

Table 6. Quality to Groundwater (3)					
Constituent	Units	Existing Conditions		Project Conditions	
		Raw Stormwater	Treated Stormwater (2)	Raw Stormwater	Treated Stormwater
<b>MINERALS</b>					
Sulfate	mg/L	204.9	204.9	48.8	41.3
Chloride	mg/L	30.5	30.5	30.8	30.8
TDS	mg/L	511.7	511.7	172.6	172.6
Boron	mg/L	0.4	0.3	0.2	0.1
<b>NUTRIENTS</b>					
Nitrate	mg/L	30.8	15.4	9.8	4.9
Ammonia	mg/L	1.9	1.5	0.9	0.7
<b>PESTICIDES (1)</b>					
ChemA					
Aldrin	ug/L	0.02	0.000	0.003	0.000
Dieldrin	ug/L	0.005	0.000	0.001	0.000
Chlordane	ug/L	0.02	0.000	0.004	0.000
Endrin	ug/L	0.02	0.000	0.004	0.000
Heptachlor	ug/L	0.002	0.000	0.0004	0.000
Heptachlor epoxide	ug/L	0.002	0.000	0.0004	0.000
HCH	ug/L	0.05	0.000	0.01	0.000
Endosulfan	ug/L	0.002	0.000	0.000	0.000
Toxaphene	ug/L	0.23	0.000	0.04	0.000
4,4-DDE	ug/L	0.03	0.000	0.01	0.000
Lannate	ug/L	1.17	0.01	0.2	0.002
<b>MICROORGANISMS</b>					
Total Coliform	MPN/100 ml	145,913	1,459	91,812	918
Fecal Coliform	MPN/100 ml	22,176	222	13,880	139
Fecal Streptococci	MPN/100 ml	49,958	500	42,876	429
Notes:					
1. With the exception of 4,4-DDE, none of the pesticides are present in the existing or project runoff. Concentrations for these pesticides were assumed to be 1/2 the detection limits.					
2. Treatment for existing conditions discharge to groundwater assumes filtration through the vadose zone only.					
3. Values presented in this table differ from those presented in Table 4.5-26 because this data is representative of all discharges to groundwater, and not just large discharges (>10-year event) to the gravel pits (as is the case for Table 4.5-26).					

Constituent	Units	Existing Conditions		Project Conditions	
		Raw	Treated	Raw	Treated
		Stormwater	Stormwater (1)	Stormwater	Stormwater (2)
<b>MINERALS</b>					
Sulfate	mg/L	351	351	62	51
Chloride	mg/L	38	38	29	29
TDS	mg/L	811	811	208	208
Boron	mg/L	0.5	0.5	0.2	0.1
<b>NUTRIENTS</b>					
Nitrate	mg/L	52.2	52	12	4
Ammonia	mg/L	2.5	2.5	1.1	0.9
<b>PESTICIDES</b>					
ChemA					
Aldrin	ug/L	0.03	0.03	0.004	0.0001
Dieldrin	ug/L	0.01	0.009	0.001	0.00004
Chlordane	ug/L	0.04	0.04	0.01	0.0002
Endrin	ug/L	0.04	0.04	0.01	0.0002
Heptachlor	ug/L	0.004	0.004	0.001	0.00002
Heptachlor epoxide	ug/L	0.004	0.004	0.001	0.00002
HCH	ug/L	0.09	0.09	0.01	0.0004
Endosulfan	ug/L	0.004	0.004	0.001	0.00002
Toxaphene	ug/L	0.43	0.4	0.06	0.002
4,4-DDE	ug/L	0.06	0.06	0.01	0.0003
Lannate	ug/L	2.15	2.2	0.28	0.281
<b>MICROORGANISMS</b>					
Total Coliform	MPN/100 ml	240,299	240,299	91,174	29,347
Fecal Coliform	MPN/100 ml	28,787	28,787	15,485	3,468
Fecal Streptococci	MPN/100 ml	75,818	75,818	43,081	12,873
1. There is no existing stormwater treatment system for water discharged to the Santa Clara River.					
2. Slight differences in concentrations for treated project runoff reported in this table and Table 4.5-25 of the EIR are the result of the exclusion of the detention basins in the Table 4.5-25 calculations.					

