0.25	0.2

$Q_{10} = C (I - F_m) A$	
Q10=	2.05 cu. ft./sec
Q100=	3.31 cu. ft./sec

$Q_{10} = 0.62 Q_{100}$

JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

PRE-DEVELOPMENT DRAINAGE FLOW

BASIN B

At=	0.32 ac.
L=	142.2 ft.
H=	1.85 ft.
Tc=	5.25 mins.
I=	3.95 in./hour
Ap=	0.093
Fp=	0.2
C=	0.9

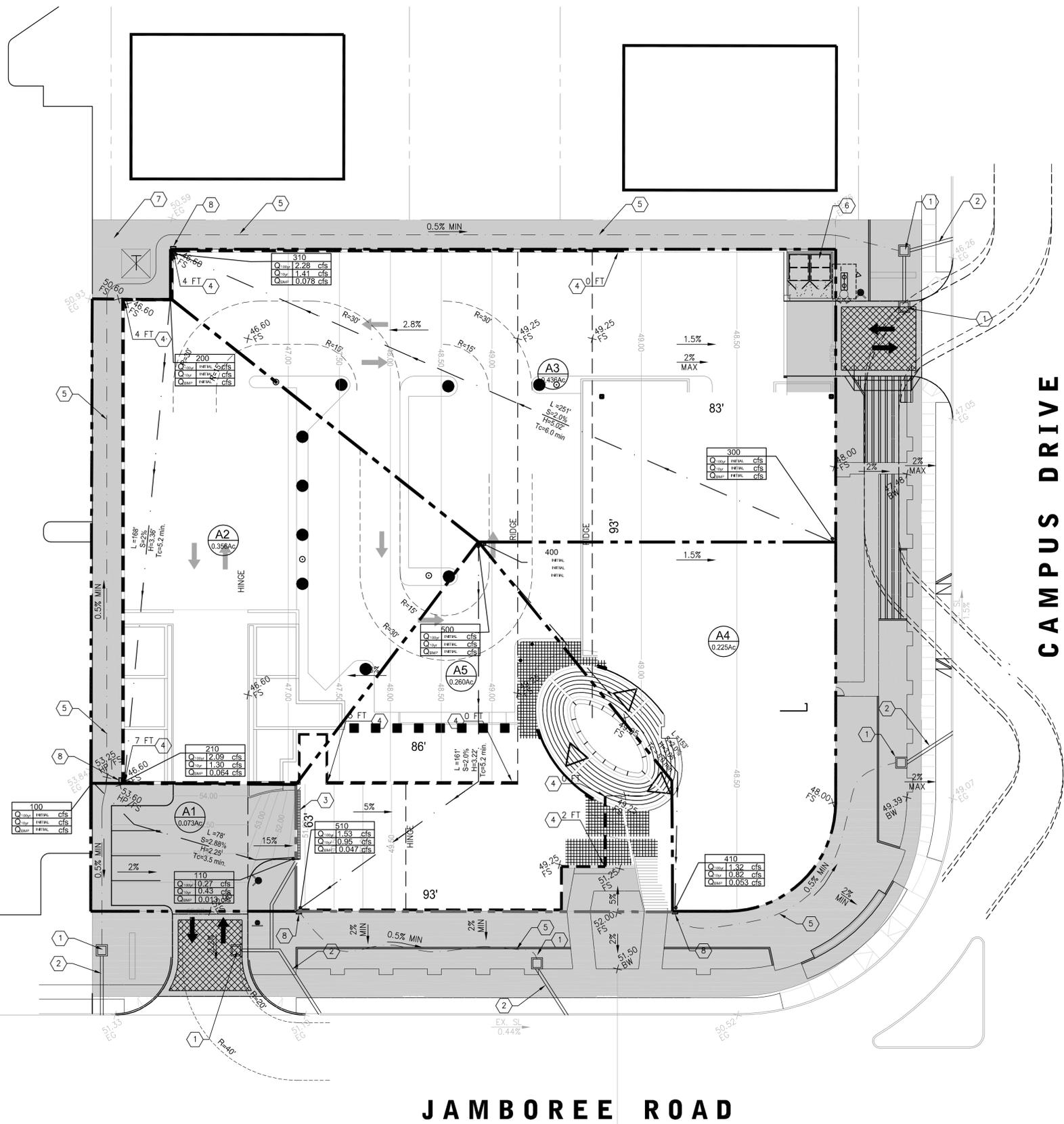
At= Total Basin Area
L= Longest path of travel
H= Difference in height at travel ends
Tc= Time of Concentration(from table)
I= Intensity at Tc (from table)
Ap= pervious area fraction
Fp Max loss rate
C= 0.90 or applicable value

$F_m = A_p \times F_p$	
Fm=	0.0186 in/hr

Soil's Group	A	B	C	D
Fp	0.4	0.3	0.25	0.2

$Q_{10} = C (I - F_m) A$	
Q10=	1.13 cu. ft./sec
Q100=	1.83 cu. ft./sec

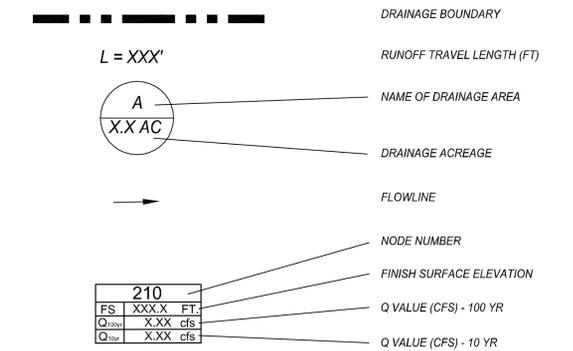
$Q_{10} = 0.62 Q_{100}$



PLAN SPECIFIC NOTES

- 1 STORM DRAIN INLET (KRISTAR FILTER INLETS)
- 2 PARKWAY CULVERT
- 3 FLOGARD LO PRO TRENCH DRAIN WITH FILTER INSERT
- 4 RETAINING WALL, HEIGHT AS NOTED ON PLAN
- 5 PROPOSED BIOSWALE, MIN SLOPE 0.5% PER DETAIL HEREON
- 6 PROPOSED TRASH ENCLOSURE
- 7 PROPOSED TRANSFORMER
- 8 FLOGARD DOWNSPOUT FILTER ASSEMBLY

LEGEND:



AREA SUMMARY

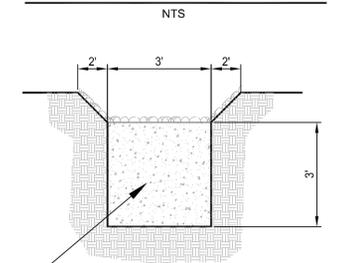
IMPERVIOUS AREAS:

BUILDING COVERAGE	1.200 AC (68%)
MISC. IMPERVIOUS AREA (PAVING)	0.106 AC (6%)
TOTAL AREA	1.306 AC (74%)

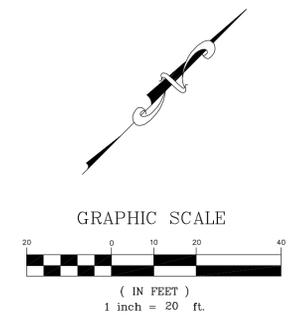
PERVIOUS AREAS:

LANDSCAPE AREA	0.459 AC (26%)
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BIOSWALE DETAIL



* THE ENTIRE BASE OF ALL BIOSWALES SHALL HAVE AN 3" LAYER MIXTURE OF SAND & PEAT. THE MIXTURE SHALL BE ½ CALTRANS FINE AGGREGATE PER 90-3.03 AND ½ PEAT OR CLASS "A" COMPOST. SAND COMPOST SHALL BE DRUM MIXED PRIOR TO PLACEMENT. TRIP TICKET PROVIDING SPECIFICATION SHALL BE MADE AVAILABLE TO INSPECTOR.



JAMBOREE ROAD

CAMPUS DRIVE



Jamboree and Campus Center
Newport Beach, CA

POST DEVELOPMENT DRAINAGE MAP

scheme: 4

C-10.1

IRV07-0075-01
REV. 05-06-2010

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JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

**Stormwater Quality Design Flow
SQDF**

Q = C x I x A

C = runoff coefficient obtained from table/interpolation

I = rainfall intensity (0.2in/hr)

A = area of the site or sub-drainage area in acres

A1	
C=	0.900
A=	0.073 ac
Imp=	100
Q=	0.013 cfs

A2	
C=	0.900
A=	0.356 ac
Imp=	90.7
Q=	0.064 cfs

A3	
C=	0.900
A=	0.436 ac
Imp=	84.7
Q=	0.078 cfs

A4	
C=	0.225
A=	1.17 ac
Imp=	100
Q=	0.053 cfs

A5	
C=	0.900
A=	0.26 ac
Imp=	100
Q=	0.047 cfs

JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

POST-DEVELOPMENT DRAINAGE FLOW

BASIN A1																								
At=	0.073 ac.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>At= Total Basin Area</td></tr> <tr><td>L= Longest path of travel</td></tr> <tr><td>H= Difference in height at travel ends</td></tr> <tr><td>Tc= Time of Concentration(from table)</td></tr> <tr><td>I= Intensity at Tc (from table)</td></tr> <tr><td>Ap= pervious area fraction</td></tr> <tr><td>Fp Max loss rate</td></tr> <tr><td>C= 0.90 or applicable value</td></tr> </table>		At= Total Basin Area	L= Longest path of travel	H= Difference in height at travel ends	Tc= Time of Concentration(from table)	I= Intensity at Tc (from table)	Ap= pervious area fraction	Fp Max loss rate	C= 0.90 or applicable value												
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I= Intensity at Tc (from table)																								
Ap= pervious area fraction																								
Fp Max loss rate																								
C= 0.90 or applicable value																								
L=	78 ft.																							
H=	2.25 ft.																							
Tc=	3.5 mins.																							
I=	4.05 in./hour																							
Ap=	0																							
Fp=	0.2																							
C=	0.9																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="5" style="text-align: center;">Fm = Ap x Fp</td> </tr> <tr> <td>Fm=</td> <td colspan="4">0 in/hr</td> </tr> </table>			Fm = Ap x Fp					Fm=	0 in/hr				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Soil's Group</td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> <td style="text-align: center;">D</td> </tr> <tr> <td style="text-align: center;">Fp</td> <td style="text-align: center;">0.4</td> <td style="text-align: center;">0.3</td> <td style="text-align: center;">0.25</td> <td style="text-align: center;">0.2</td> </tr> </table>		Soil's Group	A	B	C	D	Fp	0.4	0.3	0.25	0.2
Fm = Ap x Fp																								
Fm=	0 in/hr																							
Soil's Group	A	B	C	D																				
Fp	0.4	0.3	0.25	0.2																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Q10 = C (I - Fm) A</td> </tr> <tr> <td>Q10=</td> <td>0.27 cu. ft./sec</td> </tr> <tr> <td>Q100=</td> <td>0.43 cu. ft./sec</td> </tr> </table>			Q10 = C (I - Fm) A		Q10=	0.27 cu. ft./sec	Q100=	0.43 cu. ft./sec	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Q10 = 0.62 Q100</td> </tr> </table>		Q10 = 0.62 Q100													
Q10 = C (I - Fm) A																								
Q10=	0.27 cu. ft./sec																							
Q100=	0.43 cu. ft./sec																							
Q10 = 0.62 Q100																								

JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

POST-DEVELOPMENT DRAINAGE FLOW

BASIN A2

At=	0.356 ac.
L=	168 ft.
H=	3.36 ft.
Tc=	5.2 mins.
I=	4.05 in./hour
Ap=	0
Fp=	0.2
C=	0.9

At= Total Basin Area
L= Longest path of travel
H= Difference in height at travel ends
Tc= Time of Concentration(from table)
I= Intensity at Tc (from table)
Ap= pervious area fraction
Fp Max loss rate
C= 0.90 or applicable value

$F_m = A_p \times F_p$	
Fm=	0 in/hr

Soil's Group	A	B	C	D
Fp	0.4	0.3	0.25	0.2

$Q_{10} = C (1 - F_m) A$	
Q10=	1.30 cu. ft./sec
Q100=	2.09 cu. ft./sec

$Q_{10} = 0.62 Q_{100}$

JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

POST-DEVELOPMENT DRAINAGE FLOW

BASIN A3					
At=	0.436 ac.		At= Total Basin Area		
L=	251 ft.		L= Longest path of travel		
H=	5.02 ft.		H= Difference in height at travel ends		
Tc=	6 mins.		Tc= Time of Concentration(from table)		
I=	3.6 in./hour		I= Intensity at Tc (from table)		
Ap=	0		Ap= pervious area fraction		
Fp=	0.2		Fp Max loss rate		
C=	0.9		C= 0.90 or applicable value		
$F_m = A_p \times F_p$		Soil's Group			
Fm=	0 in/hr	A	B	C	D
		0.4	0.3	0.25	0.2
$Q_{10} = C (I - F_m) A$		$Q_{10} = 0.62 Q_{100}$			
Q10=	1.41 cu. ft./sec				
Q100=	2.28 cu. ft./sec				

JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

POST-DEVELOPMENT DRAINAGE FLOW

BASIN A4

At=	0.225 ac.
L=	153 ft.
H=	3.06 ft.
Tc=	5 mins.
I=	4.05 in./hour
Ap=	0
Fp=	0.2
C=	0.9

At= Total Basin Area
L= Longest path of travel
H= Difference in height at travel ends
Tc= Time of Concentration(from table)
I= Intensity at Tc (from table)
Ap= pervious area fraction
Fp Max loss rate
C= 0.90 or applicable value

$F_m = A_p \times F_p$	
Fm=	0 in/hr

Soil's Group	A	B	C	D
Fp	0.4	0.3	0.25	0.2

$Q_{10} = C (I - F_m) A$	
Q10=	0.82 cu. ft./sec
Q100=	1.32 cu. ft./sec

$Q_{10} = 0.62 Q_{100}$

JAMBOREE AND CAMPUS CENTER
Newport Beach, CA

POST-DEVELOPMENT DRAINAGE FLOW

BASIN A5

At=	0.26 ac.
L=	161 ft.
H=	3.22 ft.
Tc=	5.2 mins.
I=	4.05 in./hour
Ap=	0
Fp=	0.2
C=	0.9

At= Total Basin Area
L= Longest path of travel
H= Difference in height at travel ends
Tc= Time of Concentration(from table)
I= Intensity at Tc (from table)
Ap= pervious area fraction
Fp Max loss rate
C= 0.90 or applicable value

$F_m = A_p \times F_p$	
Fm=	0 in/hr

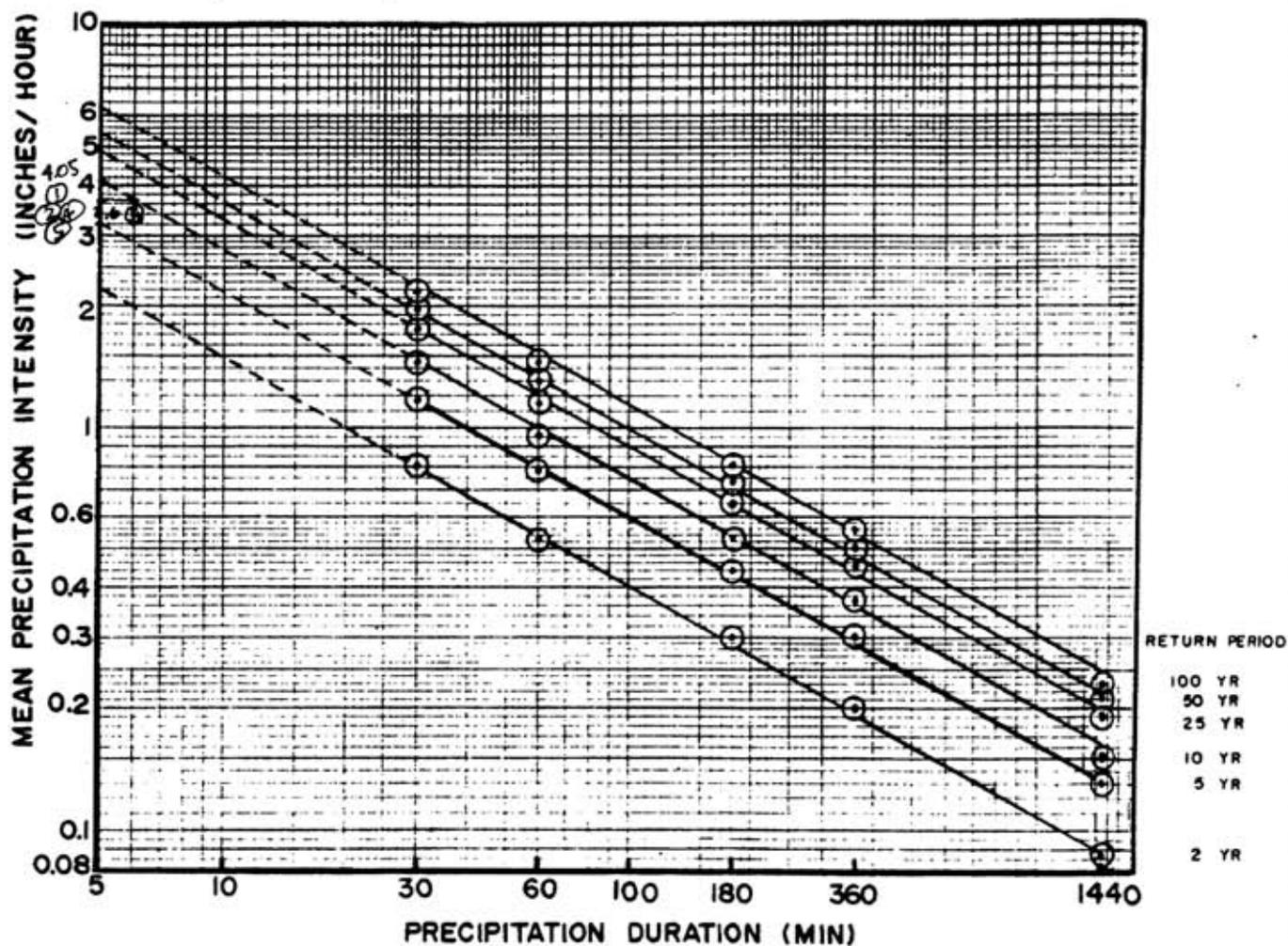
Soil's Group	A	B	C	D
Fp	0.4	0.3	0.25	0.2

$Q_{10} = C (I - F_m) A$	
Q10=	0.95 cu. ft./sec
Q100=	1.53 cu. ft./sec

$Q_{10} = 0.62 Q_{100}$

Regression Equations: $I(t) = at^b$
 (I = Intensity in inches/hour, t = duration in minutes)

Return Frequency (years)	a	b
2	5.702	-0.574
5	7.870	-0.562
10	10.209	-0.573
25	11.995	-0.566
50	13.521	-0.566
100	15.560	-0.573

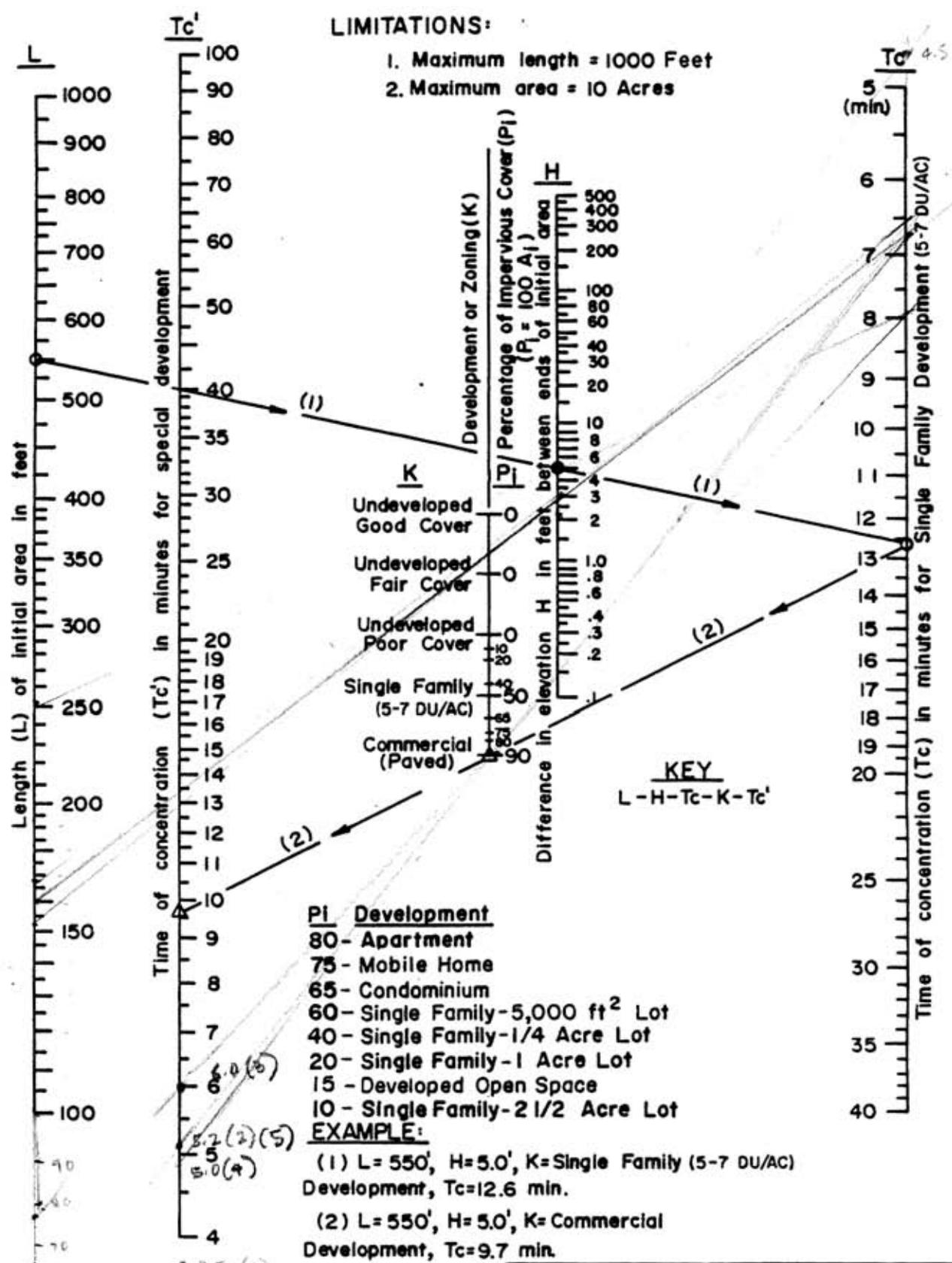


**ORANGE COUNTY
 HYDROLOGY MANUAL**

**MEAN PRECIPITATION
 INTENSITIES FOR
 NONMOUNTAINOUS AREAS**

LIMITATIONS:

1. Maximum length = 1000 Feet
2. Maximum area = 10 Acres



Filtration Information



Model No.	Inlet ID (dia., in)	Box OD (in x in x in)	Solids Storage Capacity (cu ft)	Filtered Flow (gpm)	Bypass Capacity (gpm)
FG-DS4	4	14 x 29 x 7.5	0.35	30	145
FG-DS6	6	14 x 29 x 7.5	0.35	85	425
FG-DS8	8	22 x 33 x 17.5	1.70	185	915
FG-DS10	10	22 x 33 x 17.5	1.70	325	1,650

Notes:

1. Storage capacity reflects 80% of maximum solids collection prior to impeding filtering bypass.
2. Filtered flow rate includes a safety factor of 2.
3. FloGard® Downspout Filters are available with standard Fossil Rock or other custom adsorbents.
4. FloGard® series filters should be used in conjunction with a regular maintenance program. Refer to manufacturer's recommended maintenance guidelines.

FLOGARD®
DOWNSPOUT FILTER

KriStar Enterprises, Inc., Santa Rosa, CA (800) 579-8819



FloGard® LoPro Matrix Filter

The FloGard® LoPro Matrix Filter is a modular filter designed to collect particulates, debris, metals and petroleum hydrocarbons from stormwater runoff. It includes a UV-resistant woven geo-textile wrapped around a perforated core encapsulating an adsorbent which is easily replaced, providing for flexibility, ease of maintenance, and economy.

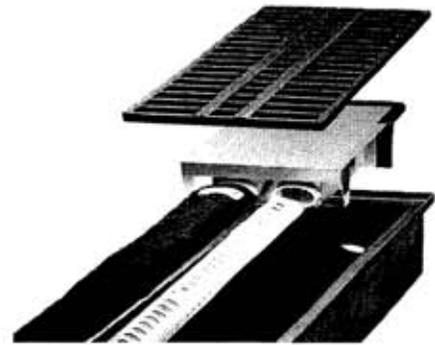
For urban sites with shallow drainage, particularly at property perimeters or across entrance driveways, the FloGard® LoPro Matrix Filter provides an effective solution to comply with stormwater runoff issues. The units perform as an effective filtering device at low flows ("first flush") and, because of the built-in high flow bypass, will not impede the drainage system's maximum design flow.

FloGard® LoPro Matrix Filters are available in sizes to fit common catch basin sizes, or are available as complete packaged "plug and play" units including filter integrated with a precast concrete catch basin with traffic-rated grate.

