APPENDIX 10.0

Water and Sewer Supply Assessment

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MEMORANDUM

DATE: 10-7-2024

TO: Town of Apple Valley, CA

FROM: DAVID LARSON, PE

SUBJECT: Supplement to the "WATER AND SEWER SUPPLY ASSESSMENT COMPARISON" dated September 12th, 2023, SPR-006-2023 in accordance with SB 610 and 221 Cordova Business Center

GPEIR PROJECT PRO RATA ALLOCATION CONSTRUCTION WATER DEMAND COMPARATIVE ANALYSIS

The purpose of this memorandum is to quantify the Project's anticipated construction water demand and perform a comparative analysis between the GPEIR Project Water Demand Pro Rata Allocation vs. the Project Construction Water Estimated Demand.

Per the Project Conceptual Grading Plan, the Earthwork Yardage is 130,370 cubic yards (CY). Construction Water is estimated at 30 gallons per cubic yard. The Project construction demand is calculated as follows:

Based on the estimated grading of 130,370 cubic yards and the requirement of 30 gallons per cubic yard of water needed to compact the soil *"to at least ± 2% over optimum compacted to a minimum between 90-95% maximum dry density"* per the Project Geotechnical Report by Landmark Consultants Inc. dated April 2023 and to provide the required dust control during earthwork operations. The Project Construction Water demand is then estimated as follows:

GPEIR Project Water Demand Pro-Rata Allocation - Construction Water Demand Comparative Analysis

Project Grading Operations =	130,370.CY Dirt
Construction Water Truck =	30.Gal/CY Dirt
Total Grading Water Demand =	3,911,100.Gal
Gal to CF Conversion Factor =	7.481
Conversion 3,911,100Gal/7.481 =	522,804.44 CF
Conversion 522,804.44CF/43,560 SF	12.0 AF
Total Construction Water Demand =	**12.0 AF**
Total Project Pro-Rata Water Demand Allocation =	**54.23 AFY**

Total Project Construction Demand Percentage of GPEIR Water Demand Allocation 22.13%

CONCLUSION:

Based upon the foregoing comparative analysis, the Project Construction Water Demand is estimated at only 22.13% of the total annual GPEIR Project Pro-Rata Water Demand Allocation of 54.23 acre feet per year. Therefore, Construction Water Demand will have no impact.

Cordially,

David Warren Larson, PE
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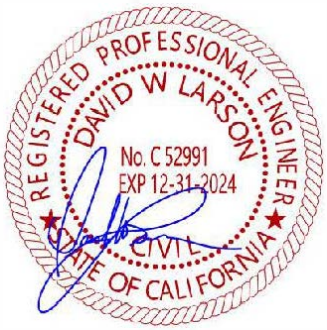


CC: Adir Cohen, Cordova Business Center, LLC
Toby Waxman, CEO, Entitlement Strategies Group, Inc.

WATER AND SEWER SUPPLY ASSESSMENT

COMPARISON

SEPTEMBER 12, 2023

IN ACCORDANCE WITH
SB 610 AND 221

APN: 0463-491-09

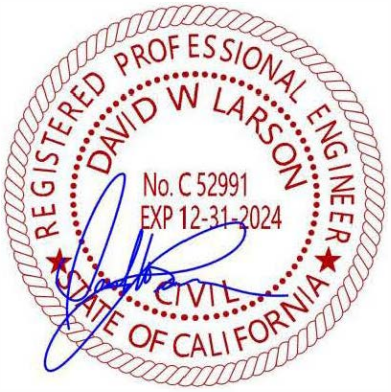
Cordova Business Center

RBCEA PROJECT NO: 220060

Town of Apple Valley,

San Bernardino County,

California



PROFESSIONAL ENGINEER'S
AFFIRMATIVE STATEMENT

I have examined and am familiar with the information in this document and all appendices, and based on my inquiries of individuals immediately responsible for obtaining the information in this document, I believe that the information is true, accurate, and complete

Prepared by
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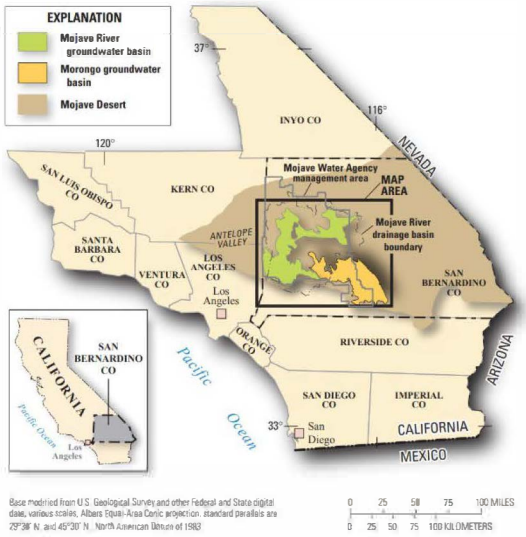
I. INTRODUCTION

A. LOCATION OF PROPERTY

The 29.79-acre Industrial project is along the southwest corner of the intersection of Cordova Road and Central Road and is in the NAVISP north of the airport in the Town of Apple Valley, CA APN 0463-419-09. The land is vacant and will require new water and sewer to service the site.



B. PURPOSE AND SCOPE

In compliance with the August 11, 2009 Town of Apple Valley Environmental Impact Report (SCH#2008091077) Apply Valley General Plan and Annexations 2008-001 & 2008-002 (GPEIR) Section III.I.3.6 Existing Environment Conditions, Project Impacts and Mitigation Measures, Water Resources/Quality, Mitigation Measures: 6. Which states, *"The Town shall require that future development in the General Plan area has an adopted Water Supply Assessment in compliance with AB [sic SB] 610 and 221 prior to approval of development plans."* Red Brick Consulting Engineers and Architects has prepared this Water and Sewer Supply Assessment. This Water Supply Assessment has been prepared in accordance with the "***State Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001***"(Guidebook).

C. METHODOLOGY

The Guidebook Section 3 poses certain questions that when answered determine whether the water supplier or lead agency must prepare an SB 610 assessment. The Guidebook ***Section 3 Code Citations*** poses the following Questions:

Section 3 *"Has an assessment already been prepared that includes this project?"*
Water Code section 10910

(h) Notwithstanding any other provision of this part, if a project has been the subject of a water assessment that complies with the requirements of this part, no additional water assessment shall be required for subsequent projects that were part of a larger project for which a water assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase in water demand for the project.
(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.
(3) Significant new information becomes available which was not known and could not have been known at the time when the assessment was prepared.

