Section 8.0
Inventory of Mitigation Measures

8.0 INVENTORY OF MITIGATION MEASURES

TRAFFIC AND CIRCULATION

Traffic Generation – Long-Term Impact (2030)

TRA-1 Future development projects shall contribute towards the cost of necessary study area improvements on a fair share or "pro-rata" basis by paying development impact fees and/or additional fair share contributions towards improvements not included in the adopted fee program.

TRA-2 On-site improvements and improvements within the SPA shall be implemented by future development projects to ensure adequate circulation within the Project itself, and shall include the following:

- Construct a realigned SR-62 along Yucca Trail at its ultimate width as a 6-Lane Divided Highway in conjunction with the proposed Project.
- Reconstruct Main Street to provide a pedestrian-friendly local street per Specific Plan cross-sections and recommendations.
- Signal coordination shall be considered for signalized intersections less than 0.25-mile apart. Additional analysis shall be completed in conjunction with actual construction of traffic signals and related improvements.
- Construct Santa Fe Trail through the SPA at its ultimate section width as a 4-Lane Collector in conjunction with the proposed Project.
- Construct Pioneertown Road/Deer Trail through the SPA at its ultimate section width as a 4-Lane Collector in conjunction with the proposed Project.
- Provide stop sign control for all unsignalized site access driveways.
- Sight distance at the Project area access points should be reviewed with respect to Town of Yucca Valley standards in conjunction with the preparation of precise grading and landscape plans.
- Participate in the phased construction of off-site traffic signals and roadway improvements through payment of established fees or fair share contribution towards improvements not included in the fee program(s).

AIR QUALITY

Short-Term Air Quality Impacts

AQ-1 During clearing, grading, earth-moving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventive measures using the following procedures, as specified by the MDAQMD, including but not limited to MDAQMD Rule 401, *Visible Emissions*, and Rule 403 *Fugitive Dust*:

- On-site vehicle speed shall be limited to 15 miles per hour;
- All on-site construction roads with vehicle traffic shall be watered periodically;
- Streets adjacent to the Project's reach shall be swept as needed to remove silt that may have accumulated from construction activities so as to prevent excessive amounts of dust;
- All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day;
- All clearing, grading, earth-moving, or excavation activities shall cease during periods of high winds (i.e., greater than 35 miles per hour averaged over one hour) so as to prevent excessive amounts of dust;
- All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust;
- The area disturbed by clearing, grading, earth-moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust; and
- These control techniques shall be indicated on project grading plans. Compliance with this measure shall be subject to periodic site inspections by the Town of Yucca Valley.

AQ-2 All trucks hauling excavated or graded material on-site shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4), as amended, regarding the prevention of such material spilling onto public streets.

AQ-3 During construction activities, excessive construction equipment and vehicle exhaust emissions shall be controlled by implementing the following procedures, as specified by the MDAQMD:

- Properly and routinely maintain all construction equipment, as recommended by manufacturer manuals, to control exhaust emissions;

- Shut down equipment when not in use for extended periods of time to reduce emissions associated with idling engines;

- Encourage ride sharing and use of transit transportation for construction employee commuting to the Project sites;

- Use electric equipment for construction whenever possible in lieu of fossil fuel-fired equipment; and

- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing construction activity during the peak-hour of vehicular traffic on adjacent roadways.

AQ-4 Prior to approval of the project plans and specifications, the Public Works Director, or his designee, shall confirm that the construction bid packages include a separate "Diesel Fuel Reduction Plan." This plan shall identify the actions to be taken to reduce diesel fuel emissions during construction activities (inclusive of grading and excavation activities). Reductions in diesel fuel emissions can be achieved by measures including, but not limited to, the following: a) use of alternative energy sources, such as compressed natural gas or liquefied petroleum gas, in mobile equipment and vehicles; b) use of "retrofit technology," including diesel particulate trips, on existing diesel engines and vehicles; and c) other appropriate measures. Prior to the issuance of a grading permit, the Diesel Fuel Reduction Plan shall be filed with the Town of Yucca Valley. The Diesel Fuel Reduction Plan shall include the following provisions:

- All diesel fueled off-road construction equipment shall be California Air Resources Board (CARB) certified or use post-combustion controls that reduce pollutant emissions to the same level as CARB certified equipment. CARB certified off-road engines are engines that are three years old or less and comply with lower emission standards. Post-combustion controls are devices that are installed downstream of the engine on the tailpipe to treat the exhaust. These devices are now widely used on construction equipment and are capable of removing over 90 percent of the PM_{10}, carbon monoxide, and volatile organic compounds from engine exhaust, depending on the specific device, sulfur content of the fuel, and specific engine. The most common and widely used post-combustion control devices are particulate traps (i.e., soot filters), oxidation catalysts, and combinations thereof.

- All diesel fueled on-road construction vehicles shall meet the emission standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used or

older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible.

- The effectiveness of the latest diesel emission controls is highly dependant on the sulfur content of the fuel. Therefore, diesel fuel used by on-road and off-road construction equipment shall be low sulfur (>15 ppm) or other alternative low polluting diesel fuel formulation.

AQ-5 The construction contractor shall adhere to MDAQMD District Rule 1113 (Architectural Coatings) to limit volatile organic compounds from architectural coatings. This rules specifies architectural coatings storage, clean up and labeling requirements.

AQ-6 All building demolition activities shall adhere to MDAQMD District Rule 306 (Demolition and Renovation Project Fees) and Rule 1000 (National Emissions Standards for Hazardous Air Pollutants). Additionally, the demolished material shall be transported off-site expeditiously after demolition of the structure.

Long-Term Operational Impacts

AQ-7 Proposed development within the Old Town Yucca Valley Specific Plan areas shall include, as a part of construction and building management contracts, the following requirements or measures shown to be equally effective:

- Use solar or low-emission water heaters in the residential buildings.
- Provide energy-efficient natural gas heating and cooking equipment.
- Require that residential landscapers providing services at the common areas of a Project site use electric or battery-powered equipment, or other internal combustion equipment that is either certified by the California Air Resources Board or is three years old or less at the time of use, to the extent that such equipment is reasonably available and competitively priced in San Bernardino County (meaning that the equipment can be easily purchased at stores in San Bernardino County and the cost of the equipment is not more than 20 percent greater than the cost of standard equipment).

Conformity With Air Quality Management Plan

No mitigation measures are recommended.

Cumulative Impacts

No mitigation measures are recommended.

HYDROLOGY, DRAINAGE, AND WATER QUALITY

Flood Hazards

No mitigation measures are recommended.

Drainage and Runoff

No mitigation measures are recommended.

Water Quality – Short-Term Impacts

HYD-1 Prior to Grading Permit issuance and as part of the compliance with the NPDES requirements, a Notice of Intent shall be prepared for each future development project and submitted to the California State Water Resources Control Board, providing notification and intent to comply with the State of California General Permit.

HYD-2 A Storm Water Pollution Prevention Plan (SWPPP) shall be completed for the construction activities for each future development project. A copy of the SWPPP shall be available and implemented at the construction sites at all times. The SWPPP shall outline the source control and/or treatment control BMPs to avoid or mitigate runoff pollutants at the construction site to the maximum extent practicable.

Water Quality – Long-Term Impacts

HYD-3 A Water Quality Management Plan shall be prepared for each future development project and shall include Nonstructural/ Source Control and Structural/Treatment Best Management Practices to conform to the Town's Storm Water standards and National Pollution Discharge Elimination System requirements.

Cumulative Impacts

No mitigation measures are recommended.

PUBLIC SERVICES AND UTILITIES

Fire Protection

No mitigation measures are recommended.

Police Protection

PSU-1 The Town of Yucca Valley shall consult with the Sheriff's Department, on a project-by-project basis, regarding the provision of a satellite police department office in the SPA and potential increased demand for law enforcement and traffic services.

