IRVINE RANCH WATER DISTRICT

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IRVINE RANCH WATER DISTRICT 15600 Sand Canyon Ave., P.O. Box 57000, Irvine, CA 92619-7000 (949) 453-5300

May 17, 2013

Ms. Elizabeth Kim
The Planning Center|DC&E
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707

Re: Preparation of a Supplemental Environmental Impact Report to Orange County Great Park Environmental Impact Report for High School No. 5 Project in the City of Irvine

Dear Ms. Kim:

The Irvine Ranch Water District (IRWD) has received The Planning Center|DC&E's letter relative to the Preparation of a Supplemental EIR for the Great Park – High School No. 5 Project in the City of Irvine. The following responses have been prepared to answer the questions posed in the High School No. 5 Supplemental EIR Questionnaire, which accompanied the subject letter:

1. Is the 2010 Urban Water Management Plan (accessible at http://www.irwd.com/doing-business/engineering-planning/urban-water-management-plan.html) IRWD's most recent adopted urban water management plan? If not, please provide the most recently updated version.

   The 2010 Urban Water Management Plan is the most recent plan prepared by IRWD. This plan can be found in the Engineering & Planning section of the "Doing Business" tab of www.irwd.com.

2. From what sources does the District obtain its water supply and in what quantities?

   Metropolitan Water District, groundwater and recycled water are IRWD's primary sources of water supply.

   Attached is a list of supply sources from IRWD's most recent Water Supply Assessment. (WSA for PA-33, January, 2012). For a complete copy of the WSA, please contact IRWD's Water Resources Manager, Kellie Welch at (949) 453-5586.

3. What are the average water consumption and sewer generation rates for the high school and golf course uses within the City?

   IRWD would expect the project will maximize the use of recycled water (RW). Please see the attached from the IRWD Water Resources Master Plan for potable, recycled, and

sewer demands by land use (Table 3-1 Land Use and Water Use Factors, September 2012). Please note that the local interior column of the local demands category reflects average sewer demands and the irrigation demands category reflects average recycled water demands. For planning purposes, IRWD uses land code 1260 for schools and 1830 for golf courses.

4. What is the size and location of existing water and sewer mains that would serve the project site? Are there currently any deficiencies on the water and sewer systems within the project area? What new facilities, if any, are necessary to serve the proposed project?

   Attached are copies for the atlas pages near the shown proposed high school site. As discussed in our March 27 meeting with IUSD, potable water and recycled water could be served from existing pipelines in Irvine Boulevard. Currently, no sewer pipe exists adjacent to the school site.

5. We understand that a Sub Area Master Plan (SAMP) was prepared for PA 51 (for the OC Great Park). In the event that the high school is developed prior to the surrounding development, what are the required infrastructures to serve the proposed high school?

   As discussed in our March 27 meeting with IUSD, an Addendum to the PA-51, 30 SAMP should be prepared by IUSD. The scope and the final review of the addendum should be coordinated with IRWD planning staff.

6. Which wastewater treatment facility would the project-generated wastewater ultimately be conveyed to and treated at? What is the daily capacity and average treatment volume at this facility? Is there any plan for expansion?

   Wastewater from this project would be directed to and treated at the Michelson Water Recycling Plant (MWRP), located in the City of Irvine. The plant currently treats up to 18 million gallons per day (mgd) and is presently undergoing an expansion to increase its capacity to 28 mgd. The MWRP expansion is scheduled for completion later this year.

7. The questionnaire does not include a question No. 7.

8. What mitigation measures, if any, would you recommend for the proposed project?

   IRWD has not performed any environmental analysis for the project. Identification of environmental impacts and mitigation measures are typically a function of the environmental review process required under the California Environmental Quality Act (CEQA). These activities are the responsibility of the lead agency for the project.

IRWD appreciates the opportunity to review and comment on the proposed SEIR and provide information for the proposed High School No. 5 Water and Sewer Questionnaire. Should you have any questions, or require additional information, please contact the undersigned.

