

CORAL MOUNTAIN RESORT

DRAFT EIR
SCH# 2021020310

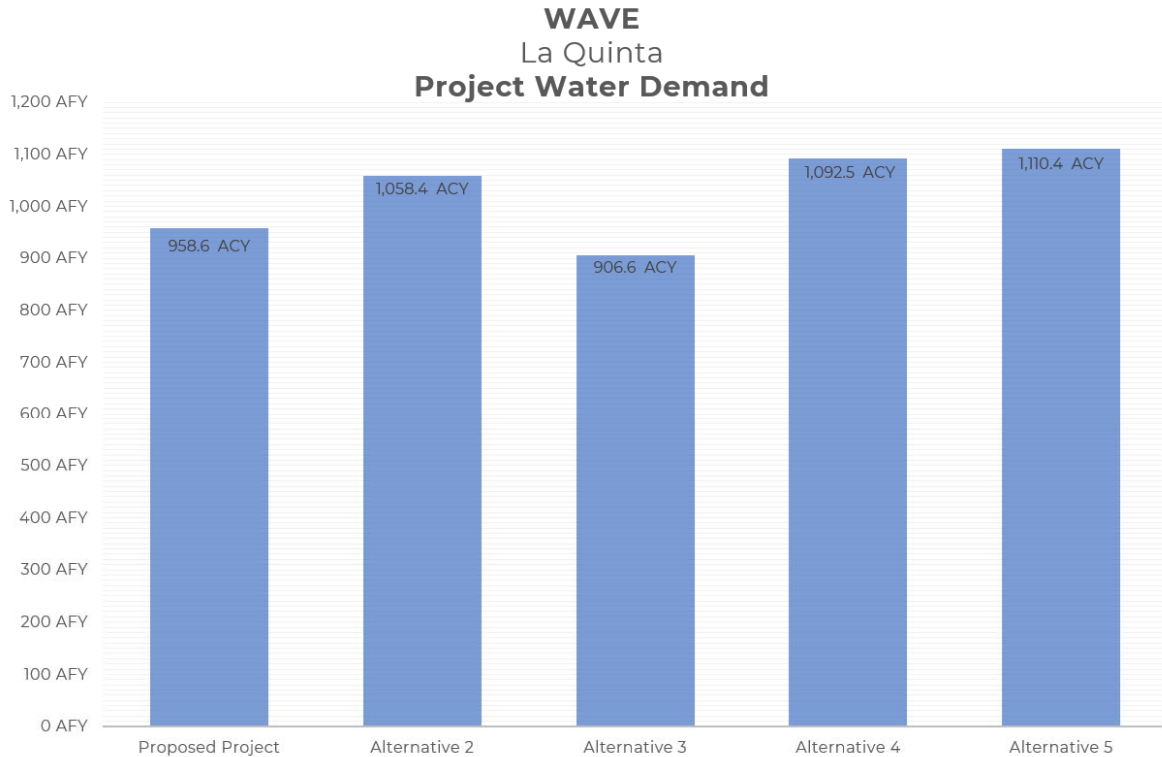
TECHNICAL APPENDICES

Water, Electric & Natural Gas
Consumption
& Air Quality and GHG Comparison
Appendix O

June 2021

Appendix O

Alternatives Water Use



*MAWA - Coachella Valley Water District's Maximum Applied Water Allowance



Proposed Project:

Summary	AFY
Residential Indoor Demand	97.22
Non-Residential Indoor Demand	59.94
Outdoor Demand	801.47
Total Project Demand	958.63

AFY/ac: **2.49286**

Alternative 1: **No Project/No Build**

Alternative 1 would not result in water use. Therefore, no impacts.