3-1 Has this project already been the subject of an assessment? Water Code § 10910(h) Yes No

If no, water supplier or lead agency must prepare SB 610 assessment. Water Code § 10910(b)
go to Section 4, page 8

If yes, and ALL of the five factors listed below apply:

-the preparer of the assessment determines that it complies with the requirements of SB 610
-the assessment determined that sufficient water was available for the project
-there has been no change to the project that would result in a substantial increase in demand
-there has been no change in the circumstances or conditions which substantially affect the ability of the water supplier to provide a sufficient supply of water for the project
-no new information which might affect the assessment has becomes available

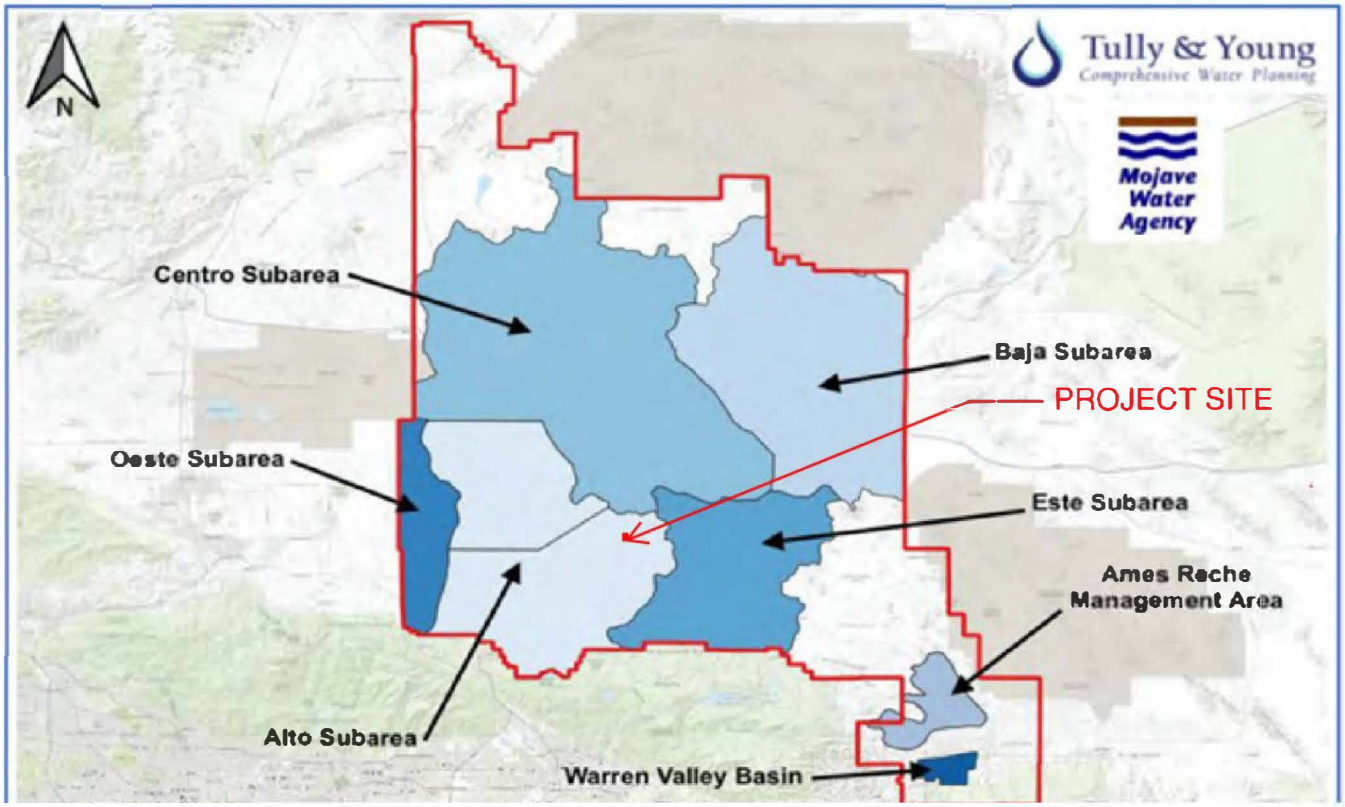
then, no additional assessment is required for this project for which the original assessment was prepared.

Per SB 610 in 2005 Apple Valley Ranchos Water Company (AVRWC) prepared an Urban Water Management Plan (UWMP) that states "there is sufficient water supply for its service area through year 2025. In January 2016 Liberty Utilities acquired AVRWC and prepared the 2020 UWMP up to 2045. Liberty Utilities incorporated the Town of Apple Valleys 2009 General Plan in their UWMP. In section 4.2.3 of the Liberty Utilities UWMP it states that Liberty Utilities is able to provide sufficient water supplies to meet the projected water demands of its customers including the five consecutive year drought (*CY2011 to CY2015*).

As described in the Mojave Water Agency's (MWA) 2020 Urban Water Management Plan (UWMP), "*the MWA service area encompasses approximately 4,900 square miles of eastern San Bernardino County. Its service area is divided into seven Subareas, each one affiliated with a groundwater management area.* MWA) *is a State Water Project (SWP) contractor, Watermaster for the Mojave Basin Area Adjudication, administrator for the Warren Valley Basin Judgment, and wholesale supplier to numerous retail water suppliers, some of which are preparing their own UWMPs. There are numerous smaller retail suppliers in the MWA service area which do not meet the Urban Water Management Planning Act's minimum threshold statutory criteria as well as numerous individual water users that serve smaller private parcels. MWA's goals include sound fiscal and organizational policies, effectively managing water resources in conjunction with the SWP, maintaining water quality, and promoting efficient use of the regions resources through regional conservation programs and public awareness.*"

The following is MWA UWMP's Figure ES-1: MWA Water Service Boundary with Adjudicated and Managed Groundwater Areas.