Constituent	Units	Existing Conditions	Project Conditions	Change in Loading
<b>MINERALS</b>				
Sulfate	ppy	357,260	28,138	-329,122
Chloride	ppy	53,132	21,027	-32,105
TDS	ppy	892,278	117,735	-774,543
Boron	ppy	438	58	-380
<b>NUTRIENTS</b>				
Nitrate	ppy	26,847	3,353	-23,495
Ammonia	ppy	2,654	509	-2,145
<b>PESTICIDES</b>				
ChemA				
Aldrin	ppy	0	0	0
Dieldrin	ppy	0	0	0
Chlordane	ppy	0	0	0
Endrin	ppy	0	0	0
Heptachlor	ppy	0	0	0
Heptachlor epoxide	ppy	0	0	0
HCH	ppy	0	0	0
Endosulfan	ppy	0	0	0
Toxaphene	ppy	0	0	0
2,4-DDE	ppy	0	0	0
Lannate	ppy	0.02	0.001	-0.02
<b>MICROORGANISMS</b>				
Total Coliform	MPN/year	1.15E+13	2.84E+12	-8.70E+12
Fecal Coliform	MPN/year	1.75E+12	4.29E+11	-1.32E+12
Fecal Streptococci	MPN/year	3.95E+12	1.33E+12	-2.62E+12

Table 9. Loading to Surface Water				
Constituent	Units	Existing Conditions	Project Conditions	Change in Loading
<b>MINERALS</b>				
Sulfate	ppy	188,502	78,961	-109,541
Chloride	ppy	20,235	44,598	24,363
TDS	ppy	435,814	324,575	-111,239
Boron	ppy	259	110	-148
<b>NUTRIENTS</b>				
Nitrate	ppy	28,037	6,204	-21,832
Ammonia	ppy	1,333	1,382	49
<b>PESTICIDES</b>				
ChemA				
Aldrin	ppy	0.02	0.0002	-0.0171
Dieldrin	ppy	0.005	0.0001	-0.0046
Chlordane	ppy	0.02	0.0003	-0.0228
Endrin	ppy	0.02	0.0003	-0.0228
Heptachlor	ppy	0.002	0.00003	-0.00228
Heptachlor epoxide	ppy	0.002	0.00003	-0.00228
HCH	ppy	0.05	0.001	-0.046
Endosulfan	ppy	0.002	0.00003	-0.00228
Toxaphene	ppy	0.2	0.003	-0.228
4,4-DDE	ppy	0.03	0.0004	-0.0320
Lannate	ppy	1.2	0.438	-0.719
<b>MICROORGANISMS</b>				
Total Coliform	MPN/year	5.85E+14	2.08E+14	-3.78E+14
Fecal Coliform	MPN/year	7.01E+13	2.45E+13	-4.56E+13
Fecal Streptococci	MPN/year	1.85E+14	9.11E+13	-9.36E+13

Table 10. Total Loading to Groundwater and Surface Water				
Constituent	Units	Existing Conditions	Project Conditions	Change in Loading
<b>MINERALS</b>				
Sulfate	ppy	545,762	107,099	-438,663
Chloride	ppy	73,368	65,626	-7,742
TDS	ppy	1,328,092	442,310	-885,782
Boron	ppy	697	168	-529
<b>NUTRIENTS</b>				
Nitrate	ppy	54,884	9,557	-45,327
Ammonia	ppy	3,987	1,891	-2,096
<b>PESTICIDES</b>				
<b>ChemA</b>				
Aldrin	ppy	0.017	0.0002	-0.0171
Dieldrin	ppy	0.005	0.0001	-0.0046
Chlordane	ppy	0.023	0.0003	-0.0228
Endrin	ppy	0.023	0.0003	-0.0228
Heptachlor	ppy	0.002	0.00003	-0.00228
Heptachlor epoxide	ppy	0.002	0.00003	-0.00228
HCH	ppy	0.046	0.001	-0.046
Endosulfan	ppy	0.002	0.00003	-0.00228
Toxaphene	ppy	0.231	0.003	-0.228
4,4-DDE	ppy	0.032	0.0004	-0.0320
Lannate	ppy	1.18	0.4	-0.7
<b>MICROORGANISMS</b>				
Total Coliform	MPN/100 ml	5.97E+14	2.11E+14	-3.86E+14
Fecal Coliform	MPN/100 ml	7.19E+13	2.50E+13	-4.69E+13
Fecal Streptococci	MPN/100 ml	1.89E+14	9.24E+13	-9.62E+13

