5.9 UTILITIES AND SERVICE SYSTEMS

This section evaluates the potential impacts of the proposed High School No. 5 project, as incorporated into the 2011 Approved Project, and the proposed 2012 Modified Project, with respect to utilities and service systems including: water, wastewater, solid waste, electricity, natural gas, and telecommunications.

Information with respect to existing conditions that is presented in this Section is based on project-specific facilities reports and coordination with affected public utility agencies. Specific and relevant references are identified herein. The service provider for each of the public utilities analyzed in this Section of the DSEIR is noted parenthetically:

- Water Supply and Distribution Systems (Irvine Ranch Water District)
- Wastewater Treatment and Collection (Irvine Ranch Water District)
- Solid Waste (OC Waste & Recycling)
- Electricity (Southern California Edison)
- Natural Gas (Southern California Gas Company)
- Telecommunications (AT&T and Cox Communications Orange County, Inc.)

The analysis in this Section is based in part on the IRWD Correspondence contained in Appendix G of this DSEIR and on the following technical reports:.

- Sewer and Water Master Plan Study Heritage Fields Project 2012 General Plan Amendment and Zone Change, RBF Consulting, June 6, 2012.
- Planning Areas 30 & 51 Great Park/Great Park Neighborhoods Sub-Area Master Plan (2011 SAMP) Update, Irvine Ranch Water District, September 20, 2011.
- 2010 Urban Water Management Plan, Irvine Ranch Water District, June 2011.
- Water Resources Master Plan, Irvine Ranch Water District, March 2002, supplemented January, 2004.
- Regional Urban Water Management Plan, Metropolitan Water District of Southern California, November 2010.
- Water Supply Assessments for the Great Park Neighborhoods, Irvine Ranch Water District, May 2011.
- Water Supply Assessment for the Heritage Fields Project 2012 GPA/ZC, Irvine Ranch Water District, June 2012.

- Integrated Water Resources Plan 2010 Update, Metropolitan Water District of Southern California, 2010.

- Orange County Water District, Water Master Plan Report, April 1999.

Complete copies of the Sewer and Water Master Plan Study and the Water Supply Assessment are included in Appendices H and I, respectively.

5.9.1 Water Services

5.9.1.1 Environmental Setting

The Irvine Ranch Water District ("IRWD") provides potable and non-potable water service to the Project Site. IRWD is a multiservice agency that provides potable and non-potable water supply and wastewater collection, treatment, and disposal services to a population of approximately 266,000, within an area covering 84,610 acres (132 square miles). IRWD's service area encompasses Irvine; parts of unincorporated Orange County north and south of Irvine; parts of the Cities of Orange, Tustin, Santa Ana, and Costa Mesa west of Irvine; part of the City of Newport Beach south of Irvine; and part of the City of Lake Forest east of Irvine. IRWD is a member agency of the Orange County Water District ("OCWD"), and is the largest constituent agency of the Municipal Water District of Orange County ("MWDOC") (IRWD 2005). MWDOC in turn, is a member agency of the Metropolitan Water District of Southern California ("MWD"), a consortium of 26 cities and water districts that supplies 19 million people with water including water from the State Water Project ("SWP").

IRWD prepares two planning documents to guide water supply decision making. IRWD's principal planning document is its Water Resources Master Plan ("WRMP"), which is a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs. IRWD's most recent WRMP is dated March 2002, and was supplemented in January 2004. IRWD also prepares an Urban Water Management Plan ("UWMP"), a document required by state statute. The UWMP is based on the WRMP, but contains defined elements that are required by Water Code section10631 *et seq*., and, as a result, is more limited than the WRMP in the treatment of supply and demand issues. Therefore, IRWD primarily relies on its most recent WRMP. The UWMP is required to be updated in years ending with "five" and "zero," and IRWD's most recent update to that document was adopted in June 2011.

Water Supply

Water available to IRWD comes from groundwater pumped from the Orange County groundwater basin (including the Irvine Subbasin); captured local (native) surface water; recycled wastewater, and supplemental imported water supplied by MWD through the MWDOC. The supply-demand comparisons in this section are broken down among the various sources, and are further separated into potable and nonpotable water.

For comparison with demands, water supplies are classified as "currently available" or "under development."

- Currently available supplies are those presently operational and those that will be operational within the next several years. Supplies expected to be operational in the next several years are those that have completed or substantially completed the environmental and regulatory review

process and have the necessary contracts (if any) in place to move forward. These supplies are in various stages of planning, design, or construction.

- In general, supplies under development may necessitate the preparation and completion of environmental documents, regulatory approvals, and/or contracts prior to full construction and implementation.

A list of the currently available and under development supplies of both potable and nonpotable water can be found in the Water Supply Assessment ("WSA") prepared for the 2012 Modified Project (Appendix H of this DSEIR). The WSA has been prepared in compliance with SB 610 and SB 221 to identify adequate water supplies to serve the 2012 Modified Project. Due to the number of contracts, statutes, and other documents comprising IRWD's written proof of entitlement to its water supplies, in lieu of attachment of such items to this DSEIR or the WSA, they are identified by title and summarized in Section 2(b) of the WSA, Written Contracts/Proof of Entitlement. Copies of the items summarized are available for review at the City and can also be obtained from IRWD.

IRWD is also evaluating the development of additional supplies that are not included in either currently available or under development supplies for purposes of the WSA. As outlined in the WRMP, prudent water supply and financial planning dictates that development of supplies be phased over time, consistent with the growth in demand.

Table 5.9-1, below, shows IRWD's water supply sources. IRWD does not allocate particular supplies to any project, but identifies total supplies for its service area.

Table 5.9-1
IRWD's Existing Sources of Water Supply

	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 and 22	6.0	6,300[2]	-
Irvine Desalter	10.6	5,640[3]	49,840
Total Potable Current Supplies	**232.1**	**-**	**99,756**
Nonpotable – Recycled 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	5.4	3,898[7]	3,898
Nonpotable Native			
Irvine Lake	5.5	4,000[8]	4,000

Table 5.9-1

IRWD's Existing Sources of Water Supply

	Max Day (cfs)	Avg. Annual (afy)	Annual by Category (afy)
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 and 52	9.0	5,500	-
Tustin Legacy wells	9.0	5,000	-
Total Potable Under Development Supplies	**42.7**	**26,300**	**26,300**
Nonpotable Supplies: Future MWRP & LAWRP Recycled	20.0	14,450[10]	14,450
Total Under Development	**105.4**		**40,750**
Potable Supplies	274.8		126,056
Nonpotable Supplies	180.7		69,925
Total Supplies (Current and Under Development)	**455.6**		**195,981**

afy = acre feet per year
cfs = cubic feet per second
MWRP - Michelson Water Reclamation Plant
LAWRP - Los Alisos Water Recycling Plant

* 64.7 cfs is current assigned capacity; based on increased peak flow, IRWD can purchase 10 cfs more (see WSA page A-23 (b)(1). (DSEIR Appendix H).

[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 of the WSA).

[2] Contract amount - See WSA page A-25, Potable Supply-Groundwater (iii) (DSEIR Appendix H)

[3] Contract amount - See WSA page A-25, Potable Supply-Groundwater (iv) and (v) (DSEIR Appendix H). Maximum day well capacity is compatible with contract amount.

[4] MWRP 18 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.

[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. MWD is the source of this water.

[7] Contract amount – See WSA page A-29, Nonpotable Supply-Groundwater (i) and (ii). (DSEIR Appendix H). 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 and LAWRP recycled water production.

Potable Water Supply

Less than 25 percent of IRWD's domestic water is purchased from the MWD and imported from the Colorado River via the Colorado River Aqueduct and the SWP. The majority of IRWD's imported potable water is supplied from a single source, the MWD Diemer Filtration Plant, located north of Yorba Linda. Typically, the Diemer Filtration Plant receives a blend of Colorado River water from Lake Mathews through the MWD lower feeder and SWP water through the Yorba Linda Feeder. Groundwater now makes up approximately 75 to 80 percent of IRWD's total potable water supply depending on a series of local wells, including Dyer Road Wellfield Project and the IRWD's Deep Aquifer Treatment System ("DATS").

IRWD's total existing potable water supply and demand (without the 2012 Modified Project, but with the 2011 Approved Project) are shown in Table 5.9-2. Forecasts indicate that IRWD will continue to have a

surplus supply of potable water through the year 2032 under Normal-, Single Dry- and Multiple Dry-Year conditions.