Schools

PSU-2 For housing tract developments in concentrated areas, the Town of Yucca Valley shall consult with the Morongo Unified School District, regarding the establishment of a Community Facilities District.

Libraries

PSU-3 The Town of Yucca Valley shall consult with the San Bernardino County Library, on a project-by-project basis, regarding the provision of library facility space.

Roadway Maintenance

No mitigation measures are recommended.

Recreation

No mitigation measures are recommended.

Water

PSU-4 Prior to issuance of Grading Permit, future applicants shall consult the HDWD on a project-by-project basis to identify the existing water distribution facilities (pipelines, fire hydrants, etc.) and the necessary upgrades, pursuant criteria specified in the 2001 Water Master Plan Update.

PSU-5 Prior to issuance of Certificate of Occupancy and in consultation with HDWD on a project-by-project basis, new fire hydrants shall be installed and/or old hydrants replaced/relocated, in locations that cannot be reached by conventional fire department equipment from existing public fire hydrants.

PSU-6 Prior to issuance of Grading Permit and on a project-by-project basis, future applicants shall consult with the HDWD to verify, through computer model simulation, the proposed water system upgrades outlined in Table 3-2, *Proposed Water Infrastructure Improvements*, and illustrated on Exhibit 3-8, *Proposed Water Plan*.

PSU-7 Prior to issuance of Grading Permit and during the design phase of each future project, applicants shall conduct a hydraulic analysis in consultation with the HDWED to verify that current-day fire-flow requirements would be met and that the fire-flow pipe diameters work within the operation of the HDWD transmission system as a whole, pursuant to the fire-flow criteria specified in the 2001 Water Master Plan Update.

PSU-8 Prior to issuance of Grading Permit and on a project-by-project basis, future applicants shall consult with the HDWD to verify the water storage requirements, based on the 2001 Water Master Plan Update.

Wastewater (Sewer)

PSU-9 Prior to Building Permit issuance, new development on vacant parcels, which do not currently have a septic system, shall implement best available technology in the selection and installation of private septic systems, to the satisfaction of the Town of Yucca Valley and the Hi-Desert Water District (HDWD). New development on vacant parcels shall also provide lateral sewer lines to the center-lines of the nearest adjacent roadways. The lateral sewer lines shall be constructed in accordance with Town and District standards and specifications, to the satisfaction of the Town of Yucca Valley.

PSU-10 Prior to Building Permit issuance, new development or redevelopment on parcels with existing septic systems shall provide evidence to the satisfaction of the Town of Yucca Valley and the HDWD, that the existing septic system is operating efficiently and that adequate capacity exists to support new/additional development.

PSU-11 Prior to issuance of Certificate of Occupancy, applicants shall provide the Town of Yucca Valley with evidence that the HDWD has reviewed/approved the informational materials regarding the proper maintenance of septic systems that will be distributed to future tenants/residents. Such informational materials shall include, at a minimum, the following provisions:

- Septic tanks shall be inspected and pumped regularly to remove the solid waste (sludge). At a minimum, septic tanks shall be cleaned every four years.
- Chemicals and other hazardous wastes shall be kept out of the septic systems. Hazardous chemicals shall not be poured down the drain or flushed down the toilet (e.g. pesticides, paint thinner, household chemicals, solvents, or engine oil).
- Toilet bowl cleaners, such as the tablets dropped in tanks, shall be "septic system friendly." To prevent the destruction of the bacteria used in septic tanks, cleaners that include chemicals with "benzene" (e.g. dichlorobenzene) or Formaldehyde shall be avoided.
- Chemicals used to clear clogged drains or leach lines (e.g. destroy roots) or any product that has acid in it, shall also be avoided to prevent the destruction of the bacteria.

Solid Waste

No mitigation measures are recommended.

Other Utilities (Electric, Gas, Telephone)

No mitigation measures are recommended.

Cumulative Impacts

Refer to Mitigation Measures PSU-1 through PSU-11.