Alternative 2: No Project/Existing Entitlements

Summary:	AFY
Residential Demand	121.52
Non-Residential Demand	15.88
Outdoor Demand	921.14
Grand Total	1058.54

AFY/ac ac
2.752679482 384.55

Alternative 3: Reduced Density

Summary:	AFY
Residential Demand	64.81
Non-Residential Demand	40.39
Outdoor Demand	801.35
Grand Total	906.55

AFY/ac ac
2.357747164 384.50

Alternative 4: Golf/Resort Hotel

Summary:	AFY
Residential Demand	97.22
Non-Residential Demand	42.77
Outdoor Demand	952.52
Grand Total	1092.51

AFY/ac ac
2.84100742 384.55

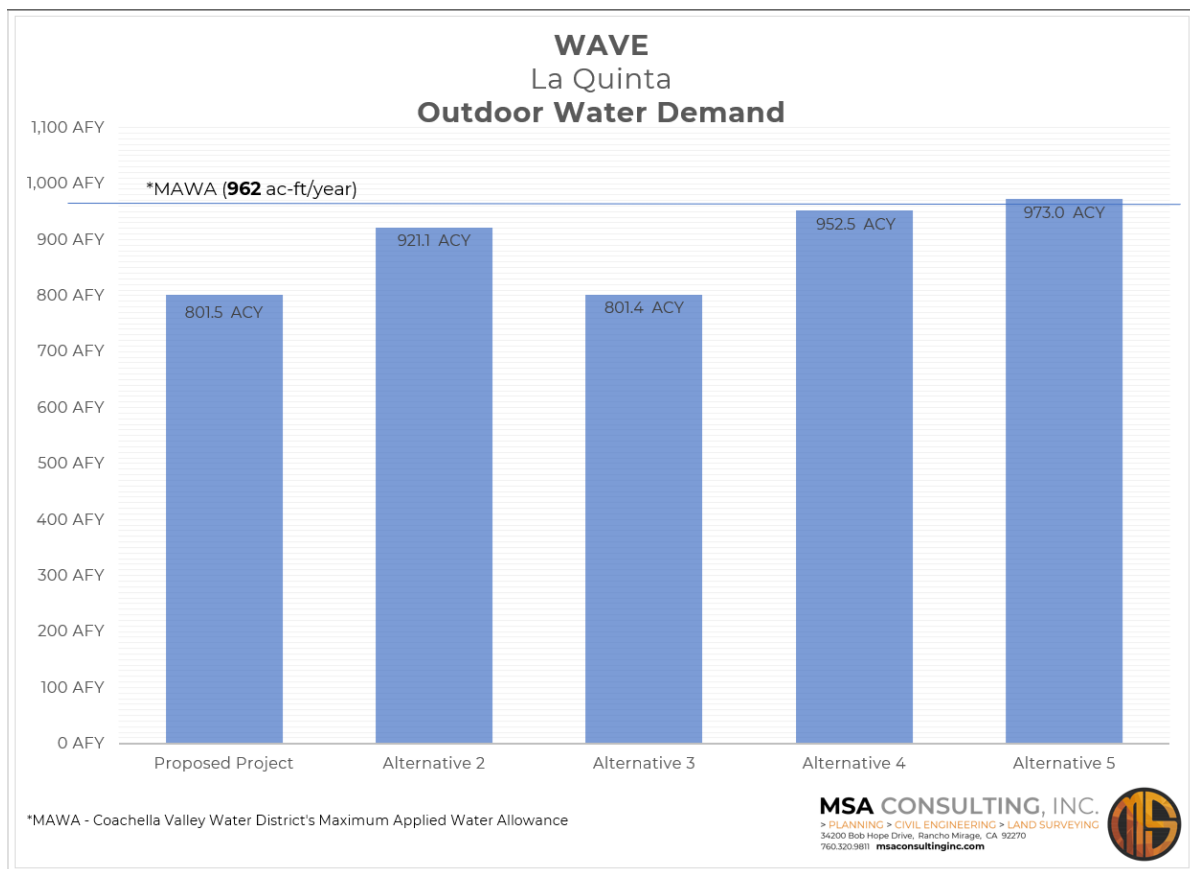
Alternative 5: Lake Amenity/Not Hotel

Summary:	AFY
Residential Demand	121.52
Non-Residential Demand	15.88
Outdoor Demand	972.95
Grand Total	1110.36