Figure ES-1: MWA Water Service Boundary with Adjudicated and Managed Groundwater Areas



The MWA UWMP Chapter 2 – Water Service and System Description states that "*the water supply for MWA's service area is sourced almost entirely from pumped groundwater from the various basins, subbasins, and aquifers in the area. Groundwater is recharged by natural storm water flows, infiltration of the Mojave river and tributaries…*"

The MWA service area has a long adjudication history that was initiated in the 1960's. After full adjudication of the Mojave Basin Area in 2002. With complaints filed against upstream water users by the City of Barstow and Southern California Water Company a Stipulated Judgement in January 1996 that formed a class of producers which used 10 acre-feet or less per year that were dismissed from litigation and offered an equitable solution for the remaining water producers that use over 10 acre-feet per year. The Riverside Superior Court appointed MWA as Watermaster for the area as part of the Judgment. Appeals by non-stipulated parties continued over the next several years with the California Supreme Court finally ruling on the case in August 2000. Most of the appealing parties have stipulated to the Judgment since the 1996 ruling.[1]

"This judgment helps maintain proper water balances between the Mojave Basin Area's five distinct, but interrelated, subareas (Este, Oeste, Alto, Centro, Baja). The Alto Transition Zone was also defined as a sub-management unit to better understand the water flow from Alto to Centro. Some subareas were found to historically receive natural water flow from upstream subareas; to maintain that relationship, annual

1 *Reference: Mojave Water Agency 2020 Urban Water Management Plan - Chapter 2 Mojave Water Agency Service Area Adjudication History*

obligations are set according to average annual natural flow baselines defined in the Judgment at Base Annual Production (BAP). The Judgment established a Free Production Allowance (FPA) allocation to Producers based on each Producer's percentage share of the BAP which is set each year by the Watermaster. FPA is reduced over time until it comes within 5% of the Production Safe Yield (PSY) defined by the Judgment. All water produced in excess of any Producer's share of the FPA must be replaced by the Producer, either by payment to the Watermaster of funds sufficient to purchase Replacement Water, or by transfer of unused FPA from another Producer."

The MWA has many large, medium, and small urban retail water purveyor that provide water service to residents and businesses within the service area from local groundwater supplies. In addition to these urban retail suppliers, water users in the MWA Service Area also include irrigated agriculture, small public water systems, rural domestic residential users and a handful of industrial users. Among the local retail water purveyors is Liberty Utilities - Apple Valley.

In Section ES-2 MWA Water reliability section, "MWA has extended the planning horizon considered in this (their) 2020 UWMP from the statutory required 20-year timeline to a much longer 45-year period through 2065.

The purpose of this Water and Sewer Supply Assessment is to assess the proposed Project's anticipated water and sewer industrial land use demands during construction and operations, perform a comparative analysis of the Project's Water and Sewer Demand with the Water and Sewer Demand Analyzes and Planned for in the GPEIR and the MWAs' UWMP, Liberty Utilities' UWMP and the Town of Apple Valley Sewer System Master Plan. The comparison then determines if the Project would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?
2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
5. Comply with federal, state and local management and reduction statutes and regulations related to solid waste?

D. PROJECT DESCRIPTION

The Project Development Plan is designed as a 494,000 square foot Industrial warehouse facility with 181,836 square feet of landscaping to be constructed on vacant land.

As there are no sewer, water, or natural gas services currently serving the subject property. The developer will be required to service the property by extending existing water located along its western boundary

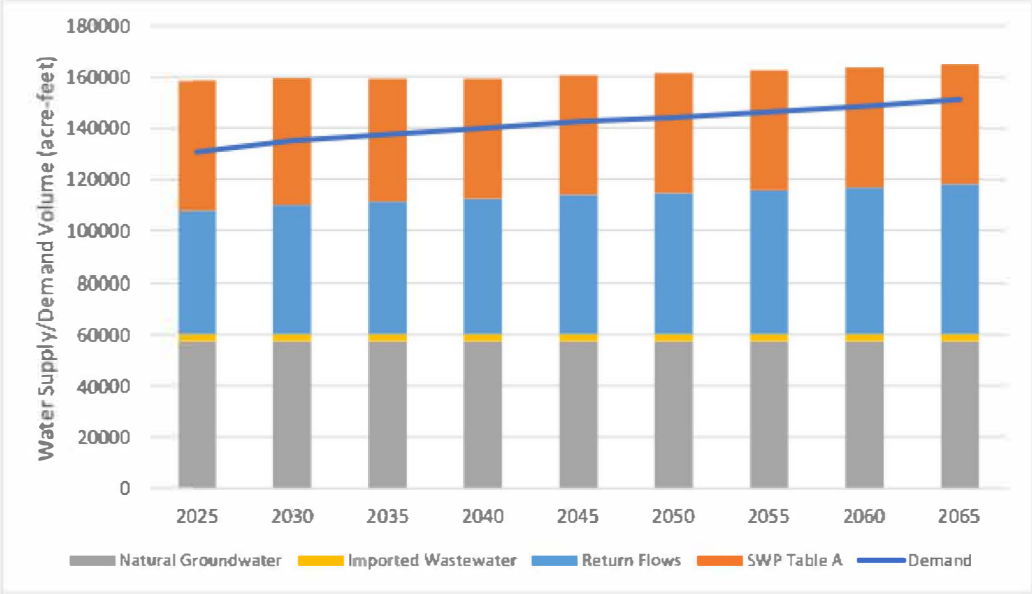
from the northwest corner of the site along Cordova Road to Central Road, and down Central Road to the existing 10-inch water line in Central Road just north of Johnson Road.

E. WATER AND SEWER SERVING THE PROJECT

The Project Site is currently vacant and is consistent with the North Apple Valley Industrial Specific Plan (NAVISP) and Zoning District I-G for general industrial. Currently the neighbors are receiving electricity from Edison, and phone service from Verizon. The Project is not located near water services from the County of San Bernardino (CSA 64), nor natural gas service, but is near Edison Power and liberty Utilities for water. As the valley continues to grow future demands would be serviced by Liberty Utilities for water in north Apple Valley by year 2030. Water delivered to customers in the Upper Mojave groundwater is pumped from the Mojave River-Upper Mojave Basin, which is the upper portion of the Mojave River, and water purchased from Liberty Utilities Company.

Based on updates to the Urban Water Management Plan the Mojave Water Agency has evaluated and forecasted its water surface sustainability, which is determined by comparing existing and forecast demands with existing and forecast water supply availability. Water surfaces stainability is confirmed when the available supplies exceed the demand. Figure 3 demonstrates the projection of MWA's water service availability through 2065. Although demand is forecast to increase and water available supply is expected to decrease, sufficient supplies are forecast to meet demands, exhibiting forecasted water service sustainability.

Figure 3. Mojave Water Agency Water Supply Reliability through 2065



Therefore, no significant adverse impacts to water supply are identified or anticipated, and no mitigation measures are required.

II. TOWN OF APPLE VALLEY GENERAL PLAN AND ANNEXATIONS 2008-001 AND 2008-002 (GPEIR) ESTIMATED WATER CONSUMPTION GENERATED BY THE SPECIFIC PLAN AREA AT BUILDOUT.