REVISED Table 4.5-31. Project Stormwater Concentrations and Loads for TMDL-Related Constituents

Constituent	Discharged Concentration			Discharged Load		
	Units	Existing	Project	Units	Existing	Project
<b>Project Conditions</b>						
<b>MINERALS</b>						
Sulfate	mg/L	351	51	ppy	188,502	78,961
Chloride	mg/L	38	29	ppy	20,235	44,598
TDS	mg/L	811	208	ppy	435,814	324,575
Boron	mg/L	0	0	ppy	259	110
<b>NUTRIENTS</b>						
Nitrate	mg/L	52	4	ppy	28,037	6,204
Ammonia	mg/L	2	1	ppy	1,333	1,382
<b>PESTICIDES</b>						
<b>ChemA</b>						
Aldrin	ug/L	0.03	0.0001	ppy	0.02	0.0002
Dieldrin	ug/L	0.009	0.00004	ppy	0.005	0.0001
Chlordane	ug/L	0.04	0.0002	ppy	0.02	0.0003
Endrin	ug/L	0.04	0.0002	ppy	0.02	0.0003
Heptachlor	ug/L	0.004	0.00002	ppy	0.002	0.00003
Heptachlor epoxide	ug/L	0.004	0.00002	ppy	0.002	0.00003
HCH	ug/L	0.09	0.0004	ppy	0.05	0.0006
Endosulfan	ug/L	0.004	0.00002	ppy	0.002	0.00003
Toxaphene	ug/L	0.4	0.002	ppy	0.2	0.0031
4,4-DDE	ug/L	0.06	0.0003	ppy	0.03	0.0004
Lannate	ug/L	2.2	0.3	ppy	1.2	0.4
<b>MICROORGANISMS</b>						
Total Coliform	MPN/100 ml	240,299	29,347	MPN/year	5.85E+14	2.08E+14
Fecal Coliform	MPN/100 ml	28,787	3,468	MPN/year	7.01E+13	2.45E+13
Fecal Streptococci	MPN/100 ml	75,818	12,873	MPN/year	1.85E+14	9.11E+13
<b>Cumulative</b>						
<b>MINERALS</b>						
Sulfate	mg/L	351	35	ppy	188,502	78,961
Chloride	mg/L	28	26	ppy	20,235	44,598
TDS	mg/L	416	179	ppy	435,814	324,575
Boron	mg/L	0.3	0.1	ppy	259	110
<b>NUTRIENTS</b>						
Nitrate	mg/L	27	4	ppy	28,037	6,204
Ammonia	mg/L	2	1	ppy	1,333	1,382
<b>PESTICIDES</b>						
<b>ChemA</b>						
Aldrin	ug/L	0.01	0.0001	ppy	0.02	0.0002
Dieldrin	ug/L	0.004	0.00003	ppy	0.005	0.0001
Chlordane	ug/L	0.02	0.0001	ppy	0.02	0.0003
Endrin	ug/L	0.02	0.0001	ppy	0.02	0.0003
Heptachlor	ug/L	0.002	0.00001	ppy	0.002	0.00003
Heptachlor epoxide	ug/L	0.00	0.00001	ppy	0.002	0.00003
HCH	ug/L	0.04	0.0003	ppy	0.05	0.001
Endosulfan	ug/L	0.002	0.00001	ppy	0.002	0.00003
Toxaphene	ug/L	0.18	0.0013	ppy	0.2	0.003
4,4-DDE	ug/L	0.03	0.0002	ppy	0.03	0.0004
Lannate	ug/L	0.92	0.1873	ppy	1.2	0.4
<b>MICROORGANISMS</b>						
Total Coliform	MPN/100 ml	140,289	25,904	MPN/year	5.85E+14	2.08E+14
Fecal Coliform	MPN/100 ml	22,146	3,966	MPN/year	7.01E+13	2.45E+13
Fecal Streptococci	MPN/100 ml	60,047	13,229	MPN/year	1.85E+14	9.11E+13
Notes:						
Cumulative impacts for project conditions include the El Rio Areas east and west of Vineyard Avenue (runoff to Stroube Drain).						