AFY/ac ac
2.88779486 384.50

Coachella Valley Water District Maximum Applied Water Allowance (MAWA)

CVWD established a Maximum Applied Water Allowance (MAWA) for areas within their service boundary. For design purposes, the MAWA is the upper limit of annual applied water for the established landscape area. It is based upon the areas reference evapotranspiration (ET) adjustment factor, and the size of the landscaped area. The estimated applied water use shall not exceed the MAWA.



Electric and Natural Gas Alternative Comparison

Proposed Project Electricity and Natural Gas Use

Source	Units	Project Buildout Energy Consumption
Electricity Total	kWh/yr	8,642,729
Natural Gas Total	kBTU/yr	21,855,400

Alternative 1 – No Project/No Build

Alternative 1 would not result in the development of the project site. The site would remain vacant and undisturbed; therefore, energy consumption via electricity and natural gas would not occur onsite.

Source	Units	Alternative 1 Energy Consumption
Electricity Total	kWh/yr	0
Natural Gas Total	kBTU/yr	0

Alternative 2 – No Project/Existing Entitlements

Alternative 2 would develop 750 low density residential units on approximately 204.2 acres, approximately 8.4 acres of General Commercial in the northeast corner of the site, and a golf course on approximately 171.9 acres of the site. Table below indicates the electricity and natural gas use of the proposed uses, using CalEEMod default rates for uses located in Climate Zone 15. Per CalEEMod, golf use would not result in electricity and natural gas use. However, it could be argued that activities associated with golf course operations (i.e., golf cart charging, maintenance, etc.) may result in the use of electricity.

Alternative 2 would result in approximately 40 percent less electricity and natural gas consumption compared to the proposed project.

Land Use	Electricity KWhr	Natural Gas KBTU
750 Residential (Low Density)	4,614,495*	13,182,066.5
60,000 sf Commercial	456,511	98,400
Golf	0	0
Total	5,071,006	13,280,466.5

*This number was determined by using the project's kWh value, dividing it by 496 (the project's proposed low density residential number) to receive the amount of electricity per residential unit (6,152.66 kWhr). Then 6,152.66 kWhr was multiplied by 750 to

determine how much electricity 750 dwelling units would consume. The same was completed for natural gas.

Source	Units	Alternative 2 Energy Consumption	Proposed Project Energy Consumption	Percent Difference
Electricity Total	kWh/yr	5,071,006	8,642,729	41% less
Natural Gas Total	kBTU/yr	13,280,466.5	21,855,400	40% less

Alternative 3 – Reduced Density

Alternative 3 would develop the proposed project reduced by one-third. The Reduced Density Alternative would result in the development of 400 low density residential dwelling units, 100 resort/hotel rooms, 38,000 square feet of resort commercial uses, and 40,000 square feet of neighborhood commercial uses. The Wave Basin would operate similarly to the proposed project. The low density residential, resort residential, hotel and resort commercial, and regional shopping center uses, provided in CalEEMod, were reduced by one-third to determine the energy consumed by these uses. The electricity use from the Wave Basin remains the same as the proposed project. Both the proposed project and Alternative 3 would include special events throughout the year.

Alternative 3 would consume 6,223,867.4 kWh of electricity and 14,424,564 kBTU of natural gas per year. This is approximately 28 percent and 34 percent less electricity and natural gas consumed, respectively, compared to the project.