A. INDUSTRIAL WATER DEMAND ALLOCATION:

Per the Town of Apple Valley General Plan and Annexations 2008-001 and 2008-002/ Environmental Impact Reports Section Ill - Existing Conditions, Impacts, and Mitigation Measures Table III-34 Estimated Water Demand at Build Out of Proposed Annexation Areas; the Industrial Acreage for the Specific Plan Area is included in the Commercial Land Use per Footnote #3. See the following GPEIR TABLE – Ill:

Estimated water demands for proposed General Plan build out land uses are shown in Table III-34, below.

Table III-34
Estimated Future Water Service Demands at General Plan Build Out

Land Use	Units No. of Persons	Demand Factor [1, 2, 3, 4] Gallons Per Capita Per Day (GPCPD)	Demand Ac-ft/Yr
Residential	194,931	208.00	45,396.2
	AC	**Ac-Ft/Ac/Year**	**Ac-ft/Yr**
Commercial (Incl. SP-Industrial Area)	11,914	1.98	25,590.3
Industrial	2,258	1.61	3,636.0
Other Uses	8,117	2.88	23,377.3
		Non-Residential Subtotal	**50,603.6**
		TOTAL GP BUILDOUT	**95,999.8**

[1] Residential factor from AVRWC based on historical consumption for residential uses.
[2] Commercial factors based on CVWD (2004) factor for Retail Shopping Areas, assuming 35% return flow. Commercial acreage includes Mixed Use and SP/Commercial.
[3] Industrial factor based on CVWD (2004) factor for Commercial and Industrial parks, based on 35% return flow. Industrial acreage does not include SP/Industrial since that is counted under SP/Commercial, above.
[4] Other uses factor based on CVWD (2004) average of factors for Golf course developments, public schools, self-storage facilities assuming 5% return flow.
Source: Terra Nova staff estimates based on historical consumption factors for residential uses from AVRWC UWMP 2005; industrial, commercial and other uses factors from Water System Backup Facilities Charge Study, prepared by Engineering Dept, Coachella Valley Water District, Sept 2004.

The estimates for future water service demand shown in Table III-34 account for build out of the entire General Plan area, including the proposed annexation lands. Residential development associated with implementation of the proposed General Plan and the annexations is estimated to result in water demand of 45,396.2 acre-feet per year at build out. Commercial, industrial and other land uses are expected to result in water demand of 50,603.6 acre-feet per year at build out. All land uses within the Town limits and annexation areas are expected to result in total water demand of 95,999.8 acre-feet per year at build out.

Thus, the GPEIR industrial demand for the North Apple Valley Industrial Specific Plan Area (NAVISP) is 1.98 Af/ac/yr. Therefore, the proposed Project Pro-Rata allocation of the total NAVISP Area Demand is equal to the (Net Project Acreage x the 1.98Ac/Ft/Year) as calculated as follows:

GPEIR PROJECT PRO-RATA ALLOCATION	
Net Project Acreage =	27.39 AC
SP-I Demand Factor =	1.98 AF/AC/Y
TOTAL PROJECT PRO-RATA ALLOCATION =	**54.23 AF/YR**

III. ESTIMATED WATER CONSUMPTION GENERATED BY THE PROJECT

A. PROJECT INDUSTRIAL WATER DEMAND:

The Project's Industrial land use Water Demand is the sum of the total for the three components of Domestic + Fire Flow + Landscape water demands.

DOMESTIC DEMAND (DWD):

The domestic use per person/day is greater than industrial consumption per capita and the State has mandated that domestic demand for residential use not exceed 55 gpd; this analysis assumes a conservative consumption rate for 200 employees (two shifts) using the residential demand of 55gpd. Therefore, the project domestic would be as follows:

Residential Demand Factor =	55 GPD/Employee
Number of Employees	200 Employees
TOTAL PROJECT DOMESTIC WATER DEMAND =	11,000 GPD

ANNUAL PROJECT DOMESTIC DEMAND	
Total Project DWD =	11,000 GPD
Days Per Year =	365 DPY
Total Gallons Per Year =	4,015,000 GPY
Cubic Feet Conversion Factor (Gal/CF) =	7.481 GCF
Conversion to Acre Feet Factor (AF/CF) =	43,560 ACF
ACRE FEET PER YEAR (AFY) = GPY/GCF/ACF =	12.32 AFY

TOTAL PROJECT DOMESTIC DEMAND - 12.32 AFY

FIRE FLOW PROTECTION SYSTEM DEMAND:

In order to ensure the Fire Protection System and infrastructure will meet the requirement set forth by the Apple Valley Fire Protection District the infrastructure will need to include Fire Hydrants and Building Fire Sprinkler Systems as described below:

FIRE SPRINKLERS:

All permanent structures will have internal sprinkler systems per California sprinkler system codes. Hydrants will be located per the requirements of the Apple Valley Fire Protection district.

Supply piping will be sized to adequately handle the water flow requirements (volume and pressure) to every hydrant. Based on preliminary calculations the sprinkler demand is approximately 2,552 gpm at 165 psi.

FIRE HYDRANTS:

The Fire hydrant flow requirement is based on the amount of water that must be available for firefighting associated with the area of the building. The Apple Valley Fire Protection District Ordinance 59 refers to the California Fire Code Appendix BB Table BB105.1 for the fire-flow requirement. The proposed construction type is III-B as indicated on sheet G001 of the drawings. Table BB105.1 for Type IIIB construction with a building area >138,301 the Fire Flow (GPM) is 8,000 gpm with a flow duration of 4 hours. According to CFC Title 24, Part 9 with 2024 supplement this can be reduced by 50% as the building will be sprinklered in accordance with NFPA 13. Therefore, the minimum fire-flow requirement is 4,000 gpm for a duration of 4 hours. Therefore, the project fire flow demand would calculated be as follows:

ANNUAL FIRE FLOW DEMAND	FIRE FLOW	75% Reduction
Total Project Demand =	8,000 GPM	4,000 GPM
Fire Flow Duration =	4 hours	4 hours
Conversion factor from min to hrs (MPH)	60 min	60 min
Total Annual Fire Flow =	1,920,000 GPY	960,000 GPY
Cubic Feet Conversion Factor (Gal/CF) =	7.481 GCF	7.481 GCF
Conversion to Acre Feet Factor (AF/CF) =	43,560 ACF	43,560 ACF
ACRE FEET PER YEAR (AFY) = GPY/GCF/ACF =	5.89 AFY	2.95 AFY
TOTAL PROJECT ANNUAL FIRE FLOW DEMAND =	**5.89 AFY**	**2.95 AFY**

LANDSCAPE WATER DEMAND:

This demand is based on the following calculation:

EVAPOTRANSPIRATION (Eto) x PLANT FACTOR(PF) x HYDROZONE(HZ) SQ.FT. x 0.62)/ IRRIGATION EFFICIENCY(IE)

Definitions:

Eto: Evapotranspiration is the process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants.