Table 5.9-2
IRWD Existing Supply and Demand for Potable Water (afy)

Source	2012	2015	2020	2025	2032
Normal Year					
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Wells 21 and 22	-	6,300	6,300	6,300	6,300
Supplies Under Development					
Future Groundwater	-	9,300	15,800	26,300	26,300
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	60,992	64,220	69,563	75,505	81,667
Reserve Supply	**24,477**	**36,849**	**38,006**	**42,564**	**36,402**
Single Dry – Year					
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Wells 21 and 22	-	6,300	6,300	6,300	6,300
Supplies Under Development					
Future Groundwater	-	9,300	15,800	26,300	26,300
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	65,262	68,716	74,432	80,791	87,384
Reserve Supply	**20,207**	**32,353**	**33,137**	**37,278**	**30,685**
Multiple Dry – Year					
Current Potable Supplies					
MWD Imported (EOCF#2, AMP, OCF)	41,929	41,929	41,929	41,929	41,929
DRWF/DATS	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Wells 21 and 22	-	6,300	6,300	6,300	6,300
Supplies Under Development					
Future Groundwater	-	9,300	15,800	26,300	26,300
Maximum Supply Capability	85,469	101,069	107,569	118,069	118,069
Baseline Demand	65,262	68,716	74,432	80,791	87,384
Reserve Supply	**20,207**	**32,353**	**33,137**	**37,278**	**30,685**

Source: IRWD 2012
afy = acre feet per year
A full discussion of current and under-development water supply entitlements, water rights, and water service contracts can be found in the WSA (Appendix H to this DSEIR).

Nonpotable Water Supply

Recycled water, groundwater, and imported water account for IRWD's nonpotable water supply. IRWD's total existing nonpotable water supply and demand (without the 2012 Modified Project, but with the 2011 Approved Project) are shown in Table 5.9-3. The source of IRWD's groundwater supply is the Lower Santa Ana River Basin. IRWD is an operator of groundwater producing facilities in the Orange County Groundwater Basin.

Forecasts indicate that IRWD will continue to have a surplus supply of nonpotable water through the year 2032 under Normal-, Single Dry- and Multiple Dry-Year conditions.

Table 5.9-3
IRWD Existing Supply and Demand for Nonpotable Water (afy)

Source	2012	2015	2020	2025	2032
Normal – Year					
Current Nonpotable Supplies					
Existing MWRP and LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	4,000	4,000	4,000	4,000	4,000
Supplies Under Development					
Future MWRP and LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	57,035	57,035	57,035	57,035	57,035
Baseline Demand	28,985	28,779	30,169	31,157	30,296
Reserve Supply	**28,050**	**28,256**	**26,866**	**25,878**	**26,739**
Single Dry – Year					
Current Nonpotable Supplies					
Existing MWRP and LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
Supplies Under Development					
Future MWRP and LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	31,014	30,794	32,281	33,338	32,417
Reserve Supply	**23,021**	**23,241**	**21,754**	**20,697**	**21,618**
Multiple Dry – Year					
Current Nonpotable Supplies					
Existing MWRP and LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported (Baker, ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	1,000	1,000	1,000	1,000	1,000
Supplies Under Development					
Future MWRP and LAWRP	10,100	10,100	10,100	10,100	10,100
Maximum Supply Capability	54,035	54,035	54,035	54,035	54,035
Baseline Demand	31,014	30,794	32,281	33,338	32,417
Reserve Supply	**15,157**	**21,754**	**18,514**	**20,697**	**21,618**

Source: IRWD 2012
afy = acre feet per year
A full discussion of current and under-development water supply entitlements, water rights, and water service contracts can be found in the WSA (Appendix H to this DSEIR).

Reliability of Long-Term Water Supply

Southern California faces the challenge of satisfying its water requirements and securing its firm water supplies. Increased environmental regulations and the collaborative competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands in the region, putting an even larger burden on local supplies. A number of significant areas affecting the uncertainty for delivery reliability are discussed below. Major sources of uncertainty include Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability to floods and earthquakes.

On March 29, 2011, Governor Jerry Brown ended the state of emergency declared by former Gov. Arnold Schwarzenegger in February 2009 after three relatively dry winters. Former Governor Schwarzenegger had declared a statewide drought in June 2008. The announcement from Governor Brown came after the California Department of Water Resources reported that the water content in the statewide snowpack was 165 percent of average for that time of year. The snowpack was also slightly above average in 2010. The snowpack in 2011 was 174 percent of normal in the north, 163 percent in the central Sierra and 158 percent in the southern part of the range. Sierra snow provides one third of California's water.

The reliability of the IRWD's water supply currently depends on the reliability of both groundwater and imported water supplies, which are managed and delivered by the OCWD and MWD, respectively.

Metropolitan Water District of Southern California

MWD has a 5,200-square-mile service area and imports about half of the water used in southern California. The other half of the water comes from local surface and groundwater supplies, recycled water, and water imported from the Owens Valley by the City of Los Angeles. Urban water demands use approximately 20 percent of California's developed water supply, and agricultural uses consume approximately 80 percent. MWD imports water from the Colorado River and, through a contract with the State of California, from northern California via the SWP. The SWP, MWD's Colorado River Aqueduct, and MWD's local water facilities and programs have many layers that provide reliability. The SWP includes the very large San Luis Reservoir, near the City of Los Baños in Central California, and, closer to southern California, Pyramid and Castaic Lakes on the west branch, and Silverwood Lake and Lake Perris on the east branch of the SWP. MWD, in turn, has over one million acre-feet of surface water storage in southern California, including the new Diamond Valley Reservoir, in addition to large groundwater storage projects.

MWD Long-Term and Reliability Planning

MWD's framework for regional water resource planning for southern California is the Integrated Water Resources Plan ("IRP").The IRP is a long-term water resource strategy for the six-county area served by MWD, which covers parts of Ventura, Los Angeles, Riverside, San Bernardino, Orange, and San Diego Counties. The IRP was first adopted in 1996 and was last updated in 2010. It sets regional goals for the development of MWD's various water resources and calls for investments in water conservation, recycling, groundwater treatment, storage and transfers. In return, the IRP brings supply diversity and stability. The 2010 IRP Update showed that southern California water demand continued to exceed projections laid out in the original IRP approved in 1996. The 2010 IRP Update also recommended development of a supply buffer of 200,000 acre-feet, half of which would come from local resources, and the other half through water transfers and storage programs outside MWD's service area. This supply buffer allows MWD and its member agencies to manage the uncertainties and unreliability of supply and

demand. As part of the approval of the 2010 IRP Update, the MWD Board directed staff to provide an annual report on the progress toward implementing the IRP targets.

The 2010 IRP Update also noted various uncertainties that may affect long-term water supply for southern California. Specifically, it expressed concerns revolving primarily around current and future SWP supplies and operations due to impacts of actions to protect endangered fisheries, and emerging challenges facing planners due to global warming and climate change. To address some of these issues, the 2010 IRP Update places an increased emphasis on regional collaboration, with goals of stabilizing MWD's traditional imported water supplies and continuing to develop additional local resources. It also advances long-term planning for potential future contingency resources, such as storm water capture and large-scale seawater desalination, in close coordination with MWD's 26 member public agencies and other utilities.

MWD has found that current practices of diversifying water supplies and securing supply reserves allow MWD and its member agencies to adjust to changes in demands and supplies and to maintain a high degree of reliability. Planned water supply sources include resource improvement strategies and additions currently under development by MWD. Based on MWD's Findings and Conclusions as stated in the MWD 2010 IRP Update, MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remains unchanged in the 2010 IRP Update, and MWD plans to accomplish this through its core resources strategies.

The 2010 IRP Update emphasizes an evolving approach and suite of actions to address the water supply challenges that are posed by uncertain weather patterns, regulatory and environmental restrictions, water quality impacts and changes in the state and the region. The three components of MWD's Adaptive Resource Management Strategy, which forms the basis for the 2010 IRP Update, include: Core Resources Strategy, Supply Buffer Implementation and Foundational Actions. The 2010 IRP Update expands the concept of developing a planning buffer from the 2004 IRP Update by implementing a supply buffer equal to 10 percent of the total retail demand. MWD will collaborate with the member agencies to implement this buffer through complying with Senate Bill 7 ("SB 7") which calls for the state to reduce per capita water use by 20 percent by the year 2020.

Recent Actions on Delta Pumping

The Sacramento/San Joaquin Delta ("Delta") is a vulnerable component of both the State and federal systems that convey water from portions of northern California to areas south of the Delta. Issues associated with the Delta have generally been known for years; however, most recently, the continuing decline in the number of endangered Delta smelt has resulted in litigation challenging permits for the pumping of water from the Delta area. On August 31, 2007, a federal court put in place interim measures to protect the endangered Delta smelt, including limitations Delta pumping. Those imitations have affected SWP operations and water supplies. On June 4, 2009, a federal biological opinion imposed rules that will further restrict water diversions from the Delta to protect endangered salmon and other endangered fish species. At present, several proceedings concerning Delta operations are ongoing to evaluate options for addressing impacts on the Delta smelt as well as other environmental concerns.