Land Use	Electricity KWh/yr	Natural Gas kBTU/yr
330 Residential (Low Density)	2,014,135.2	5,753,708.4
70 Resort Residential	227,830.7	721,815.6
100 Hotel Rooms and 38,000 sf Resort Commercial	2,152,174.2	7,884,096
40,000 sf Regional Shopping Center	301,297.3	64,944
User Defined Recreational	1,528,430	0
Total	6,223,867.4	14,424,564

Source	Units	Alternative 3 Energy Consumption	Project Buildout Energy Consumption	Percent Difference
Electricity Total	kWh/yr	6,223,867.4	8,642,729	28% less
Natural Gas Total	kBTU/yr	14,424,564	21,855,400	34% less

Alternative 4 – Golf/Resort Hotel

Alternative 4 would develop a resort hotel of 150 hotel rooms and associated recreational, restaurant and retail amenities, an 18-hole championship golf course that would be open to the public to play on a daily fee basis, and 600 low-density residential units. The Wave Basin is removed from this Alternative; therefore, neither the mechanical equipment required to operate the Wave, nor the four special events associated with the Wave Basin would occur. As previously stated, the table below indicates the electricity and natural gas use of the proposed uses, using CalEEMod default rates for uses located in Climate Zone 15. Per CalEEMod, golf use would not result in electricity and natural gas use. However, it could be argued that activities associated with golf course operations (i.e., golf cart charging, maintenance, etc.) may result in the use of electricity.

The operation of Alternative 4 would result in a reduced energy demand, via electricity due to the removal of the Wave Basin and neighborhood commercial. However, Alternative 4 would result in an increase of natural gas consumption due to the increase of low density residential homes. Alternative 4 would consume 6,952,590 kWhr of electricity and 22,491,253.2 kBtu of natural gas per year. This is an approximately 19.5 percent decrease and 3 percent increase in electricity and natural gas consumption, respectively, compared to the project.

Land Use	Electricity kWhr	Natural Gas kBtu
600 Residential (Low Density)	3,691,596.8*	10,545,653.2
150 Room Hotel/ 57,000 sf Resort Commercial	3,260,870	11,945,600
Golf course	0	0
Total	6,952,466.8	22,491,253.2

*This number was determined by using the project's kWh value, dividing it by 496 (the project's proposed low density residential number) to receive the amount of electricity per residential unit (6,152.66 kWhr). Then 6,152.66 kWhr was multiplied by 600 to determine how much electricity 600 dwelling units would consume. The same was completed for natural gas.

Source	Units	Alternative 4 Energy Consumption	Project Buildout Energy Consumption	Percent Difference
Electricity Total	kWh/yr	6,952,466.8	8,642,729	19.5% less
Natural Gas Total	kBtu/yr	22,491,253.2	21,855,400	3% increase

Alternative 5 – Lake Amenity/No Hotel

Alternative 5 would develop a lake amenity (instead of the Wave Basin), 750 low-density residential units, and 8.4 acres of commercial uses at the northeast corner of the property. The Wave Basin is removed from this Alternative; therefore, neither the mechanical equipment required to operate the

Wave, nor the four special events associated with the Wave Basin would occur. As previously stated, the table below indicates the electricity and natural gas use of the proposed uses, using CalEEMod default rates for uses located in Climate Zone 15. Per CalEEMod, the recreational lake would not result in the consumption of electricity or natural gas during operation.

Land Use	Electricity kWhr	Natural Gas kBTU
750 Residential (Low Density)	4,614,495*	13,182,066.5
60,000 sf Commercial	456,511	98,400
Lake	0	0
Total	5,071,006	13,280,466.5

*This number was determined by using the project's kWh value, dividing it by 496 (the project's proposed low density residential number) to receive the amount of electricity per residential unit (6,152.66 kWhr). Then that number was multiplied by 750 to determine how much electricity 750 dwelling units would consume. The same was done for natural gas.

Source	Units	Alternative 5 Energy Consumption	Project Buildout Energy Consumption	Percent Difference
Electricity Total	kWh/yr	5,071,006	8,642,729	41% less
Natural Gas Total	kBTU/yr	13,280,466.5	21,855,400	40% less