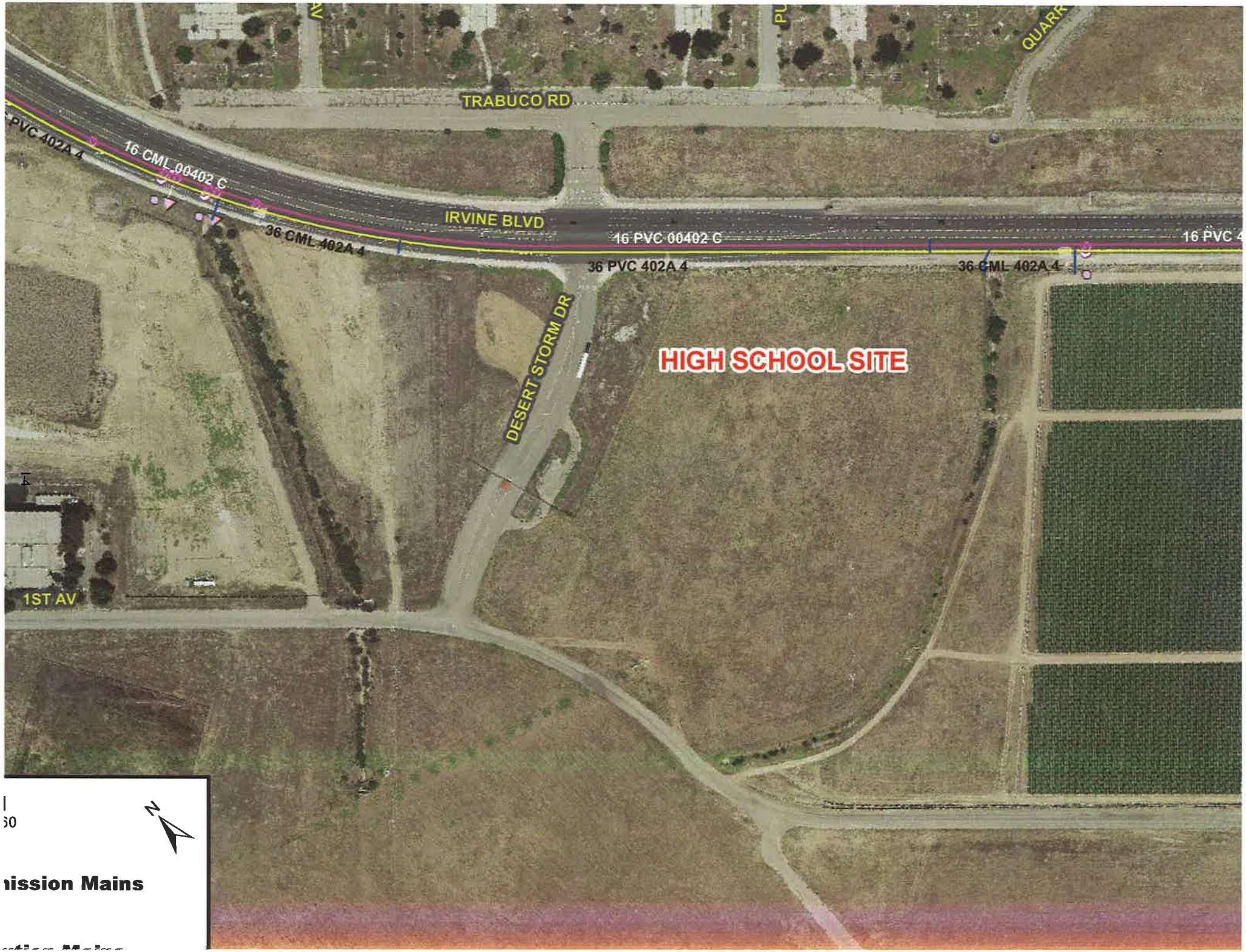
Sincerely,

Jo Ann Corey
Engineering Technician III

cc: Mike Hoolihan, IRWD
Kelly Welch, IRWD

Enclosures

S:/Deptlist/Admin/70/jac/IRWD Water and Sewer Response Questionnaire SEIR Great Park_May 17_2013 .docx


TRABUCO RD
QUARK
PVC 402A 4
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IRVINE BLVD
36 CML 402A 4
16 PVC 00402 C
16 PVC 4
36 PVC 402A 4
36 CML 402A 4
DESERT STORM DR
HIGH SCHOOL SITE
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N
ission Mains

EXHIBIT "A"

Table 3-1 Land Use and Water Use Factors (September 2012)