In addition to the regulatory and judicial proceedings that have addressed immediate environmental concerns, the Delta Vision process and the Bay-Delta Conservation Plan process are defining long-term solutions for the Delta (MWD 2010 IRP Update). Prior to the 2007 federal court decision concerning Delta water operations, MWD's Board approved a Delta Action Plan that described short, mid and long-term conditions of the Delta, and the actions needed to mitigate potential supply shortages and to develop

and implement long-term solutions. To comprehensively address the impacts of the SWP cut-back on MWD's water supply development targets, MWD brought to its Board a strategy and work plan to update the long-term IRP, which led to the adoption of the 2010 IRP Update described above. As part of the IRP Update, MWD developed a region-wide collaborative process that included a broad-based stakeholder involvement. MWD held several stakeholder forums in 2006 and 2009 and the MWD Board adopted the 2010 IRP Update on October 12, 2010. In the 2010 IRP Update, MWD identified changes to the long-term plan and established direction to address the range of potential changes in water supply planning. The 2010 IRP Update also discusses dealing with uncertainties related to impacts of climate change (see additional discussion of this below) as well as actions to protect endangered fisheries. As discussed above, based on MWD's Findings and Conclusions as stated in the MWD 2010 IRP Update, MWD's reliability goal that full-service demands at the retail level will be satisfied for all foreseeable hydrologic conditions remains unchanged in the 2010 IRP Update, and MWD will accomplish this through its core resources strategies.

MWD Shortage Allocation Plan

On the regional level, MWD has taken a number of actions to secure a reliable water source for its member agencies. MWD adopted a water supply allocation plan ("WSAP") for dealing with potential shortages. The plan takes into consideration the impact on retail customers and the economy, changes and losses in local supplies, the investment in and development of local resources, and conservation achievements. The possible range of a reduction in water supply is between 5 and 30 percent. Under MWD's shortage allocation approach, water would not be physically denied to an agency, but rather water obtained above an agency's allocation would be priced at a significant higher penalty rate. Development of an allocation would establish the amount of water available at the nonpenalty rate. The penalty rate is expected to be two to three times the nonpenalty rate.

In April 2011, crediting improved water reserves and the public's ongoing conservation efforts, MWD's Board of Directors voted to lift mandatory water allocation restrictions that had been in place since July 2009. The action, which became effective April 13, 2011, was made possible by 2010-2011 winter storms and water-saving efforts by the region's consumers and businesses. But, the improved conditions do not signal an end to long-term challenges.

Climate Change

In July 2006, the California Department of Water Resources ("DWR") released a report titled "Progress on Incorporating Climate Change into Management of California's Water Resources" which considers the impacts of climate change on the state's water supply. DWR emphasized that "the report represents an example of an impacts assessment based on four scenarios defining an expected range of potential climate change impacts." DWR's major goal is to extend the analysis for long-term water resource planning from "assessing impacts" to "assessing risk." The report presents directions for further work in incorporating climate change into the management of California's water resources. Emphasis is placed on associating probability estimates with potential climate change scenarios in order to provide policy makers with both ranges of impacts and the likelihoods associated with those impacts. DWR's report acknowledges "that all results presented in [the] report are preliminary, incorporate several assumptions, reflect a limited number of climate change scenarios, and do not address the likelihood of each scenario. Therefore, [the] results are not sufficient by themselves to make policy decisions."

In MWD's 2010 IRP Update, MWD recognizes that there is a significant uncertainty in the impact of climate change on water supply and changes in weather patterns could significantly affect water supply reliability. MWD plans to hedge against supply and environmental uncertainties by implementing a

supply buffer equivalent to 10 percent of total retail demand. This buffer will be implemented through meeting SB 7 water use efficiency goals, implementing aggressive adaptive actions, developing local supplies and effecting transfers.

Per MWD's Regional Urban Water Management Plan ("RUWMP"), MWD continues to incorporate current climate change science into its planning efforts. As stated in MWD's RUWMP, the 2010 IRP Update supports the MWD Board adopted principles on climate change by: 1) supporting reasonable, economically viable and technologically feasible management strategies for reducing impacts on water supply; 2) supporting flexible "no regret" solutions that provide water supply and quality benefits while increasing the ability to manage future climate change impacts; and 3) evaluating staff recommendations regarding climate change and water resources against CEQA to avoid adverse effects on the environment. Potential climate change impacts on state, regional and local water supplies and relevant information for the Orange County hydrologic basin and Santa Ana Watershed have not been sufficiently developed at this time to permit IRWD to assess and quantify the effect of any such impact on its conclusions in the WSA prepared for the 2012 Modified Project.

Catastrophic Supply Interruption Planning

In 2005, MWD cooperated with the DWR on a preliminary study of the potential effects of extensive levee failures in the Delta. The study investigated two of a potential range of scenarios, and MWD's analysis showed that, due to its investment in local storage and water banking programs south of the Delta, MWD would be able to supply all firm requirements to its member agencies under both of the scenarios considered. However, MWD's analysis of a worst-case situation showed that MWD might need to reduce firm deliveries to its member agencies by as much as 10 percent. MWD reported this analysis in the 2005 Regional UWMP. IRWD has addressed supply interruption planning in its WRMP and UWMP.

MWD will continue to rely on the plans and polices outlined in its UWMP and IRP to address water supply shortages and interruptions (including potential shutdowns of SWP pumps) to meet water demands. MWD is engaged in planning processes that will identify solutions which, when combined with the rest of its supply portfolio, should ensure a reliable long-term water supply for its member agencies.

Orange County Water District

The primary source of water for the City is the Orange County Groundwater Basin. The OCWD is responsible for the protection of water rights to the Santa Ana River in Orange County, as well as for the management and replenishment of the Orange County Groundwater Basin. OCWD manages production in the basin through financial incentives and establishes the Basin Production Percentage each water year. Total water demand within OCWD's boundary for the 2009-10 water year (beginning July 1, 2009, and ending June 30, 2010) was 428,720 acre feet (af) (OCWD 2011). With implementation of OCWD's proposed projects, the Orange County Groundwater Basin yield in the year 2025 would be up to 500,000 acre feet (WSA pg. A-35). Since the formation of OCWD in 1933, OCWD has made substantial investment in facilities, basin management, and water rights protection, resulting in the elimination and prevention of adverse long-term "mining" overdraft conditions. OCWD has invested in seawater intrusion control (injection barriers), recharge facilities, laboratories, and basin monitoring to effectively manage the basin. OCWD continues to develop new replenishment supplies, recharge capacity, and basin protection measures to meet projected production from the basin during average/normal rainfall and drought periods.

OCWD's long-range plans for protecting the water supply and maintaining reliability to its member agencies include:

OCWD Long Term Facilities Plan

OCWD has prepared a draft Long Term Facilities Plan ("LTFP") to evaluate potential basin and water quality enhancement projects that may be implemented in the 20-year planning period. The LTFP includes a master list of developed and proposed projects. The various projects are grouped into five categories: 1) recharge facilities, 2) water source facilities, 3) basin management facilities, 4) water quality management facilities, and 5) operational improvements facilities. Each project is evaluated using criteria such as technical feasibility, cost, institutional support, functional feasibility, and environmental compliance. The final LTFP will include an implementation plan for the 28 recommended projects over the 20-year planning period.

OCWD Groundwater Management Plan

OCWD finalized its Groundwater Management Plan ("GMP") in March 2004, which updated prior versions from 1989 and 1990. The GMP complies with Senate Bill 1938 ("SB 1938"), passed in 2002, which includes a list of items to be included in a GMP. The GMP's objectives are 1) protecting and enhancing groundwater quality, and 2) cost-effectively protecting and increasing the basin's sustainable yield. Various programs, policies, goals, and projects are defined in the GMP to assist OCWD staff in meeting these objectives. The potential projects described in the GMP are discussed in further detail in the LTFP.

OCWD 2020 Water Master Plan Report

OCWD's Water Master Plan Report ("MPR") was prepared in April 1999 and describes local water supplies and estimates their availability extending to the year 2020. Specifically, OCWD states in its Water MPR that significant water supply sources will be available in the future for potable, nonpotable, and recharge purposes. The 1999 Water MPR discusses source waters such as imported water from MWD, base flows from the Santa Ana River, treated wastewater through the OCWD/Orange County Sanitation District Groundwater Replenishment System program, and possibly desalinated ocean water. The local supply availability and projections from the 1999 Water MPR have been revised and are being pursued with the LTFP.