The project is in the area known as the California High Desert Valleys and is classified by the California Irrigation Management Information System (CIMIS) as Eto Zone 17 which has the second highest evapotranspiration rates in the State. Monthly average rates range from 1.86 to 9.92 inches/month for a yearly rate of 66.5 inches.

Eto =	66.5 in/yr
PF=Maximum Applied Water Allowance Plant Factor =	0.25
HZ=Average waterwise landscape area =	181,836.00 SF
IE = Irrigation Efficiency	0.81

LANDSCAPE DEMAND CALCULATIONS:
Then the Estimated Water Used (Gallons per Year) is:
(Eto x PLANT FACTOR x HYDROZONE SQ. FT. x 0.62)/ IRRIGATION EFFICIENCY =
(66.5 x 0.20 x 181,836 x 0.62)/0.81 = 2,313,919 gpy / 7.481 gal cf/ 43560 cf/ac= 7.10 afy

TOTAL PROJECT DOMESTIC DEMAND - 7.10 AFY

TOTAL PROJECT WATER DEMAND:

As stated previously, the Total Project Demand is the sum of Domestic + Fire Flow + Landscape Demands.

TOTAL WD	FF@8,000GPM	FF@4,000GPM
Total Domestic Demand =	12.32 AFY	12.32 AFY
Total Fire Flow Demand =	5.89 AFY	2.95 AFY
Total Landscape Demand =	7.10 AFY	7.10 AFY
TOTAL PROJECT WATER DEMAND	**25.31 AFY**	**22.37 AFY**

B. GPEIR PROJECT PRO-RATA ALLOCATION CONSISTENCY

GPEIR PROJECT WATER DEMAND PRO-RATA ALLOCATION	54.23 AFY	54.23 AFY
TOTAL PROJECT WATER DEMAND	-25.31 AFY	-22.37 AFY
NET GPEIR PROJECT PRO-RATA ALLOCATION HAS A SURPLUS	**28.92 AFY**	**31.86 AFY**
PROJECT PERCENTAGE OF PRO-RATA ALLOCATION	**46.7%**	**41.25 %**

C. ENVIRONMENTAL IMPACTS:

The project will result in the construction of expanded water distribution in accordance with the General Plan as analyzed in the GPEIR. Based on the fact that the proposed Project will use at a worst-case scenario only 46.70% of the GPEIR Project Pro-Rata Allocation of 54.23 AFY, ***there is no significant effect on the GPEIR Water Demand for the NAVISP area and therefore no mitigation measures are warranted.***

Sufficient water supplies are available to serve the project now and in the future during normal, dry and multiple dry years; Therefore, there is no significant impact.

IV. TOWN OF APPLE VALLEY GENERAL PLAN AND ANNEXATIONS 2008-001 AND 2008-002 (GPEIR) ESTIMATED WASTEWATER GENERATED BY THE SPECIFIC PLAN AREA AT BUILDOUT AS PLANNED FOR IN THE TOWN OF APPLE VALLEY SEWER SYSTEM MASTER PLAN UPDATE (SSMP).

A. SEWER DEMAND ALLOCATION

The Sewer System Master Plan Update utilized the GPEIR Land Use Map to determine the commercial, industrial and residential flows and the SSMP considers the undeveloped areas of the Town and includes the Special Districts under the General Plan, in particular, it includes the entire NAVISP area, the most relevant to this WSA, according to the land use designation outlined in the 2009 General Plan as described in the SSMP Section 2.2 Background.

The SSMP states, "*The Town of Apple Valley General Plan covers a total area of 50,532 acres, including the two annexation areas. The land area and usage defined in the Town's 2009 General Plan plays an important role in the determination of sewer flow projections since flow generation is a function of land use designation. The General Plan defines land use designations for residential, commercial, industrial, and other land uses that are within the boundaries of the Town. The General Plan Land Use Map, Figure 2-2, was utilized to determine the future flow projections at buildout for the following categories: residential, commercial, and industrial. The following sections summarize the methodology used to calculate the projected wastewater flows.*"

The SSMP Section 5.4.3.6 describes the land area included in the long-term planning for sewer capacity within the North Apple Valley Industrial Specific Plan (NAVISP) as stated in the following

Table 5-10: North Apple Valley Specific Plan Land Use Designation Buildout Summary

Designation	Vacant Acres	Developed Acres	Total Acres	Existing Sq. Footage[5]	Potential Sq. Footage[6]	Total Sq. Footage
General Commercial	265.7	4.9	270.6	46,958	2,546,256	2,593,214
Industrial - Airport	329.5	410.6	740.1	N/A	N/A	N/A
Industrial - Specific Plan	4445.2	343.3	4788.5	3,287,037	42,599,240	45,886,277
Industrial-General	334	6.1	340.1	58,458	3,200,789	3,259,246
High Desert Corridor	73.7	8	81.7	N/A	N/A	N/A
Total	**5,448.1**	**772.9**	**6,221**	**3,392,453**	**48,346,285**	**51,738,737**

[5] *Assumes that existing development, which is generally non-conforming under the Specific Plan, will be re-developed with up to 22% building coverage.*
[6] *Assumes new development at 22% building coverage.*

excerpt from Section 5.4.3.6, "*The North Apple Valley Industrial Specific Plan addresses long-term developmental goals, standards and guidelines for the 6,221 acres which includes the Airport Influence Area, the Dry Lake Flood Area, the Apple Valley Village Area located west of Central Avenue, Highway 18 Improvement Area, the I-15 Corridor, and the Bear Valley Road Improvement Area. The Specific Plan area is bounded by Langley Road on the north, Waalew Road on the south, Dale Evans Parkway on the west, and Central and Joshua Roads on the east, as shown in Figure 5-8. The Specific Plan includes industrial and commercial land uses for the area and the surrounding airport. The land use designation and buildout summary is listed in Table 5-10. The North Apple Valley Industrial Specific Plan incorporates Annexation 2008-002 which consists of approximately 809 acres. This area is located east of Central Road, south of Quarry Road, north of Lafayette Street, and west of Joshua Road.*" SSMP TABLE 5-10: North Apple Valley Specific Plan Land Use Designation Buildout Summary is shown below

The total NAVISP land area of 6,221 acres included above is consistent with the GPEIR study area. Cordova Business Center is included within this acreage.