Code	Land Use Description	Land Use Agency	Land Use Density		Local Demands			Irrigation Demands	
			Average	Units	Local - Interior	Local - Exterior	Total Local	% Irrigated Area	Irrigation Factor
1100	***Residential***					***Gal/DU/Day***			***Gal/Acre/Day***
1111	Rural Density	Orange	0.3	du/acre	250	170	420	0%	1,000
1112	Rural Density	Irvine	0.3	du/acre	250	750	1,000	5%	2,800
1115	Rural Density	County	0.26	du/acre	300	350	650	5%	2,800
1121	Estate Density	Orange	1.2	du/acre	300	350	650	5%	2,800
1122	Estate Density	Irvine	0.5	du/acre	300	225	525	5%	2,800
1126	Estate Density	Lake Forest	0.5	du/acre	300	350	650	7%	3,000
1131	Low Density	Orange	4	du/acre	300	350	650	8%	2,500
1132	Low Density	Irvine	3	du/acre	225	180	405	16%	2,200
1133	Low Density	Newport Beach	1	du/acre	290	220	510	17%	2,800
1134	Low Density PC	Tustin	4.5	du/acre	450	1,550	2,000	17%	2,800
1135	Suburban Density	County	9.25	du/acre	165	95	260	15%	2,500
1136	Low Density	Lake Forest	3	du/acre	270	150	420	20%	2,800
1141	Low-Medium Density	Orange	10.5	du/acre	235	145	380	15%	2,500
1146	Low-Medium Density	Lake Forest	11	du/acre	205	150	355	10%	3,000
1153	Medium-Low Density	Newport Beach	2.75	du/acre	400	350	750	10%	2,800
1161	Medium Density	Orange	19.5	du/acre	200	150	350	15%	2,800
1162	Medium Density	Irvine	7.5	du/acre	200	100	300	15%	2,800
1163	Medium Density	Newport Beach	5	du/acre	225	205	430	20%	2,800
1164	Medium Density PC	Tustin	11.8	du/acre	155	95	250	15%	2,800
1166	Medium Density	Lake Forest	7.5	du/acre	140	60	200	15%	2,800
1172	Medium-High Density	Irvine	17.5	du/acre	130	30	160	22%	2,400
1175	Urban Density	County	29	du/acre	140	45	185	20%	2,800
1176	Medium-High Density	Lake Forest	17.5	du/acre	145	70	215	17%	2,500
1182	High Density	Irvine	32.5	du/acre	130	13	143	20%	2,800
1183	High Density	Newport Beach	12.25	du/acre	115	10	125	20%	3,200
1184	High Density PC	Tustin	17.4	du/acre	115	10	125	15%	2,800
1186	High Density	Lake Forest	32.5	du/acre	115	10	125	20%	2,800
1191	High Rise Density	Orange	35	du/acre	115	10	125	20%	2,800
1192	High Rise Density	Irvine	40	du/acre	115	10	125	20%	2,800
1200	***Commercial***					***Gal/KSF/Day***			***Gal/Acre/Day***
1210	General Office		20	ksf/acre	62	10	72	20%	2,500
1221	Community Commercial		9	ksf/acre	142	33	175	20%	3,500
1222	Regional Commercial		10	ksf/acre	130	10	140	20%	3,500
1230	Commercial Recreation		8	ksf/acre	41	20	61	30%	3,000
1235	Hotel		45	rooms/acre	110	50	160	30%	2,800
1240	Institutional		6	ksf/acre	30	15	45	30%	2,750
1244	Hospital		9	ksf/acre	165	65	230	30%	2,850
1260	School		10	ksf/acre	20	8.0	28.0	50%	2,500
1261	UCI		10	ksf/acre	215	15	230	40%	3,800
1273	Military Air Field		0	ksf/acre	0	0	0	0%	0
1290	Hotel		45	rooms/acre	110	50	160	30%	2,800
1300	Industrial		9.091		600	25	625	20%	2,800
1310	Industrial - Light		18	ksf/acre	60	10	70	20%	2,800
1320	Industrial - Heavy		25	ksf/acre	2,000.0	18	2,018	20%	2,800
	Open Space and Other								***Gal/Acre/Day***
1411	Airports		0	acre/acre	0	0	0	0%	0
1413	Freeways & Major Road		0	acre/acre	0	0	0	0%	0
1820	Community Park		1	acre/acre	0	0	0	88%	2,200
1830	Regional Park		1	acre/acre	0	0	0	75%	2,200
1840	Fuel Modification Zone		1	acre/acre	0	0	0	100%	1,000
1850	Wildlife Preserve		0	acre/acre	0	0	0	0%	0
1880	Open Space (Rec)		0	acre/acre	0	0	0	0%	0
1900	Vacant		1	acre/acre	0	0	0	0%	0
4100	Water		0		0	0	0	0%	0
2000	***Agriculture***			***acre/acre***					***Gal/Acre/Day***
2100	Low-Irrigated AG Potable		1	acre/acre	0	0	0	80%	1,800
2110	Low-Irrigated AG Untreated		1	acre/acre	0	0	0	80%	1,800
2120	Low-Irrigated AG Recycled		1	acre/acre	0	0	0	80%	1,800
2200	High-Irrigated AG Potable		1	acre/acre	0	0	0	80%	3,100
2210	High-Irrigated AG Untreated		1	acre/acre	0	0	0	80%	3,100
2220	High-Irrigation AG Recycled		1	acre/acre	0	0	0	80%	3,100