MODEL	CATCH BASIN ID	SOLIDS STORAGE CAPACITY CUBIC FEET	FILTERED FLOW CUBIC FEET /SECOND	TOTAL BYPASS CAPACITY CUBIC FEET /SECOND
FG-M1818	18" X 18"	0.1	0.1	1.0
FG-M2424	24" X 24"	0.3	0.3	1.7
FG-M2436	24" X 36"	0.4	0.5	2.3
FG-M3636	36" X 36"	0.8	0.9	4.1
FG-M3648	36" X 48"	1.1	1.3	4.6
FG-M4848	48" X 48"	1.6	1.8	6.6

Questions? Contact Kristar at (800) 579-8819.

04/07



FloGard® LoPro Trench Drain Filter

The FloGard® LoPro Trench Drain Filter is a modular filter designed to collect particulates, debris, metals and petroleum hydrocarbons from stormwater runoff into trench drain systems. It includes a UV-resistant woven geo-textile wrapped around a perforated core encapsulating an adsorbent which is easily replaced, providing for flexibility, ease of maintenance, and economy.

For the narrow and constricted areas often found in trench drains, the FloGard® LoPro Trench Drain Filter provides an effective solution to comply with stormwater runoff issues. The units perform as an effective filtering device at low flows ("first flush") and, because of the built-in high flow bypass, will not impede the drainage system's maximum design flow.

FloGard® LoPro Trench Drain Filters are available in sizes to fit common trench drain sizes, or are available as complete packaged "plug and play" units including filter integrated with a steel trench drain.

MODEL	FILTER TYPE	TRENCH WIDTH "ID" (clear opening)	MINIMUM TRENCH DEPTH (from bottom of grate)	SOLIDS STORAGE CAPACITY CUBIC FEET	FILTERED FLOW CUBIC FEET /SECOND	TOTAL BYPASS CAPACITY CUBIC FEET /SECOND
FG-TDOF3	PIPE	3.0	6.5	0.1	0.5	0.1
FG-TDOF4	PIPE	4.0	6.5	0.2	0.5	0.1
FG-TDOF6	PIPE	6.0	6.5	0.4	0.5	0.2
FG-TDOF8	PIPE	8.0	6.5	0.7	0.5	0.3
FG-TDOF10	PIPE	10.0	6.5	0.9	0.5	0.5
FG-TDOF12	PIPE	12.0	6.5	0.9	1.0	0.6
FG-TDOF18	PIPE	18.0	6.5	1.3	1.5	1.1
FG-TDOF24	PIPE	24.0	6.5	1.8	2.0	1.5
FG-TDOA6	PANEL	6.0	6.5	0.5	0.2	0.3
FG-TDOA8	PANEL	8.0	6.5	0.7	0.2	0.3
FG-TDOA10	PANEL	10.0	6.5	0.8	0.3	0.5
FG-TDOA12	PANEL	12.0	6.5	1.0	0.4	0.6
FG-TDOA18	PANEL	18.0	6.5	1.4	0.8	1.1
FG-TDOA24	PANEL	24.0	6.5	1.8	1.1	1.5

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ANDREW A. ADELMAN, P.E.
GENERAL MANAGER

RAYMOND CHAN
EXECUTIVE OFFICER

May 1, 2008

Craig Beatty
Kristar Enterprises, Inc.
1219 Briggs Ave
Santa Rosa, CA 95401

RESEARCH REPORT: RR 5637
EFFECTIVE DATE: 05/01/08
EXPIRATION DATE: 05/01/09
Telephone: 800-579-8819

GENERAL APPROVAL - Renewal - "Flo Gard" LoPro Matrix & Trench Drain modular series filters manufactured by Kristar Enterprises, Inc. See attachment for list of approved model numbers.

DETAILS

The FloGard Lo Pro Series Filters are designed to collect particulate, debris, metals, and petroleum hydrocarbons from storm water runoff. These filters include a UV-resistant woven geotextile fabric liner wrapped around a perforated core encapsulating a replaceable adsorbent. A built-in high flow bypass is also included in these filters. FloGard LoPro series filters may fit in a common trench drains or catch basin sizes.

The approval is subject to the following conditions:

1. This product may be installed in a storm water treatment system outside of a building (commercial or a residential) structure.
2. The storm water treatment system shall be sized in accordance with the manufacture's recommendations, Table-1 shown on Page 3, Table-2 of Page 3, Chapter 11 and Appendix D of the Los Angeles Plumbing Code (LAPC), 2008 Edition.
3. Storm water drainage piping plans shall be submitted to Mechanical Plan Check and permit shall be obtained prior to installation of this product.
4. This product shall be maintained periodically per manufacturer's printed instructions.
5. The Strom water systems shall be accessible for inspection and maintenance purposes.
6. A permit from Watershed Protection Division (Phone Number: 213-482-7066), Department of Public Works, shall be required for each installation.
7. Each storm water quality device shall be permanently identified with the name " Kristar

Kristar Enterprises, Inc.
RE: FloGard FloPro Matrix & Trench Drain Filters

DISCUSSION

File and reports were examined by the Mechanical Testing Laboratory. The materials are equivalent to that prescribed by the Los Angeles Municipal Code (LAMC) in quality, strength, effectiveness, durability and safety.

For this General Approval to be valid on any individual construction project in the City of Los Angeles, an engineer or inspector of the Department of Building and Safety must make a determination that all conditions of the General Approval required to provide equivalency have been met in the case of each construction project under construction.

This approval is granted under Sections 94.101.3, 94.301.1, 94.301.2, 94.307.0, 94.1101.1 and 94.1101.3 of LAPC, 2008 Edition.

Approved by:



Thomas Liu, Director
Mechanical Engineering Section
Engineer Bureau

Prepared by: Mark Wang
Mechanical Testing Laboratory
Engineering Bureau

Kristar Enterprises, Inc.
Research Report 5637:
FloGard® LoPro Matrix & Trench Filter Drain Capacity Tables

A. Table-1: FloGard® LoPro Matrix Filter

Model Number	Filtered Flow Capacity (cubic feet per second)	Bypass Flow Capacity (cubic feet per second)
FGM-1818	0.17	1.10
FG-M2424	0.30	1.50
FG-M2436	0.52	2.00
FG-M3636	1.36	4.60
FG-M3648	2.10	5.70
FG-M4848	2.40	6.00

B. Table-2: FloGard® LoPro Trench Drain Filter

Model Number	Filtered Flow Capacity (cubic feet per second)	Bypass Flow Capacity (cubic feet per second)
FG-TDOF3*	0.07	0.15
FG-TDOF4*	0.07	0.15
FG-TDOF6	0.07	0.32
FG-TDOF8	0.07	0.36
FG-TDOF10	0.10	0.51
FG-TDOF12	0.13	0.65
FG-TDOF18	0.22	1.10
FG-TDOF24	0.33	1.50
FG-TDOA6	0.07	0.32
FG-TDOA8	0.07	0.36
FG-TDOA10	0.07	0.51
FG-TDOA12	0.13	0.65
FG-TDOA18	0.22	1.10
FG-TDOA24	0.33	1.50

*Use pipe tee outlet adapter.

SECTION VII
Educational Materials

Section VII Educational Materials Included

The following is a list of educational materials included in this WQMP.

- * Brochure: "Stormwater 101 Fact Sheet"
- * Brochure: "The Ocean Begins at Your Front Door"
- * Brochure: "Do You Know Where The Water In Your Storm Drain Goes?"
- * Brochure: "Sewage Spill Regulatory Requirements"
- * Brochure: "Proper Maintenance Practices for Your Business"
- * Brochure: "Recycle at Your Local Used Oil Collection Center (North County)"
- * Brochure: "Recycle at Your Local Used Oil Collection Center (Central County)"
- * Brochure: "Recycle at Your Local Used Oil Collection Center (South County)"
- * Sample Stencil: "No Dumping - This Drains To Ocean"
- * Training Module: "Automotive Business - Mechanical Repair, Maintenance, Fueling
and Cleaning"



Stormwater 101 Fact Sheet

Stormwater

Excess water from heavy rainstorms that drains off paved areas picking up pollutants while flowing to the storm drain.

Urban runoff

Excess water from irrigation, overwatering, car washing and other sources that travels into the street picking up pollutants while flowing to the storm drain.

Storm drains are not sewers.

Storm drains are separate from the sanitary sewer system; unlike water in the sanitary sewers (sinks and toilets) water in storm drains is not treated before entering our waterways.

Pollution

Pollutants come from a variety of sources and locations. They include litter, pet waste, yard clippings, motor oil and soap.

How You Can Help Prevent Pollutants from Entering Our Creeks, Rivers, Bays, Beaches and Ocean

- Sweep all **yard clippings** with a broom and dispose of them in a green waste bin. **Never hose or blow leaves or trimmings into the street, gutter or storm drain!**
- Use dry cleanup methods such as applying cat litter to **spills**, sweep-up and dispose of in the trash. **Never rinse spills with water!**
- Take used **motor oil** to a service station for recycling. **Never dispose of oil in the storm drain!**
- Drain used **pool or spa water** into the sanitary sewer or dechlorinate the water before draining it. **Never pour chlorinated water down the storm drain!**

Pick up litter from your yard, street, parks, and business and dispose of it in the trash. **Never discard litter on the street.**

Reduce water from car washing and a landscaped area and consider using a professional car wash. **Never let washwater enter the street, gutter or storm drain.**

Control the amount of pesticides and fertilizers in your yard. **Never allow runoff from your yard to enter the street, gutter or storm drain.**

**By following these simple techniques,
you can prevent pollution from entering
our creeks, rivers, bays, beaches and ocean.**

The Ocean Begins at Your Front Door

For More Information

California Environmental Protection Agency

www.cal EPA.ca.gov

Air Resources Board

www.arb.ca.gov

Department of Pesticide Regulation

www.cdpr.ca.gov

Department of Toxic Substances Control

www.dtsc.ca.gov

Integrated Waste Management Board

www.iwmb.ca.gov

Office of Environmental Health Hazard Assessment

www.oehha.ca.gov

State Water Resources Control Board

www.waterboards.ca.gov

Earth 911 - community specific environmental information

1-800-cleanup or visit www.1800cleanup.org

Health Care Agency's Ocean and Bay Water Closure and Posting Hotline

714-438-6400 or visit www.ocbeachinfo.com

Integrated Waste Management/Dept. of Orange County

information on household hazardous waste collection

centers, recycling centers and solid waste collection

714-834-6752 or visit www.oclandfills.com

O.C. Agriculture Commissioner

714-447-7100 or visit www.ocagcomm.com

Stormwater Best Management Practice Handbook

Visit www.ocbimphandbooks.com

UC Master Gardener Hotline

714-708-1646 or visit www.uccecmg.org

The Orange County Stormwater Program has created and moderates an electronic mailing list to facilitate communications, take questions and exchange ideas among its users about issues and topics related to stormwater and urban runoff and the implementation of program elements. To join the list, please send an email to ocstormwaterinfo-join@list.ocwatersheds.com

Orange County Stormwater Program

Aliso Viejo	(949) 425-2535
Anaheim Public Works Operations	(714) 765-6860
Brea Engineering	(714) 990-7666
Buena Park Public Works	(714) 562-3655
Costa Mesa Public Services	(714) 754-5325
Cypress Public Works	(714) 229-6740
Dana Point Public Works	(949) 248-3584
Fountain Valley Public Works	(714) 595-4441
Fullerton Engineering Dept	(714) 738-6853
Garden Grove Public Works	(714) 741-5956
Huntington Beach Public Works	(714) 536-5431
Irvine Public Works	(949) 724-6315
La Habra Public Services	(562) 905-9792
La Palma Public Works	(714) 690-3310
Laguna Beach Water Quality	(949) 497-0378
Laguna Hills Public Service	(949) 707-2650
Laguna Niguel Public Works	(949) 362-4337
Laguna Woods Public Works	(949) 639-0500
Lake Forest Public Works	(949) 461-9480
Los Alamitos Community Dev	(562) 431-3538
Mission Viejo Public Works	(949) 470-3056
Newport Beach, Code & Water Quality Enforcement	(949) 644-3215
Orange Public Works	(714) 532-6480
Piacentia Public Works	(714) 993-8245
Rancho Santa Margarita	(949) 635-1800
San Clemente Environmental Programs	(949) 361-6143
San Juan Capistrano Engineering	(949) 234-4413
Santa Ana Public Works	(714) 647-3380
Seal Beach Engineering	(562) 431-2527 x317
Stanton Public Works	(714) 379-9222 x204
Tustin Public Works Engineering	(714) 573-3150
Villa Park Engineering	(714) 998-1500
Westminster Public Works Engineering	(714) 898-3311 x446
Yorba Linda Engineering	(714) 961-7138
Orange County Stormwater Program	(714) 567-6363

Orange County 24-Hour
Water Pollution Problem Reporting Hotline
(714)-567-6363

On-line Water Pollution Problem Reporting form
www.ocwatersheds.com



Printed on Recycled Paper



PROJECT
Pollution
PREVENTION

Even if you live miles from the Pacific Ocean, you may be unknowingly polluting it.

Did You Know?

- Most people believe that the largest source of water pollution in urban areas comes from specific sources such as factories and sewage treatment plants. In fact the largest source of water pollution comes from city streets, neighborhoods, construction sites, and parking lots. This type of pollution is sometimes called "non-point source" pollution.
- There are two types of non-point source pollution: stormwater and urban runoff pollution.
- Stormwater runoff refers to runoff resulting from rainfall. It is very noticeable during heavy rainstorms when large volumes of water drain off the urban landscape and carry pollutants along the way.
- Urban runoff can happen anytime of year, and carries pollutants from lawns, gardens, streets, parking lots, and other urban pollutants into storm drains.

Where Does It Go?

- Anything we use outside homes, vehicles and businesses – like motor oil, paint, pesticides, fertilizers, and cleaners – can be blown or washed into the storm drains.
- A little water from a garden hose or rain can also send materials into the storm drains.
- Storm drains are separate from our sanitary sewer systems; unlike water in sanitary sewers (from sinks or toilets) water in the storm drains is not treated before entering our waterways.

Sources of Non-Point Source Pollution

- Automotive leaks and spills.
- Improper disposal of used oil and other engine fluids.
- Metals found in vehicle exhaust, weathered paint, rust, metal plating, and tires.
- Pesticides and fertilizers from lawns, gardens and farms.
- Improper disposal of cleaners, paint and paint removers.
- Soil erosion and dust/debris from landscape and construction activities.
- Lawn, lawn clippings, animal waste, and other organic matter.
- Oil stains on parking lots and paved surfaces.

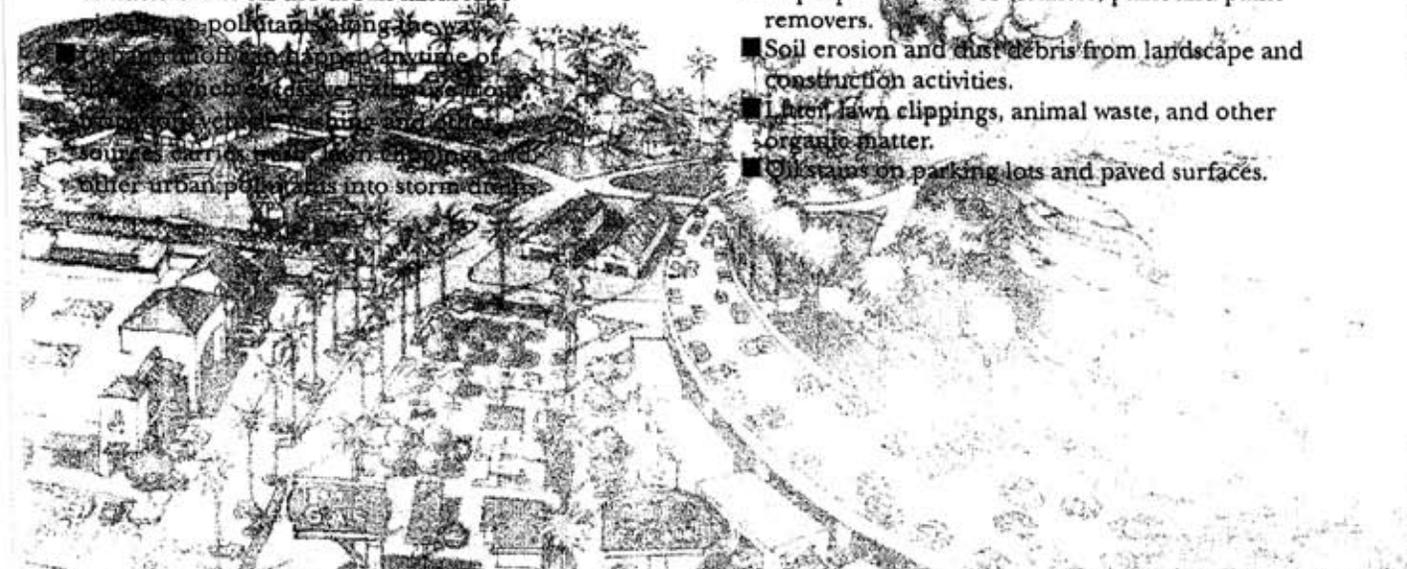
The Effect on the Ocean

Non-point source pollution can have a serious impact on water quality in Orange County. Pollutants from the storm drain system can harm marine life as well as coastal and wetland habitats. They can also degrade recreation areas such as beaches, harbors and bays.

Stormwater quality management programs have been developed by the Orange County Stormwater Program under National Pollutant Discharge Elimination System (NPDES) permits. The program educates and encourages the public to protect water quality, monitor runoff in the storm drain system, manage NPDES permit process for municipalities, investigate illegal disposals, and maintain storm drains.

The support of Orange County residents, businesses and industries is needed to improve water quality and reduce the threat of stormwater and urban runoff pollution. Proper use and disposal of materials we use everyday will help stop this form of pollution before it reaches the storm drain and the ocean.

Dumping one quart of motor oil into a storm drain can contaminate 250,000 gallons of water.



The Ocean Begins at Your Front Door



Never allow pollutants to enter the street, gutter or storm drain!

Follow these simple steps to help reduce water pollution:

Household Activities

- Do not rinse spills with water. Use dry cleanup methods such as applying cat litter or another absorbent material, sweep and dispose of in trash. Take items such as used or excess batteries, oven cleaners, automotive fluids, painting products, and cathode ray tubes, like TVs and computer monitors, to a Household Hazardous Waste collection center.
- For a household hazardous waste collection center near you call (714) 834-6752 or visit www.oilandfills.com.
- Do not hose down your driveway, sidewalk or patio to the street, gutter or storm drain. Sweep up debris and dispose of in trash.

Automotive

- Take your vehicle to a commercial car wash whenever possible. If you wash your vehicle at home, choose soaps, cleaners, or detergents labeled non-toxic, phosphate free or biodegradable. Vegetable and citrus-based products are typically safest for the environment.
- Do not allow washwater from vehicle washing into the street, gutter or storm drain. Excess washwater should be disposed of in the sanitary sewer (through a sink or toilet) or onto an absorbent surface like your lawn.
- Monitor vehicle for leaks and place a pan under leaks. Keep your vehicles well maintained to stop and prevent leaks.
- Never pour oil or antifreeze in the street, gutter or storm drain. Recycle these substances at a service station, a waste oil collection center or used oil recycling center. For the nearest Used Oil Collection Center call 1-800-CLEANUP or visit www.1800cleanup.org.

Pool Maintenance

- Pool and spa water must be dechlorinated and be free of excess acid, alkali or color to be allowed in the street, gutter or storm drain.
- Whenever possible, drain dechlorinated pool and spa water directly into the sanitary sewer but only when it is not raining.
- Some cities may have ordinances that do not allow pool water to be disposed into the storm drain. Check with your city.

Landscape and Gardening

- Do not over-water. Water your lawn and garden by hand to control the amount of water you use or set irrigation systems to reflect seasonal water needs. If water flows off your yard onto your driveway or sidewalk, your system is over-watering. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead dispose of waste by composting, hauling it to a permitted landfill, or as green waste through your city's recycling program.
- Follow directions on pesticides and fertilizer, (measure, do not estimate amounts) and do not use if rain is predicted with 48 hours.
- Take unwanted pesticides to a Household Hazardous Waste Collection Center to be recycled. For locations and hours of Household Hazardous Waste Collection Centers call 714-834-6752 or visit www.oilandfills.com.

Trash

- Place trash and litter that cannot be recycled in securely covered trash cans.
- Whenever possible, buy recycled products.
- Remember: Reduce, Reuse, Recycle

Pet Care

- Always pick up after your pet. Flush waste down the toilet or dispose in the trash. Pet waste, if left outdoors, can wash into the street, gutter or storm drain.
- If possible, bathe your pets indoors. If you must bathe your pet outside, wash it on your lawn or another absorbent/permeable surface to keep the washwater from entering the street, gutter or storm drain.
- Follow directions for use of pet care products and dispose of any unused products at a Household Hazardous Waste Collection Center.

Common Pollutants

Home Maintenance

- Detergents, cleaners and solvents
- Oil and latex paint
- Swimming pool chemicals
- Outdoor trash and litter

Lawn and Garden

- Pet and animal waste
- Pesticides
- Clippings, leaves and soil
- Fertilizer

Automobile

- Oil and grease
- Radiator fluids and antifreeze
- Cleaning chemicals
- Brake pad dust

Orange County Storm Water Program

Participants:

- Anaheim Public Works/Engineering (714) 785-5176
- Brea Engineering (714) 990-7686
- Buena Park Public Works (714) 862-8655
- Costa Mesa Public Services (714) 754-8248
- Cypress Public Works (714) 229-6740
- Dacia Point Public Works (949) 248-8562
- Fountain Valley Public Works (714) 893-4500 x347
- Fullerton Engineering Dept (714) 788-8888
- Garden Grove Public Works (714) 741-5554
- Huntington Beach Public Works (714) 836-5432
- Irvine Public Works (949) 724-6315
- La Habra Public Services (562) 905-9792
- La Palma Public Works (714) 890-8310
- Laguna Beach Public Works (949) 497-0330
- Laguna Hills Engineering (949) 707-2800
- Laguna Niguel Public Works (949) 962-4337
- Laguna Woods Public Works (949) 482-0600
- Lake Forest Public Works (949) 461-3480
- Los Alamitos Community Dev (562) 481-3538 x301
- Mission Viejo Public Works (949) 470-3000
- Newport Beach Public Works (949) 644-3000
- Orange Public Works (714) 744-8500
- Piedra Engineering (714) 993-8133
- Rancho Santa Margarita Public Works (949) 635-1800
- San Clemente Engineering (949) 361-6118
- San Juan Capistrano Engineering (949) 493-1171
- Santa Ana Public Works (714) 647-3380
- Seal Beach Engineering (562) 431-2527 x318
- Stanton Public Works (714) 379-9222 x204
- Tustin Public Works Engineering (714) 573-3150
- Villa Park Engineering (714) 998-1500
- Westminster Public Works Eng. (714) 898-8311 x229
- Yorba Linda Engineering (714) 961-7570 x174
- O. C. Storm Water Program (714) 867-8363
- O. C. Urban Runoff Plan Review (714) 834-3826
- 24 Hour Water Pollution Problem Reporting Hotline (714) 867-8363 or ashbyk@prfd.co.orange.ca.us

American Oceans Campaign www.americoceans.org
 Other Important Phone Numbers:
 For Additional Brochures (714) 867-8363

For Recycling Tips www.chwmb.ca.gov/wmprog.htm
 *O. C. Household Hazardous Waste Information (714) 834-6782 or www.oc.ca.gov/IWMD

Chemical and Hazardous Material Spill Emergencies 911
 Information on locations that accept used motor oil, California Integrated Waste Management Board (800) 553-2862 or www.CIWMB.ca.gov

Information on agriculture chemicals, pesticides and possible alternatives, O.C. Agriculture Commissioner (714) 447-7100

Information for industries regarding Hazardous Waste And Underground Storage Tank Requirements: O.C. Health Care Agency / Environmental Health Division / Hazardous Materials Management Section (714) 867-8700

**Do You Know Where
The Water In Your
Storm Drain
Goes?**



To The Ocean...

**Orange County Urban Storm Water
Pollution Prevention Program**

*Even if you live miles from
the Pacific Ocean you may
be polluting it without
knowing it.*

**How Does Orange County's
Storm Drain System Work?**

Unlike the sewer system, which carries water from your indoor drains to wastewater treatment plants, the storm drain system releases untreated water into channels, rivers and ultimately the ocean.

To insure the safety and enjoyment of our environment, everyone's help is needed to keep the storm drain system free from harmful pollutants...

*Did you know that one pint of
motor oil can produce an oil slick
of approximately one acre on the
surface of water?*

**COMMON STORM DRAIN
POLLUTANTS**

HOME MAINTENANCE

- Detergents, Cleaners and Solvents
- Oil and Latex Paint
- Swimming Pool Chemicals
- Outdoor Trash and Litter

LAWN AND GARDEN

- Pet and Animal Waste
- Pesticides, Insecticides and Herbicides
- Clippings, Leaves and Soil
- Fertilizer

AUTOMOBILE

- Oil and Grease
- Radiator Fluids and Antifreeze
- Cleaning Chemicals
- Brake pad dust



Things You Can Do To Protect The Water In Your Storm Drain System

Did you know that dumping anything in the storm drain system is illegal and harmful to the environment?

HOUSEHOLD

Some household products such as cleaners, insect spray, and weed killers, can cause pollution if allowed to drain into a storm drain. Buy household products labeled "nontoxic" whenever possible. Clean up spills with an absorbent material such as kitty litter and check with your disposal carrier or a household hazardous waste collection center for disposal recommendations.