Buildout assessments and flow projections were made by considering the developments established on each of the Specific Plans. Table 5-13 contains a summary of total flow expected for all areas designated as a Specific Plan.

Table 5-13: Build Out Summary of EDUs for Areas Designated as Specific Plan

Land Designation	Bridle Path Estates	Deep Creek Estates	Jess Ranch	LCER	Meadowbrook	North Apple Valley Industrial	North Pointe	Golden Triangle
Total Flow (gpd)	230,580	28,560	254,379	18,000	47,472	2,141,531	179,322	779,655

Thus, the GPEIR industrial demand for the North Apple Valley Industrial Specific Plan Area (NAVISP) as specified in the SSMP is 2,141,531 GPD. Therefore, the proposed Project Pro-Rata Allocation of the Total GPEIR NAVISP Area Demand (GPD Flow) is calculated using the following formula:

$$\left[\frac{\textit{(Net Project Acreage 23.76Acs}}{\textit{NAVISP Area 6,221Acs}}\right] \textbf{x } \textit{(NAVISP-Area Demand)} \textbf{ = DAILY PROJECT PRO-RATA ALLOCATION}$$

GPEIR PROJECT PRO-RATA ALLOCATION (GPD)

Net Project Acreage / NAVISP-Area =	27.39 AC/6,221 AC = 0.004403
NAVISP-Area Demand =	x 2,141,531 GPD
DAILY PROJECT PRO-RATA ALLOCATION =	9,428.80 GPD

ANNUAL PROJECT PRO-RATA ALLOCATION (AFY)

Daily Project Pro-Rata Allocation =	8,179.20 GPD
Days Per Year=	x 365 DPY
Gallons Per Year =	3,441,510 GPY
Tota Cubic Feet Conversion Factor (Gal/CF) =	7.481 GPCF
Conversion to Acre Feet Factor (AF/CF) =	43,560 APCF
ACRE FEET PER YEAR (AFY) = GPY/GCF/ACF	10.56 AFY

TOTAL GPEIR PROJECT PRO-RATA ALLOCATION (AFY) 10.56AFY

B. ESTIMATED SEWER DEMAND GENERATED BY PROJECT

Per the 2022 California Plumbing Code APPENDIX H TABLE H201.1 (4) Estimated Waste/Sewage Flow Rates for Office Use the sewer flow rate use per employee/day is 20 gpd; this analysis uses the CPC demand of 20gpd/employee at the estimated number of 200 employees assuming two shifts. Therefore, the project sewer demand would be as calculated follows:

PROJECT DAILY SEWER DEMAND:	
CPC Office Demand Factor =	20 GPD/Employee
Number of Employees =	x 200 Employees
TOTAL PROJECT SEWER DEMAND =	4,000 GPD
ANNUAL PROJECT SEWER DEMAND	
Total Project DSD =	4,000 GPD
Days Per Year =	x 365 DPY
Total Gallons Per Year =	1,460,000 GPY
Cubic Feet Conversion Factor (Gal/CF) =	7.481 GCF
Conversion to Acre Feet Factor (AF/CF) =	43,560 ACF
ACRE FEET PER YEAR (AFY) = GPY/GCF/ACF =	4.49 AFY
TOTAL PROJECT SEWER DEMAND =	**4.49 AFY**

C. GPEIR PROJECT SEWER PRO-RATA ALLOCATION CONSISTENCY

GPEIR PROJECT SEWER DEMAND PRO-RATA ALLOCATION =	10.56 AFY
TOTAL PROJECT SEWER DEMAND =	-4.49 AFY
NET GPEIR PROJECT PRO-RATA ALLOCATION HAS A SURPLUS =	**6.07 AFY**
PROJECT PERCENTAGE OF PRO-RATA ALLOCATION	**42.51%**

The proposed Project is consistent with the GPEIR/SSMP, in that, the project demand is only 42.51% of the total GPEIR Project Sewer Demand Pro-Rata Allocation.

D. ENVIRONMENTAL IMPACTS:

The project will result in the construction of expanded sewer distribution in accordance with the Town of Apple Valley General Plan, as analyzed in the GPEIR, and as planned for in the Sewer System Master Plan (SSMP).

Based on the fact that the proposed Project will use only 42.51% of the GPEIR Project Pro-Rata Sewer Demand Allocation at 10.56 AFY, it is consistent with the GPEIR and SSMP Demand for the NAVISP area, there is no significant environmental impact and therefore no mitigation measures are warranted.

Sufficient regional wastewater treatment capacity is available to serve the project now and in the future such that the regional wastewater authority will not require additional capacity to serve the project's projected demand in addition to the provider's existing commitments. ***Therefore, there is no impact environmental impact.***

V. ESTIMATED SOLID WASTE GENERATED BY THE PROJECT

A. CURRENT PROVIDERS

Solid Waste: The Town of Apple Valley contracts with Burrtec Waste Industries of Fontana, California for the collection and disposal of Solid waste as described in the GPEIR. The GPEIR evaluated impacts associated with the Implementation and build out of the General Plan and Annexation areas stating that the build out will increase the generation of solid waste and the need for additional disposal sites. Burrtec Waste Industries plans on providing service to accommodate the future development. The GPEIR TABLE

III-58 Estimated Solid Waste Generation for Apple Valley General Plan Build Out shows the solid waste generation factors as provided by the California Integrated Waste Management Board and used in conjunction with the Apple Valley General Plan Land Use Plan calculations to project future solid waste generation at build out. See the following GPEIR TABLE III-58:

Table III-58
Estimated Solid Waste Generation for Apple Valley General Plan Build Out

Land Use Type	Generation Rate[9]	Unit Type	Units (DU/Sq. Ft.)	Annual Tons of Solid Waste
Single Family[1]	2.0400	tons/unit/year	36,619	74,702.76
Multi Family[2]	1.1700	tons/unit/year	27,130	31,742.10
Office/Professional	0.0108	tons/sf/year	10,372,153	112,019.25
Hotel/Motel	0.0024	tons/sf/year	2,074,431	4,978.63
Retail/Commercial[3]	0.0024	tons/sf/year	39,414,182	94,594.04
Industrial	0.0108	tons/sf/year	58,581,040	632,675.23
Total				**950,712.02**

Source: California Integrated Waste Management Board compilation of waste generation rates. Rates used are from Ventura County Solid Waste Management Department. "Guidelines for Preparation of Environmental Assessments of Solid Waste Impacts", September 1992, and "DEIR for North Hills Development in Santa Clarita", December 1991.