REVISED Table 4.5-32. Existing Conditions and Project Runoff Comparison

Scenario	Runoff Amounts, AFY		
	Wet Year (1)	Average Year (3)	Dry Year (2)
<b>RiverPark Specific Plan</b>			
Existing	370	162	53
Project	1,684	736	242
Change in Runoff	1,314	574	189
<b>Cumulative Impacts</b>			
Existing	1,209	529	174
Project	2,523	1,103	363
Change in Runoff	1,314	574	189
Notes:			
(1) Wet weather is the data from water year 1997/98.			
(2) Dry weather is the data from water year 1989/90.			
(3) Average year is based on the historical average from 1979/80 to 1998/99			

REVISED Table 4.5-33. Existing Conditions and Project Percolation Comparison

Scenario	Percolation Amounts, AFY		
	Wet Year (1)	Average Year (3)	Dry Year (2)
<b>RiverPark Specific Plan</b>			
Existing	1,959	857	282
Project	763	333	110
Change in Percolation	-1,196	-524	-172
<b>Cumulative Impacts</b>			
Existing	2,354	1,029	339
Project	1,157	506	166
Change in Percolation	-1,197	-523	-173
Notes:			
(1) Wet weather is the data from water year 1997/98.			
(2) Dry weather is the data from water year 1989/90.			
(3) Average year is based on the historical average from 1979/80 to 1998/99			

REVISED Table 4.5-34. Existing and Project Groundwater and Surface Water Net Contributions Comparison

Scenario	Estimate of contribution					
	Existing Conditions		Project Conditions		Net Change	
	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water
<b>RiverPark Specific Plan</b>						
Historic drought condition	282	53	110	242	-172	189
10-year event, AF/event	214	40	83	184	-131	144
50-year event, AF/event	293	55	114	252	-179	197
100-year event, AF/event	326	61	127	280	-199	219
<b>Cumulative Impacts</b>						
Historic drought condition	339	174	166	363	-173	189
10-year event, AF/event	257	132	126	275	-131	143
50-year event, AF/event	352	181	173	377	-179	196
100-year event, AF/event	391	201	192	419	-199	218
Notes:						
(1) Historic drought conditions are based on rainfall data from 1989/90.						
(2) 10-year, 50-year, and 100-year event rainfall totals are based on historical records from El Rio Monitoring Station 239.						

A brief summary of the information provided in the EIR in response to each of the points raised in this letter is provided below:

1) Estimates of concentrations and loads of constituents from point and non-point discharges:

This information was presented in Tables 4.5-31, 32, 33, and 34 in the Draft EIR. These tables have been reviewed and updated. It was identified in this review that a conversion factor had been omitted in the calculations, resulting in the reported runoff quantities being overstated by a factor of twelve. Additional research also determined that less of the agricultural area to the east of Vineyard Avenue drains to the Specific Plan Area than was initially estimated. Similarly, it was determined that more of the agricultural area in the Specific Plan Area immediately north of Highway 101 drains to the Santa Clara River than was initially estimated. The updated tables are provided on the preceding pages. As reflected in revised Table 4.5-31, only the loading of chloride and ammonia to the Santa Clara River will increase as a result of the project, and this is primarily due to the increase in cumulative runoff volume rather than any increase in stormwater concentrations. No new significant impacts, therefore, have been identified.

2) Estimates of the amount of additional runoff generated by the project during wet and dry years.