PAINT AND SOLVENTS

Clean water-based paints from rollers, pans and brushes in sinks that go into the sewer system. Use paint thinners to remove oil-based paint from brushes and rollers, then soak used thinner and left over paint to a household hazardous waste collection center*, or keep the paint for touch ups, or give it to a friend.

AUTOMOTIVE

Keep your autos in good repair and watch for possible leaks. Take left over or used fluids to your household hazardous waste collection center*. Clean up leaks and spills with an absorbent material such as kitty litter and check with your disposal carrier or a household hazardous waste collection center* for disposal recommendations.

SWIMMING POOL AND SPA

Water containing chlorine is harmful to aquatic life. Whenever possible, drain water into the sewer system. There are established guidelines on the amount of residual chlorine, acceptable pH range, coloration, filter media and add cleaning wastes when draining into the storm drain system, and some areas may require a permit. Check with your city or call the county at 714-567-5133 for a copy of the guidelines.

LAWN AND GARDEN

Use a broom or rake to clean up yard debris and place in trash bins; lawn clippings and leaves should be placed in recycling containers if available - or better yet, leave your grass clippings on the lawn. Follow directions carefully when using pesticides and fertilizers; don't over water or use before a rain. Pesticides and fertilizers may adversely impact our waterways.

TRASH

Place trash and litter that cannot be recycled or reused in trash cans, call your city to find out if your city has a recycling program. Whenever possible, turn trash into useful products and buy recycled products.

Remember: Reduce - Reuse - Recycle

PET CARE

Pick up pet waste as soon as possible and put it in the trash. Pet waste has harmful bacteria that can get into our waterways. Also, follow label directions for disposal on pet care products; like flea shampoo, they can be toxic.

This brochure has been developed as part of the Orange County Storm Water Management Program. Participants include the County of Orange, local cities, and agencies listed in this brochure. You may contact one of them for additional brochures and information.

Before you let anything go into the gutter or the storm drain, stop and think!



Storm drain water goes directly into channels and creeks...

...and through wetlands and bays...

...to the ocean.

It's Up To You

Together, you and your neighbors can make a difference to keep gutters, storm drains and waterways clean. To learn more, contact your city or one of the program participants listed in this brochure.

Sewage Spill Regulatory Requirements

Allowing sewage to discharge to a gutter or storm drain may subject you to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up efforts.

Here are the pertinent codes, fines, and agency contact information that apply.

Orange County Stormwater Program
24 Hour Water Pollution Reporting Hotline
(714) 587-6363

- County and city water quality ordinances prohibit discharges containing pollutants.

**Orange County Health Care Agency
Environmental Health**
(714) 433-6419

California Health and Safety Code, Sections 5410-5418

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
 - must immediately notify the local health agency of the discharge.
 - shall reimburse the local health agency for services that protect the public's health and safety (water-contact receiving wastes).
 - who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between \$500-\$1,000) and/or imprisonment for less than one year.

**Regional Water Quality Control Board
Santa Ana Region San Diego Region**
(951) 782-4130 (858) 467-2952

- Requires the prevention, mitigation, response to and reporting of sewage spills.

California Office of Emergency Services
(800) 852-7550

**California Water Code, Article 4, Chapter 4, Sections 13268-13271
California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2,
Sections 2250-2280**

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters shall immediately notify the Office of Emergency Services.
- Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine (less than \$20,000) and/or imprisonment for not more than one year.

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Sewage Spill Reference Guide

Your Responsibilities as a Private Property Owner

**Residences
Businesses
Homeowner/Condominium Associations
Federal and State Complexes
Military Facilities**



**Orange County
Sanitation District**



Health Care Agency
Environmental Health



www.ocwatersheds.com

This brochure was designed courtesy of the Orange County Sanitation District (OCSD).
For additional information, call (714) 962-2411, or visit their website at www.ocsd.com

What is a Sewage Spill?

Sewage spills occur when the wastewater being transported via underground pipes overflows through a manhole, cleanout or broken pipe. Sewage spills can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways and beaches.

Common Causes of Sewage Spills:

Grease builds up inside and eventually blocks sewer pipes. Grease gets into the sewer from food establishments, household drains, as well as from poorly maintained commercial grease traps and interceptors.

Structure problems caused by tree roots in the lines, broken/cracked pipes, missing or broken cleanout caps or undersized sewers can cause blockages.

Infiltration and inflow (I/I) impacts pipe capacity and is caused when groundwater or rainwater enters the sewer system through pipe defects and illegal connections.

You Are Responsible for a Sewage Spill Caused by a Blockage or Break in Your Sewer Lines!

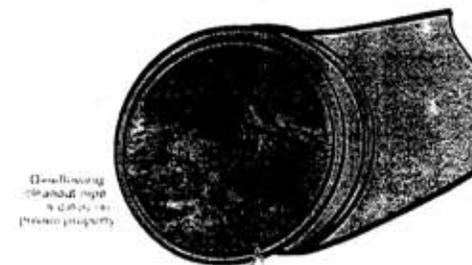
Time is of the essence in dealing with sewage spills. You are required to **immediately**:

Control and minimize the spill. Keep spills contained on private property and out of gutters, storm drains and public waterways by shutting off or not using the water.

Use sandbags, dirt and/or plastic sheeting to prevent sewage from entering the storm drain system.

Clear the sewer blockage. Always wear gloves and wash your hands. It is recommended that a plumbing professional be called for clearing blockages and making necessary repairs.

Always notify your city sewer/public works department or public sewer district of sewage spills. If the spill enters the storm drains also notify the Health Care Agency. In addition, if it exceeds 1,000 gallons notify the Office of Emergency Services. Refer to the numbers listed in this brochure.



Overflowing manhole pipe is dangerous to private property.

You Could Be Liable

Allowing sewage from your home, business or property to discharge to a gutter or storm drain may subject you to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up and enforcement efforts. See Regulatory Codes & Fines section for pertinent codes and fines that apply.

What to Look For

Sewage spills can be a very noticeable gushing of water from a manhole or a slow water leak that may take time to be noticed. Don't dismiss unaccounted-for wet areas.

Look for:

- Drain backups inside the building.
- Wet ground and water leaking around manhole lids onto your street.
- Leaking water from cleanouts or outside drains.
- Unusual odorous wet areas: sidewalks, external walls or ground/landscape around a building.

Caution

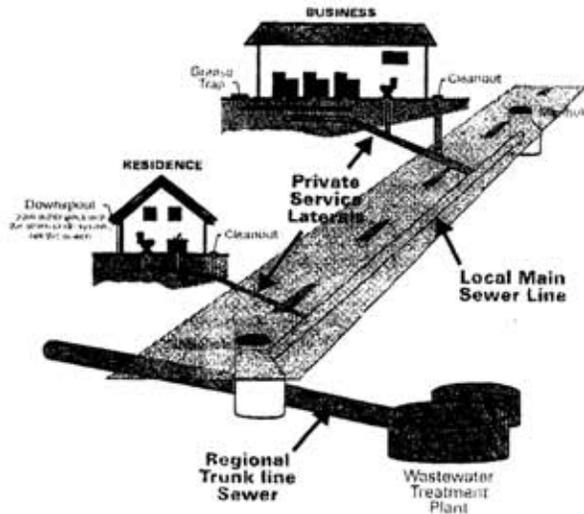
Keep people and pets away from the affected area. Untreated sewage has high levels of disease-causing viruses and bacteria. Call your local health care agency listed on the back for more information.

**If You See a Sewage Spill Occurring,
Notify Your City Sewer/Public Works
Department or Public Sewer District
IMMEDIATELY!**

How a Sewer System Works

A property owner's sewer pipes are called service laterals and are connected to larger local main and regional trunk lines. Service laterals run from the connection at the home to the connection with the public sewer (including the area under the street). These laterals are the responsibility of the property owner and must be maintained by the property owner. Many city agencies have adopted ordinances requiring maintenance of service laterals. Check with your city sewer/local public works department for more information.

Operation and maintenance of local and regional sewer lines are the responsibility of the city sewer/public works departments and public sewer districts.



How You Can Prevent Sewage Spills

- 1 Never put grease down garbage disposals, drains or toilets.
- 2 Perform periodic cleaning to eliminate grease, debris and roots in your service laterals.
- 3 Repair any structural problems in your sewer system and eliminate any rainwater infiltration/inflow leaks into your service laterals.

Preventing Grease Blockages

The drain is not a dump! Recycle or dispose of grease properly and never pour grease down the drain.

Homeowners should mix fats, oils and grease with absorbent waste materials such as paper, coffee grounds, or kitty litter and place it in the trash. Wipe food scraps from plates and pans and dump them in the trash.

Restaurants and commercial food service establishments should always use "Kitchen Best Management Practices." These include:

- Collecting all cooking grease and liquid oil from pots, pans and fryers in covered grease containers for recycling.
- Scraping or dry-wiping excess food and grease from dishes, pots, pans and fryers into the trash.
- Installing drain screens on all kitchen drains.
- Having spill kits readily available for cleaning up spills.
- Properly maintaining grease traps or interceptors by having them serviced regularly. Check your local city codes.

Orange County Department of Public Works - Insuffite

Orange County Department of Public Works - Insuffite provides a comprehensive range of services to ensure the efficient and safe operation of the county's sewer system. Our experts are available to assist with inspections, maintenance, and emergency response. For more information, please contact your local public works department.

You Could Be Liable for Not Protecting the Environment

Local and state agencies have legal jurisdiction and enforcement authority to ensure that sewage spills are remedied.

They may respond and assist with containment, relieving pipe blockages, and/or clean-up of the sewage spill, especially if the spill is flowing into storm drains or onto public property.

A property owner may be charged for costs incurred by these agencies responding to spills from private properties.

Regional Sewage Spills

Orange County Public Works Departments	
Aliso Viejo	(949) 425-2500
Anaheim	(714) 395-4000
Brea	(714) 470-2100
Costa Mesa	(714) 542-5133
Costa Mesa	(949) 945-8000
Orange	(714) 225-2700
Orange	(949) 248-3500
Orange	(714) 532-4000
Orange	(714) 758-4000
Orange	(714) 741-5375
Westminster	(714) 436-0900
Orange	(949) 452-6000
Orange	(949) 457-0700
Orange	(949) 707-2100
Orange	(949) 352-4500
Orange	(949) 831-0100
LA Habra	(927) 905-0700
LA Habra	(949) 481-3400
LA Palmdale	(714) 890-3200
LA Palmdale	(927) 431-0900
Westminster	(949) 831-2300
Westminster	(949) 832-0100
Orange	(714) 592-4400
Orange	(714) 567-4200
Orange	(714) 393-2100
Whittier	(949) 635-1100
San Clemente	(949) 086-1800
San Juan Capistrano	(949) 435-4000
Santa Ana	(714) 847-3300
Seal Beach	(927) 431-2400
Stanton	(714) 329-4200
Tustin	(714) 982-2400
Villa Park	(714) 988-1800
Westminster	(714) 833-2800
Yorba Linda	(714) 981-3100
Public Sewer/Water Districts	
Costa Mesa Sanitary District	(714) 385-4433 / (949) 445-8400
El Toro Water District	(949) 837-0600
Emerald Bay Service District	(949) 494-4571
Garden Grove Sanitary District	(714) 741-5375
Irvine Ranch Water District	(949) 453-5300
Los Alamitos/Rossmore Sewer District	(927) 431-2223
Milpitas City Sanitary District (Westminster)	(714) 893-3553
Moulton/Nigel Water District	(949) 831-2500
Orange County Sanitation District	(714) 982-2411
Santa Margarita Water District	(949) 459-4420
South Coast Water District	(949) 498-4555
South Orange County Wastewater Authority	(949) 234-5400
Sunset Beach Sanitary District	(927) 483-8932
Traabuco Canyon Sanitary District	(949) 858-0277
Yorba Linda Water District	(714) 777-3018
Other Agencies	
Orange County Health Care Agency	(714) 433-4418
Office of Emergency Services	(800) 852-7500



*Preventing water
pollution at your
commercial/industrial site*

A clean ocean and healthy creeks, rivers, bays and beaches are important to Orange County. However, many landscape and building maintenance activities can lead to water pollution if you're not careful. Paint, chemicals, plant clippings and other materials can be blown or washed into storm drains that flow to the ocean. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains and streets is not treated before entering our waterways.

You would never pour soap or fertilizers into the ocean, so why would you let them enter the storm drains? Follow the easy tips in this brochure to help prevent water pollution.

Some types of industrial facilities are required to obtain coverage under the State General Industrial Permit. For more information visit www.swrcb.ca.gov/stormwater/industrial.html.

For more
information, please call the
Orange County Stormwater Program
at (714) 567-6363
or visit
www.ocwatersheds.com.

To report a spill,
call the Orange County
24-Hour Water Pollution
Reporting Hotline
(714) 567-6363.

For emergencies dial 911.



Help Prevent Ocean Pollution

Proper Maintenance Practices for Your Business

Help Prevent Ocean Pollution From Your Business

PROJECT
Pollution
PREVENTION

Storm Drain Awareness and Maintenance Practices

Landscape Maintenance

- Compost grass clippings, leaves, sticks and other vegetation, or dispose at a permitted landfill or in green waste containers. Do not dispose of these materials in streets, waterways or storm drains.
- Irrigate slowly and inspect the system for leaks, overspraying and runoff. Adjust automatic timers to avoid over-watering.
- Follow label directions for the use and disposal of fertilizers, herbicides and pesticides.
- Do not apply pesticides, herbicides or fertilizers if rain is expected within 48 hours or if wind speeds are above 5 mph.
- Do not spray pesticides within 100 feet of waterways.
- Fertilizers should be worked into the soil rather than dumped onto the surface.
- If fertilizer is spilled on the pavement or sidewalk, sweep it up immediately and place it back in the container.

Building Maintenance

- Never allow wash water, sweepings or sediment to enter the storm drain.
- Sweep up dry spills and use cat litter, towels or similar materials to absorb wet spills. Dispose in the trash.
- If you must wash your building, sidewalk or parking lot, you **must** contain the water. Collect the water with a shop vac, and contact your city or sanitation agency for proper disposal information. Do not let water enter the street or storm drains.
- Use drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of materials in the trash.
- Use a ground cloth or oversized tub for mixing paint and cleaning tools.
- Use a damp mop or broom to clean floors.
- Cover dumpsters to block insects, animals, rainwater and sand. Keep the area around the dumpster clear of trash and debris. Do not overfill the dumpster.

- Call your trash hauler to replace leaking dumpsters.
- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain. Even materials that seem harmless — like latex paint or biodegradable cleaners — can damage the environment.
- Recycle paints, solvents, lumber and other materials.
- Store materials indoors or under cover and away from storm drains.
- Use chemicals that can be recycled. For more information about recycling and collection centers, visit www.oilandfills.com.
- Properly label materials. Familiarize employees with Material Safety Data Sheets.

**NEVER
DISPOSE OF
ANYTHING
IN THE
STORM
DRAIN.**



Did you know that just one quart of oil can pollute 250,000 gallons of water?

A clean ocean and healthy creeks, rivers, bays and beaches are important to Orange County. However, not properly disposing of used oil can lead to water pollution. If you pour or drain oil onto driveways, sidewalks or streets, it can be washed into the storm drain. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering the ocean. Help prevent water pollution by taking your used oil to a used oil collection center.

Included in this brochure is a list of locations that will accept up to five gallons of used motor oil at no cost. Many also accept used oil filters. Please contact the facility before delivering your used oil. This listing of companies is for your reference and does not constitute a recommendation or endorsement of the company.

Please note that used oil filters may not be disposed of with regular household trash. They must be taken to a household hazardous waste collection or recycling center in Anaheim, Huntington Beach, Irvine or San Juan Capistrano. For information about these centers, visit www.oilandfills.com.

Please do not mix your oil with other substances!

For more information, please call the Orange County Stormwater Program at (714) 567-6363 or visit www.watersheds.com.

For information about the proper disposal of household hazardous waste, call the Household Waste Hotline at (714) 834-6752 or visit www.oilandfills.com.



For additional information about the nearest oil recycling center, call the Used Oil Program at 1-800-CLEANUP or visit www.cleanup.org.

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Help Prevent Ocean Pollution:

Recycle at Your Local Used Oil Collection Center

The Ocean Begins at Your Front Door



NORTH COUNTY

Used Oil Collection Centers

Anaheim

All Seasons Tire and Auto Center, Inc.
817 S Brookhurst St., Anaheim, CA 92804
(714)772-8090
CIWMB#: 30-C-03177

AutoZone #5317
423 N Anaheim Blvd., Anaheim, CA 92805
(714)778-0787
CIWMB#: 30-C-05283

AutoZone #5226
2145 W Lincoln Ave., Anaheim, CA 92801
(714)533-6599
CIWMB#: 30-C-04604

Bedard Automotive
3501 E Miraloma Ave., Anaheim, CA 92806
(714)528-1380
CIWMB#: 30-C-02205

Classic Chevrolet
1001 Weir Canyon Rd., Anaheim, CA 92807
(714)283-5400
CIWMB#: 30-C-05223

Econo Lube N' Tune #4
3201 W Lincoln Ave., Anaheim, CA 92801
(714)821-0128
CIWMB#: 30-C-01485

EZ Lube Inc - Savi Ranch #43
985 N Weir Canyon Rd., Anaheim, CA 92807
(714)656-1312
CIWMB#: 30-C-06011

Firestone Store #71C7
1200 S Magnolia Ave., Anaheim, CA 92804
(949)598-5520
CIWMB#: 30-C-05743

Great Western Lube Express
125 N Brookhurst St., Anaheim, CA 92801
(714)254-1300
CIWMB#: 30-C-05542

HR Pro Auto Service Center
3180 W Lincoln Ave., Anaheim, CA 92801
(714)781-4343
CIWMB#: 30-C-05927

Ira Newman Automotive Services
1507 N State College Blvd., Anaheim, CA 92806
(714)835-2382
CIWMB#: 30-C-01482

Jiffy Lube #1028
2400 W Ball Rd., Anaheim, CA 92804
(714)781-5211
CIWMB#: 30-C-00870

Jiffy Lube #1908
2505 E Lincoln Ave., Anaheim, CA 92806
(714)772-4000
CIWMB#: 30-C-05511

Jiffy Lube #2340
2181 W Lincoln Ave., Anaheim, CA 92801
(714)533-1000
CIWMB#: 30-C-04647

Kragen Auto Parts #1303
1088 N State College Blvd., Anaheim, CA 92806
(714)956-7351
CIWMB#: 30-C-03438

Kragen Auto Parts #1399
2245 W Ball Rd., Anaheim, CA 92804
(714)490-1274
CIWMB#: 30-C-04094

Kragen Auto Parts #1565
2072 Lincoln Ave., Anaheim, CA 92806
(714)502-6992
CIWMB#: 30-C-04078

Kragen Auto Parts #1582
3420 W Lincoln Ave., Anaheim, CA 92801
(714)828-7977
CIWMB#: 30-C-04103

Pap Boys #613
10912 Katella Ave., Anaheim, CA 92804
(714)638-0663
CIWMB#: 30-C-01756

Pap Boys #663
3030 W Lincoln Ave., Anaheim, CA 92801
(714)826-4810
CIWMB#: 30-C-03417

Pap Boys #609
8205 E Santa Ana Cyn Rd., Anaheim, CA 92808
(714)974-0105
CIWMB#: 30-C-03443

Pick Your Part
1235 S Beach Blvd., Anaheim, CA 92804
(714)827-1645
CIWMB#: 30-C-03744

PK Auto Performance
3108 W. Lincoln Ave., Anaheim, CA 92801
(714)826-2141
CIWMB#: 30-C-05628

Quick Change Lube and Oil
2731 W Lincoln Ave., Anaheim, CA 92801
(714)821-4464
CIWMB#: 30-C-04363

Saturn of Anaheim
1380 S Auto Center Dr., Anaheim, CA 92808
(714)648-2444
CIWMB#: 30-C-06332

Sun Tech Auto Service
105 S State College Blvd., Anaheim, CA 92806
(714)956-1389
CIWMB#: 30-C-06455

Vonic Truck Services
515 S Rose St., Anaheim, CA 92805
(714)533-3333
CIWMB#: 30-C-01142

Anaheim Hills
Anahelm Hills Car Wash & Lube
5810 E La Palma Ave., Anaheim Hills, CA 92807
(714)777-6066
CIWMB#: 30-C-01387

Brea
Firestone Store #27A8
891 E Imperial Hwy., Brea, CA 92821
(714)829-8404
CIWMB#: 30-C-01221

Oil Can Henry's
230 N Brea Blvd., Brea, CA 92821
(714)990-1900
CIWMB#: 30-C-04273

Buena Park
Firestone Store #71F7
8011 Orangeflora Buena Park, CA 90020
(714)870-7912
CIWMB#: 30-C-01218

Firestone Store #71T8
8600 Beach Blvd., Buena Park, CA 90620
(714)827-5300
CIWMB#: 30-C-02121

Kragen Auto Parts #1304
5303 Beach Blvd., Buena Park, CA 90621
(714)994-1320
CIWMB#: 30-C-02623

Cypress
AutoZone #5521
5471 Lincoln Ave., Cypress, CA 90630
(714)956-4644
CIWMB#: 30-C-00636

Big O Tires
6052 Centros Ave., Cypress, CA 90630
(714)828-8334
CIWMB#: 30-C-04245

Econo Lube N' Tune #213
5497 Centros Ave., Cypress, CA 90630
(714)781-0458
CIWMB#: 30-C-06240

Jiffy Lube #651
4942 Lincoln Ave., Cypress, CA 90630
(826)965-9689
CIWMB#: 30-C-06182

M & N Coastline Auto & Tire Service
4005 Ball Rd., Cypress, CA 90630
(714)826-1001
CIWMB#: 30-C-04387

MasterLube #103
5904 Lincoln Cypress, CA 90630
(714)826-2323
CIWMB#: 30-C-01071

MasterLube #104
5971 Ball Rd., Cypress, CA 90630
(714)220-1555
CIWMB#: 30-C-04682

Metrix Motors of Cypress
8042 Centros Ave., Cypress, CA 90630
(714)821-4702
CIWMB#: 30-C-05157

Fullerton
AutoZone #2888
146 N. Raymond Ave., Fullerton, CA 92831
(714)870-9772
CIWMB#: 30-C-04488

AutoZone #5522
1801 Orangeflora W. Fullerton, CA 92833
(714)870-8286
CIWMB#: 30-C-06062

AutoZone #5823
102 N Euclid Fullerton, CA 92832
(714)870-8286
CIWMB#: 30-C-04755

EZ Lube #17
4002 N Harbor Blvd., Fullerton, CA 92835
(714)871-9980
CIWMB#: 30-C-03741

Firestone Store #27EH
1933 N Placentia Ave., Fullerton, CA 92831
(714)993-7100
CIWMB#: 30-C-02122

Fox Service Center
1018 W Orangeflora Fullerton, CA 92833
(714)879-1430
CIWMB#: 30-C-02318

Fullerton College Automotive Technology
321 E Chapman Ave., Fullerton, CA 92832
(714)992-7275
CIWMB#: 30-C-03166

Kragen Auto Parts #0731
2978 Yorba Linda Fullerton, CA 92831
(714)996-4780
CIWMB#: 30-C-02628

Kragen Auto Parts #4133
904 W Orangeflora Ave., Fullerton, CA 92832
(714)528-3570
CIWMB#: 30-C-06256

Pap Boys #642
1530 S Harbor Blvd., Fullerton, CA 92832
(714)870-0700
CIWMB#: 30-C-01755

Sunnyside 76 Car Care Center
2701 N Brea Blvd., Fullerton, CA 92835
(714)256-0773
CIWMB#: 30-C-01381

Garden Grove
76 Pro Lube Plus
9001 Trask Ave., Garden Grove, CA 92844
(714)383-0590
CIWMB#: 30-C-05276

AutoZone #5527
13190 Harbor Blvd., Garden Grove, CA 92843
(714)836-5665
CIWMB#: 30-C-04760

David Murray Shell
12571 Vly View St., Garden Grove, CA 92845
(714)898-0170
CIWMB#: 30-C-00647

Express Lube & Wash
8100 Lampson Ave., Garden Grove, CA 92841
(909)318-8281
CIWMB#: 30-C-06844

Firestone Store #71B0
10081 Chapman Ave., Garden Grove, CA 92840
(714)530-4830
CIWMB#: 30-C-01224

Firestone Store #71W3
13961 Brookhurst St., Garden Grove, CA 92843
(714)590-7141
CIWMB#: 30-C-03690

Jiffy Lube #1991
13970 Harbor Blvd., Garden Grove, CA 92843
(714)554-0610
CIWMB#: 30-C-08400

Kragen Auto Parts #1281
13933 N Harbor Blvd., Garden Grove, CA 92843
(714)741-8030
CIWMB#: 30-C-02983

Kragen Auto Parts #1555
8651 Chapman Ave., Garden Grove, CA 92841
(714)741-8030
CIWMB#: 30-C-04079

Nissan of Garden Grove
9670 Trask Ave., Garden Grove, CA 92844
(714)637-0900
CIWMB#: 30-C-06553

Toyota of Garden Grove
8444 Trask Ave., Garden Grove, CA 92844
(714)895-5595
CIWMB#: 30-C-06555

La Habra
AutoZone #5632
1200 W Imperial Hwy., La Habra, CA 90631
(562)694-5337
CIWMB#: 30-C-04784

Burch Ford
201 N Harbor Blvd., La Habra, CA 90631
(562)691-3225
CIWMB#: 30-C-05179

Firestone Store #2736
1071 S Beach Blvd., La Habra, CA 90631
(562)691-1731
CIWMB#: 30-C-01169