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Revised: 09/04/12
Demand Factors(20120912)-FormattedTable.xlsx, Sheet2

2. Information concerning supplies

(a)(1) Existing sources of identified water supply for the proposed project: IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area, as shown in the following table:

	Max Day (cfs)	Avg. Annual (AFY)		Annual by Category (AFY)
Current Supplies				
Potable - Imported				
East Orange County Feeder No. 2	41.4	16,652	1	
Allen-McColloch Pipeline*	64.7	26,024	1	
Orange County Feeder	18.0	7,240	1	49,916
Potable - Groundwater				
Dyer Road Wellfield	80.0	28,000	2	
OPA Well	1.4	1,000		
Deep Aquifer Treatment System-DATS	10.0	8,900	2	
Wells 21 & 22	6.0	6,300	2	
Irvine Desalter	10.6	5,640	3	49,840
Total Potable Current Supplies	232.1			99,756
Nonpotable - Reclaimed Water				
MWRP (18 mgd)	23.9	17,340	4	
LAWRP (5.5 mgd)	8.3	5,975	4	23,315
Nonpotable - Imported				
Baker Aqueduct	52.7	15,262	5	
Irvine Lake Pipeline	65.0	9,000	6	24,262
Nonpotable - Groundwater				
Irvine Desalter-Nonpotable	5.4	3,898	7	3,898
Nonpotable Native				
Irvine Lake	5.5	4,000	8	4,000
Total Nonpotable Current Supplies	160.8			55,475
Total Combined Current Supplies	392.9			155,231
Supplies Under Development				
Potable Supplies				
Well 106	2.2	1,300		
Well 53	4.5	3,000		
Future OPA Wells	8.0	5,000		
Anaheim wellfield	10.0	6,500		
Wells 51 & 52	9.0	5,500		
Tustin Legacy wells	9.0	5,000	9	
Total Potable Under Development Supplies	42.7	26,300		26,300
Nonpotable Supplies: Future MWRP&LAWRP Reclaimed	20.0	14,450	10	14,450
Total Under Development	105.4			40,750
Total Supplies				
Potable Supplies	274.8			126,056
Nonpotable Supplies	180.7			69,925
Total Supplies (Current and Under Development)	455.6			195,981

1 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 1.8 (see Footnote 3, page 22).

2 Contract amount - See Potable Supply-Groundwater(iii).

3 Contract amount - See Potable Supply-Groundwater (iv) and (v). Maximum day well capacity is compatible with contract amount.

4 MWRP 18.0 mgd treatment capacity (17,400 AFY RW production) and LAWRP 5.5 mgd tertiary treatment capacity (5,975 AFY)

5 Based on converting maximum day capacity to average by dividing the capacity by a peaking factor of 2.5 (see Footnote 3, page 22).

6 Based on IRWD's proportion of Irvine Lake imported water storage; Actual ILP capacity would allow the use of additional imported water from MWD through the Santiago Lateral.

7 Contract amount - See Nonpotable Supply-Groundwater (i) and (ii). Maximum day well capacity (cfs) is compatible with contract amount.

8 Based on 70 years historical average of Santiago Creek Inflow into Irvine Lake.

9 Estimated combined capacity of wells.

10 Future estimated MWRP & LAWRP reclaimed water production.

*64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see page 23 (b)(1)(iii))