Please see revised Table 4.5-32. The RiverPark Project will increase the amount of runoff under average, dry, and wet year conditions in comparison to the existing conditions. This is a result of increased impervious acreage and the development of the proposed stormwater treatment system, which changes the routing of the runoff from the off-site industrial and agricultural areas from the existing mine pits and county drainage basins to the Santa Clara River.

3) Estimate of the amount of increased or decreased percolation due to the project.

See revised Table 4.5-33. As a result of the increased impervious areas and the development of the proposed stormwater treatment system, which changes the routing of the runoff, less water is allowed to percolate under the project conditions in comparison to the existing conditions. The analysis in the Draft EIR does show, however, that the project will result in a net gain based upon the water balance calculations. This is largely a result of converting agricultural land to residential and commercial uses, which use less water, and the addition of UWCD's uses of the gravel pits for water storage and infiltration.

4) Change in groundwater and surface water contributions under historic drought conditions and 10-yr, 50-yr and 100-yr floods.

Please see revised Table 4.5-34 and page 4.5-98 of the Water Resources Section of the RiverPark EIR. The project will result in a net decrease in contributions to the groundwater (Montalvo Forebay) and a net increase in contributions to surface water (Santa Clara River). This result applies to all drought and flood conditions. The combined groundwater and surface water contributions are approximately equal for existing and project conditions. As indicated in the water balance section of the RiverPark EIR, the project results in a net gain to the water balance. This is largely a result of converting agricultural land to residential and commercial uses, which use less water, and the addition of UWCD's uses of the gravel pits for water storage and infiltration. However, even if UWCD's project does not come to fruition, the existing project still represents a net gain to the water balance in comparison to the existing conditions.

**California Regional Water Quality Control Board – Los Angeles Region (2) (LARWQCB)**

**LARWQCB-2**

Mitigation measures were proposed, described and analyzed for all identified significant impacts on pages 4.5-99 through 4.5-104 of the Draft EIR. Preliminary cost estimates were also provided. For fecal coliform impacts to the Santa Clara River, chlorination, hydrogen peroxide, constructed wet lands, and ultraviolet (UV) light disinfection were identified as potential mitigation measures. Of these measures, UV disinfection was deemed to be the only viable alternative. A cost estimate of \$21,300,000 was developed for UV disinfection, which is not economically feasible for the project.

For iron, manganese and nickel inputs to groundwater, chlorine oxidation filtration and manganese green sand filtration were identified as potential mitigation measures. Only the manganese green sand filtrating was deemed viable. Moreover, the projected cost estimate of \$10,800,000 is not economically feasible for the project.

**LARWQCB-3**

The analysis of water quality focused on constituent concentration, rather than loading, because all applicable standards are concentration based, including drinking water standards, Basin Plan objectives, California Toxics Rule criteria and ambient conditions.

To summarize, the analysis in the Draft EIR looked at existing and project land uses, developed runoff concentrations for each of the constituents for each of the various land uses, estimated the volume of the run-off, applied treatment reduction factors, then compared the discharged concentrations (to both



groundwater and stormwater) to the thresholds of significance. Where the discharged concentration exceeded a threshold, a significant impact was identified.

Load calculations were made for those stormwater constituents that were identified as impairments to nearby reaches of the Santa Clara River in response to a request from the Regional Board for this information. This information is described above.

#### LARWQCB-4

Pesticides included in the EPA 8080 suite of analytes, including DDT and 4,4'-DDE, are no longer applied today, nor are they included in the Title 22 list of regulated drinking water constituents, and, other than Chem A, are not identified as impairments to the Santa Clara River. These three conditions were used to select the pesticides included for impacts analysis in the RiverPark EIR. The decision to utilize Lannate was based on discussions with the Agricultural Commissioner's office. A list of pesticides used for strawberries in Ventura County was provided. This list included Lannate (active ingredient methomyl), Rovral (iprodione), Roundup (glyphosate, N-(phosphoromethyl) glycine), Sevin (Carbaryl, 1-Naphthyl-N-methyl carbamate), Thiolux (sulfur), Rally (Myclobutanil), and Benlate (beonomyl). Based on a review of their physical characteristics, Lannate was judged as the most problematic of the group as it is the most mobile and soluble. Chem A pesticides, while no longer applied today, are listed as impairments to the River. Therefore, Lannate and ChemA were the only pesticides included in the EIR impacts analyses.