Kragen Auto Parts #1669
1821 W Whittier Blvd., La Habra, CA 90631
(862)605-2538
CIWMB#: 30-C-04078

Pap Boys #597
125 W Imperial Hwy., La Habra, CA 90631
(714)447-0601
CIWMB#: 30-C-04028

Speedee Oil Change & Tune-Up
1580 W Imperial Hwy., La Habra, CA 90631
(562)697-3513
CIWMB#: 30-C-02008

Los Alamitos
Jiffy Lube #1740
3311 Katella Ave., Los Alamitos, CA 90720
(562)596-1827
CIWMB#: 30-C-03529

Midway City
Boles Transmission
8331 Boles Ave., Midway City, CA 92655
(714)799-6158
CIWMB#: 30-C-08788

Placentia
Advanced Auto & Diesel
144 S Bradford Placentia, CA 92870
(714)996-6222
CIWMB#: 30-C-08242

Castner's Auto Service
214 S. Bradford Ave., Placentia, CA 92870
(714)528-1311
CIWMB#: 30-C-06462

Econo Lube N' Tune
100 W Chapman Ave., Placentia, CA 92870
(714)824-0424
CIWMB#: 30-C-06484

Fairway Ford
1360 E Yorba Linda Blvd., Placentia, CA 92870
(714)824-1200
CIWMB#: 30-C-01883

Seal Beach
M & N Coastline Auto & Tire Service
12239 Seal Beach Blvd., Seal Beach, CA 90740
(714)828-1001
CIWMB#: 30-C-04433

Seal Beach Chevron
12541 Seal Beach Blvd., Seal Beach, CA 90740
(849)495-0774
CIWMB#: 30-C-06428

Stanton
AutoZone #2608
11320 Beach Blvd., Stanton, CA 90680
(714)995-7905
CIWMB#: 30-C-04583

Joe's Auto Clinic
11753 Beach Blvd., Stanton, CA 90680
(714)891-7715
CIWMB#: 30-C-03253

Kragen Auto Parts #1742
11951 Beach Blvd., Stanton, CA 90680
(714)799-7574
CIWMB#: 30-C-05231

Schar Tire #20
7000 Katella Ave., Stanton, CA 90680
(714)892-9924
CIWMB#: 30-C-05907

USA 10 Minute Oil Change
8100 Lampson Ave., Stanton, CA 92841
(714)373-4432
CIWMB#: 30-C-05909

Westminster
AutoZone #6443
6611 Westminster Blvd., Westminster, CA 92683
(714)898-2898
CIWMB#: 30-C-04964

AutoZone #6544
8461 Westminster Blvd., Westminster, CA 92683
(714)891-3511
CIWMB#: 30-C-04966

City of Westminster Corporate Yard
14381 Olive St., Westminster, CA 92683
(714)895-2878
CIWMB#: 30-C-02008

Honda World
13600 Beach Blvd., Westminster, CA 92683
(714)890-8900
CIWMB#: 30-C-03839

Jiffy Lube #1879
8011 Westminster Blvd., Westminster, CA 92683
(714)799-2727
CIWMB#: 30-C-02745

John's Brake & Auto Repair
12050 Hoover St., Westminster, CA 92683
(714)379-2088
CIWMB#: 30-C-08617

Kragen Auto Parts #0762
8562 Westminster Blvd., Westminster, CA 92683
(714)898-0810
CIWMB#: 30-C-02590

Midway City Sanitary District
14451 Cadenwood St., Westminster, CA 92683
(714)893-3553
CIWMB#: 30-C-01626

Pap Boys #663
15221 Beach Blvd., Westminster, CA 92683
(714)893-8544
CIWMB#: 30-C-03418

Yorba Linda
AutoZone #6648
18528 Yorba Linda Blvd., Yorba Linda, CA 92886
(714)970-8933
CIWMB#: 30-C-04971

Econo Lube N' Tune
22270 La Palma Ave., Yorba Linda, CA 92887
(714)892-8294
CIWMB#: 30-C-06913

EZ Lube Inc. #41
17511 Yorba Linda Blvd., Yorba Linda, CA 92886
(714)556-1312
CIWMB#: 30-C-05739

Firestone Store #27T3
18500 Yorba Linda Blvd., Yorba Linda, CA 92886
(714)779-1966
CIWMB#: 30-C-01222

Jiffy Lube #1532
18751 Yorba Linda Blvd., Yorba Linda, CA 92886
(714)528-2800
CIWMB#: 30-C-03777

Mike Schultz Import Service
4832 Eureka Ave., Yorba Linda, CA 92886
(714)528-4411
CIWMB#: 30-C-04313

This information was provided by the County of Orange Integrated Waste Management Department and the California Integrated Waste Management Board (CIWMB).

Did you know that just one quart of oil can pollute 250,000 gallons of water?

A clean ocean and healthy creeks, rivers, bays and beaches are important to Orange County. However, not properly disposing of used oil can lead to water pollution. If you pour or drain oil onto driveways, sidewalks or streets, it can be washed into the storm drain. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering the ocean. Help prevent water pollution by taking your used oil to a used oil collection center.

Included in this brochure is a list of locations that will accept up to five gallons of used motor oil at no cost. Many also accept used oil filters. Please contact the facility before delivering your used oil. This listing of companies is for your reference and does not constitute a recommendation or endorsement of the company.

Please note that used oil filters may not be disposed of with regular household trash. They must be taken to a household hazardous waste collection or recycling center in Anaheim, Huntington Beach, Irvine or San Juan Capistrano. For information about these centers, visit www.oilandfills.com.

Please do not mix your oil with other substances!



For more information, please call the Orange County Stormwater Program at (714) 567-6363 or visit www.watersheds.com.

For information about the proper disposal of household hazardous waste, call the Household Waste Hotline at (714) 834-6752 or visit www.oilandfills.com.



For additional information about the nearest oil recycling center, call the Used Oil Program at 1-800-CLEANUP or visit www.cleanup.org.

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Help Prevent Ocean Pollution:

Recycle at Your Local Used Oil Collection Center

The Ocean Begins at Your Front Door

PROJECT
POLLUTION
PREVENTION

CENTRAL COUNTY

used Oil Collection Centers

Balboa
Hill's Boat Service
 814 E Bay Ave., Balboa, CA 92306
 (949)876-0740
 CIWMB#: 30-C-03638

Balboa Island
Island Marine Fuel
 408 E Bay Front, Balboa Island, CA 92362
 (949)873-1103
 CIWMB#: 30-C-03728

Corona Del Mar
Corona Del Mar 78
 2201 E. Pacific Coast Hwy., Corona Del Mar, CA 92625
 (949)873-3200
 CIWMB#: 30-C-08620

Corona Del Mar Chevron
 2548 E. Coast Hwy., Corona Del Mar, CA 92625
 (949)486-0774
 CIWMB#: 30-C-09424

Mobil (Harbor View)
 6500 San Joaquin Hills Rd., Corona Del Mar, CA 92625
 (949)640-4766
 CIWMB#: 30-C-03363

Costa Mesa
AutoZone #8529
 744 W. 18th St., Costa Mesa, CA 92627
 (901)485-7189
 CIWMB#: 30-C-05992

Big O Tires #8571
 1181 Harbor Blvd., Costa Mesa, CA 92626
 (949)443-4158
 CIWMB#: 30-C-04678

Big O Tires #854
 622 E. 17th St., Costa Mesa, CA 92627
 (949)642-4191
 CIWMB#: 30-C-05811

Coast General Performance
 855 Harbor Blvd., Costa Mesa, CA 92626
 (714)640-5710
 CIWMB#: 30-C-05918

Jennell Chevrolet
 828 Harbor Blvd., Costa Mesa, CA 92626
 (714)646-1200
 CIWMB#: 30-C-08288

Z Lube Inc #18
 599 Harbor Blvd., Costa Mesa, CA 92626
 (714)666-1647
 CIWMB#: 30-C-03137

E Lube Inc #68
 10 E 17th St., Costa Mesa, CA 92627
 (714)666-1812
 CIWMB#: 30-C-05779

I Lube Inc. #44
 48 Harbor Blvd., Costa Mesa, CA 92627
 (714)666-1812
 CIWMB#: 30-C-05737

Firestone Store #7177
 5 E 17th St., Costa Mesa, CA 92627
 (949)646-2444
 CIWMB#: 30-C-02120

Ty Lube #1989
 0 E 17th St., Costa Mesa, CA 92627
 (949)646-2505
 CIWMB#: 30-C-05583

Ty Lube #1970
 75 Newport Blvd., Costa Mesa, CA 92627
 (949)646-1400
 CIWMB#: 30-C-05554

Ty Lube #807
 16 Fairview Rd., Costa Mesa, CA 92627
 (949)650-5823
 CIWMB#: 30-C-06661

Jiffy Lube #881
 376 Bristol St., Costa Mesa, CA 92626
 (714)667-8233
 CIWMB#: 30-C-05552

Kragen Auto Parts #0725
 1739 Superior Ave., Costa Mesa, CA 92627
 (949)642-3384
 CIWMB#: 30-C-02824

Kragen Auto Parts #0788
 1175 Baker Blvd., Unit E, Costa Mesa, CA 92626
 (714)662-3005
 CIWMB#: 30-C-02884

Nabers Oilfield
 2800 Harbor Blvd., Costa Mesa, CA 92628
 (714)444-5200
 CIWMB#: 30-C-06081

Oil Stop Inc.
 Oil Stop Inc. Costa Mesa, CA 92626
 (714)434-8350
 CIWMB#: 30-C-08293

Pep Boys #880
 2948 Bristol St., Costa Mesa, CA 92628
 (714)548-1533
 CIWMB#: 30-C-03418

Pizza Chevron Service Center
 3048 Bristol Costa Mesa, CA 92628
 (714)646-4257
 CIWMB#: 30-C-01123

Scher Tire Inc #18 dba Goodyear Tire
 1896 Newport Blvd., Costa Mesa, CA 92627
 (949)648-8384
 CIWMB#: 30-C-03054

Fountain Valley
Firestone Store #7147
 17075 Magnolia Ave., Fountain Valley, CA 92708
 (714)842-8941
 CIWMB#: 30-C-01219

Golden Shell
 8920 Warner Ave., Fountain Valley, CA 92708
 (714)842-7150
 CIWMB#: 30-P-05002

Kragen Auto Parts #0754
 8950 Warner Ave., Fountain Valley, CA 92708
 (714)964-6427
 CIWMB#: 30-C-02908

Kragen Auto Parts #1505
 18147 Harbor Blvd., Fountain Valley, CA 92708
 (714)531-8225
 CIWMB#: 30-C-04125

Oil Can Henry's
 8925 Warner Ave., Fountain Valley, CA 92708
 (714)479-7708
 CIWMB#: 30-C-09643

Purtilot Auto Service #10
 18780 Harbor Blvd., Fountain Valley, CA 92708
 (714)988-8888
 CIWMB#: 30-C-01580

Huntington Beach
AutoZone #8528
 8900 Warner Ave., Huntington Beach, CA 92647
 (714)891-8211
 CIWMB#: 30-C-04777

Bella Terra Car Wash
 18061 Beach Blvd., Huntington Beach, CA 92647
 (714)847-4924
 CIWMB#: 30-C-08195

Big O Tires #883
 19411 Beach Blvd., Huntington Beach, CA 92648
 (714)836-7871
 CIWMB#: 30-C-02970

Econo Lube N' Tune #28
 19981 Beach Blvd., Huntington Beach, CA 92648
 (714)836-4818
 CIWMB#: 30-C-09117

Expertise Automotive
 7890 Taber Ave. Suite A & B, Huntington Beach, CA 92648
 (714)849-8222
 CIWMB#: 30-C-05814

EZ Lube Inc #16
 7381 Edinger Ave., Huntington Beach, CA 92647
 (714)899-3800
 CIWMB#: 30-C-02389

EZ Lube Inc. #79
 8882 Adams St., Huntington Beach, CA 92647
 (714)444-5200
 CIWMB#: 30-C-08947

Firestone Store #7178
 16171 Beach Blvd., Huntington Beach, CA 92647
 (714)847-4081
 CIWMB#: 30-C-02118

Huntington Beach Car Wash
 18971 Beach Blvd., Huntington Beach, CA 92648
 (714)847-4824
 CIWMB#: 30-C-05303

Jiffy Lube #1887
 8971 Warner Ave., Huntington Beach, CA 92647
 (714)896-7213
 CIWMB#: 30-C-08053

Kragen Auto Parts #1468
 10072 Adams Ave., Huntington Beach, CA 92648
 (714)893-4186
 CIWMB#: 30-C-04284

Kragen Auto Parts #1811
 7171 Warner Ave., Huntington Beach, CA 92647
 (714)842-4331
 CIWMB#: 30-C-04129

Kragen Auto Parts #1833
 18998 Beach Blvd., Huntington Beach, CA 92648
 (714)895-2253
 CIWMB#: 30-C-02648

Oilmax 10 Minute Lube/Wash
 8952 Adams Ave., Huntington Beach, CA 92648
 (714)864-7110
 CIWMB#: 30-C-03219

Pep Boys #789
 19122 Brookhurst St., Huntington Beach, CA 92648
 (714)984-0777
 CIWMB#: 30-C-03439

Quik Change Lube & Oil
 8841 Warner Ave., Huntington Beach, CA 92648
 (714)840-2331
 CIWMB#: 30-C-08208

R Kids Tire and Service #8
 8982 Warner Ave., Huntington Beach, CA 92647
 (714)846-1188
 CIWMB#: 30-C-08891

Return of Huntington Beach
 18981 Beach Blvd., Huntington Beach, CA 92648
 (714)841-5428
 CIWMB#: 30-C-05221

USA Express Tire & Service Inc
 7232 Edinger Ave., Huntington Beach, CA 92647
 (714)842-0717
 CIWMB#: 30-C-04428

Zia's Auto Care
 19002 Magnolia St., Huntington Beach, CA 92648
 (714)888-8786
 CIWMB#: 30-C-03251

Firestone Store #7174
 51 Auto Center Dr., Irvine, CA 92618
 (949)259-8710
 CIWMB#: 30-C-03889

Irvine City Auto Parts
 14227 Culver Dr., Irvine, CA 92604
 (949)851-6888
 CIWMB#: 30-C-02188

Jiffy Lube #1888 Irvine Spectrum
 8777 Irvine Center Dr., Irvine, CA 92618
 (949)733-0485
 CIWMB#: 30-C-08094

Jiffy Lube #1888
 3080 Main St., Irvine, CA 92614
 (714)961-5481
 CIWMB#: 30-C-04450

Kragen Auto Parts #4174
 15315 Culver Dr., Ste. #170, Irvine, CA 92604
 (949)851-7115
 CIWMB#: 30-C-08417

Newport Beach
Jiffy Lube #2911
 1520 W Coast Hwy., Newport Beach, CA 92660
 (949)784-8255
 CIWMB#: 30-C-05829

Newport Landing Fuel Dock
 503 E Edgewater Newport Beach, CA 92661
 (949)873-7878
 CIWMB#: 30-C-03628

Orange
AutoZone #3942
 1855 N. Glassell Orange, CA 92667
 (714)838-4881
 CIWMB#: 30-C-04653

Big O Tires #879
 1825 E. Katella Ave., Orange, CA 92667
 (714)838-0016
 CIWMB#: 30-C-00974

David Wilsons Ford of Orange
 1380 W Katella Ave., Orange, CA 92667
 (714)832-8731
 CIWMB#: 30-C-02341

EZ Lube #74
 3232 Chapman Ave. #E, Orange, CA 92669
 (714)858-1312
 CIWMB#: 30-C-08627

Firestone Store #7185
 1690 N Tustin Ave., Orange, CA 92667
 (714)282-8144
 CIWMB#: 30-C-0122

Jiffy Lube #1487
 483 W. Katella Ave., Orange, CA 92667
 (714)780-8757
 CIWMB#: 30-C-08280

Kragen Auto Parts #1784
 910 Tustin St., Orange, CA 92667
 (714)771-9000
 CIWMB#: 30-C-02825

Managed Mobile, Inc.
 1030 N. Belavia St., #B, Orange, CA 92667
 (714)400-0250
 CIWMB#: 30-C-05778

Pep Boys #808
 218 E Katella Ave., Orange, CA 92667
 (714)997-1540
 CIWMB#: 30-C-01739

Santiago Hills Car Care
 8544 East Chapman Ave., Orange, CA 92669
 (714)918-1000
 CIWMB#: 30-C-05922

Scher Tire #33
 1821 E. Katella Ave., Orange, CA 92667
 (949)343-3100
 CIWMB#: 30-C-06324

Tabaeel Shell Service Station
 830 E Katella Ave., Orange, CA 92667
 (714)771-6990
 CIWMB#: 30-C-00582

The Tune-up Center
 193 S Main St., Orange, CA 92668
 (714)833-1878
 CIWMB#: 30-C-02091

Tony's Fuel and Towing
 1690 W La Veta Ave., Orange, CA 92668
 (714)863-7870
 CIWMB#: 30-C-00668

Truck Lubrication Company
 143 S. Pixley Orange, CA 92668
 (714)997-7730
 CIWMB#: 30-C-05001

Santa Ana
All Phase Environmental
 910 E. Fourth St., Santa Ana, CA 92701
 (714)731-8998
 CIWMB#: 30-C-09118

Arehle's Tire & Towing
 4518 Westminster Ave., Santa Ana, CA 92703
 (714)838-4818
 CIWMB#: 30-C-02058

AutoZone #3320
 2007 S. Main St., Santa Ana, CA 92707
 (901)485-7217
 CIWMB#: 30-C-08508

AutoZone #8332
 430 W 17th Santa Ana, CA 92708
 (714)847-7003
 CIWMB#: 30-C-04609

AutoZone #8330
 1101 S Bristol Santa Ana, CA 92704
 (714)241-0335
 CIWMB#: 30-C-00829

Big O Tires
 1211 W. Warner Ave., Santa Ana, CA 92707
 (714)840-8646
 CIWMB#: 30-C-04678

Big O Tires #712
 1302 E. 17th St., Santa Ana, CA 92708
 (714)841-8811
 CIWMB#: 30-C-05813

Firestone Store #7176
 2733 S Bristol Santa Ana, CA 92704
 (714)848-4018
 CIWMB#: 30-C-01223

Firestone Store #717A
 101 S Main St., Santa Ana, CA 92701
 (714)842-8857
 CIWMB#: 30-C-02123

Firestone Store #717B
 2005 N Tustin Ave., Ste A, Santa Ana, CA 92708
 (714)541-7877
 CIWMB#: 30-C-03665

Guaranty Chevrolet Motors Inc.
 711 E 17th St., Santa Ana, CA 92701
 (714)973-1711
 CIWMB#: 30-C-08506

Jiffy Lube #1303
 2025 N. Tustin Santa Ana, CA 92701
 (714)720-5757
 CIWMB#: 30-C-06283

John's Mobil
 1465 S Main St., Santa Ana, CA 92707
 (714)835-3288
 CIWMB#: 30-C-00578

Kragen Auto Parts #0738
 1502 E 17th St., Santa Ana, CA 92705
 (714)858-8051
 CIWMB#: 30-C-02810

Kragen Auto Parts #1233
 1400 W Edinger Ave., Santa Ana, CA 92704
 (714)754-1432
 CIWMB#: 30-C-02827

Kragen Auto Parts #1278
 821 W 17th St., Santa Ana, CA 92708
 (714)848-8051
 CIWMB#: 30-C-03901

Kragen Auto Parts #1818
 2337 S Bristol Ave., Santa Ana, CA 92704
 (714)567-0787
 CIWMB#: 30-C-04108

Kragen Auto Parts #1848
 1015 S Main St., Santa Ana, CA 92701
 (714)848-1870
 CIWMB#: 30-C-08894

Pep Boys #808
 180 E 1st St., Santa Ana, CA 92701
 (714)847-7477
 CIWMB#: 30-C-01738

Pep Boys #802
 1107 S Harbor Blvd., Santa Ana, CA 92704
 (714)775-0828
 CIWMB#: 30-C-01788

Purtilot Auto Service
 2518 S Main St., Santa Ana, CA 92707
 (714)849-7900
 CIWMB#: 30-C-02085

Return of Santa Ana
 1990 Auto Mall Dr., Santa Ana, CA 92705
 (714)848-2444
 CIWMB#: 30-C-08222

Scher Tire #28
 1805 N Grand Ave., Santa Ana, CA 92708
 (714)888-8644
 CIWMB#: 30-C-03228

Tustin
Big O Tires #888
 131 E 1st St., Tustin, CA 92780
 (714)844-8431
 CIWMB#: 30-C-00872

EZ Lube #42
 12872 Newport Ave., Tustin, CA 92780
 (714)858-1812
 CIWMB#: 30-C-06408

Jiffy Lube #1408
 3087 Edinger Ave., Tustin, CA 92780
 (949)851-8814
 CIWMB#: 30-C-03778

Kragen Auto Parts #1833
 802 B E 1st St., Tustin, CA 92780
 (714)844-8249
 CIWMB#: 30-C-04128

Scher Tire Inc #17 dba Goodyear Tire
 14811 Redhill Ave., Tustin, CA 92780
 (714)832-8011
 CIWMB#: 30-C-03035

Villa Park
Phil's Villa Park 78
 17771 Santiago Blvd., Villa Park, CA 92681
 (714)837-8854
 CIWMB#: 30-C-08879

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Help Prevent Ocean Pollution:

Recycle at Your Local Used Oil Collection Center

The Ocean Begins at Your Front Door



SOUTH COUNTY

Used Oil Collection Centers

ALISO VIEJO

Big O Tires
27812 Aliso Creek Rd, Suite E-100
(949) 362-4225

Econo Lube N' Tune
22932 Glenwood Dr. (949) 643-9667

Jiffy Lube
27832 Aliso Creek Road (949) 362-0005

Pep Boys
26881 Aliso Creek Road (949) 362-9254

DANA POINT

Dana Point Fuel Dock
34661 Puerto Pl. (949) 496-6113

EZ Lube Inc.
34242 Doheny Park Rd. (949) 477-1223

LAGUNA BEACH

USA Express Tire & Service Inc.
350 Broadway (949) 494-7111

LAKE FOREST

Big O Tires
20742 Lake Forest Dr. (949) 443-4155

EZ Lube
26731 Rancho Parkway (949) 465-9912

Firestone Store
24421 Rockfield Blvd. (949) 581-2660

Jiffy Lube
20781 Lake Forest Dr. (949) 583-0470

Kragen Auto Parts
24601 Raymond Way (949) 829-8292

Pep Boys
22671 Lake Forest Dr. (949) 855-9593

Ryan's Foothill Ranch Transmission
20622 Pascal Way (949) 770-6888

USA Express Tire & Service
24561 Trabuco Rd (949) 454-8001

LAGUNA NIGUEL

Econo Lube N Tune
27912 Forbes Rd. (949) 364-5833

Laguna Niguel Auto Center
26042 Cape Dr. #12 (949) 582-2191

LAGUNA HILLS

David J Phillips Buick
24888 Alicia Pkwy. (949) 831-0434

EZ Lube
24281 Moulton Pkwy. (949) 830-9840

EZ Lube
26921 Moulton Pkwy (949) 751-3436

Kragen Auto Parts
26562 Moulton Ave. (949) 831-0434

Firestone Store
24196 Laguna Hills Mall
(949) 581-4700

MISSION VIEJO

AAA Complete Auto Care & Tire
27913 Center Street (949) 347-8200

Autobahn West
25800 Jeronimo Rd. Suite 401
(949) 770-2312

Auto Zone
22942 Los Alisos (949) 830-8181

Econo Lube & Tune
25902 El Paseo (949) 582-5483

Jiffy Lube
27240 La Paz Rd. (949) 455-0470

Kragen Auto Parts
24510 Alicia Pkwy. (949) 951-9175

Mission Viejo Chevron
27742 Crown Vly. Pkwy.
(949) 364-0137

Oilmax 10 Minute Lube
25800 Jeronimo Rd. #300
(949) 859-9271

Ramona Auto Service
27210 La Paz Rd. (949) 583-1233

RANCHO SANTA MARGARITA

Jiffy Lube
23401 Antonio Parkway
(949) 589-7447

SAN CLEMENTE

EZ Lube
525 Avenida Pico (949) 940-1850

Kragen Auto Parts
1113 S. El Camino Real
(949) 492-9850

Kragen Auto Parts
400 Camino de Estrella
(949) 240-9195

San Clemente Car Wash & Oil
1731 N. El Camino Real
(949) 847-4924

SAN JUAN CAPISTRANO

Saturn of San Juan Capistrano
33033 Camino Capistrano
(949) 248-5411

Texaco Xpress Lube
27201 Ortega Hwy. (949) 489-8008



Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

Project No. 112-05-04
June 10, 2005

Ms. Connie Fox
World Premier Investments
3 Imperial Promenade, Suite 550
Santa Ana, California 92707

**RE: Groundwater Condition
SWC Jamboree Road and Campus Drive
Newport Beach, California**

Dear Ms. Fox:

As requested, we have prepared this letter to provide groundwater information for the subject site. Four borings were drilled on June 9, 2005 to depths of 41 to 51 feet below existing grade. Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. Free groundwater was encountered at a depth of approximately 32 to 33 feet below existing site grade. However, the EDR (Environmental Data Resource) report indicates the groundwater level is at a depth 21 feet below grade.