Principles Governing CEQA Analysis of Water Supply

In *Vineyard Area Citizens for Responsible Growth, Inc., v. City of Rancho Cordova* (February 1, 2007), the California Supreme Court articulated the following principles for analysis of future water supplies for projects subject to CEQA:

- To meet CEQA's informational purposes, the EIR must present sufficient facts to decision makers to evaluate the pros and cons of supplying the necessary amount of water to the project.

- CEQA analysis for large, multiphase projects must assume that all phases of the project will eventually be built and the EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer water supply analysis until future phases of the project are built.

- CEQA analysis cannot rely on "paper water." The EIR must discuss why the identified water should reasonably be expected to be available. Future water supplies must be likely, rather than speculative.

- When there is some uncertainty regarding availability of future water supply, an EIR should acknowledge the degree of uncertainty, include a discussion of possible alternative sources, and identify the environmental impacts of such alternative sources. Where a full discussion still leaves some uncertainly about the long-term water supply's availability, mitigation measures for curtailing future development in the event that intended sources become unavailable may become a part of the EIR's approach.

- The EIR does not need to show that water supplies are definitely assured because such a degree of certainty would be "unworkable, as it would require water planning to far outpace land use planning." The requisite degree of certainty of a project's water supply varies with the stage of project approval. CEQA does not require large projects, at the early planning phase, to provide high degree of assurances of certainty regarding long-term future water supplies.

- The EIR analysis may rely on existing urban water management plans, so long as the project's new demand was included in the water management plan's future demand accounting.

- The ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.

Water Distribution

Potable Water

A SAMP was prepared by IRWD for the Great Park in March 2009. The 2011 SAMP, which was a revision to the March 2009 SAMP, was adopted in September of 2011. The 2011 SAMP identified additional facilities required for the 2011 Approved Project.

Existing PAs 30 and 51 are located within Zone 3 North, Zone 4, and Zone 5 of the IRWD water system. The original water system for the former MCAS El Toro property was designed and built as a stand-alone system. Currently, IRWD supplies potable water to the former base through four metered connections that connect to the IRWD Zone 3 North and Zone 4 water system. The on-site existing potable water distribution system for the former MCAS El Toro property consists of a network of distribution system pipelines, six reservoirs, and two pump stations (CBA 2003).

Recycled Water

Recycled water is currently supplied to Existing PAs 30 and 51 via a 12-inch IRWD Zone B pipeline that runs perpendicular to Technology Drive and connects to an eight-inch pipeline in the southwest corner of the Project Site (CBA 2003).

Existing PAs 30 and 51 lie within three separate IRWD recycled water system pressure zones, including Zone B East Irvine, Zone C East Irvine, and Zone D AMP East. Zone B East Irvine serves elevations from

114 to 300 feet, Zone C East Irvine serves elevations from 300 to 440 feet, and Zone D AMP East serves elevations above 440 feet (CBA 2003).

5.9.1.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the District has determined that a project would have a significant effect on the environment if the project:

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.[1]

U-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

5.9.1.3 2011 Approved Project

The Certified EIR analyzed impacts on water supply and the ability of IRWD to provide water to the 2011 Approved Project in accordance with SB 610 and SB 221. The Certified EIR estimated that the 2011 Approved Project would consume approximately 1.5 million gallons (1,680 afy) of water per day, and concluded that adequate supplies were available to serve the land uses proposed at that time. Based on the findings of the water supply assessment prepared for the 2011 Approved Project, total water supplies available to IRWD during normal, single-dry and multiple-dry years within a 20-year projection would meet the water demand created by the 2011 Approved Project.

5.9.1.4 2012 Modified Project

The proposed 2012 Modified Project analyzed the impacts on water supply and the ability of the IRWD to provide water to the 2012 Modified Project in accordance with SB 610 and SB 221. Although the 2012 Modified Project will increase water consumption, as compared to the 2011 Approved Project, the 2011 SAMP included a Sensitivity Analysis which considered development of up to 9,500 residential units on the Project Site. The 2011 SAMP Sensitivity Analysis estimated peak water demand under such a scenario to be 2,021 gallons per minute (gpm) (2.9 mgd). As discussed in the Sewer and Water Master Plan Study prepared for the 2012 Modified Project (see Appendix I), peak water demand is estimated to be either 1,896 gpm (2.7 mgd) or 2,029 gpm (2.9 mgd) for the 2012 Modified Project, depending on what options the City decides to pursue. Neither scenario is considered a noteworthy change in comparison to the demand considered in the 2011 SAMP Sensitivity Analysis. Therefore, no significant changes to the planned on-site water infrastructure are necessary to serve the 2012 Modified Project.

5.9.1.5 Environmental Impacts of High School No. 5

Existing Plans, Programs, and Policies

The following measures are existing plans, programs, or policies ("PPPs") that were developed as a result of the 2011 Approved Project and the proposed 2012 Modified Project, which will help to reduce and avoid potential impacts related to water services. Note that the Mitigation Agreement between the District and Heritage Fields provides for the site to be delivered to the District in a master pad condition, mass-

[1] Wastewater treatment facilities are addressed below.

graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. These PPP listed below are not directly applicable to the High School No. 5 project related to water services.

PPP 13-1 **Requirement to Use Recycled Water:** Irvine Ranch Water District (IRWD) will identify areas within the Sub Area Master Plan that are capable of receiving service from the IRWD's recycled water system, and will determine the feasibility of providing recycled water service to these areas. IRWD will also review applications for new permits to determine the feasibility of providing recycled water service to these applicants. If recycled water service is determined by IRWD to be feasible, applicants for new water service shall be required to install on-site facilities to accommodate both potable water and recycled water service in accordance with IRWD's Rules and Regulations.

PPP 13-2 **Connection Fees:** The Project Applicant shall enter into agreement or agreements as necessary with IRWD to establish the appropriate financial fair share costs to be borne by the project proponent. Fair share costs may include, but are not limited to, those associated with the preparation of studies necessary to analyze the needs of High School No. 5 and infrastructure expansion necessary to serve High School No. 5.

PPP 13-3 **Fire Flow Analysis:** In accordance with IRWD requirements, each tentative tract map in the 2012 Modified Project must provide a fire flow analysis. If the analysis identifies any deficiencies, the developer will be responsible for any water system improvements associated with the development project required to rectify the deficiencies and meet IRWD fire flow requirements.

The following project design features ("PDFs") have been incorporated into the 2012 Modified Project to help to reduce and avoid potential impacts related to water services and have been assumed in this section's analysis:

PDF 4-3 **Low-Flow Fixtures:** The 2012 Modified Project incorporates low-flow water fixtures that will meet the requirements of the California Green Building Standards Code standards. Prior to issuance of building permit, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development that toilets, urinals, sinks, showers, and other water fixtures installed on-site are low-flow water fixtures that meet the California Green Building Standards Code standards.

PDF 4-4 **Landscaping and Irrigation Systems:** The 2012 Modified Project incorporates automated, high-efficiency landscaping irrigation systems on all master landscaped areas that reduce water use, such as evapotranspiration "smart" weather-based irrigation controllers, and bubbler irrigation; low-angle, low-flow spray heads; moisture sensors; and use of a California-friendly landscape palette. Prior to approval of landscape plans, the Applicant or its successor shall submit evidence to the satisfaction of the Director of Community Development that such landscaping irrigation systems will be installed so as to make the 2012 Modified Project consistent with the intent of the California Water Conservation in Landscaping Act of 2006 (AB 1881), including provisions to reduce the wasteful, uneconomic, inefficient, and unnecessary consumption of water.

PDF 4-5 **Use of Recycled Water on All Master Landscaped Areas:** Prior to approval of landscape plans, the Applicant or its successor shall submit evidence to the satisfaction of the Director

of Community Development and IRWD that the 2012 Modified Project incorporates the use of recycled water in all master landscaped areas, including master landscaped commercial, multifamily, common, roadways, and park areas. Master landscapes will also incorporate weather-based controllers and efficient irrigation system designs to reduce overwatering, combined with the application of a California-friendly landscape palette.

Additional Plans, Programs and Policies

The following measures have been incorporated into the High School No. 5 project to help to reduce and avoid potential impacts related to water services and have been assumed in this section's analysis:

See IUSD 3-3, 3-4, and 3-5 in Section 5.3, *Greenhouse Gas Emissions (GHG)*.

Impact Threshold Analysis

The following impact analysis addresses impacts related to water services that the Initial Study for the 2012 Modified Project disclosed as potentially significant impacts. The applicable impacts are identified in brackets after the impact statement. As indicated below, High School No. 5 does not increase the potential impacts associated with water services.