In response to the request of the Regional Board, 4,4-DDE has been added to the analysis constituents of concern evaluated in the stormwater impacts analyses. 4,4-DDE (p,p-DDE) was not detected (Analytical Detection Limit = 50 nanograms per liter [ng/L; same as parts per trillion]) in either of the samples taken by Hanson Aggregates on 1/17/00 and 4/17/00 of runoff from the agricultural land to east of the Large Woolsey Pit, nor was it detected in any of the 4 industrial areas sampled on those two dates. 4,4-DDE was the only pesticide analyte detected in the three runoff samples taken in 1999 by UWCD from the El Rio agricultural area. 4,4-DDE was measured at 70 ng/L in one sample, and was not detected in the other two. Based on the February 1999 VCFCO Stormwater Management Plan, the mean 4,4'-DDE runoff concentration at their A-1 Woods Rd. (agricultural) land use site was 251 ng/L; it was detected in 7 of 10 total samples taken between 1994 and 1998 (a statistical method was used to estimate undetected concentrations). Based on the Ventura Countywide Annual Reports, 4,4'-DDE concentrations in runoff sampled at the A-1 Woods Road (agricultural) land use site were as follows:

- 120 ng/L (median) for 3 samples taken in 1994/1995,
- 170 and 840 ng/L for samples taken on 10/29/96 and 11/20/96,

- 444, 219 and 114 ng/L for samples taken on 1/9/98, 1/29/98 and 3/24/98,
- 60.6, 461 and 228 ng/L for samples taken on 1/25/99, 1/31/99 and 3/15/99,
- 155, 2940 and 184 ng/L for samples taken on 1/25/00, 2/12/00 and 2/20/00,
- 451 ng/L for a sample taken on 1/10/01.

Applied Environmental Technologies (AET) has also recently conducted local agricultural drain sampling, and these results were compiled in a report prepared for Southland Sod Farms in Oxnard dated February 19, 2002. Sediment and water samples were taken along a portion of the Oxnard Drainage District Ditch extending from east of Edison Drive to Arnold Road, Oxnard, California. The primary source of water in the ditch is irrigation and storm water runoff from agricultural fields and roads in the south Oxnard area. The data serves as the only local agricultural ditch sediment sampling available to our knowledge. There was soil sampling conducted at the RiverPark site, and the summary of this data (another AET report) can be found in an Appendix 4.13 of the EIR. The conclusion was that site soil concentrations did not exceed EPA Region 9 Preliminary Remediation Goal (PRG) values.

Based on the recent AET report prepared for Southland Sod, only DDD and DDE were detected in the ditch sediments; all other pesticides (including DDT and ChemA pesticides) were not detected. The detected concentrations were compared with the hazardous waste standards for soil (total and soluble threshold limit concentrations), and no exceedances were found. There was also one ditch water sample taken during this study, and all pesticide analytes were reported below detection limit (for DDE, the detection limit used was 90 ng/L).

To summarize, local agricultural area stormwater sampling has resulted in 4,4-DDE concentrations ranging from non-detect (less than 50 ng/L) to 461 ng/L (discounting the one anomalous County result from 2/12/00 of 2940 ng/L). According to the proposed RiverPark stormwater management system design, all off-site agricultural drainage flows will blend with flows from the industrial, residential and commercial drainage areas (which are essentially free of pesticide loads), and will receive treatment via the dry swales and detention basins prior to discharge to either the Santa Clara River or the gravel pits. Therefore, anticipated stormwater discharge concentrations will be significantly lower than those results presented above, which were sampled directly from the agricultural drains.

The EPA ambient water quality criteria for the protection of aquatic organisms lists the freshwater acute standard at 1.05 mg/L. This criteria is applicable for the Santa Clara River. As anticipated agricultural runoff concentrations for 4,4-DDE are orders of magnitude less than this threshold of 1.05 mg/L, DDE concentrations in runoff to the Santa Clara River will not result in a significant impact.