It should be recognized that water table elevation might fluctuate with time. The depth to groundwater can be expected to fluctuate both seasonally and from year to year. Fluctuations in the groundwater level may occur due to variations in precipitation, irrigation practices at the site and in the surrounding areas, climatic conditions, flow in adjacent or nearby canals, pumping from wells and possibly as the result of other factors that were not evident at the time of our investigation. Therefore, water level observations at the time of our field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report. Long-term monitoring in observation wells, sealed from the influence of surface water, is often required to more accurately define the potential range of groundwater conditions on a site.

If you have any questions regarding the information or recommendations presented in our report, or if we may be of further assistance, please contact our Ontario, California office at (909) 974-4400.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Clarence Jiang

Clarence Jiang, PE, GE
Project Manager
RCE No. 50233 / RGE No. 2477

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
8	B	Anaheim Bay	80111000	Dieldrin (tissue)		402 Acres	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
				Nickel		402 Acres	2019
		<i>This listing was made by USEPA.</i>					
			Source Unknown				
			PCBs (Polychlorinated biphenyls) (tissue)		402 Acres	2019	
		<i>This listing was made by USEPA.</i>					
			Source Unknown				
			Sediment Toxicity		402 Acres	2019	
				Source Unknown			
8	C	Balboa Beach	80114000	DDT		1.8 Miles	2019
						Source Unknown	
				Dieldrin		1.8 Miles	2019
						Source Unknown	
			PCBs (Polychlorinated biphenyls)		1.8 Miles	2019	
				Source Unknown			
8	L	Big Bear Lake	80171000	Copper		2865 Acres	2007
						Resource Extraction	
				Mercury		2865 Acres	2007
						Resource Extraction	
				Metals		2865 Acres	2007
				Resource Extraction			
			Noxious aquatic plants		2865 Acres	2006	
				Construction/Land Development			
				Unknown point source			

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Nutrients		2865 Acres	2006
					Construction/Land Development Snow skiing activities		
				PCBs (Polychlorinated biphenyls)		2865 Acres	2019
					Source Unknown		
				Sedimentation/Siltation		2865 Acres	2006
					Construction/Land Development Snow skiing activities Unknown Nonpoint Source		
8	C	Bolsa Chica State Beach	80111000	Copper		2.6 Miles	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
				Nickel		2.6 Miles	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
8	R	Buck Gully Creek	80111000	Fecal Coliform		0.3 Miles	2019
				<i>Listing is downstream of Pacific Coast Highway.</i>			
					Source Unknown		
				Total Coliform		0.3 Miles	2019
				<i>Listing is downstream of Pacific Coast Highway.</i>			
					Source Unknown		
8	L	Canyon Lake (Railroad Canyon Reservoir)	80211000	Pathogens		453 Acres	2006
					Nonpoint Source		
8	R	Chino Creek Reach 1	80121000	Nutrients		7.8 Miles	2019
					Agriculture Dairies		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
8	L	Elsnore, Lake	80231000	PCBs (Polychlorinated biphenyls)		2431 Acres	2019
					Source Unknown		
				Unknown Toxicity		2431 Acres	2007
					Unknown Nonpoint Source		
8	L	Fulmor, Lake	80221000	Pathogens		4.2 Acres	2019
					Unknown Nonpoint Source		
8	R	Grout Creek	80171000	Metals		3.5 Miles	2007
					Unknown Nonpoint Source		
				Nutrients		3.5 Miles	2008
					Unknown Nonpoint Source		
8	C	Huntington Beach State Park	80111000	Enterococcus		5.8 Miles	2019
				<i>Impaired 50 yards around drain at Magnolia St.</i>			
					Source Unknown		
				Indicator bacteria		5.8 Miles	2019
				<i>This listing was made by USEPA for 2006. This listing for indicator bacteria applies to the area of the beach at Brookhurst St.</i>			
					Source Unknown		
				PCBs (Polychlorinated biphenyls)		5.8 Miles	2019
					Source Unknown		
8	B	Huntington Harbour	80111000	Chlordane		221 Acres	2019
					Source Unknown		
				Copper		221 Acres	2019
				<i>This listing was made by USEPA.</i>			
					Source Unknown		
				Lead		221 Acres	2019
					Source Unknown		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Nickel <i>This listing was made by USEPA.</i>	Source Unknown	221 Acres	2019
				Pathogens	Urban Runoff/Storm Sewers	221 Acres	2019
				PCBs (Polychlorinated biphenyls) (tissue) <i>This listing was made by USEPA.</i>	Source Unknown	221 Acres	2019
				Sediment Toxicity	Source Unknown	221 Acres	2019
8	R	Knickerbocker Creek	80171000	Metals	Unknown Nonpoint Source	2 Miles	2007
				Pathogens <i>For 2006, pathogens was moved by USEPA from the being addressed list back to the 303(d) list pending completion and USEPA approval of a TMDL.</i>	Unknown Nonpoint Source	2 Miles	2005
8	R	Los Trancos Creek (Crystal Cove Creek)	80111000	Fecal Coliform <i>Listing is downstream of Pacific Coast Highway.</i>	Source Unknown	0.19 Miles	2019
				Total Coliform <i>Listing is downstream of Pacific Coast Highway.</i>	Source Unknown	0.19 Miles	2019
8	R	Lytle Creek	80141000	Pathogens	Unknown Nonpoint Source	41 Miles	2019
8	R	Mill Creek (Prado Area)	80121000	Nutrients	Agriculture Dairies	1.6 Miles	2019

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Total Suspended Solids (TSS)		1.6 Miles	2019
8	R	Mill Creek Reach 1	80156000		Dairies		
				Pathogens		12 Miles	2019
					Unknown Nonpoint Source		
8	R	Mill Creek Reach 2	80158000				
				Pathogens		12 Miles	2019
					Unknown Nonpoint Source		
8	R	Mountain Home Creek	80158000				
				Pathogens		3.7 Miles	2019
					Unknown Nonpoint Source		
8	R	Mountain Home Creek, East Fork	80158000				
				Pathogens		5.1 Miles	2019
					Unknown Nonpoint Source		
8	B	Newport Bay, Lower	80114000				
				Chlordane		767 Acres	2019
					Source Unknown		
				Copper		767 Acres	2007
					Source Unknown		
				DDT		767 Acres	2019
					Source Unknown		
				PCBs (Polychlorinated biphenyls)		767 Acres	2019
					Source Unknown		
				Sediment Toxicity		767 Acres	2019
					Source Unknown		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
8	E	Newport Bay, Upper (Ecological Reserve)	80111000	Chlordane		653 Acres	2019
					Source Unknown		
				Copper		653 Acres	2007
					Source Unknown		
				DDT		653 Acres	2019
					Source Unknown		
				Metals		653 Acres	2019
					Urban Runoff/Storm Sewers		
				PCBs (Polychlorinated biphenyls)		653 Acres	2019
					Source Unknown		
				Sediment Toxicity		653 Acres	2019
					Source Unknown		
8	R	Peters Canyon Channel	80111000	DDT		3 Miles	2019
					Source Unknown		
				Toxaphene		3 Miles	2019
					Source Unknown		
8	L	Prado Park Lake	80121000	Nutrients		90 Acres	2019
					Nonpoint Source		
8	R	Rathbone (Rathbun) Creek	80171000	Nutrients		4.7 Miles	2008
					Snow skiing activities		
					Unknown Nonpoint Source		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
				Sedimentation/Siltation		4.7 Miles	2006
					Snow skiing activities Unknown Nonpoint Source		
8	B	Rhine Channel	80114000	Copper		20 Acres	2019
				Lead	Source Unknown	20 Acres	2019
				Mercury	Source Unknown	20 Acres	2019
				PCBs (Polychlorinated biphenyls)	Source Unknown	20 Acres	2019
				Sediment Toxicity	Source Unknown	20 Acres	2019
				Zinc	Source Unknown	20 Acres	2019
8	R	San Diego Creek Reach 1	80111000	Fecal Coliform		7.8 Miles	2019
					Urban Runoff/Storm Sewers Other Urban Runoff		
				Selenium		7.8 Miles	2007
				Toxaphene	Source Unknown	7.8 Miles	2019
					Source Unknown		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

USEPA APPROVAL DATE: JUNE 28, 2007

REGION	TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
8	R	San Diego Creek Reach 2	80111000	Metals		6.3 Miles	2007
					Urban Runoff/Storm Sewers		
8	R	Santa Ana River, Reach 4	80127000	Pathogens		14 Miles	2019
					Nonpoint Source		
8	R	Santiago Creek, Reach 4	80112000	Salinity/TDS/Chlorides		9.8 Miles	2019
					Source Unknown		
8	C	Seal Beach	80111000	Enterococcus		0.53 Miles	2019
				<i>Impaired 50 yards around drain at 1st Street.</i>			
					Source Unknown		
				PCBs (Polychlorinated biphenyls)		0.53 Miles	2019
					Source Unknown		
8	R	Silverado Creek	80112000	Pathogens		11 Miles	2019
					Unknown Nonpoint Source		
				Salinity/TDS/Chlorides		11 Miles	2019
					Unknown Nonpoint Source		
8	R	Summit Creek	80171000	Nutrients		1.5 Miles	2008
					Construction/Land Development		

2006 CWA SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS REQUIRING TMDLS

SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD

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REGION TYPE	NAME	CALWATER WATERSHED	POLLUTANT/STRESSOR	POTENTIAL SOURCES	ESTIMATED SIZE AFFECTED	PROPOSED TMDL COMPLETION
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ABBREVIATIONS

REGIONAL WATER QUALITY CONTROL BOARDS

- 1 North Coast
- 2 San Francisco Bay
- 3 Central Coast
- 4 Los Angeles
- 5 Central Valley
- 6 Lahontan
- 7 Colorado River Basin
- 8 Santa Ana
- 9 San Diego

WATER BODY TYPE

- B = Bays and Harbors
- C = Coastal Shorelines/Beaches
- E = Estuaries
- L = Lakes/Reservoirs
- R = Rivers and Streams
- S = Saline Lakes
- T = Wetlands, Tidal
- W = Wetlands, Freshwater

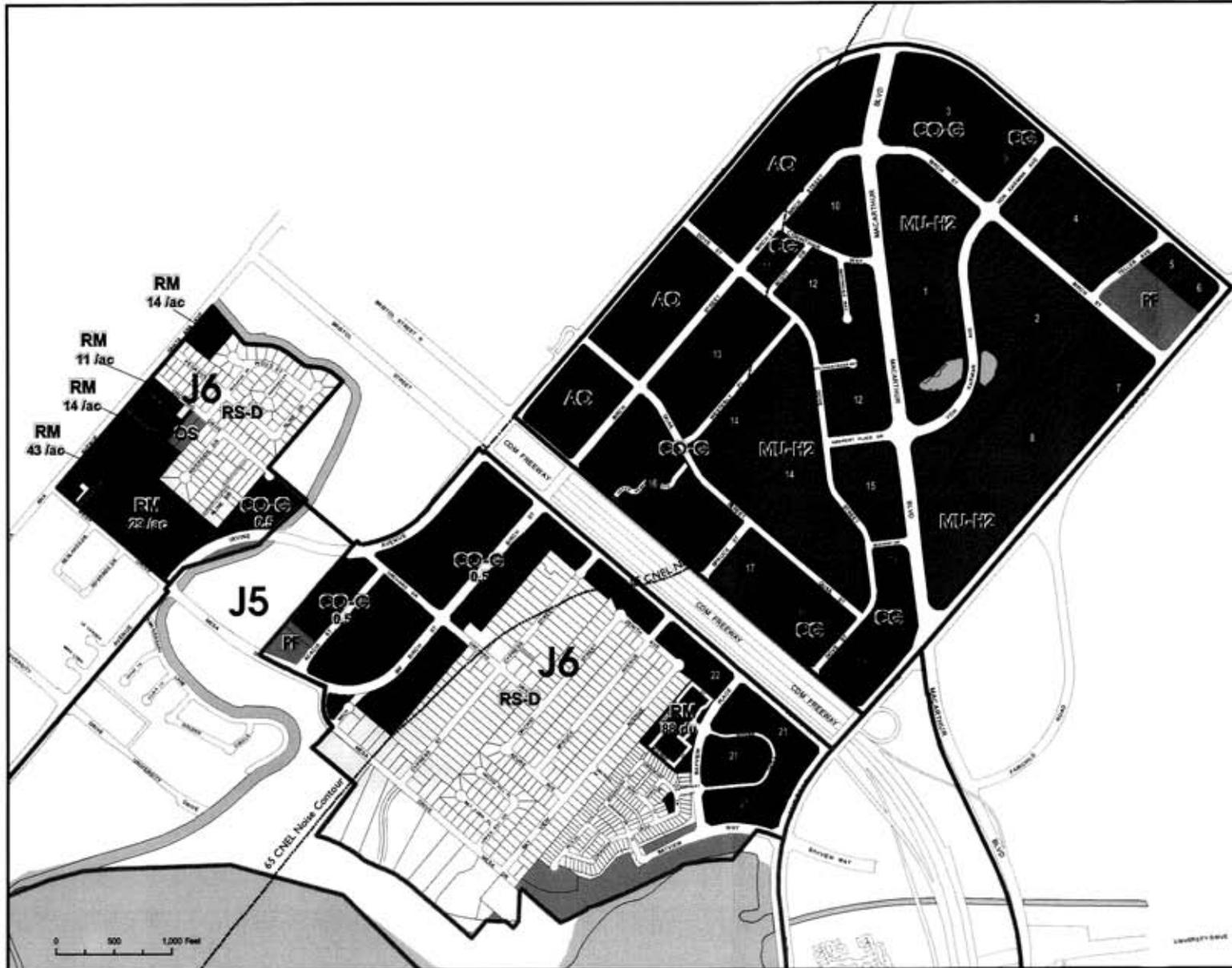
CALWATER WATERSHED

"Calwater Watershed" is the State Water Resources Control Board hydrological subunit area or an even smaller area delineation.

GROUP A PESTICIDES OR CHEM A

aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorocyclohexane (including lindane), endosulfan, and toxaphene

CITY OF NEWPORT BEACH
 GENERAL PLAN
 Figure LU11
 STATISTICAL AREAS
 J6, L4



- Residential Neighborhoods**
- RM Single-Unit Residential Detached
 - RM-A Single-Unit Residential Attached
 - RM-TWO Two-Unit Residential
 - RM-MUR Multiple-Unit Residential
 - RM-MUR-D Multiple-Unit Residential Detached
- Commercial Districts and Corridors**
- CO-G Neighborhood Commercial
 - CO-C Corridor Commercial
 - CO-General General Commercial
 - CO-VSC Visitor Serving Commercial
 - CO-RMC Recreational and Marine Commercial
 - CO-REG Regional Commercial
- Commercial Office Districts**
- CO-GCO General Commercial Office
 - CO-MCO Medical Commercial Office
 - CO-RCO Regional Commercial Office
- Industrial Districts**
- CO-IND Industrial
- Airport Supporting Districts**
- AO Airport Office and Supporting Uses
- Mixed-Use Districts**
- MU-FR Mixed Use Vertical
 - MU-FR-H Mixed Use Horizontal
 - MU-FR-WR Mixed Use Water Related
- Public, Semi-Public and Institutional**
- CO-PF Public Facilities
 - CO-PI Private Institutions
 - CO-PR Parks and Recreation
 - CO-OS Open Space
 - CO-TSL Tidelands and Submerged Lands
- City of Newport Beach**
- City of Newport Beach Boundary
 - Statistical Area Boundary
 - Land Use Delineator Line
 - Refer to anomaly table



CITY OF NEWPORT BEACH
 GENERAL PLAN
 Figure LU2
 INDEX MAP



- Residential Neighborhoods**
- RS-O Single-Unit Residential Detached
 - RS-A Single-Unit Residential Attached
 - RT Two-Unit Residential
 - RM Multiple Unit Residential
 - RM-D Multiple-Unit Residential Detached
 - RM-OS Multiple-Unit Residential / Open Space
- Commercial Districts and Corridors**
- NC Neighborhood Commercial
 - CC Corridor Commercial
 - GC General Commercial
 - VSC Visitor Serving Commercial
 - RCM Recreational and Marine Commercial
 - RC Regional Commercial
- Commercial Office Districts**
- GC-Office General Commercial Office
 - MC-Office Medical Commercial Office
 - RC-Office Regional Commercial Office
- Industrial Districts**
- I Industrial
- Airport Supporting Districts**
- ASU Airport Office and Supporting Uses
- Mixed-Use Districts**
- MUV Mixed Use Vertical
 - MUH Mixed Use Horizontal
 - MUR Mixed Use Water Related
- Public, Semi-Public and Institutional**
- PF Public Facilities
 - PI Private Institutions
 - PR Parks and Recreation
 - OS Open Space
 - OSRV Open Space / Residential Village (Residential uses, if not acquired as permanent open space)
 - TL Tidelands and Submerged Lands
- City of Newport Beach Boundary



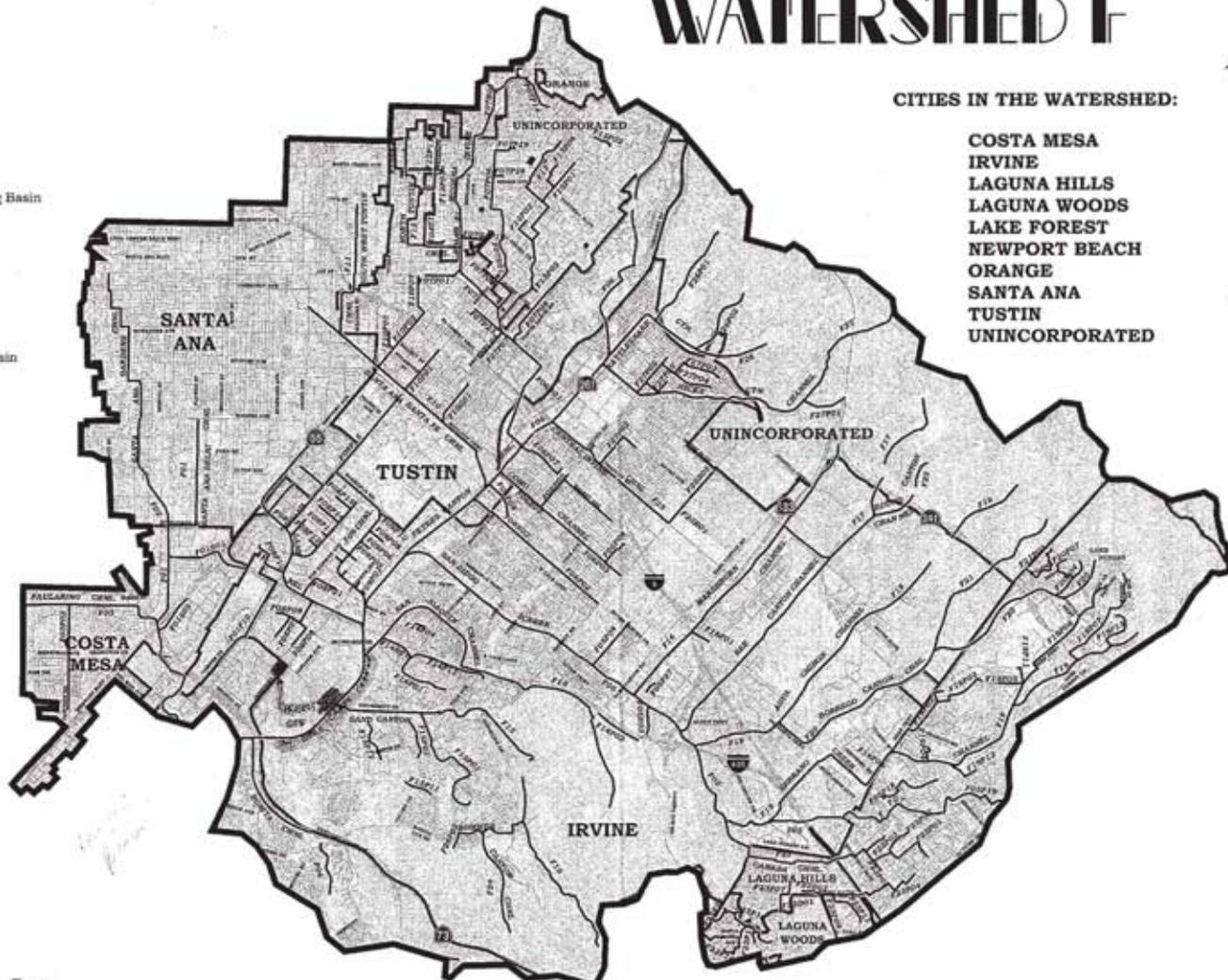
WATERSHED F

CITIES IN THE WATERSHED:

**COSTA MESA
IRVINE
LAGUNA HILLS
LAGUNA WOODS
LAKE FOREST
NEWPORT BEACH
ORANGE
SANTA ANA
TUSTIN
UNINCORPORATED**



- F01 Santa Ana-Delhi Channel
- F01P06 Civic Center Storm Drain
- F01S01 Airport Storm Channel
- F01S03 Baker Storm Channel
- F02 Santa Ana Gardens Channel
- F03 Paularino Channel
- F03P01 Baker Storm Drain
- F03P02 Fairview Road Storm Drain
- F04 Bonita Channel
- F04P04 Coyote Canyon Storm Drain
- F05 San Diego Creek Channel
- F05P01 MacArthur Storm Drain
- F05P07 Canada Storm Drain
- F05P18 Toledo Storm Drain
- F05P19 Shoshone Drive Storm Drain
- F06 Peters Canyon Channel
- F06B01 Lower Peters Canyon Retarding Basin
- F06B02 Ranch House Retarding Basin
- F06B03 Peters Canyon Reservoir
- F06P02 Valencia Storm Drain
- F06P032 Como Storm Drain
- F06P04 Dahlquist Storm Drain
- F06P05 Robert Avenue Storm Drain
- F06P07 Lyon Storm Drain
- F06S02 Valencia Storm Channel
- F06S03 Como Storm Channel
- F07 El Modena-Irvine Channel
- F07B01 El Modena-Irvine Retarding Basin
- F07P01 East Tustin Storm Drain
- F07P04 Tustin Heights Storm Drain
- F07P06 Hewes Storm Drain
- F07P07 Browning Storm Drain
- F07P08 Ranchwood Storm Drain
- F07P09 Vanderlip Storm Drain
- F07P14 Crawford Canyon Storm Drain
- F07P15 Fairhaven Storm Drain
- F07P23 Bryan Avenue Storm Drain
- F07P28 Dodge Avenue Storm Drain
- F07S01 La Colina-Redhill Storm Drain
- F07S05 Panorama Storm Channel
- F07S12 Warren Avenue Storm Drain
- F08 Lane Channel
- F08P07 Michelson Storm Drain
- F08P24 Clear Zone Storm Drain
- F08S01 Armstrong Storm Channel
- F09 Barranca Channel
- F09P15 Barranca Storm Drain
- F10 Santa Ana-Santa Fe Channel
- F10P01 Red Hill Storm Drain
- F10P02 Tustin-Newport Storm Drain
- F10P03 Myrtle Avenue Storm Drain
- F10P03 El Camino Real Storm Drain
- F10S01 Venta Storm Channel
- F11 Southwest Tustin Channel