IMPACT 5.9.1-1 EXISTING AND PLANNED IRWD WATER SUPPLIES AND DELIVERY SYSTEMS ARE ADEQUATE TO MEET THE PROPOSED PROJECT'S FORECASTED WATER DEMAND. [IMPACT U-2 AND U-4]

Impact Analysis:

2011 Approved Project

The project involves the construction and operation of a high school. The construction and operation of the proposed school would not create a significant demand for water such that it would have an impact on the forecasted water supply of the IRWD. The 2011 Approved Project included educational uses in the proposed land use plan, which is sufficient to account for the construction and operation of the High School No. 5 project. No impact is anticipated, and no mitigation measures are required.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on water demand would be less than significant.

2012 Modified Project

When considering the 2012 Modified Project, impacts associated with the Proposed Project would not change. No additional impacts are associated with the Proposed Project under the 2012 Modified Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on water demand would be less than significant.

5.9.1.6 Cumulative Impacts

The geographic scope for cumulative water supply analysis is IRWD's service area. As described above, the total water supplies available to IRWD during MWD Allocation condition, Normal-, Single Dry-, and Multiple Dry-Year conditions within a 20-year projection will meet the projected water demand of the 2011 Approved Project, the 2012 Modified Project, the High School No. 5 project, and other cumulative development. IRWD supply and facilities planning is consistent with the general plans of the land use jurisdictions within IRWD's service area. Consequently, presuming future development is generally consistent with existing general plans, IRWD does not anticipate any problems supplying water to any current or reasonably foreseeable future development in the City of Irvine. Therefore, the High School No. 5 project's demand for water services would not be cumulatively considerable.

As discussed above, IRWD's water reliability is dependent on OCWD groundwater and MWD imported water reliability. MWD will continue to rely on the plans and polices outlined in its UWMP and IRP to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. MWD is engaged in planning processes both with its member agencies and through its involvement in the State Delta Vision and Bay Delta Conservation planning processes that are intended to identify solutions that, when combined with the rest of its supply portfolio, would ensure a reliable long-term water supply for its member agencies.

5.9.1.1 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and PPPs, Impact 5.9.1-1 would be less than significant for the Proposed Project.

5.9.1.2 Applicable Mitigation Measures from the 2011 Approved Project and 2012 Modified Project

No mitigation measures specific to impacts on potable and nonpotable water supplies and treatment were identified in the 2011 Approved Project, associated mitigation monitoring and reporting program (MMRP), or the 2012 Modified Project.

5.9.1.3 Additional Mitigation Measures for the Proposed Project

No mitigation measures are required.

5.9.1.4 Level of Significance After Additional Mitigation

The Proposed Project's impacts concerning potable and non-potable water are less than significant without mitigation. The project would consume about 22,880 gallons of water per day, or less than one percent of the projected water use of the entire 2012 Modified Project. No significant impacts relating to water supply have been identified.

5.9.2 Wastewater

5.9.2.1 Environmental Setting

Wastewater Treatment

Wastewater treatment for wastewater generated from the Project Site is provided by IRWD at its Michelson Wastewater Reclamation Plant ("MWRP"; IRWD 2011). The MWRP has a capacity of 18 mgd; expansion of the MWRP to a capacity of 28 mgd is underway, with planned completion in August 2012; average wastewater flows at the MWRP are approximately 18 mgd (Busald 2011).

Wastewater Collection

The primary sewer collection system that serves Existing PAs 30 and 51 is a two-branched system with flow from the northeast to the southwest, mainly by gravity. One lift station with two pumps is located in the southwest portion of Existing PA 51 in Building 375. The existing sewer infrastructure system on Existing PAs 30 and 51 consists of a series of polyvinyl chloride ("PVC") pipes and vitrified clay pipes ("VCP") ranging in size from 6-inches to 15-inches in diameter (CBA 2003).

Sewer discharge exits Existing PAs 30 and 51 via two 12-inch lines at the southwest boundary of the Project Site into the IRWD sewer system. The two 12-inch lines cross under the Metrolink railroad tracks and connect southwest of the tracks. The flows then combine and exit via an 18-inch VCP pipe. The design capacity of this 18-inch pipe is about 1,200 gallons per minute (gpm), or 1.73 mgd. The flow continues through the IRWD Alton-Bake Parkway Trunk Sewer System to the San Diego Creek Interceptor on the north side of the San Diego (I-405) Freeway (CBA 2003).

5.9.2.2 Thresholds of Significance

Based on Appendix G to the CEQA Guidelines, the District has determined that a project would have a significant effect on the environment if the project:

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-5 Would result in a determination by the wastewater treatment provider which serves or may serve the project that is has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.9.2.3 2011 Approved Project

The Certified EIR concluded that IRWD has adequate wastewater treatment capacity to meet the estimated wastewater generation of the 2011 Approved Project.

The Certified EIR concluded that the 2011 Approved Project would not require construction of new or expanded wastewater treatment facilities but would require expansion of existing IRWD sewers. No significant impacts related to wastewater treatment were identified in the Certified EIR.

5.9.2.4 2012 Modified Project

The proposed 2012 Modified Project analyzed the impacts on wastewater treatment capacity and the ability of IRWD to provide wastewater treatment services to the 2012 Modified Project. IRWD has adequate wastewater treatment capacity for the 2012 Modified Project's estimated wastewater generation (IRWD 2012). Therefore, development of the 2012 Modified Project would not require construction of new or expanded wastewater treatment facilities as compared to the 2011 Approved Project.

Although the 2012 Modified Project will increase wastewater generation, as compared to the 2011 Approved Project, it is not considered a noteworthy change in comparison to the scenario considered in the 2011 SAMP Sensitivity Analysis. Therefore, no significant changes to the planned on-site backbone sewer infrastructure are necessary to serve the 2012 Modified Project. Final design of local sewer lines will occur at the time individual tract maps are submitted.

5.9.2.5 Environmental Impacts of High School No. 5

Existing Plans, Programs, and Policies

There are no existing plans, programs, or policies ("PPPs") that are applicable to the High School No. 5 project related to wastewater services. Note that the Mitigation Agreement between the District and Heritage Fields provides for the site to be delivered to the District in a master pad condition, mass-graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities.

Additional Plans, Programs, and Policies

There are no new plans, programs, or policies that would apply to Proposed Project.

Impact Threshold Analysis

The following impact analysis addresses impacts that the Initial Study for the High School No. 5 disclosed as potentially significant impacts. The applicable impacts are identified in brackets after the impact statement. As indicated below, High School No. 5 does not increase the potential impacts associated with wastewater services.

IMPACT 5.9.2-1 IRWD HAS ADEQUATE WASTEWATER TREATMENT CAPACITY TO MEET THE PROJECT'S ESTIMATED WASTEWATER GENERATION, AND PROJECT DEVELOPMENT WOULD NOT REQUIRE CONSTRUCTION OF NEW OR EXPANDED WASTEWATER TREATMENT FACILITIES. [IMPACT U-2]

Impact Analysis:

2011 Approved Project

The project involves the construction and operation of a high school. The construction and operation of the proposed school would not generate a significant amount of wastewater such that it would have an impact on wastewater treatment capacity forecasted by IRWD. The 2011 Approved Project included

educational uses in the proposed land use plan, which is sufficient to account for the construction and operation of the High School No. 5 project. No impact is anticipated, and no mitigation measures are required.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on wastewater treatment facilities would be less than significant.

2012 Modified Project

When considering the 2012 Modified Project, impacts associated with the Proposed Project would not change. No additional impacts are associated with the Proposed Project under the 2012 Modified Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on wastewater treatment facilities would be less than significant.

IMPACT 5.9.2-2 PROJECT DEVELOPMENT WOULD NOT REQUIRE EXPANSION AND EXTENSIONS OF EXISTING IRWD SEWERS. [IMPACT U-5]

Impact Analysis:

2011 Approved Project

The project involves the construction and operation of a high school. The construction and operation of the proposed school would not generate a significant amount of wastewater such that it would have an impact on wastewater treatment capacity forecasted by IRWD. The 2011 Approved Project included educational uses in the proposed land use plan, which is sufficient to account for the construction and operation of the High School No. In addition, the Mitigation Agreement between the District and Heritage Fields provides for the site to be delivered to the District in a master pad condition, mass-graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. No impact is anticipated, and no mitigation measures are required.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on sewer facilities would be less than significant.

2012 Modified Project

When considering the 2012 Modified Project, impacts associated with the Proposed Project would not change. No additional impacts are associated with the Proposed Project under the 2012 Modified Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on sewer facilities would be less than significant.