The GPEIR determined, "*Build out of the General Plan and annexation areas is expected to result in approximately 63,749 dwelling units, which includes both existing and potential residences. Of these, approximately 36,619 will be single-family units, and about 27,130 multi-family units. Build out could also result in up to 51,860,766 square feet of commercial development and 58,581,040 square feet of industrial development. This level of development could generate a total of approximately 950,712 tons of solid waste per year, or 2,603 tons per day (including both existing and future development). This estimate assumes moderate densities at build out, and actual waste generation may vary, depending on future levels of development. None of the land uses proposed within the planning area are expected to create high quantities of solid waste or severe hazardous waste conditions. Nonetheless, the project will increase the volume of solid waste generated, and waste management will need to carefully monitor these levels to assure safe and cost-effective disposal of the Town's solid waste.*"

California's CalRecycle Industrial Sector Generation Rates for Industrial Warehouse[2] use is 13.82 lb/employee/day. Using this Generation Rate for the Proposed Project we calculated the Estimated Solid Waste for the project as follows:

B. ESTIMATED SOLID WASTE

Definitions

Generation Rate = 13.82 lbs/emp/day

Conversion Rate lbs to Tons: 1 Ton = 2,000lbs

Project Estimated Solid Waste (LBS/YR): (Generation Rate x No. Emp) x 365 = LBS/YR

Project Estimate Solid Waste (TNY): (lbs per yr/Conversion Rate lbs to tons) = Tons per Year (TNY)

[2] *Reference: htpps://www2.calrecycle.ca.gov/WasteCharacterizaion/General/Rates*

ESTIMATED PROJECT SOLID WASTE CALCULATIONS

Project Estimated Solid Waste (LBS/DY) = 13.82 lbs x 200 emp = 2,764/DY
Project Estimated Solid Waste (LBS/YR) = 2,764lbs x 365 = 1,008,860lbs/YR
Project Estimated Solid Waste (TNS/YR) = (1,008,860lbs/YR)/x 2,000 = 504.43TNY

The Project's Estimated Solid Waste is compared below with the GPEIR Estimated Solid Waste for Industrial Land Use shown in GPEIR TABLE III-58:

TABLE V-1 PROJECT ESTIMATED SOLID WASTE FOR WAREHOUSE

Land Use Type	Generation Rate	Unit Type	Units (DU/Sq.Ft.)	Annual Tons of Solid Waste
Project Estimated Solid Waste for Warehouse	13.82	Lb/emp/day x 365/2000lbs/year	200 Employees	504.43

The General Plan Industrial Land Use Solid Waste Generation at General Plan Build Out was estimated at 632,675.23 Tons.

TABLE V-2 GPEIR ESTIMATED SOLID WASTE FOR INDUSTRIAL LAND USE

Land Use Type	Generation Rate	Unit Type	Units (DU/Sq.Ft.)	Annual Tons of Solid Waste
GP Industrial	0.0108	Tons/sf/year	58,581,040	632,675.23
Project Solid Waste Allocation	0.0108	Tons/sf/year	494,000	5,335.2
Project Estimated Solid Waste for Warehouse	13.82	Lb/emp/day x 365/2000lbs/year	200 Employees	504.43

TOTAL ANNUAL GENERAL PLAN ESTIMATED SOLID WASTE (TNY)	**632,675.23**
TOTAL ANNUAL PROJECT SOLID WASTE ALLOCATION (TNY)	**5,335.2**
TOTAL ANNUAL PROJECT ESTIMATED SOLID WASTE (TNY)	**504.23**
NET GPEIR PROJECT PRO-RATA SOLID WASTE ALLOCATION HAS A SURPLUS (TNY) =	**4,830.97**
PROJECT PERCENTAGE OF PRO-RATA ALLOCATION (TNY)	**9.45%**

This comparative analysis shows that the Proposed Project's Solid Waste is only 9.45% of the TOTAL ANNUAL PROJECT SOLID WASTE ALLOCATION OF THE GENERAL PLAN ESTIMATED SOLID WASTE AT BUILD OUT with a NET ANNUAL GPEIR PROJECT PRO-RATA SOLID WASTE ALLOCATION SURPLUS 4,830.97 TNY or 90.55% TNY surplus.

The Project Site is currently within the refuse collection area of Burrtec Waste Industries. Solid Sanitary Landfill (36-AA-0045), or other active landfills as necessary. Burrtec's operators determine the final disposal location on a case-by-case basis. The project's Planned Industrial Development Site refuse will be disposed of at either the San Bernardino County Victorville Sanitary Landfills that has a maximum

throughput waste generation capacity of 3,000 tons per day, an expected operational life through 2047, and a remaining capacity of 81,510,000 cubic yards, or it would be served by a landfill with sufficient permitted capacity to accommodate its solid waste disposal needs. At the total annual estimated Project Solid Waste of 504.23TNY, the project will only generate 1.38TND (tons per day) which is only 0.061% of the total 3,000TND. Therefore, the project will not have a significant impact on the existing and planned solid waste capacity.

California Assembly Bill 341 has been enacted to reduce greenhouse gas emissions by diverting commercial solid waste from landfills by recycling. It mandates businesses and public entities generating 4-cubic yards or more of trash to establish and maintain recycling services. The Town of Apple Valley Building and Safety Department reviews and approves all new construction projects that require a Building Permit and requires that Building Permit applicants prepare a Waste Management Plan.

The Town of Apple Valley Building and Safety Department's standard Conditions of Approval (COA's) require each project to have a waste management plan in accordance with the Construction Debris Recycling Ordinance, Municipal Code Chapter 8.19 that consists of two parts, 1) proposed projects are required to estimate the amount of tonnage to be disposed and diverted during construction, and the estimated tonnage or pounds of waste to be recycled by the Project, 2) Disposal/diversion receipts or certifications are required as a part of that summary. The mandatory requirement to prepare a Construction and Demolition Solid Waste Management Plan would ensure that impacts related to construction waste would be less than significant. The Proposed Project would comply with all federal, State, and local statutes and regulations related to solid waste. Solid waste produced during the construction phase or operational phase of the Proposed Project would be disposed of in accordance with all applicable statutes and regulations.

C. ENVIRONMENTAL IMPACTS

The project will not generate solid waste more than State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and it will comply with federal, state and local management and reduction statutes and regulations related to solid waste.