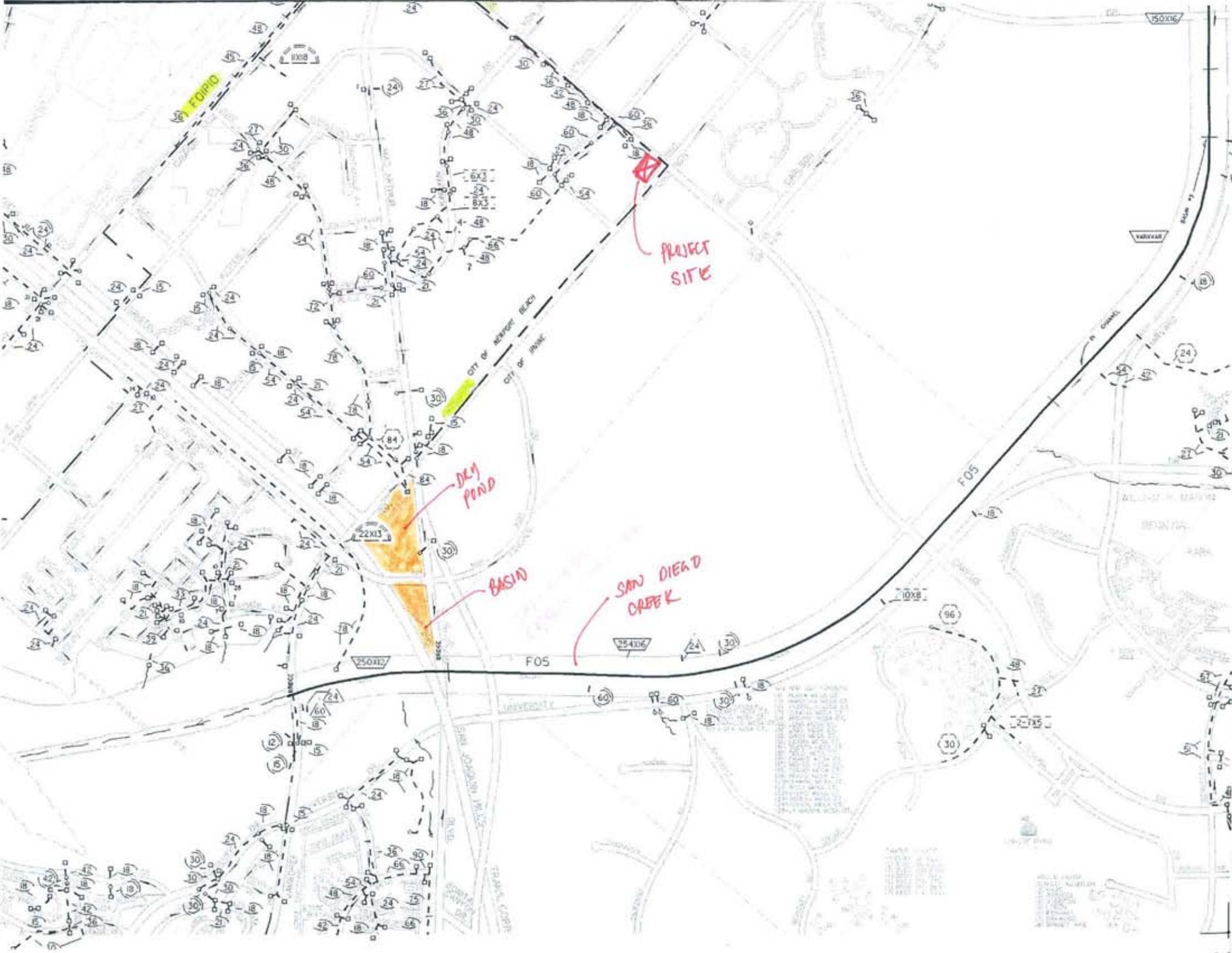


- F12 North Tustin Channel
- F012P02 North Tustin Storm Drain
- F012P03 Malena Storm Drain
- F012P04 Yorba Street Storm Drain
- F012P11 Prospect Storm Drain
- F13 Redhill Channel
- F13P01 Arroyo Storm Drain
- F13P03 Southeast Skyline Storm Drain
- F13P05 Rainbow Storm Drain
- F13P06 Gigli Storm Drain
- F13P08 La Loma Storm Drain
- F14 San Joaquin Channel
- F14P01 Culver Storm Drain
- F14S01 Culver Storm Channel
- F15 Sand Canyon Channel
- F16 Marshburn Channel
- F16B01 Marshburn Retarding Basin
- F16B02 Bee Canyon Retarding Basin
- F16B03 Round Canyon Retarding Basin
- F16P01 Round Storm Drain
- F16P02 Bee Canyon Storm Drain
- F17 Bee Canyon Channel
- F18 Agua Chinon Channel
- F18B01 Agua Chinon Retarding Basin
- F19 Serrano Creek Channel
- F19P06 Hake Parkway Storm Drain*
- F19P07 Hake Parkway Storm Drain*
- F19S02 Los Alisos Channel
- F20 Borrego Canyon Channel
- F22 Round Canyon Channel
- F23 Canada Channel
- F23B01 Canada Retarding Basin
- F23D01 Vech Reservoir Dam
- F23P01 Ridge Route Storm Drain
- F23P02 Lake Forest Storm Drain
- F23P03 Bywater Storm Drain
- F23P04 Vech Storm Drain
- F23P06 Lucera Storm Drain
- F23P16 Ridge Route Storm Drain
- F23S02 Vech Storm Channel
- F24 Bommer Canyon Channel
- F25 Central Irvine Channel
- F25B01 Trabuco Retarding Basin
- F25P01 Trabuco Storm Drain
- F26 Rattlesnake Canyon Channel
- F26B01 Eastfoot Retarding Basin
- F26B02 Orchard Estates Retarding Basin
- F26B03 Eastfoot Retarding Basin
- F26P01 Rattlesnake Reservoir
- F26P02 Eastfoot Storm Drain
- F27 Hicks Canyon Channel
- F27B01 Hicks Canyon Retarding Basin
- F27B02 East Hicks Retarding Basin
- F27P01 East Hicks Canyon Storm Drain

DESIGNED AND PRODUCED BY:
GIS Mapping Unit
Public Facilities and Resources Department
Central City District

DATE: March 15, 2006

8500 0 8500 Feet



FOIPD

PROJECT SITE

DRY POND

BASIN

SAN DIEGO CREEK

CITY OF SAN DIEGO BEACH
CITY OF SAN DIEGO

150X16

22X13

250X17

F05

F05

10X8

30

96

27X15

24

30

30

30

30

30

30

Appendix C
Land Use Consistency Analysis

Appendix C

Land Use Consistency Analysis

Policy	Consistency Analysis
GENERAL PLAN LAND USE ELEMENT	
<p>Policy LU 1.5 Economic Health Encourage a local economy that provides adequate commercial, office, industrial, and marine-oriented opportunities that provide employment and revenue to support high-quality community services.</p>	<p>The proposed project is consistent with this policy. The proposed project would allow for the construction and operation of a new business plaza. As discussed in Section XIII, Population and Housing, of the Initial Study Environmental Checklist, the proposed project would provide approximately 47 construction jobs and an average of 148 professional jobs. Therefore, the proposed project would support the provision of adequate office opportunities that would provide construction and operation employment and stimulate the local economy.</p>
<p>Policy LU 2.2 Sustainable and Complete Community Emphasize the development of uses that enable Newport Beach to continue as a self-sustaining community and minimize the need for residents to travel outside of the community for retail, goods and services, and employment.</p>	<p>The proposed project is consistent with this policy. The proposed project would allow for the construction and operation of a new business plaza that would provide short-term and long-term employment opportunities for area residents. The construction and operation jobs provided by the proposed project could potentially be fulfilled by the local workforce residing in the City of Newport Beach. Therefore, the proposed project would enable the City to continue as a self-sustaining community and minimize the need for residents to travel outside of the community for employment.</p>
<p>Policy LU 3.1 Neighborhoods, Districts, Corridors, and Open Spaces Maintain Newport Beach’s pattern of residential neighborhoods, business and employment districts, commercial centers, corridors, and harbor and ocean districts.</p>	<p>The proposed project is consistent with this policy. The proposed project would amend the General Plan and Koll Center Newport Planned Community text to increase the allowable development square footage. The proposed project would be a business plaza within the existing developed Koll Center Newport Planned Community, which encompasses a large portion of the City’s business and employment district. Furthermore, it would blend in with the existing architectural characteristics. Therefore, it would maintain Newport Beach’s pattern of business and employment districts in that area.</p>

Policy	Consistency Analysis
<p>Policy LU 3.2 Growth and Change</p> <p>Enhance existing neighborhoods, districts, and corridors, allowing for re-use and infill with uses that are complementary in type, form, scale, and character. Changes in use and/or density/intensity should be considered only in those areas that are economically underperforming, are necessary to accommodate Newport Beach’s share of projected regional population growth, improve the relationship and reduce commuting distance between home and jobs, or enhance the values that distinguish Newport Beach as a special place to live for its residents. The scale of growth and new development shall be coordinated with the provision of adequate infrastructure and public services, including standards for acceptable traffic level of service.</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would amend the General Plan and Koll Center Newport Planned Community text to increase the allowable development square footage, and would allow for the development of a business plaza on a site that is currently occupied by two connected buildings and a 113-stall surface parking lot. The proposed amendments would increase density/intensity in the Koll Center Newport Planned Community, but would be largely consistent with surrounding land use designations and existing zoning, and would be consistent with the density of the proposed land use designations and the surrounding business district (as discussed in Policy LU 4.1 below). As discussed in Section XIV, Public Services, and Section XVII, Utilities and Service Systems, of the Initial Study Environmental Checklist, the proposed project would have adequate infrastructure and public services and would not exceed existing service levels for public services or utilities. Furthermore, as discussed in Section XVI, Transportation and Traffic, of the Initial Study Environmental Checklist, the decrease in trips that would result during operation of the proposed project would not result in a significant deterioration of surrounding intersections or the roadway network. Therefore, the proposed project would result in complementary type, form, and scale of the existing neighborhood, and would be adequately served by the existing infrastructure and public services.</p>
<p>Policy LU 3.8 Project Entitlement Review with Airport Land Use Commission</p> <p>Refer the adoption or amendment of the General Plan, Zoning Code, specific plans, and Planned Community development plans for land within the John Wayne Airport planning area, as established in the JWA Airport Environs Land Use Plan (AELUP), to the Airport Land Use Commission (ALUC) for Orange County for review, as required by Section 21676 of the California Public Utilities Code. In addition, refer all development projects that include buildings with a height greater than 200 feet above ground level to the ALUC for review.</p>	<p>The proposed project is consistent with this policy.</p> <p>As discussed in Section VIII (e) and (f), Hazards and Hazardous Materials, in the Initial Study Environmental Checklist the proposed project site is located within the Airport Environs Land Use Plan (AELUP) jurisdiction of John Wayne Airport. Furthermore, the proposed project is within the height restriction zone for the John Wayne Airport and the notification area of the Federal Aviation Regulation (FAR) Part 77 Imaginary Surfaces aeronautical obstruction area. The proposed project includes constructing a 1-story bank, two 3-story office buildings, and a 2-level parking structure with a maximum height of 62 feet, on a site that is approximately 50 feet above mean sea level (Krazan & Associates 2005). The proposed project would require notification to the Federal Aviation Administration (FAA) in accordance with Section 77.13 of the FAR because the proposed project would exceed the notice criteria for 77.13(a)(2) by 13 feet (Federal Aviation Administration 2010).</p> <p>As discussed in Section VIII, Hazards and Hazardous Materials, Mitigation Measure HM-2 would require notification to FAA in accordance with Section 77.13 of the FAR to ensure aviation-related safety hazards are reduced. Projects that meet the height restriction threshold must comply with federal and state procedures, including filing a Notice of Proposed Construction or Alteration (FAA Form 7460-1). FAA would then perform an aeronautical study to determine if the project is considered an obstruction</p>

Policy	Consistency Analysis
	<p>and if the project is determined to be a hazard to air navigation (Airport Land Use Commission 2008).</p> <p>After mitigation, the proposed project would comply and be compatible with the land use standards established in the City’s Municipal Code and the Airport Land Use Commission’s John Wayne AELUP.</p>
<p>Policy LU 4.1 Land Use Diagram</p> <p>Accommodate land use development consistent with the Land Use Plan. Figure LU1 depicts the general distribution of uses throughout the City and Figure LU2 through Figure LU15 depict specific use categories for each parcel within defined Statistical Areas. Table LU1 (Land Use Plan Categories) specifies the primary land use categories, types of uses, and, for certain categories, the densities/intensities to be permitted. The permitted densities/intensities or amount of development for land use categories for which this is not included in Table LU1, are specified on the Land Use Plan, Figure LU4 through Figure LU15. These are intended to convey maximum and, in some cases, minimums that may be permitted on any parcel within the designation or as otherwise specified by Table LU2 (Anomaly Locations). The density/intensity ranges are calculated based on actual land area, actual number of dwelling units in fully developed residential areas, and development potential in areas where the General Plan allows additional development. To determine the permissible development, the user should:</p> <ol style="list-style-type: none"> Identify the parcel and the applicable land use designation on the Land Use Plan, Figure LU4 through Figure LU15 Refer to Figure LU4 through Figure LU15 and Table LU1 to identify the permitted uses and permitted density or intensity or amount of development for the land use classification. Where densities/intensities are applicable, the maximum amount of development shall be determined by multiplying the area of the parcel by the density/intensity. For anomalies identified on the Land Use Map by a symbol, refer to Table LU2 to determine the precise development limits. For residential development in the Airport Area., refer to the policies prescribed by the Land Use Element that define how development may occur. 	<p>The proposed project is consistent with this policy.</p> <p>The project site is located in the Airport Area (Statistical Area L4) in the northern portion of the City of Newport Beach. The project site is designated as Mixed-Use Horizontal 2 (MU-H2) per the General Plan Land Use Element. The development limit for the project site is identified in Table LU2 of the General Plan Land Use Element as Anomaly Number 6. The development limit for Anomaly Number 6 is 34,500 gross square feet, as identified in Table LU2. The project site is currently zoned PC015, Koll Center Newport Planned Community (PC-15). The project site is located within a development site identified as Professional and Business Office Site F in the Koll Center Newport Planned Community. The Allowable Building Area for Site F is 24,300 net square feet as defined by the Koll Center Newport Planned Community Text.</p> <p>The proposed project involves amendments to the General Plan and the Koll Center Newport Planned Community text to increase the allowable development square footage on the project site. The General Plan amendment would increase the development limit in General Plan Anomaly Number 6 by 11,544 gross square feet, and the Koll Center Newport Planned Community text amendment would increase the allowable building area in Professional and Business Office Site F by 18,346 net square feet. The General Plan Amendment and the Koll Center Newport Planned Community text amendment would accommodate the development of the proposed business plaza that is consistent with the land use designation and zoning of the project site.</p>

Policy	Consistency Analysis
<p>Policy LU 5.4.1 Site Planning</p> <p>Require that new and renovated office and retail development projects be planned to exhibit a high-quality and cohesive “campus environment,” characterized by the following:</p> <ul style="list-style-type: none"> ■ Location of buildings around common plazas, courtyards, walkways, and open spaces ■ Incorporation of extensive on-site landscaping that emphasizes special features such as entryways ■ Use of landscape and open spaces to break the visual continuity of surface parking lots ■ Common signage program for tenant identification and wayfinding ■ Common streetscapes and lighting to promote pedestrian activity ■ Readily observable site access, entrance drives and building entries and minimized conflict between service vehicles, private automobiles, and pedestrians. 	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would be located within an existing campus environment in the Koll Center Newport Planned Community office park. Approximately 26% of the project site would be landscaped. The proposed architectural style of the business center would be a Newport Nautical theme using simple clean lines to give visual prominence and presence to this center. The parking structure would be configured to blend into the overall composition of the architecture of the bank and two office buildings. The two sides of the parking structures that abut neighboring properties would use paint, textures, planters, and softscape to soften the composition of the parking structure wall. The proposed office buildings incorporate a plaster exterior skin, reflective glass, aluminum panels, and canopy elements. The proposed project would use the existing site access off of Campus Drive and Jamboree Road, which would be appropriately signed with the proposed building’s address. Therefore, the proposed business plaza would exhibit a high-quality and cohesive campus environment.</p>
<p>Policy LU 5.4.2 Development Form and Architecture</p> <p>Require that new development of business park, office, and supporting buildings be designed to convey a unified and high-quality character in consideration of the following principles:</p> <ul style="list-style-type: none"> ■ Modulation of building mass, heights, and elevations and articulation of building ■ Avoidance of blank building walls that internalize uses with no outdoor orientation to public spaces ■ Minimize the mass and bulk of building facades abutting streets ■ Consistent architectural design vocabulary, articulation, materials, and color palette ■ Clear identification of entries through design elements ■ Integration of signage with the building’s architectural style and character ■ Architectural treatment of parking structures consistent with their primary commercial or office building. 	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would be designed to convey a unified and high-quality character. As described in Chapter 2, Project Description, Figure 2-5, and Section I, Aesthetics, in the Initial Study Environmental Checklist, the proposed architectural style of the business plaza would be aesthetically diverse and would use textures, paints, planters, and softscape to soften the composition of the building. The proposed business plaza would incorporate a mixture of plaster exterior skin, reflective glass, aluminum panels, and canopy elements. Equipment, such as heating ventilation and air conditioning (HVAC) units, would be screened from the public view due to the height of the buildings. All equipment would be centrally located on the roof surfaces, prohibiting views of the equipment. The parking structure would be located on the lower level of the proposed business plaza below the three stories of office space; therefore, architectural treatment of parking structures would be consistent with their proposed building.</p>

Policy	Consistency Analysis
<p>Policy LU 5.6.1 Compatible Development Require that buildings and properties be designed to ensure compatibility within and as interfaces between neighborhoods, districts, and corridors.</p>	<p>The proposed project is consistent with this policy. The proposed project would be located at an intersection that has a mix of commercial, office, residential, and open space. However, as discussed above in Policy LU 3.1. The proposed project would be consistent and compatible with the surrounding land uses. Furthermore, it would aesthetically update one of the main entrance intersections into Newport Beach. Therefore, it would blend in with the existing character and architectural style of the area and Koll Center Newport Planned Community.</p>
<p>Policy LU 5.6.2 Form and Environment Require that new and renovated buildings be designed to avoid the use of styles, colors, and materials that unusually impact the design character and quality of their location such as abrupt changes in scale, building form, architectural style, and the use of surface materials that raise local temperatures, result in glare and excessive illumination of adjoining properties and open spaces, or adversely modify wind patterns.</p>	<p>The proposed project is consistent with this policy. The proposed business plaza would be compatible with the existing scale, density, and varying architectural styles of the surrounding area. As discussed in Section I(c), Aesthetics, in the Initial Study Environmental Checklist, the proposed project would blend in with the existing character of the area and surrounding land uses. Approximately 26% of the project site would be landscaped, and approximately 74% of the site would be covered by buildings and other impervious surfaces. The maximum height of the business plaza would be approximately 62 feet above the original grade. The proposed business plaza would not adversely modify wind patterns in the area as there is a mix of building heights in the area, including buildings taller than the proposed project. The proposed architectural style of the building would be aesthetically diverse and would use textures, paints, planters, and softscape to soften the composition of the building. The proposed business plaza would incorporate a mixture of plaster exterior skin, reflective glass, aluminum panels, and canopy elements. Any lighting associated with the proposed project would be similar to existing lighting in the area and would be appropriately shielded. The parking lot and back side of the business plaza buildings would be facing the west; therefore, sunsets would not result in excessive amounts of glare. Furthermore, the proposed project would implement Mitigation Measures A-1, A-2, and A-3, which would reduce the generation of light and glare. The proposed project is located amongst a mix of commercial, office, residential, and open space and the architectural components would blend in with the existing character of the area, and the proposed project would not unusually affect the design character and quality of the project area.</p>
<p>Policy LU 5.6.3 Ambient Lighting Require that outdoor lighting be located and designed to prevent spillover onto adjoining properties or significantly increase the overall ambient illumination of their location.</p>	<p>The proposed project is consistent with this policy. Any lighting associated with the proposed project would not add significant amounts of lighting to the project area and would consist of standard outdoor commercial lighting for safety purposes. All lighting associated with the proposed project would be similar to existing lighting in the area, and would be appropriately shielded. Furthermore, the proposed project would implement Mitigation Measures A-1 and A-3, which would reduce the generation of light and glare.</p>

Policy	Consistency Analysis
<p>Policy LU 5.6.4 Conformance with the Natural Environmental Setting</p> <p>Require that sites be planned and buildings designed in consideration of the property’s topography, landforms, drainage patterns, natural vegetation, and relationship to the Bay and coastline, maintaining the environmental character that distinguishes Newport Beach.</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would fit in with the area topography and would not disrupt the existing drainage patterns, as described in Sections VI, Geology and Soils, and IX, Hydrology and Water Quality, in the Initial Study Environmental Checklist. The project site is fully developed with two connected buildings and 113 parking spaces, has flat topography, and has limited vegetation with minimal ornamental trees and landscaping around the building and in the surface parking lot. The project site is not located in the vicinity of Newport Bay and therefore would not affect any relationships to the bay and coastline. The project site is located amongst a mix of commercial, office, residential, and open space uses. The proposed project would replace the existing office building and bank; and therefore, would not substantially change the land use in relation to the University of California Irvine Arboretum. Therefore, the proposed project would not conflict with Newport Beach’s natural setting.</p>
<p>Policy LU 6.15.1 Land Use Districts and Neighborhoods</p> <p>Provide for the development of distinct business park, commercial, and airport-serving districts and residential neighborhoods that are integrated to ensure a quality environment and compatible land uses.</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would be integrated into the existing developed Koll Center Newport Planned Community and would be consistent with the surrounding land uses as discussed in Policy LU 3.1. Furthermore, the proposed project would be designed and landscaped to be aesthetically diverse and blend in with the existing character of the office park, residential, and open space uses, ensuring a quality environment as discussed in Policy LU 5.4.2. The proposed project would provide for the development of existing new distinct business plaza, integrated to ensure a quality of environment and compatible land uses.</p>

Policy	Consistency Analysis
<p>Policy LU 6.15.3 Airport Compatibility</p> <p>Require that all development be constructed in conformance with the height restrictions set forth by Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR) Part 77, and Caltrans Division of Aeronautics, and that residential development be located outside of the 65 dBA CNEL noise contour specified by the 1985 JWA Master Plan.</p>	<p>The proposed project is consistent with this policy.</p> <p>The maximum height of the proposed project would be approximately 62 feet above the original grade. Therefore, the proposed project would exceed height restrictions set forth by the notice criteria for 77.13(a)(2) by 13 feet (Federal Aviation Administration 2010). As discussed in Section VIII, Hazards and Hazardous Materials, Mitigation Measure HM-2 would require notification to FAA in accordance with Section 77.13 of the FAR to ensure aviation-related safety hazards are reduced. Projects which meet the height restriction threshold must comply with federal and state procedures, including filing a Notice of Proposed Construction or Alteration (FAA Form 7460-1). FAA would then perform an aeronautical study to determine if the project is considered an obstruction and if the project is determined to be a hazard to air navigation (Airport Land Use Commission 2008). After mitigation, the proposed project would comply and be compatible with the land use standards established in the Airport Land Use Commission’s John Wayne AELUP.</p> <p>The proposed project would not include residential development and therefore would not be subject to the 65 A-weighted decibel (dBA) community noise equivalent level (CNEL) noise contour specific by the 1985 JWA Master Plan</p>

Policy	Consistency Analysis
GENERAL PLAN CIRCULATION ELEMENT	
<p>Policy CE 2.1.1 Level of Service Standards</p> <p>Plan the arterial roadway system to accommodate projected traffic at the following level of service standards:</p> <p>A. Level of Service (LOS) “D” throughout the City, unless otherwise noted</p> <p>B. LOS “E” at any intersection in the Airport Area shared with Irvine</p>	<p>The proposed project is consistent with this policy.</p> <p>As discussed in Section XVI(a), Traffic and Transportation, in the Initial Study Environmental Checklist, construction of the proposed project would generally represent an increase of less than 2% of the existing AM and PM trips on the roadway network. During operation, the proposed business plaza would have office uses and a bank similar to the existing uses. However, the bank, which generates more trips than office uses, would be greatly reduced in size when compared to the existing bank. The proposed project would include approximately 42,000 square feet of office space and approximately 4,000 square feet of bank space. The office uses would generate a daily total of 463 trips and the bank use would generate a daily total of 593 trips, which equals a total of 1,056 trips. The trips generated by the proposed project would be reduced when compared to the existing land uses. Overall, the proposed project would reduce the total number of AM peak hour trips by 27, the total number of PM peak hour trips by 113 and the total daily trips by 574. Therefore, the proposed project would not create substantial traffic to downgrade the level of service (LOS) at any of the intersections analyzed in the Initial Study Environmental Checklist. Surrounding intersections currently operate at acceptable levels of service, and the minimal traffic generated from the proposed project would not downgrade the LOS at any intersections in the vicinity of the project site. Therefore, the proposed project would continue to accommodate projected traffic at the designated LOS.</p>
<p>Policy CE 6.2.1 Alternative Transportation Modes</p> <p>Promote and encourage the use of alternative transportation modes, such as ridesharing, carpools, vanpools, public transit, bicycles, and walking; and provide facilities that support such alternate modes.</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would incorporate carpool parking spaces and encourage the use of alternative transportation. Furthermore, the proposed project would incorporate bicycle racks, lockers and showers, commuter information areas, and rideshare vehicle loading areas. The project site is not located near bus transit.</p>
<p>Policy CE 6.2.2 Support Facilities for Alternative Modes</p> <p>Require new development projects to provide facilities commensurate with development type and intensity to support alternative modes, such as preferential parking for carpools, bicycle lockers, showers, commuter information areas, rideshare vehicle loading areas, water transportation docks, and bus stop improvements.</p>	<p>The proposed project is consistent with this policy.</p> <p>See response to Policy CE 6.2.1 above.</p>
<p>Policy CE 7.1.1 Required Parking</p> <p>Require that new development provide adequate, convenient parking for residents, guests, business patrons, and visitors.</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would provide 214 spaces, with 190 required by code based on the proposed uses. Therefore, the proposed project would provide adequate, convenient parking for guests, employees, and business patrons.</p>

Policy	Consistency Analysis
<p>Policy CE 7.1.8 Parking Configuration Site and design new development to avoid use of parking configurations or management programs that are difficult to maintain and enforce.</p>	<p>The proposed project is consistent with this policy. The proposed project would not include a parking management program. Currently there is a 113-surface space parking lot that is unattended. The proposed project would have a 2-level parking structure with a total of 214 parking spaces that would also be unattended. The circulation site plan would be reviewed and approved by Public Works prior to the issuance of grading and building permits. The proposed project would include sufficient parking spaces, as discussed above in CE 7.1.1. Therefore, site design would provide an adequate and safe parking configuration.</p>
GENERAL PLAN NATURAL RESOURCES ELEMENT	
<p>Policy NR 1.1 Water Conservation in New Development Enforce water conservation measures that limit water usage, prohibit activities that waste water or cause runoff, and require the use of water-efficient landscaping and irrigation in conjunction with new construction projects.</p>	<p>The proposed project is consistent with this policy. The proposed project would include design features for water conservation. Efficient landscaping features would be incorporated, including landscaping timers and recycled water for all landscaping as required by the City.</p>
<p>Policy NR 1.2 Use of Water Conserving Devices Establish and actively promote use of water conserving devices and practices in both new construction and major alterations and additions to existing buildings. This can include the use of rainwater capture, storage, and reuse facilities. Enhancement and protection of water quality of all natural water bodies, including coastal waters, creeks, bays, harbors, and wetlands.</p>	<p>The proposed project is consistent with this policy. See Response to Policy NR1.1 above. The proposed project would establish the use of water conservation devices. The proposed project would implement the Preliminary Water Quality Management Plan, which would protect the water quality of receiving waters from stormwater runoff during the operation of the proposed project.</p>
<p>Policy NR 3.2 Water Pollution Prevention Promote pollution prevention and elimination methods that minimize the introduction of pollutants into natural water bodies. (Policy HB 8.2)</p>	<p>The proposed project is consistent with this policy. The proposed project would incorporate the use of bioswales to collect and reduce the velocity and volume of stormwater being discharged into the existing stormwater system. Furthermore, the proposed project would incorporate storm drain inlets fitted with a filtering system to collect pollutants and improve stormwater quality. Finally, the proposed project would implement the Preliminary Water Quality Management Plan, which would promote pollution prevention methods during the operation of the proposed project. Therefore, the proposed project would promote pollution prevention and elimination methods that minimize the introduction of pollutants into natural water bodies.</p>