5.9.2.6 Cumulative Impacts

The geographic scope for cumulative wastewater analysis is IRWD's service area. As the agency charged with providing water treatment and sewer systems within Irvine, IRWD regularly updates its WRMP and creates SAMPs in an effort to conserve water resources, ascertain changed conditions, and accurately plan for land use changes associated with the evolving Zoning Codes and General Plans of the jurisdictions within IRWD's service area (IRWD 2011).

As discussed above, development of the High School No. 5 Project would not require additional wastewater infrastructure, including upsizing of wastewater and nonpotable water pipe segments, as compared to the 2012 Modified Project. No increase in wastewater treatment capacity would be required to serve the High School No. 5 Project. As such, like the 2011 Approved Project and the 2012 Modified Project, the High School No. 5 Project would not result in a significant impact related to wastewater transmission or treatment capacity.

The IRWD will have adequate wastewater treatment capacity to serve the Proposed Project's estimated wastewater generation. Additionally, the long-range planning efforts of IRWD take into account cumulative development projects, including the Proposed Project, to eliminate the potential for cumulative impacts. IRWD plans and builds wastewater treatment capacity to accommodate planned growth in its service area. The 2012 Modified Project is required to fund an analysis of 2012 Modified Project sewer requirements (completed as part of the SAMP) and to finance all sewer improvements required by the 2012 Modified Project. Other new and redevelopment projects in IRWD's service area are required to fund corresponding analyses and improvements. Therefore, as with the 2011 Approved Project, substantial cumulative impacts to wastewater treatment and wastewater conveyance are not expected, and the High School No. 5 Project's impacts on wastewater treatment and conveyance would not be cumulatively considerable.

5.9.2.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and PPPs, Impacts 5.9.2-1 and 5.9.2-2 would be less than significant for the Proposed Project.

5.9.2.8 Applicable Mitigation Measures from the 2011 Approved Project and 2012 Modified Project

No mitigation measures specific to impacts on wastewater collection or treatment were recommended in the 2011 Approved Project, associated MMRP, or 2012 Modified Project.

5.9.2.9 Additional Mitigation Measures for the High School No. 5

No mitigation measures are required since the High School No. 5 will have a less than significant impact on wastewater collection and treatment without mitigation. The project would generate about 20,800 gallons of wastewater per day, or about 1.2 percent of the design capacity of the 18-inch VCP pipe that

runs to the IRWD Alton-Bake Parkway Trunk Sewer System, and less than a tenth of one percent of the capacity at the Michelson Wastewater Reclamation Plant. This is considered to be a less than significant impact on wastewater collection and treatment without mitigation.

5.9.2.10 Level of Significance After Additional Mitigation

The Proposed Project's impacts concerning wastewater treatment and facilities are less than significant without mitigation. No significant impacts relating to wastewater treatment or collection due to the Proposed Project have been identified.

5.9.3 Solid Waste

5.9.3.1 Environmental Setting

OC Waste & Recycling ("OCWR") is the government agency that regulates and operates the local Orange County landfills, including the Frank R. Bowerman Landfill which is located in Irvine. Waste Management of Orange County is the private contract waste hauler for all residential developments in Irvine.

OCWR operates three landfills in Orange County, which are listed below in Table 5.9-4. Table 5.9-4 also sets forth the actual average daily rate of disposal, the maximum daily permitted capacity, the remaining capacity and the estimated closure date of each of the three landfills.

Table 5.9-4
OCWR Landfills

Landfill	City or Community	Disposal Rate, Tons per Day		Remaining Capacity, Cubic Yards	Estimated Closure Date
		Maximum Permitted	Actual		
Frank R. Bowerman	Irvine	11,500	5,500	198.1 million	2053
Prima Deshecha	San Juan Capistrano	4,000	1,000	133.4 million	2067
Alpha Olinda	Brea	8,000	5,000	48.8 million	2021

Source: OCWR 2012

Assembly Bill ("AB") 939 requires that each county and city prepare a source reduction and recycling element showing how it will meet diversion of solid waste from landfills goals of 25 percent by the year 1995, and 50 percent by the year 2000 and every year after. Compliance with AB 939 is now measured in terms of actual disposal amounts per person compared to target amounts; actual disposal amounts at or below targets are in compliance with AB 939. For 2008, the most recent year for which data is available, target disposal rates for Orange County in pounds per person per day were 10.1 for residences and 9.3 for businesses. Actual disposal rates in Irvine were 5.7 ppd for residences and 6.6 ppd for businesses in 2010, the most recent year for which data is available (CalRecycle 2012b). Thus, the City is in compliance with AB 939 goals.

As of 2010, there were 39 programs in place in Irvine for diversion of solid waste from landfills. These include programs for composting, household hazardous waste, recycling, source reduction, and special waste materials such as construction and demolition debris (CalRecycle 2012a).

5.9.3.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the District has determined that a project would have a significant effect on the environment if the project:

U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

In the Initial Study for the 2012 Modified Project, included as Appendix A to this DSEIR, the District determined that that the following impact would not be significant: U-7. The discussion in Section 8.0 *Impacts Found Not To Be Significant*, of this DSEIR, supports the District's determination that the impact was sufficiently analyzed in the Certified EIR and that implementation of the modifications proposed by the 2012 Modified Project and the Proposed Project would not change the conclusions of the Certified EIR with respect to that impact. Therefore, Impact U-7 will not be addressed further in this Section.

5.9.3.3 2011 Approved Project

The Certified EIR concluded that the 2011 Approved Project would generate approximately 136,520 ppd or 68.26 tons per day ("tpd") of solid waste. The Certified EIR identified that solid waste reduction would be achieved through the City requirement for recycling of construction and demolition material to reduce waste, as well as through compliance with AB 939, which requires that a minimum of 50 percent of the solid waste generated in cities in California be diverted from landfills. Further, Senate Bill 1374 requires that all cities implement measures that require diversion of 75 percent of all construction and demolition waste from landfills. The 2011 Approved Project incorporated the already-adopted Mitigation Measures SW-1 through SW-5 in the MMRP for the 2011 Approved Project. While the Certified EIR identified a potential impact related to solid waste, it concluded that, with the recommended City-adopted mitigation measures, the impact would be less than significant.

5.9.3.4 2012 Modified Project

There is adequate capacity at the Frank R. Bowerman Landfill for the solid waste generated by the 2012 Modified Project as compared to the 2011 Approved Project, and implementation of the 2012 Modified Project would not require increased permitted landfill capacity either there or in any other landfill. Therefore, like the 2011 Approved Project, the 2012 Modified Project's impacts with respect to solid waste would be less than significant.

5.9.3.5 Environmental Impacts of High School No. 5

Existing Plans, Programs, and Policies

The following City plans, programs and policies would apply to the 2012 Modified Project, and would help reduce the 2012 Modified Project's solid waste impacts.

PPP 13-4 The City Construction and Demolition (C&D) Debris Recycling and Reuse ordinance requires that 1) all residential projects of more than one unit, 2) nonresidential developments on 5,000 square feet or larger, and 3) nonresidential demolition/renovations with more than

10,000 square feet of building recycle or reuse a minimum of 75 percent of concrete and asphalt and 50 percent of nonhazardous debris generated.

PPP 13-5 The City adopted a Zero Waste program in 2007 to approach waste management. The City recovers approximately 66 percent of its waste for recycling and composting, which exceeds the state's AB 939 waste diversion goals. Furthermore, waste haulers establish rate schedules according to bin size and frequency of collection. Commercial customers that subscribe to smaller bins (e.g., 2 cubic-yard bins) are routinely charged less by haulers. This pricing structure encourages waste reduction and recycling, and tends to minimize hauler pickups.

PPP 13-6 The Irvine Sustainable Community Initiative (Initiative Ordinance 10-11), adopted by the voters of the City as Initiative Measure S on November 2, 2010, and certified by the City Council on December 14, 2010, became effective December 24, 2010. The ordinance was adopted to ratify and implement policies in support of renewable energy and environmental programs for a sustainable community. It outlines the City's direction for continuing to develop and implement programs geared towards green building, renewable energy and sustainability. For example, the City would continue to develop and implement recycling, zero waste or other innovative onsite business programs to divert waste from landfills and also continue to develop and implement the use of native, California-friendly and drought-tolerant landscaping.

PPP 13-7 Prior to the issuance of grading permits for a project that involves the demolition of an asphalt or concrete parking lot on site, the applicant shall submit a waste management plan demonstrating compliance with the requirements of Title 6, Division 7 of the City of Irvine Municipal Code relating to recycling and diversion of demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers (Standard Condition 2.24).

PPP 13-8 Prior to the issuance of building permits for a project that involves new construction or that involves the demolition or renovation of existing buildings on site, the applicant shall comply with requirements of Title 6, Division 7 of the City of Irvine Municipal Code relating to recycling and diversion of construction and demolition waste as applicable to said project. Over the course of demolition or construction, the applicant shall ensure compliance with all code requirements related to the use of City-authorized waste haulers (Standard Condition 3.7).