VI. FINDINGS & CONCLUSIONS:

FINDINGS:

The foregoing comparative analysis of the Project's Water and Sewer Demands with Water and Sewer Demands as Analyzed and Planned for in the GPEIR and the MWAs' UWMP, Liberty Utilities' UWMP and the Town of Apple Valley Sewer System Master Plan, all of which are consistent with the GPEIR, the determined that the Project is within the Pro-Rata Allocation of Water and Sewer Demand as planned through the year 2065. Our findings for answers to Guidebook Section 3-1 are as follows:

Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001, Section 3-1 "Has an assessment already been prepared that includes this project?" **The answer is, Yes.**

WATER SUPPLY ASSESSMENT CONCLUSIONS

GPEIR PROJECT PRO-RATA ALLOCATION CONSISTENCY

TOTAL DEMAND	FF@8000GPD	FF@4,000GPD
GPEIR PROJECT WATER DEMAND PRO-RATA ALLOCATION	54.23 AFY	54.23 AFY
TOTAL PROJECT WATER DEMAND	-25.31 AFY	-22.37 AFY
NET GPEIR PROJECT PRO-RATA ALLOCATION HAS A SURPLUS	**28.92 AFY**	**31.86 AFY**
PROJECT PERCENTAGE OF PRO-RATA ALLOCATION	**46.70%**	**41.25%**

SEWER SUPPLY ASSESSMENT CONCLUSIONS

GPEIR PROJECT PRO-RATA ALLOCATION CONSISTENCY

GPEIR PROJECT SEWER DEMAND PRO-RATA ALLOCATION =	10.56 AFY
TOTAL PROJECT SEWER DEMAND =	-4.49 AFY
NET GPEIR PROJECT PRO-RATA ALLOCATION HAS A SURPLUS =	**6.07 AFY**
PROJECT PERCENTAGE OF PRO-RATA ALLOCATION	**42.51%**

CONCLUSIONS:

The foregoing Comparative Analyses, resulted in the following conclusions:

WATER DEMAND:

Based on the fact that the proposed Project's Water Demand will use at a worst-case scenario only 46.70% of the Total GPEIR Project Pro-Rata Allocation of 54.23 AFY, ***there is no significant effect on the GPEIR Water Demand for the NAVISP area and therefore no mitigation measures are warranted.***

Sufficient water supplies are available to serve the project now and in the future during normal, dry and multiple dry years; Therefore, there is no significant impact.

The UWMPs prepared by MWA and Liberty Utilities have projections out to the year 2065. This Assessment has determined the following answers to the SB 610 Guidelines Section 3 as follows:

- That preparers of the assessment determined that it complies with the requirements of SB610
- The assessment determined that sufficient water was available for the project
- There has been no change to the project that would result in a substantial increase in demand
- There has been no change in the circumstances or conditions which subsequently affect the ability of the water supplier to provide a sufficient supply of water for the project
- no new information might affect the assessment has become available

then no additional assessment is required for this project for which the original assessments have been prepared.

SEWER DEMAND:

The proposed Project's Sewer Demand is consistent with the GPEIR/SSMP, in that, the Project Demand is only 42.51% of the Total GPEIR Project Sewer Demand Pro-Rata Allocation.

Based on the fact that the proposed Project will use only 42.51% of the GPEIR Project Pro-Rata Sewer Demand Allocation at 10.56 AFY, it is consistent with the GPEIR and SSMP Demand for the NAVISP area, there is ***no significant environmental impact and therefore no mitigation measures are warranted.***

Sufficient regional wastewater treatment capacity is available to serve the project now and in the future such that the regional wastewater authority will not require additional capacity to serve the project's projected demand in addition to the provider's existing commitments. ***Therefore, there is no impact environmental impact.***

SOLID WASTE GENERATION

The project will not generate solid waste more than State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and it will comply with federal, state and local management and reduction statutes and regulations related to solid waste.

VII. CEQA GUIDELINES APPENDIX G SECTION XIX. UTILITIES/SERVICE SYSTEMS CONCLUSIONS

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The GPEIR analyzed the necessary improvements for water and sewer required through buildout of the General Plan in accordance with the General Plan Land Use Map. The MWA UWMP and Liberty Utilities WMP and the Town of Apple Valley SSMP have been prepared and planned for the Total Water and Sewer Demands through buildout of the General Plan inclusive of all Special Districts including the NAVISP within which the Project is located. This WSA concluded that the Project Water and Sewer Demand is far less than the Project's Pro-Rata Water and Sewer Demand Allocation of the total GPEIR Water and Sewer Demand at buildout. Therefore, the Project will not require or result in the relocation or construction of new or expanded water, wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. Thus, there is no significant environmental effect, and will have no impact.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The water supplies planned in both the Mojave Water Agency Urban Water Management Plan and the Liberty Utilities Water Management Plan pursuant to SB 610 include the entire GPEIR General Plan Area inclusive of the NAVISP through 2065. This WSA concluded that the Project Water Demand is far less at a worst-case scenario of only 46.70% of the Project's Pro-Rata Water Demand Allocation of the total GPEIR Water Demand at buildout. Both MWA and Liberty Utilities UWMP include normal, dry and multiple dry years. Therefore, the Project will have sufficient water supplies to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. ***Therefore, there is no significant impact.***

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The sewer capacity planned in the Town of Apple Valley Sewer System Master Plan included the entire GPEIR General Plan Area inclusive of the NAVISP. This WSA concluded that the Project Sewer Demand is of only 6.07 AFY resulting in only 42.51% of the Project's Pro-Rata Sewer Demand Allocation of the total GPEIR Sewer Demand at buildout. Therefore, the wastewater treatment provider serving the Project has adequate capacity to serve the project's projected demand in addition to the existing commitments. ***Therefore, there is no significant impact.***

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The project is required to comply with State of California Assembly Bill 341 which has been enacted to reduce greenhouse gas emissions by diverting commercial solid waste from landfills by recycling. It mandates businesses and public entities generating 4-cubic yards or more of trash to establish and maintain recycling services. This WSA has concluded that the project will not generate solid waste more than State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and it will comply with federal, state and local management and reduction statutes and regulations related to solid waste. ***Therefore, there is no impact.***

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The project will not generate solid waste more than State, federal or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and it will comply with federal, state and local management and reduction statutes and regulations related to solid waste.

EXHIBIT 1 CALRECYCLE GENERATION RATES FOR INDUSTRIAL WAREHOUSE USE