Policy	Consistency Analysis
<p>Policy NR 3.4 Storm Drain Sewer System Permit Require all development to comply with the regulations under the City’s municipal separate storm drain system permit under the National Pollutant Discharge Elimination System. (Policy HB 8.4)</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would be in compliance with all objectives, water quality standards, and best management practices established in the Santa Ana River Basin Plan and Orange County Drainage Area Management Plan as discussed in Section IX, Hydrology and Water Quality, of the Initial Study Environmental Checklist. Furthermore, the proposed project would comply with City of Newport Beach Zoning Code Chapter 14.36 (Water Quality) and provisions set forth in the City’s National Pollution Discharge Elimination System (NPDES) municipal separate storm drain system (MS4) permit through the preparation of a Water Quality Management Plan incorporating best management practices for operation. Development on project sites in excess of 1 acre requires the preparation of a stormwater pollution prevention program (SWPPP) for construction. The proposed project would not directly discharge surface water to the bay, and would control runoff from the site during construction and operation. Best management practices would be incorporated into the proposed project as part of a SWPPP during construction to prevent discharges of polluted stormwater from construction sites from entering the storm drains. Therefore, the proposed project would promote pollution prevention and minimize the introduction of pollutants into natural waters.</p>
<p>Policy NR 3.5 Natural Water Bodies Require that development does not degrade natural water bodies. (Policy HB 8.5)</p>	<p>The proposed project is consistent with this policy.</p> <p>There are no natural water bodies in the general vicinity of the project site. The project site drains in to the existing storm drain system of the City. This system discharges into various receiving waters, one being San Diego Creek. The proposed project’s compliance with the requirements outlined above in Policy NR 3.4 would minimize and avoid degradation of natural bodies.</p>
<p>Policy NR 3.9 Water Quality Management Plan Require new development applications to include a Water Quality Management Plan (WQMP) to minimize runoff from rainfall events during construction and post-construction. (Policy HB 8.9)</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project has prepared a Preliminary Water Quality Management Plan to maintain water quality and control stormwater runoff during the operation of the project and a Final Water Quality Management Plan would be approved during the grading and building permits for the proposed project. Furthermore, a SWPPP would be prepared to maintain and control stormwater quality during construction.</p>

Policy	Consistency Analysis
<p>Policy NR 3.10 Best Management Practices Implement and improve upon Best Management Practices (BMPs) for residences, businesses, development projects, and City operations. (Policy HB 8.10)</p>	<p>The proposed project is consistent with this policy.</p> <p>The project applicant has prepared a Preliminary Water Quality Management Plan and a Final Water Quality Management Plan would be reviewed and approved by the City prior to receiving grading and building permits for the proposed project. The Preliminary Water Quality Management Plan is described in Section IX(a), Hydrology and Water Quality, in the Initial Study Environmental Checklist, and includes best management practices such as those listed below.</p> <ul style="list-style-type: none"> ■ Educate property owners, tenants, and occupants regarding the methods of preventing stormwater pollution. ■ Dispose of hazardous materials such as motor oil, and paint in accordance with local regulations. ■ Prohibit sweeping of sediments, trash, and debris to the drain inlets. ■ Provide common area landscape management to ensure that the ongoing maintenance and use of fertilizers and pesticides of the on-site landscaping is consistent with City requirements. ■ Ensure compliance with California Code of Regulations Title 22. ■ Implement a spill contingency plan to prevent or mitigate spills to storm drain systems, and develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures. ■ Ensure that hazardous materials are disclosed before the start of any tenant improvement. ■ Provide employee training in the proper use, handling, and cleanup of all waste materials while on the job. ■ Sweep and clean private streets and parking lots weekly.
<p>Policy NR 3.11 Site Design and Source Control Include site design and source control BMPs in all developments. When the combination of site design and source control BMPs are not sufficient to protect water quality as required by the National Pollutant Discharge Elimination System (NPDES), structural treatment BMPs will be implemented along with site design and source control measures. (Policy HB 8.11)</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would be required to obtain a NPDES permit and prepare a SWPPP, which will provide source control during construction activities. Further discussion of water quality and construction and operation source control is included in Section IX, Hydrology and Water Quality, in the Initial Study Environmental Checklist.</p>

Policy	Consistency Analysis
<p>Policy NR 3.17 Parking Lots and Rights-of-Way Require that parking lots and public and private rights-of-way be maintained and cleaned frequently to remove debris and contaminated residue. (Policy HB 8.17)</p>	<p>The proposed project is consistent with this policy. The proposed project would maintain and clean the parking lots to remove debris and contaminated residue. The Preliminary Water Quality Management Plan requires sweeping private streets and parking lots. The proposed project also includes the use of bioswales, storm drain inlets, and a filtering system to be installed in the proposed storm drain inlets to help reduce pollutants captured in stormwater runoff.</p>
<p>Policy NR 3.19 Natural Drainage Systems Require incorporation of natural drainage systems and stormwater detention facilities into new developments, where appropriate and feasible, to retain stormwater in order to increase groundwater recharge. (Policy HB 8.19)</p>	<p>The proposed project is consistent with this policy. As part of the site design and Preliminary Water Quality Management Plan, the proposed project would direct storm flows into bioswales and then to storm drain inlets. The storm drain inlets would be fitted with a filtering system that is designed to help reduce pollutants captured in stormwater runoff. The bioswales would not act as a method to recharge the groundwater; however, they would help reduce the velocity of the stormwater from the sites.</p>
<p>Policy NR 3.20 Impervious Surfaces Require new development and public improvements to minimize the creation of and increases in impervious surfaces, especially directly connected impervious areas, to the maximum extent practicable. Require redevelopment to increase area of pervious surfaces, where feasible. (Policy HB 8.20)</p>	<p>The proposed project is consistent with this policy. The proposed project would replace two connected office buildings and an existing impervious surface parking lot with the impervious surface of one 1-story bank, two 3-story office buildings, and one 2-level parking structure. As described in Chapter 2, Project Description; and Section IX, Hydrology and Water Quality, in the Initial Study Environmental Checklist, the amount of impervious surface and pervious surfaces would generally remain the same. The proposed project would incorporate bioswales and storm drain inlets, which would help reduce the velocity and potentially the stormwater flows when compared to existing conditions.</p>
<p>Policy NR 8.1 Management of Construction Activities to Reduce Air Pollution Require developers to use and operate construction equipment, use building materials and paints, and control dust created by construction activities to minimize air pollutants.</p>	<p>The proposed project is consistent with this policy. As discussed in Section III, Air Quality, in the Initial Study Environmental Checklist, a mass emissions inventory for the construction period was compiled based on an estimate of construction equipment as well as scheduling and phasing assumptions. More specifically, the mass emissions analysis takes into account:</p> <ul style="list-style-type: none"> ■ combustion emissions from operating onsite construction equipment, ■ fugitive dust emissions from moving soil on site, and ■ mobile-source combustion emissions from worker commute travel. <p>As discussed in Section III(b), Air Quality, of the Initial Study Environmental Checklist, the proposed project would not create substantial air pollutant emissions. The proposed project would comply with all rules and regulations of the South Coast Air Quality Management District for control of dust and minimization of air pollutants.</p>

Policy	Consistency Analysis
<p>Policy NR 18 Protection and preservation of important paleontological and archaeological resources.</p>	<p>The proposed project is consistent with this policy.</p> <p>As discussed in Section V, Cultural Resources, in the Initial Study Environmental Checklist, the project site has not been previously surveyed for cultural resources. A record search conducted on March 16, 2010, determined that no prehistoric or historical archaeological sites have been recorded in the project area. Two prehistoric archaeological sites, CA-Ora-115 (King 1963) and CA-Ora-121/287 (Long and Schwartz 1963) have been recorded within a 0.5-mile radius of the project site. Neither of these sites is adjacent to the project site; the nearest is approximately 1,000 feet to the east. Both archaeological sites may have since been destroyed by development. No historical structures are depicted in the project site on the 1896 and 1901 USGS Santa Ana 30 minute topographic quadrangles, or on the USGS Tustin 7.5 minute quadrangle. However, the location of two prehistoric sites in proximity slightly increases the possibility of discovering buried resources on the project site. Furthermore, the ground disturbance during construction would remove approximately 3,000 cubic yards of soil. Therefore, even though it is highly unlikely that the proposed project would disturb buried archaeological resources, impacts would be less than significant with the implementation of Mitigation Measure CR-1</p> <p>The project site is situated on late Pleistocene marine deposits that have been cut to form a marine terrace commonly known as Newport Mesa (Morton and Miller 1981, California Division of Mines and Geology 1997). These deposits can be highly fossiliferous, containing vertebrate, invertebrate, and plant fossil specimens (Stadum 2010). The proposed project would involve grading and the excavation of approximately 3,000 cubic yards of existing soil to prepare for the building foundations. Therefore, it is highly unlikely the proposed project would disturb any paleontological resources; however, Mitigation Measure CR-2 is incorporated to prevent the destruction of any unknown paleontological resource.</p>
<p>Policy NR 18.1 New Development Require new development to protect and preserve paleontological and archaeological resources from destruction, and avoid and minimize impacts to such resources in accordance with the requirements of CEQA. Through planning policies and permit conditions, ensure the preservation of significant archeological and paleontological resources and require that the impact caused by any development be mitigated in accordance with CEQA.</p>	<p>The proposed project is consistent with this policy.</p> <p>See above for Policy NR 18 regarding protection and preservation of archaeological and paleontological resources.</p>
<p>Policy NR 24.2 Energy-Efficient Design Features Promote energy-efficient design features.</p>	<p>The proposed project is consistent with this policy.</p> <p>Per the California Building Code, Title 24, 2001 Energy Efficiency Standards, the proposed project would include energy-efficient design features where feasible.</p>

Policy	Consistency Analysis
GENERAL PLAN SAFETY ELEMENT	
<p>Policy S 8.6 John Wayne Airport Traffic Pattern Zone</p> <p>Use the most currently available John Wayne Airport (JWA) Airport Environs Land Use Plan (AELUP) as a planning resource for evaluation of land use compatibility and land use intensity in areas affected by JWA operations. In particular, future land use decisions within the existing JWA Clear Zone/Runway Protection Zone (Figure S5) should be evaluated to minimize the risk to life and property associated with aircraft operations.</p>	<p>The proposed project is consistent with this policy.</p> <p>As discussed in Section VIII(e), Hazards and Hazardous Materials, of the Initial Study Environmental Checklist, the most current John Wayne Airport AELUP was used as a planning resource for evaluation of the land use compatibility and land use intensity in areas affected by John Wayne Airport operations. The proposed project would comply and would be compatible with the land use standards established in the City’s Municipal Code and the Airport Land Use Commission’s John Wayne AELUP. The City’s Emergency Management Plan also establishes safety procedures with respect to aviation hazards to promote the safety of persons on the ground while reducing risks of serious harm to aircraft crews and passengers that may need to make emergency landings in the immediate airport vicinity. The AELUP vicinity height guidelines would protect public safety, health, and welfare by ensuring that aircraft could fly safely in the airspace around the airport. In addition to existing regulations, the General Plan identifies a goal to protect residents, property, and the environment from aviation-related hazards, and lists policies S8.1 through S8.4 to ensure preparation and minimize risk in the case of an aviation accident (City of Newport Beach 2006b).</p>
GENERAL PLAN NOISE ELEMENT	
<p>Policy N 1.1 Noise Compatibility of New Development</p> <p>Require that all proposed projects are compatible with the noise environment through use of Table N2, and enforce the interior and exterior noise standards shown in Table N3.</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would be compatible with the noise environment and would comply with Tables N2 and N3. The proposed project includes the construction and operation of a business plaza. The proposed project would be consistent with the surrounding land uses and would comply with all interior and exterior noise standards as required during building plan review and approval by the City prior to construction.</p>
<p>Policy N 1.2 Noise Exposure Verification for New Development</p> <p>Applicants for proposed projects that require environmental review and are located in areas projected to be exposed to a CNEL of 60 dBA and higher, as shown on Figure N4, Figure N5, and Figure N6 may conduct a field survey, noise measurements or other modeling in a manner acceptable to the City to provide evidence that the depicted noise contours do not adequately account for local noise exposure circumstances due to such factors as, topography, variation in traffic speeds, and other applicable conditions. These findings shall be used to determine the level of exterior or interior, noise attenuation needed to attain an acceptable noise exposure level and the feasibility of such mitigation when other planning considerations are taken into account.</p>	<p>The proposed project is consistent with this policy.</p> <p>As discussed in Section XII, Noise, in the Initial Study Environmental Checklist, measurements were taken in March 2010 to identify the existing noise levels at the project site. The results of the short-term sound level measurements are summarized in Table 3-7 in Section XII, Noise, of the Initial Study Environmental Checklist. Measured noise levels during daytime hours in and around the project site ranged from 60 to 63 dBA L_{eq}. Therefore, the proposed project does not need exterior or interior noise attenuation as these are acceptable levels for office buildings.</p>

Policy	Consistency Analysis												
<p>Policy N 1.8 Significant Noise Impacts Require the employment of noise mitigation measures for existing sensitive uses when a significant noise impact is identified. A significant noise impact occurs when there is an increase in the ambient CNEL produced by new development impacting existing sensitive uses. The CNEL increase is shown in the table below.</p> <table border="1"> <thead> <tr> <th data-bbox="180 414 336 438"><u>CNEL (dBA)</u></th> <th data-bbox="336 414 493 438"><u>dBA increase</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="180 446 220 470">55</td> <td data-bbox="336 446 357 470">3</td> </tr> <tr> <td data-bbox="180 479 220 503">60</td> <td data-bbox="336 479 357 503">2</td> </tr> <tr> <td data-bbox="180 511 220 535">65</td> <td data-bbox="336 511 357 535">1</td> </tr> <tr> <td data-bbox="180 544 220 568">70</td> <td data-bbox="336 544 357 568">1</td> </tr> <tr> <td data-bbox="180 576 283 600">Over 75</td> <td data-bbox="336 576 756 600">Any increase is considered significant</td> </tr> </tbody> </table>	<u>CNEL (dBA)</u>	<u>dBA increase</u>	55	3	60	2	65	1	70	1	Over 75	Any increase is considered significant	<p>The proposed project is consistent with this policy.</p> <p>As discussed in Section XII, Noise, in the Initial Study Environmental Checklist, the noise levels produced by the proposed project during construction and operation would not result in significant impacts on sensitive receptors. Furthermore, under operating conditions noise impacts would actually be reduced, associated with the reduction of traffic generated by the proposed project.</p>
<u>CNEL (dBA)</u>	<u>dBA increase</u>												
55	3												
60	2												
65	1												
70	1												
Over 75	Any increase is considered significant												
<p>Policy N 3.1 New Development Ensure new development is compatible with the noise environment by using airport noise contours no larger than those contained in the 1985 JWA Master Plan, as guides to future planning and development decisions.</p>	<p>The proposed project is consistent with this policy.</p> <p>As discussed in Section XII(e), Noise, in the Initial Study Environmental Checklist, the proposed project is located within approximately 0.5 mile from John Wayne Airport. Figure N2 of the City of Newport Beach General Plan shows the existing 65 dBA CNEL noise contour for John Wayne Airport. Figure N2 shows that the proposed project site is located approximately 0.25 to 05 mile outside the 65 dBA CNEL noise contour for John Wayne airport (City of Newport Beach 2006a).</p>												
<p>Policy N 4 Minimization of Nontransportation-Related Noise Minimized nontransportation-related noise impacts on sensitive noise receptors.</p>	<p>The proposed project is consistent with this policy.</p> <p>See response to Policy N 1.1 and 3.1 above.</p>												
<p>Policy N 4.1 Stationary Noise Sources Enforce interior and exterior noise standards outlined in Table N3, and in the City’s Municipal Code to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources, such as heating, ventilation, and air conditioning equipment.</p>	<p>The proposed project is consistent with this policy.</p> <p>Sensitive noise receptors would not be exposed to excessive noise levels from stationary noise sources. All heating, ventilation, and air conditioning equipment would be appropriately screened for each dwelling unit in the conceptual site plan.</p>												

Policy	Consistency Analysis
<p>Policy N 4.3 New Commercial Developments</p> <p>Require that new commercial developments abutting residentially designated properties be designed to minimize noise impacts generated by loading areas, parking lots, trash enclosures, mechanical equipment, and any other noise generating features specific to the development to the extent feasible.</p>	<p>The proposed project is consistent with this policy</p> <p>There are high-density residences approximately 500 feet to the east of the project at the intersection of Campus Drive and Jamboree Road. The proposed project would not include a loading area. The trash enclosure would be enclosed and away from sensitive land uses. The parking structure would be located on the interior of the business plaza away from the high-density residential buildings. Furthermore, during operating conditions, the proposed project would result in a decrease of trips and therefore a decrease in noise associated with traffic. Therefore, the proposed project has been designed to minimize exterior noise impacts to the extent feasible.</p>
<p>Policy N 4.6 Maintenance or Construction Activities</p> <p>Enforce the Noise Ordinance noise limits and limits on hours of maintenance or construction activity in or adjacent to residential areas, including noise that results from in-home hobby or work related activities.</p>	<p>The proposed project is consistent with this policy.</p> <p>The proposed project would comply with the noise ordinance limits on construction activities. In addition, the proposed project would be consistent with the surrounding land uses. The proposed project would generate some operational noise through HVAC units; however, these units would be placed on the roof of the buildings and enclosed appropriately to minimize noise. Office and commercial uses immediately surround the project site and these uses are not considered sensitive noise receptors. Furthermore, the high density residential located to the northeast of the project site would experience the traffic generated at the intersection of Jamboree Road and Campus Drive which would drown out any noise generated by the units. Therefore, any slight increase in operational noise associated with the units would not represent a significant impact on the high density residential land uses located to the northeast of the project site. . Furthermore, as identified in the project description, construction hours would be limited to daytime hours specifically identified by the City of Newport Beach Municipal Code.</p>
<p>Policy N 5.1 Limiting Hours of Activity</p> <p>Enforce the limits on hours of construction activity.</p>	<p>The proposed project is consistent with this policy.</p> <p>As identified in the project description and Section XII, Noise, of the Initial Study Environmental Checklist, Title 10, Chapter 10.28, Section 10.28.040 of the Municipal Code specifies permitted hours for construction activities. Construction or other noise-generating activity that would disturb a person of normal sensitivity who works or resides in the vicinity will only occur between the hours of 7:00 a.m. and 6:30 p.m., Monday through Friday, and between 8:00 a.m. and 6:00 p.m. on Saturdays. No construction that would disturb a person of normal sensitivity will occur on Sundays or federal holidays.</p>

Appendix D

**Noise: Terminology, Field Sheets, and General
Plan Land Use Compatibility Matrix**

Noise Terminology

Noise Terminology

Noise is generally defined as unwanted sound. It may be loud, unpleasant, unexpected, or undesired sound typically associated with human activity that interferes with or disrupts the normal noise-sensitive ongoing activities of others. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance and suitability of the noise in a particular setting, the time of day and type of activity during which the noise occurs, and the sensitivity of the individual. The response to vibration is similar: First, the vibration needs to be of sufficient magnitude to be perceived, and, second, it typically would have to interfere with a desirable activity to cause annoyance.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium such as air that are sensed by the human ear. Sound is generally characterized by frequency and intensity. Frequency describes the sound's pitch and is measured in hertz (Hz); intensity describes the sound's level, volume, or loudness and is measured in decibels (dB). Sound frequency is a measure of how many times each second the crest of a sound pressure wave passes a fixed point. For example, when a drummer beats a drum, the skin of the drum vibrates at a certain number of times per second. Vibration of the drum skin at a rate of 100 times (or cycles) per second generates a sound pressure wave that is said to be oscillating at 100 Hz, and this pressure oscillation is perceived as a tonal pitch of 100 Hz. Sound frequencies between 20 Hz and 20,000 Hz are within the range of sensitivity of the best human ear.

Sound from a tuning fork contains a single frequency and may therefore be referred to as a pure tone. However, most sounds heard in the environment do not consist of a single frequency but rather a broad band of frequencies differing in individual sound levels. The method commonly used to quantify environmental sounds consists of evaluating all the frequencies of a sound according to a weighting system that reflects that human hearing is less sensitive at low frequencies and extremely high frequencies than at the mid-range frequencies. This frequency-dependent modification is called A-weighting, and the decibel level measured is called the A-weighted sound level (dBA). In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve.

For informational purposes, typical community sound levels are presented in Figure 2. A sound level of 0 dBA is the approximate threshold of human hearing. Normal speech has a sound level of approximately 60 dBA. Sound levels above about 120 dBA begin to be felt inside the human ear as discomfort and eventually pain at still higher levels.

When evaluating noise increases in the environment, the following relationships to quantifiable increases are used as a basis for assessing impacts.

- A change of 1 dBA is difficult to perceive in the outside environment.
- In the outside environment, a 3 dBA change is considered noticeable.

- An increase of 5 dBA is readily perceived as “louder” and is generally required before a change in community response would be expected.
- A 10 dBA increase is perceived as a doubling of noise.

Because of the logarithmic scale of the decibel unit, sound levels cannot be added or subtracted arithmetically and are somewhat cumbersome to handle mathematically. However, a simple rule of thumb is useful in dealing with sound levels: If a sound’s physical intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. For example, 60 dB plus 60 dB equals 63 dB, and 80 dB plus 80 dB equals 83 dB. As mentioned earlier, however, a perception of doubling of sound level requires about a 10-decibel increase.

Although the A-weighted sound level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a mixture of noise from distant sources that create a relatively steady background noise in which no particular source is identifiable. A single descriptor called the L_{eq} (equivalent sound level) is used to describe the average acoustical energy in a time-varying sound. L_{eq} is the energy-mean A-weighted sound level present or predicted to occur during a specified interval. It is the “equivalent” constant sound level that a given source would need to produce to equal the fluctuating level of measured sound. It is often desirable to also know the range of acoustic levels of the noise source being measured. This is accomplished through the L_{max} and L_{min} noise descriptors. They represent the root-mean-square maximum and minimum obtainable noise levels measured during the monitoring interval. The L_{min} value obtained for a particular monitoring location represents the quietest moment occurring during the measurement period and is often called the acoustic floor for that location. Likewise, the loudest momentary sound during the measurement is represented by L_{max} .

To describe the time-varying character of environmental noise, the statistical noise descriptors L_{10} , L_{50} , and L_{90} (or other percentile values) may be used. They are the noise levels equaled or exceeded 10, 50, and 90 percent, respectively, of the time during the measured interval. The percentile descriptors are most commonly found in nuisance noise ordinances to allow for different noise levels for various portions of an hour. For example, the L_{50} value would represent 30 minutes of an hour period, the L_{25} would be associated with 15 minutes of an hour, and so on.