Additional Plans, Programs, and Policies

There are no new plans, programs, or policies that would apply to Proposed Project.

Impact Threshold Analysis

The following impact analysis addresses the impacts for which the Proposed Project's Initial Study disclosed a potentially significant impact. The applicable impact is identified in brackets after the impact statement. As indicated below, High School No. 5 does not increase the potential impacts associated with solid waste disposal.

IMPACT 5.9.3-1: THERE IS SUFFICIENT LANDFILL CAPACITY IN THE REGION FOR PROPOSED PROJECT-GENERATED SOLID WASTE AS COMPARED TO THE 2011 APPROVED PROJECT. [IMPACTS U-6]

Impact Analysis:

2011 Approved Project

The project involves the construction and operation of a high school. The construction and operation of the proposed school would not generate a significant amount of solid waste such that it would have an impact on landfill capacity. The 2011 Approved Project included educational uses in the proposed land use plan, which is sufficient to account for the construction and operation of the Proposed Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on solid waste would be less than significant.

2012 Modified Project

When considering the 2012 Modified Project, impacts associated with the Proposed Project would not change. No additional impacts are associated with the Proposed Project under the 2012 Modified Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on solid waste would be less than significant.

5.9.3.6 Cumulative Impacts

The 2011 Approved Project, the 2012 Modified Project and the Proposed Project, in combination with other projects in the county, would increase demand for landfills and solid waste services in Orange County. However, the Orange County Landfill System is required to have available disposal capacity for a projected period of 15 years. The Orange County Landfill System has demonstrated this capacity and even has sufficient excess capacity to enable it to regularly import solid waste from Los Angeles County. The rate of disposal at the Frank R. Bowerman Landfill serving the Project Site is 5,500 tpd, with a maximum daily permitted capacity of 11,500 tpd, and that landfill has capacity through the year 2053. OCWR has confirmed that it can accommodate the solid waste generated by the 2012 Modified Project as well as that generated by cumulative development (OCWR 2012). The 2012 Modified Project incorporated plans for a 2,600 student high school. Therefore, like the 2011 Approved Project and the 2012 Modified Project, the Proposed Project's impacts with respect to solid waste would not be cumulatively considerable.

5.9.3.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and PPPs, Impact 5.9.3-1 would be less than significant for the Proposed Project.

5.9.3.8 Applicable Mitigation Measures from the 2011 Approved Project and 2012 Modified Project

Five mitigation measures for solid waste impacts were recommended in the Certified EIR and associated MMRP, were adopted in the MMRP by the City for the 2011 Approved Project, and are incorporated into the 2012 Modified Project. The 2012 Modified Project did not add any mitigation measures for solid waste impacts other than those recommended in the Certified EIR. They include the following:

SW-1 It is anticipated that much of the solid waste resulting from the demolition, dismantling, or other deconstruction of the aged structures and property, including but not limited to buildings and runways, at MCAS El Toro is contaminated with lead-based paints, asbestos, or other materials that may render it unsuitable for recycling or reuse. At the sole cost and expense of the project applicant, in order to evaluate this condition and determine the feasibility of recycling of solid waste material from the MCAS El Toro site by ordinary means, a technical evaluation by a qualified environmental consultant must be conducted. The technical evaluation shall include sufficient sample testing of all types of solid waste materials to be generated by the project to analyze its composition. A copy of the full technical evaluation and its findings must be submitted to the City of Irvine Community Development Department. The City of Irvine must confirm the adequacy of the technical evaluation prior to authorizing the demolition, dismantling, or deconstruction project to proceed. If it is determined by the technical evaluation that material is contaminated and prohibited from being recycled by ordinary means, a further evaluation must be conducted to identify and evaluate other feasible methods approved by state law to divert the material from landfills. This may include the delivery of the waste material to other appropriate non-disposal or transformation facilities, such as "waste-to-energy" (WTE) plants.

SW-2 For that solid waste which is determined to be inappropriate for recycling (as that term is defined by California Public Resources Code Section 40180), the project applicant must submit a written plan to the City and implement such plan to ensure that 75 percent of the material, or the maximum amount feasible as determined by the technical evaluation, is diverted from the landfill through other methods that comply with state statutes and regulations.

SW-3 For that solid waste which the technical study deems to be suitable for recycling, the project applicant must submit a written plan to the City and implement such plan to ensure that solid waste material generated by the demolition, dismantling, or deconstruction project, land use operations and maintenance is collected by a City authorized solid waste hauler or recycling agent, and that a minimum of 75 percent of the solid waste from the project is diverted from landfills by recycling, as that term is defined by California Public Resources Code Section 40180 ("Recycling" does not include transformation, as defined in Public Resources Code Section 40201).

SW-4 To ensure ongoing compliance with these mitigation measures, the project applicant will be required to submit solid waste tonnage reports to the City of Irvine on City approved forms, accompanied by "weight ticket" receipts from state-certified disposal, nondisposal, or transformation facilities, on a quarterly basis to demonstrate that solid waste diversion has occurred in accordance with these required mitigation measures and in a manner that is

consistent with, and not detrimental to, the efforts of the City of Irvine to comply with AB939.

To assure compliance with applicable statutes related to the disposal of solid waste, it is necessary for the City to require appropriate and effective mitigation measures to limit the disposal and ensure significant recycling of solid waste on-site.

SW-5 For green waste, the project applicant must submit a written plan to the City and implement such plan to ensure that the green waste material generated by landscape maintenance operations is collected by a City authorized waste hauler or recycling agent, that the maximum feasible amount of that collected green waste is recycled, and that a minimum of 50 percent of the green waste from the project is diverted from landfills by recycling, as that term is defined by California Public Resources Code Section 40180.

5.9.3.9 Additional Mitigation Measures for High School No. 5

No additional mitigation measures are recommended, since the High School No. 5 will have a less than significant impact on solid waste as compared to the 2011 Approved Project. The project would generate about 949,000 pounds of solid waste a year, which would translate to a less than significant increase in solid waste disposed at local landfills without additional mitigation.

5.9.3.10 Level of Significance After Additional Mitigation

No significant impacts relating to solid waste have been identified for the Proposed Project.

5.9.4 Electricity, Natural Gas, and Telecommunications

5.9.4.1 Environmental Setting

Electricity

The Project Site is located within the electricity service territory of Southern California Edison (“SCE”). SCE provides electrical service to 180 cities covering over 50,000 square miles of service area and encompassing 11 counties in central and coastal Southern California. The Project Site has electricity service. SCE estimated total electricity consumption in its service area to be 100,907 gigawatt-hours (GWh) in 2008, and forecasts total consumption in its service area to be 112,964 GWh in 2020 (CEC 2009).

Natural Gas

The Project Site lies entirely within the natural gas service territory of the Southern California Gas Company (“SCGC”). SCGC's service territory encompasses approximately 23,000 square miles of central and Southern California. SCGC projected total consumption of natural gas in its service area would be 7,422 million therms[2] in 2011, and forecasts consumption to increase to 7,829 million therms by 2020 (CEC 2009). SCGC has an existing gas main located near the Project Site (Altamirano 2013).

[2] One therm is the energy in approximately 97.1 cubic feet of natural gas; or 100,000 BTU.

Telecommunications

AT&T provides telephone service to the vicinity of the Project Site. There are AT&T fiber and copper facilities on Trabuco Road extending into 'Building One' on the Project Site. There is a conduit system in Irvine Boulevard, but no feeder cable extends from Irvine Boulevard into the Project Site (Akin 2011). Cox Communications provides cable video, data, and telephone service to south Orange County, including Irvine, and has fiber-optic and coax infrastructure in and around the Project Site (Weibel 2011). AT&T and Cox Communications would serve the Project Site with communication facilities and services.

5.9.4.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the District has determined that a project would have a significant effect on the environment if the project would:

U-8 Require substantial new or expanded electricity supplies.

U-9 Require substantial new or expanded supplies of natural gas.

U-10 Require substantial new or expanded telecommunications infrastructure.

5.9.4.3 2011 Approved Project

The Certified EIR concluded that the 2011 Approved Project would generate demand for 69.5 million kilowatt-hours (kWh) of electricity per year. The Certified EIR concluded that demand for electricity service would be accommodated by SCE. It further concluded that with implementation of energy efficiency standards and the construction of new facilities by SCE as necessitated by demand for new service, SCE would be able to supply electricity to meet the demand for electricity generated by the 2011 Approved Project. The Certified EIR determined that no significant impact concerning electricity services would occur.