Of particular interest in this analysis are other descriptors of noise that are commonly used to help determine noise/land use compatibility and to predict an average community reaction to adverse effects of environmental noise, including traffic-generated and industrial noise. One of the most universal descriptors is the Day-Night Average Sound Level (DNL or Ldn). As recommended by the state health department and state planning law, planning agencies use this descriptor. The Ldn noise metric represents a 24-hour period and applies a time-weighted factor designed to penalize noise events that occur during nighttime hours, when relaxation and sleep disturbance is of more concern than during daytime hours. Noise occurring during the daytime hours between 7:00 a.m. and 10:00 p.m. receives no penalty. Noise occurring between 10:00 p.m. and 7:00 a.m. is penalized by adding 10 dB to the measured level. In California, the use of the Community Noise Equivalent Level (CNEL) descriptor is still permitted (and is used by the City of Moreno Valley). CNEL is similar to Ldn except CNEL adds a 5 dB penalty for noise occurring during evening hours between 7:00 p.m. and 10:00 p.m. Ldn and CNEL are

approximately equal to the L_{eq} peak hour under normal traffic conditions (California Department of Transportation [Caltrans])

Field Sheets

FIELD NOISE MEASUREMENT DATA

PROJECT: Newport Business Plaza

PROJ. # 00872.09

SITE IDENTIFICATION: <u>ST-2</u>	OBSERVER(S): <u>Peter Hardie</u>
ADDRESS: <u>JAZZ SEMI CONDUCTOR 4311 TAMBOURNE RD</u>	
START DATE / TIME: <u>10:28 7-10-10</u>	END DATE / TIME: _____

METEOROLOGICAL CONDITIONS:

TEMP: 59 °F HUMIDITY: 43 %R.H. WIND: CALM LIGHT MODERATE VARIABLE

WINDSPEED: 4-6 MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: SUNNY CLEAR OVRCAST PRTLY CLOUDY FOG RAIN OTHER: _____

ACOUSTIC MEASUREMENTS:

INSTRUMENT: LD812 TYPE: 1 2 SERIAL #: 0432

CALIBRATOR: CAL 200 SERIAL #: 6644

CALIBRATION CHECK: PRE-TEST 93.9 dBA SPL POST-TEST 94.0 dBA SPL WINDSCREEN

SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER: _____

REC #	START	END	L _{eq}	L _{max}	L _{min}	L ₉₀	L ₅₀	L ₁₀	OTHER: (TYPE?)
<u>ST-2</u>	<u>10:28</u>	<u>10:43</u>	<u>60.2</u>	<u>71.5</u>	<u>56.2</u>	<u>57.4</u>	<u>58.7</u>	<u>61.8</u>	

COMMENTS: BASELINE W SET BY LARGE HVAC UNITS - ABOUT 58 DB

TAMBOURNE NOT VERY AUDIBLE

PERIODIC AIRCRAFT LEAVING JOHN WAYNE

SOURCE INFO AND TRAFFIC COUNTS:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER: COOLING TOWERS

ROADWAY TYPE: _____

	TRAFFIC COUNT DURATION: _____ -MIN		SPEED		#2 COUNT		SPEED	
	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS:	_____	_____	_____	_____	_____	_____	_____	_____
MED. TRUCKS:	_____	_____	_____	_____	_____	_____	_____	_____
HVY TRUCKS:	_____	_____	_____	_____	_____	_____	_____	_____
BUSES:	_____	_____	_____	_____	_____	_____	_____	_____
MOTORCYCLES:	_____	_____	_____	_____	_____	_____	_____	_____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

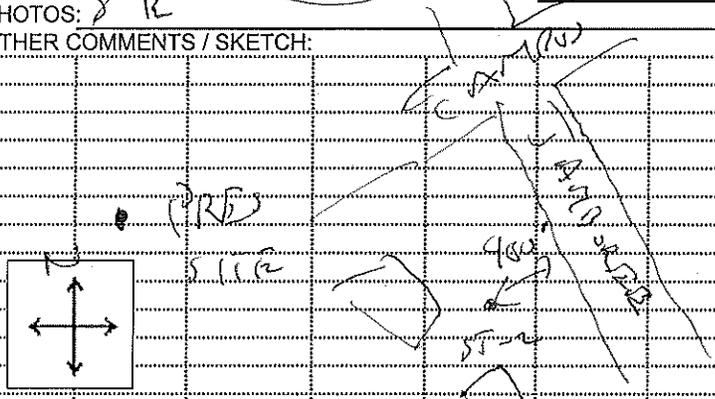
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER: _____

DESCRIPTION / SKETCH:

TERRAIN: HARD SOFT MIXED FLAT OTHER: _____

PHOTOS: S R

OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

PROJECT: Newport Business Plaza

PROJ. # 00872.09

SITE IDENTIFICATION: <u>STP</u>	OBSERVER(S): <u>Peter Hardie</u>
ADDRESS: <u>14262 SAUBOLGER BLVD DEVELOPMENT CENTER</u>	
START DATE / TIME: <u>10:55 7-10-10</u>	END DATE / TIME: _____

METEROLOGICAL CONDITIONS:			
TEMP: <u>58</u> °F	HUMIDITY: <u>54</u> %R.H.	WIND: CALM <u>LIGHT</u> MODERATE VARIABLE	
WINDSPEED: <u>4-6</u> MPH	DIR: <u>N</u> NE E SE S SW <u>W</u> NW	STEADY GUSTY	
SKY: <u>SUNNY CLEAR</u>	<u>OVRCST</u> <u>PARTLY CLOUDY</u>	FOG	RAIN

ACOUSTIC MEASUREMENTS:			
INSTRUMENT: <u>LD 812</u>	TYPE: <u>2</u>	SERIAL #: <u>0432</u>	
CALIBRATOR: <u>CAL 200</u>		SERIAL #: <u>6644</u>	
CALIBRATION CHECK: PRE-TEST <u>99.0</u> dBA SPL	POST-TEST <u>93.9</u> dBA SPL	WINDSCREEN: <u>✓</u>	
SETTINGS: <u>A-WEIGHTED</u> <u>SLOW</u> FAST FRONTAL <u>RANDOM</u> <u>ANSI</u>	OTHER: _____		

REC #	START	END	L _{eq}	L _{max}	L _{min}	L ₉₀	L ₅₀	L ₁₀	OTHER: (TYPE?)
<u>STP</u>	<u>10:55</u>	<u>11:08</u>	<u>63.4</u>	<u>72.8</u>	<u>57.7</u>	<u>57.5</u>	<u>62.1</u>	<u>66.4</u>	

COMMENTS: _____

SOURCE INFO AND TRAFFIC COUNTS:			
PRIMARY NOISE SOURCE: <u>TRAFFIC</u> AIRCRAFT RAIL INDUSTRIAL <u>AMBIENT</u>	OTHER: _____		
ROADWAY TYPE: _____			
TRAFFIC COUNT DURATION: _____ -MIN	SPEED		#2 COUNT
	NB / EB	SB / WB	NB / EB SB / WB
AUTOS:	_____	_____	_____
MED. TRUCKS:	_____	_____	_____
HVY TRUCKS:	_____	_____	_____
BUSES:	_____	_____	_____
MOTORCYCLES:	_____	_____	_____
SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER			
OTHER SOURCES: <u>DIST. AIRCRAFT</u> / RUSTLING LEAVES / DIST. BARKING DOGS <u>BIRDS</u> / DIST. INDUSTRIAL			
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER: _____			

DESCRIPTION / SKETCH:	
TERRAIN: <u>HARD</u> SOFT MIXED FLAT OTHER: _____	
PHOTOS: <u>5 6 7</u> <u>5 6 7</u> <u>5 6 7</u>	
OTHER COMMENTS / SKETCH:	

Site Photographs



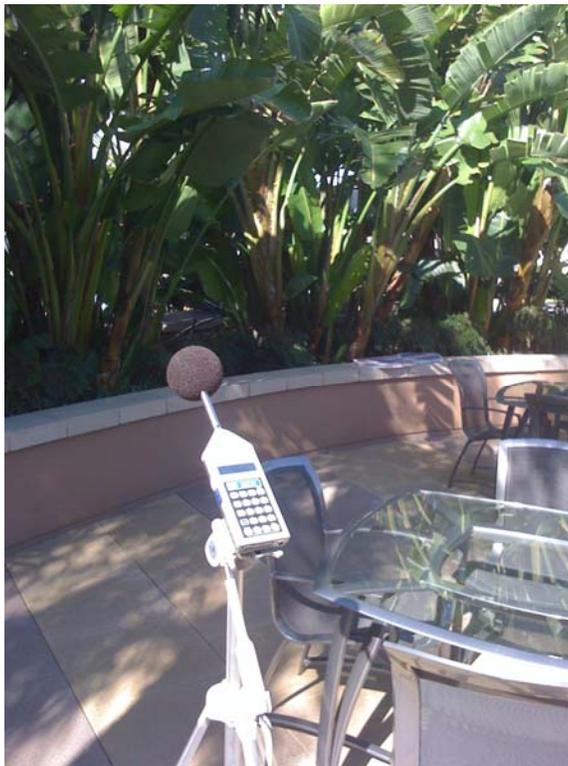
Photograph A-1. ST-1 Looking East



Photograph A-2. ST-1 Looking North



Photograph A-3. ST-1 Looking South



Photograph A-4. ST-1 Looking West



Photograph A-5. ST-2 Looking West



Photograph A-6. ST-3 Looking North



Photograph A-7. ST-3 Looking South



Photograph A-8. ST-3 Looking West

Land Use Compatibility Matrix

Table N2 Land Use Noise Compatibility Matrix

<i>Land Use Categories</i>		<i>Community Noise Equivalent Level (CNEL)</i>						
<i>Categories</i>	<i>Uses</i>	<55	55-60	60-65	65-70	70-75	75-80	>80
Residential	Single Family, Two Family, Multiple Family	A	A	B	C	C	D	D
Residential	Mixed Use	A	A	A	C	C	C	D
Residential	Mobile Home	A	A	B	C	C	D	D
Commercial Regional, District	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Commercial Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theatre	A	A	A	A	B	B	C
Commercial Industrial Institutional	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
Commercial Recreational Institutional Civic Center	Amphitheatre, Concert Hall Auditorium, Meeting Hall	B	B	C	C	D	D	D
Commercial Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
Commercial General, Special Industrial, Institutional	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Institutional	Hospital, Church, Library, Schools' Classroom	A	A	B	C	C	D	D
Open Space	Parks	A	A	A	B	C	D	D
Open Space	Golf Course, Cemeteries, Nature Centers Wildlife Reserves, Wildlife Habitat	A	A	A	A	B	C	C
Agriculture	Agriculture	A	A	A	A	A	A	A

SOURCE: Newport Beach, 2006

Zone A: Clearly Compatible—Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B: Normally Compatible**—New construction or development should be undertaken only after detailed analysis of the noise reduction requirements and are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C: Normally Incompatible—New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Zone D: Clearly Incompatible—New construction or development should generally not be undertaken.

Appendix E
Traffic Calculations

Appendix E

Traffic Calculations

Existing Traffic Conditions of Surrounding Roadway Network

Table E-1 identifies the Level of Service (LOS) at intersections within the general vicinity of the project site. All intersections are operating at LOS B or better in the AM Peak Hour and only one intersection (MacArthur Boulevard/Campus Drive) was operating at LOS D during PM peak hour. This intersection is a shared intersection between the City of Newport Beach and the City of Irvine, and is allowed to operate at LOS E according to the City of Newport Beach and City of Irvine Performance Criteria. Therefore, all intersections are currently meeting the performance criteria of both cities.

Table E-1. Existing 2009 Conditions AM and PM Peak Hour Level of Service

Intersection	AM Peak Hour V/C - LOS	PM Peak Hour V/C - LOS	Shared Between Newport Beach and Irvine
MacArthur Blvd/Campus Dr	0.50 – A	0.84 – D	Yes
MacArthur Blvd/Birch St	0.65 – B	0.75 – C	No
MacArthur Blvd/Von Karman Ave	0.37 – A	0.53 – A	No
Jamboree Rd/Campus Dr	0.67 – B	0.73 – C	Yes
Jamboree Rd/Birch St	0.57 – A	0.65 – B	No
Jamboree Rd/MacArthur Blvd	0.59 – A	0.66 – B	No
Jamboree Rd/Bristol St N	0.57 – A	0.54 – A	No

Source: LSA 2009.

Table E-2 identifies the AM and PM peak hour traffic volumes along Jamboree, MacArthur, and Von Karman. These roads were selected as they are assumed to be the roads construction workers and employees would access for the construction and operation of the proposed project.

Table E-2. AM and PM Peak Hour Traffic Volumes

Roadway Segment	AM Peak Hour Traffic Volume	PM Peak Hour Traffic Volume
Jamboree south of Campus	3766	4046
Jamboree north of Campus	3777	4171
Campus east of Jamboree	1128	1374
Campus west of Jamboree	1127	1721
Jamboree south of MacArthur	2301	2678
Jamboree north of MacArthur	2552	3208
MacArthur east of Jamboree	2874	2815
MacArthur west of Jamboree	2463	2381
MacArthur south of Von Karman	2476	2992
MacArthur north of Von Karman	1694	2130
Von Karman east of MacArthur	1182	1300

Source: LSA 2009.

Table E-3. Estimated Percent Increase in AM Trips Associated with Construction

Roadway Segment	Existing AM Peak Hour Traffic Volume (LSA 2009)	Construction Phases		
		Demolition	Grading	Construction, Asphaltting, and Architectural Finishing
		Percent Increase with 7 AM Trips	Percent increase with 9.5 AM trips	Percent increase with 20.25 AM trips
Jamboree south of Campus	3766	0.19%	0.25%	0.54%
Jamboree north of Campus	3777	0.19%	0.25%	0.54%
Campus east of Jamboree	1128	0.62%	0.84%	1.80%
Campus west of Jamboree	1127	0.62%	0.84%	1.80%
Jamboree south of MacArthur	2301	0.30%	0.41%	0.88%
Jamboree north of MacArthur	2552	0.27%	0.37%	0.79%
MacArthur east of Jamboree	2874	0.24%	0.33%	0.70%
MacArthur west of Jamboree	2463	0.28%	0.39%	0.82%
MacArthur south of Von Karman	2476	0.28%	0.38%	0.82%
MacArthur north of Von Karman	1694	0.41%	0.56%	1.20%
Von Karman east of MacArthur	1182	0.59%	0.80%	1.71%

Table E-4. Estimated Percent Increase in PM Trips Associated with Construction

Roadway Segment	PM Peak Hour Traffic Volume (LSA 2009)	Construction		
		Demolition	Grading	Construction, Asphaltting, and Architectural Finishing
		Percent Increase with 7 PM Trips	Percent Increase with 9.5 PM Trips	Percent Increase with 20.25 PM Trips
Jamboree south of Campus	4046	0.17%	0.23%	0.50%
Jamboree north of Campus	4171	0.17%	0.23%	0.49%
Campus east of Jamboree	1374	0.51%	0.69%	1.47%
Campus west of Jamboree	1721	0.41%	0.55%	1.18%
Jamboree south of MacArthur	2678	0.26%	0.35%	0.76%
Jamboree north of MacArthur	3208	0.22%	0.30%	0.63%
MacArthur east of Jamboree	2815	0.25%	0.34%	0.72%
MacArthur west of Jamboree	2381	0.29%	0.40%	0.85%
MacArthur south of Von Karman	2992	0.23%	0.32%	0.68%
MacArthur north of Von Karman	2130	0.33%	0.45%	0.95%
Von Karman east of MacArthur	1300	0.54%	0.73%	1.56%

Appendix F
Mitigation Monitoring Plan and Report

Appendix F

Mitigation Monitoring Plan and Report

Introduction

The California Public Resources Code, Section 21081.6, requires that a lead or responsible agency adopt a mitigation monitoring plan (MMP) when approving or carrying out a project when a Mitigated Negative Declaration (MND) identifies measures to reduce potential adverse environmental impacts to less-than-significant levels. As lead agency for the proposed project, the City of Newport Beach (City) is responsible for adoption and implementation of the MMP.

An IS/MND has been prepared for the proposed project that addresses the potential environmental impacts, and, where appropriate, recommends measures to mitigate these impacts. As such, an MMP is required to ensure that adopted mitigation measures are successfully implemented. This document plan lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties.

Project Overview

The project proponent proposes a General Plan amendment and an amendment to the Koll Center Newport Planned Community text for two existing parcels in the City of Newport Beach, as well as development of a new 1-story bank building, two 3-story office buildings, and a 2-level parking structure. The proposed project includes the preparation of a parcel map to combine the two parcels into a single parcel of land. The existing General Plan, which identifies the development limit of Anomaly Number 6 as 34,500 gross square feet, would be amended to increase the development limit by 11,544 gross square feet. The existing Koll Center Newport Planned Community text, which identifies the allowable building area for Office Site F as 24,300 net square feet, would be amended to increase the allowable building area by 18,346 net square feet. These proposed amendments would increase the allowable building square footage to accommodate the development of a new 46,044-gross-square-foot business plaza. The proposed project involves the demolition of two connected buildings, a 113-stall surface parking lot, and some existing landscaping and the construction of a new 1-story bank, two 3-story office buildings, and a 2-level parking structure.

Additional details regarding the project description are contained in Chapter 2, “Project Description.”

Monitoring and Reporting Procedures

The MMP for the proposed project will be in place through all phases of the project implementation, including design, construction, and operation. The City will be responsible for administering the MMP and ensuring that all parties comply with its provisions. The City may delegate monitoring activities to staff, consultants, or contractors. The City will also ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected. The designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to rectify problems.

Mitigation Monitoring Plan Implementation

Table F-1 lists, by resource area, each mitigation measure included in the draft IS/MND. Certain inspections and reports may require preparation by qualified individuals and these are specified as needed. The timing and method of verification for each measure is also specified.

MITIGATION MONITORING REPORT

PROJECT NAME: Newport Business Plaza

PROJECT LOCATION: Two adjoining parcels at 4699 Jamboree Road and 5190 Campus Drive on Assessor's Parcel Numbers 445-151-09 and 445-151-08 in the City of Newport Beach, at the intersection of Jamboree Road and Campus Drive

PROJECT DESCRIPTION: Project proposes to demolish and remove the existing two connected buildings, a 113-stall surface parking lot, and some existing landscaping to prepare the site for the construction of a new 46,044-gross-square-foot business plaza. The proposed project includes a General Plan amendment and Koll Center Newport Planned Community text amendment to increase the allowable building square footage of the project site from 34,500 gross square feet to 46,044 gross square feet in the General Plan, and from 24,300 gross square feet to 42,646 net square feet in the Koll Center Newport Planned Community text.

LEAD AGENCY: City of Newport Beach

CONTACT PERSON/ TELEPHONE NO.: Janet Johnson Brown, Associate Planner, (949) 644-3236

APPLICANT: John Young, World Premier Investments

CONTACT PERSON/TELEPHONE NO.: John E. Young

5190 Campus Drive

Newport Beach, California 92660

Phone No.: (714) 803-6983

Table F-1. Summary of Mitigation Monitoring Plan

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
Aesthetics						
A-1	The site shall not be excessively illuminated based on the luminance recommendations of the Illuminating Engineering Society of North America, or, if in the opinion of the Planning Director, the illumination creates an unacceptable negative impact on surrounding land uses or environmental resources. The Planning Director may order the dimming of light sources or other	Prior to project operation	City of Newport Beach Planning Department			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	remediation upon finding that the site is excessively illuminated.					
A-2	Prior to the issuance of building permits, the applicant shall prepare a final lighting plan for approval by the Planning Department that demonstrates spill light trespass and glare are below or at luminance levels pursuant to recommendations of the Illuminating Engineering Society of North America.	Prior to issuance of building permits	City of Newport Beach Planning Department			
A-3	Exterior on-site lighting shall be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent sites or create a public nuisance. “Walpak” type fixtures are not permitted. Parking area lighting shall have zero cut-off fixtures and light standards shall not exceed 20 feet in height.	Prior to site plan approval	City of Newport Beach Planning Department			
Biological Resources						
BIO-1	The removal of ornamental trees on site shall not be scheduled during the avian nesting season (approximately February 1–August 31) to ensure project conformance with the Migratory Bird Treaty Act. If clearing and grubbing are proposed to occur between February 1 and August 31, a preconstruction survey for nesting birds shall be conducted by a qualified biologist no more than 7 days prior to the start of construction. If nesting birds occur within the disturbance	During construction	Project construction contractor			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	area, a buffer around the nest shall be determined by a qualified biologist. All construction activities shall occur outside the buffer area until a qualified biologist has determined that the nest is complete and that no new nesting activity has occurred within the buffer area.					
Cultural Resources						
CR-1	The project plans shall specify that a qualified archaeologist be contacted in the unlikely event that prehistoric archaeological resources are discovered in the project area during ground-disturbing activities. Work shall stop in the area of the find and within 50 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation. Prehistoric Archeological monitoring of the project site shall not be required, unless it is determined by the qualified archeologist who prepares the treatment measures for the find that monitoring is required based on the sediments being excavated and the significance of the find.	During construction	Project construction contractor			
CR-2	Project plans shall specify that that a	During	Project construction			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	<p>qualified paleontologist shall be contacted in the event that potential paleontological resources are discovered. During construction, the contractor shall halt site excavation or preparation if suspected fossilized remains are unearthed. Construction shall cease on site and shall not be resumed until a qualified paleontologist is contacted to assess the resources and identify appropriate treatment measures, if applicable. Treatment measures may include salvaging fossils and samples of sediments as they are unearthed to avoid construction delays and/or temporarily halting or diverting equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Specimens shall be curated into a professional, accredited museum repository with permanent retrievable storage. A report of findings, with an appended itemized inventory of specimens, shall be prepared and shall signify completion of the program to mitigate impacts on paleontological resources.</p>	construction	contractor			
Geology and Soils						
GEO-1	During the preparation of the grading plans and prior to issuance of grading permits, the grading plans shall stipulate that all grading	Prior to issuance of grading permits	City of Newport Beach Building Department			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	and earthwork shall be performed in accordance with the Grading Ordinances of the City of Newport Beach and the applicable portion of the General Earthwork Specification in Appendix B of the geotechnical report prepared for the project. During construction, grading of the site by the contractor shall adhere to grading plans approved by the City. The implementation of these measures shall be verified during field inspections.					
GEO-2	During the preparation of grading plans and prior to issuance of grading permits, the grading plans shall stipulate that all fill shall consist of non-expansive materials, moisture-conditioned to near optimum if cohesionless and to 130% of optimum if cohesive or clayey. The characteristics of the fill soil shall be evaluated by the geotechnical consultant prior to placement, and confirmed to meet grading plan specifications.	Prior to issuance of grading permits	City of Newport Beach Building Department			
GEO-3	During construction, to minimize the potential for soil movement, the upper 24 inches of soil within the building slab areas (garage slab, and ramp) shall be replaced with 2 feet of crushed aggregate.	During construction	City of Newport Beach Building Department			
GEO-4	Prior to construction of the parking area, a geotechnical engineer shall inspect the bottom of the site excavation to verify that no additional excavation is required to minimize impacts on the structural integrity	Prior to issuance of grading permits	City of Newport Beach Building Department			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	of the buildings associated with expansive soils.					
GEO-5	During construction, if groundwater rises near or above the proposed excavation during construction, underwater construction and a dewatering system shall be incorporated to minimize impacts to the structural integrity of the buildings.	During construction	City of Newport Beach Building Department			
Hazards and Hazardous Materials						
HM-1	<p>Prior to demolition of the office buildings on site, an asbestos-containing materials and lead-based paint assessment shall be performed by a qualified environmental professional and conducted in accordance with all federal, state, and local requirements, including those established by National Emissions Standards for Hazardous Air Pollutants guidelines and the Occupational Safety and Health Administration (OSHA). A report shall be furnished to the Building Department by said qualified environmental professional and shall outline the occurrence of hazardous materials on the project site.</p> <ul style="list-style-type: none"> ■ If asbestos-containing materials are discovered during site investigations, all potentially friable asbestos-containing materials shall be removed in accordance with federal, state, and local laws and the National Emissions Standards for Hazardous Air Pollutants guidelines prior to building demolition 	Prior to issuance of grading permits	City of Newport Beach Public Works Department			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	<p>or renovation that may disturb the materials. All demolition activities shall be undertaken in accordance with California Occupational Safety and Health Administration (Cal/OSHA) standards, contained in Title 8 of the California Code of Regulations (CCR), Section 1529, to protect workers from exposure to asbestos. Materials containing more than 1% asbestos are also subject to SCAQMD regulations. Demolition and the transport and disposal shall be performed in conformance with these federal, state, and local laws and regulations shall avoid significant exposure of construction workers and/or the public to asbestos-containing materials.</p> <ul style="list-style-type: none"> ■ If lead-based paint is discovered during on-site investigations, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA lead in construction standard, Title 8, CCR 1532.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the waste being disposed of. Demolition and the transport and disposal shall be performed in conformance with these 					

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	federal, state, and local laws and regulations shall avoid significant exposure of construction workers and/or the public to lead-based paint.					
HM-2	Prior to site plan approval, the City of Newport Beach shall file a notice of Proposed Construction or Alteration with FAA (FAA Form 7460-1) in accordance with Federal Aviation Regulation (FAR) Part 77. Following FAA’s aeronautical study of the project site, the proposed project shall comply with conditions of approval imposed or recommended by FAA. Subsequent to these findings, the City shall refer the proposed project to the Orange County Airport Land Use Commission for consistency analysis. The Director of Planning, or designee, shall verify that the City has received a Determination of No Hazard to Air Navigation prior to the issuance of building permits for the northern parcel.	Prior to site plan approval	City of Newport Beach Planning Department			
Noise						
N-1	All noise-producing project equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package”	During final design and prior to plan check approval	City of Newport Beach Code Enforcement City of Newport Beach Building Department			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.					
N-2	All mobile and fixed noise-producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of project activity.	During grading, site preparation, and construction	City of Newport Beach Code Enforcement City of Newport Beach Building Department			
N-3	Electrically powered equipment shall be used instead of pneumatic or internal combustion-powered equipment, where feasible.	During final design and prior to plan check approval During grading, site preparation, and construction	City of Newport Beach Code Enforcement City of Newport Beach Building Department			
N-4	Mobile noise-generating equipment and machinery shall be shut off when not in use.	During, grading, site preparation, and construction	City of Newport Beach Code Enforcement City of Newport Beach Building Department			
N-5	Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practical from noise-sensitive receptors.	During, grading, site preparation, and construction	City of Newport Beach Code Enforcement City of Newport			

No.	Mitigation Measure	Time Frame for Implementation & Monitoring	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
			Beach Building Department			
N-6	Construction site and access road speed limits shall be established and enforced during the construction period.	During, grading, site preparation, and construction	City of Newport Beach Code Enforcement City of Newport Beach Building Department			
N-7	The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.	During construction	City of Newport Beach Code Enforcement City of Newport Beach Building Department			
N-8	No project-related public address or music system shall be audible at any adjacent receptor.	During, grading, site preparation, and construction	City of Newport Beach Code Enforcement City of Newport Beach Building Department			
N-9	The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process to the project proponent shall be established prior to construction commencement that shall allow for resolution of noise problems that cannot be immediately solved by the site supervisor.	During final design and prior to plan check approval During grading, site preparation, and construction	City of Newport Beach Code Enforcement City of Newport Beach Building Department			