The Certified EIR concluded that the 2011 Approved Project would consume roughly 324 billion British thermal units (BTUs) of natural gas per year. The Certified EIR concluded that sufficient natural gas infrastructure existed to serve the 2011 Approved Project and that no significant impact concerning natural gas services would occur.

The Certified EIR concluded that impacts related to the installation of new utility infrastructure were sufficiently addressed in the environmental analysis in sections of the Certified EIR other than Section 5.9, *Utilities and Service Systems*. The Certified EIR concluded that after implementation of all mitigation measures then-proposed for the 2011 Approved Project impacts from installation of utility infrastructure for the 2011 Approved Project would be less than significant.

5.9.4.4 2012 Modified Project

At buildout, the 2012 Modified Project would generate a demand for 85.12 Gwh/year of electricity without the optional conversion. With the optional conversion, the 2012 Modified Project would generate a demand for 83.04 Gwh/year of electricity at buildout. This represents an increase of 15.61 Gwh/year without the optional conversion (or 13.53 Gwh/year with the optional conversion) above the estimated demand of the 2011 Approved Project. SCE would be able to supply electricity to meet the demand for electricity generated by the 2012 Modified Project (Nelson 2012). Therefore, like the 2011 Approved

Project, the 2012 Modified Project would not create a significant impact with respect to electricity facilities and services.

The 2012 Modified Project is forecast to consume roughly 429 billion BTUs of natural gas per year without the optional conversion, or 457 BTUs with the optional conversion, as shown below in Table 5.13-14a and 5.13-14b, respectively. This represents an increase of 105 billion BTUs (or 133 billion BTUs with the optional conversion) as compared to the estimated consumption of the 2011 Approved Project. SCGC expects to have adequate supplies of natural gas for this forecasted natural gas demand, and development of the 2012 Modified Project can be served by existing gas mains located adjacent to the Project Site (Garcia 2012). Therefore, like the 2011 Approved Project, the 2012 Modified Project would not create a significant impact with respect to natural gas facilities or services.

The 2012 Modified Project would require a greater level of telecommunications services compared to the 2011 Approved Project, as the 2012 Modified Project contains a larger number of residential units and a smaller amount of non-residential uses. AT&T would be able to provide telephone infrastructure and service upon request for the 2012 Modified Project (Akin, 2012). Some relocation of existing telephone infrastructure may be required in order for AT&T to serve the 2012 Modified Project; the cost of any required relocations would be the responsibility of the project applicant or its successor. Cox Communications will be able to provide cable services to the Project Site (Cox Communications 2012). Relocation of existing facilities may be required, and placement of new facilities, including above ground cabinets and power supplies, will be required to extend existing infrastructure to serve the 2012 Modified Project. As is true for the 2011 Approved Project, the installation and construction of cable infrastructure would be part of the construction of the 2012 Modified Project; the impacts associated with such installation and construction are analyzed throughout the various sections of this DSEIR, and such installation and construction would not cause significant impacts beyond those identified in other sections of this DSEIR

5.9.4.5 Environmental Impacts of the High School No. 5 Project

Existing Plans, Programs, and Policies

There are no PPPs that are applicable to the Proposed Project related to electricity, natural gas and telecommunications facilities and services. Note that the Mitigation Agreement between the District and Heritage Fields provides for the site to be delivered to the District in a master pad condition, mass-graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities.

Additional Plans, Programs, and Policies

There are no new plans, programs, or policies that would apply to Proposed Project.

Impact Threshold Analysis

The following impact analysis addresses impacts for which the High School No. 5 Initial Study disclosed as potentially significant impacts. As indicated below, High School No. 5 does not increase the potential impacts associated with dry utilities.

IMPACT 5.9.4-1: EXISTING AND/OR PROPOSED FACILITIES WOULD BE ABLE TO ACCOMMODATE PROJECT-GENERATED UTILITY DEMANDS. [IMPACTS U-8, U-9, AND U-10].

Impact Analysis:

Project Electricity Demand

2011 Approved Project

The project involves the construction and operation of a high school. The construction and operation of the proposed school would not generate a significant demand of electricity such that it would have an impact on energy use forecasted by SCE. The 2011 Approved Project included educational uses in the proposed land use plan, which is sufficient to account for the construction and operation of the High School No. 5 project. No impact is anticipated, and no mitigation measures are required.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on electricity would be less than significant.

2012 Modified Project

When considering the 2012 Modified Project, impacts associated with the Proposed Project would not change. No additional impacts are associated with the Proposed Project under the 2012 Modified Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on electricity would be less than significant.

Project Natural Gas Demand

2011 Approved Project

The project involves the construction and operation of a high school. The construction and operation of the proposed school would not generate a significant amount of natural gas demand such that it would have an impact on natural gas distribution forecasted by SCGC. The 2011 Approved Project included educational uses in the proposed land use plan, which is sufficient to account for the construction and operation of the High School No. 5 project. No impact is anticipated, and no mitigation measures are required.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on natural gas would be less than significant.

2012 Modified Project

When considering the 2012 Modified Project, impacts associated with the Proposed Project would not change. No additional impacts are associated with the Proposed Project under the 2012 Modified Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on natural gas would be less than significant.

Telecommunications

2011 Approved Project

The project involves the construction and operation of a high school. The construction and operation of the proposed school would not generate a significant demand for telecommunications such that it would have an impact on telecommunication service forecasted by AT&T and Cox Communications. The 2011 Approved Project included educational uses in the proposed land use plan, which is sufficient to account for the construction and operation of the High School No. 5 project. No impact is anticipated, and no mitigation measures are required.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on telecommunications would be less than significant.

2012 Modified Project

When considering the 2012 Modified Project, impacts associated with the Proposed Project would not change. No additional impacts are associated with the Proposed Project under the 2012 Modified Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on natural gas would be less than significant.

5.9.4.6 Cumulative Impacts

The 2012 Modified Project, in combination with other projects in the area, would increase the overall demand for electricity, natural gas, and telecommunications in Orange County. The total forecasted increase in electricity demand in SCE's service area between 2008 and 2016 is 13,443 GWh, or 13,443,000,000 kWh. According to the California Energy Commission ("CEC"), energy use in the state is growing at a rate of 1.25 percent per year and peak demand is growing at a rate of 1.35 percent per year (CEC 2009). Air conditioning use is the primary contributor to the growth in peak electricity demand. To meet the growing energy demands of the state, the CEC is implementing metering infrastructure to support stronger demand-response policies. The California Public Utilities Commission has authorized installation of 11.7 million smart electric meters and 5.1 million smart natural gas meters. Smart meters measure energy consumption at intervals of one hour or less, and enable utilities to offer their customers

time-based rates for electricity and natural gas (CPUC 2010). In addition, many utility companies offer incentives for recycling older inefficient air conditioners. In addition, the CEC is working to develop dynamic pricing tariffs to reduce demand for electricity at peak periods (CEC 2009). According to SCE, the electrical demands of the 2012 Modified Project at buildout are within the parameters of projected load growth in the Orange County area which SCE is planning to meet (Nelson 2012). Therefore, the High School No. 5 Project's demand for electrical services would not be cumulatively considerable.

Cumulative development in the vicinity of the Project Site, including the 2012 Modified Project, would increase the overall demand for natural gas. Based on present conditions of natural gas supply and regulatory policies, SCGC expects to have adequate supplies of natural gas to serve cumulative development, including the 2012 Modified Project (Garcia 2012). The 2010 California Gas Report projects that natural gas consumption in the SCGC service area will decrease from 2,582 million cubic feet ("MMCF") per day in 2010 to 2,467 MMCF per day in 2030. Total supplies are projected to be 3,875 MMCF per day. Therefore, no cumulative impacts related to natural gas are anticipated.

Cox and AT&T would be able to accommodate the needs for telephone, internet, wireless, and cable service for the 2012 Modified Project and other projects in the area (Cox Communications 2012; Akin 2012). Accordingly, no adverse impacts on such services are anticipated.

5.9.4.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and PPPs, Impact 5.9.4-1 would be less than significant for the Proposed Project.

5.9.4.8 Applicable Mitigation Measures from the 2011 Approved Project and 2012 Modified Project

No mitigation measures were recommended in the Certified EIR since the 2011 Approved Project's impacts were less than significant without mitigation. The 2012 Modified Project's impacts were also less than significant. No mitigation measures were necessary.

5.9.4.9 Additional Mitigation Measures for High School No. 5

No additional mitigation measures are recommended by this DSEIR since the Proposed Project's impacts are less than significant without mitigation.

5.9.4.10 Level of Significance After Additional Mitigation

No significant impacts relating to electric, natural gas or telecommunications services have been identified for the High School No. 5.

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