1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This environmental impact report (EIR) addresses the environmental effects associated with the implementation of the proposed update to the City of Barstow General Plan Update (proposed General Plan) and Barstow International Gateway (BIG) Project (collectively referred to as "proposed Project" or "Project"). The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An EIR analyzes potential environmental consequences to inform the public and support informed decisions by local and State governmental agency decision makers.

This document is a Draft EIR that has been prepared pursuant to the requirements of CEQA and the City of Barstow's CEQA procedures. The City of Barstow(City), as the Lead Agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City technical personnel from other departments and review of all technical subconsultant reports. Data for this EIR is derived from on-site field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments.

1.2 PROJECT LOCATION

The City of Barstow and its Sphere of Influence (SOI) (collectively the General Plan area) are in western San Bernardino County and are surrounded entirely by unincorporated San Bernardino County. Interstate 15 (I-15) bisects the City in a southwest-northeast direction, while Interstate 40 (I-40) bisects the City in an east-west direction. State Route 247 (SR-247), which runs in a north-south direction, terminates as it intersects I-15. The proposed General Plan area and BIG footprint are depicted in **Figure 3-1: Regional Vicinity Map** in **Section 3.0: Project Description**. The General Plan area is generally within the 1984 Barstow USGS quadrangle map and can be found generally with global positioning satellite (GIS) coordinates of 34° 53' 44.8728" North and 117° 1' 2.2116" West.

1.3 PROJECT SUMMARY

The proposed Project is (a) a comprehensive update to the City of Barstow 2015-2020 General Plan (2015 General Plan) to bring it current with State laws; (b) BIG; and (c) the BIG Specific Plan. The proposed Project also includes planning for the City's overall long-term development. The proposed Project updates all of the City's General Plan elements except for the Housing Element, which was updated in 2024 and is certified by the State Department of Housing and Community Development.

The proposed Project also includes two proposed Local Agency Formation Commission for San Bernardino County (SBLAFCO) Actions that involve annexations, detachments, and reorganizations. Annexation refers to the process where a city boundary is extended to include certain property, or the service boundary for a utility or public service (e.g., police, fire) is extended to include a certain property. For the proposed Project, a single SBLAFCO Action can include multiple requests (bringing a property into City limits could also include removing a property from the County of San Bernardino [County] fire service jurisdiction and bringing the property into the City fire service jurisdiction) which is referred to as a "Reorganization." Although the City is responsible for assigning a zone district in advance of a SBLAFCO application (i.e., "prezoning"), as well as completing the environmental analysis for the SBLAFCO reorganization and associated LAFCO actions (SBLAFCO Actions A and B), SBLAFCO will independently consider whether to approve the requested actions.

While the 2015 General Plan evaluated Barstow's future through 2020, the City determined that a comprehensive update was needed to reflect new State laws, economic conditions, and development interests for the next 25 years.

The proposed General Plan would realign the City's overall land use pattern to reinforce and support the residential and community focus of Central Barstow east of I-15 and SR-58 while concentrating new industrial and job-generating uses to the west. This new pattern encourages greater compatibility of land uses, enhances the efficiency of public services and safety, focuses public improvements and community amenities around existing neighborhoods, and enhances the long-term viability of future businesses.

When considering long-term plans for entire cities, especially those that are anticipated to grow, the primary focus of the EIR is to evaluate the potential environmental impacts of projected growth compared to what is on the ground today (existing conditions). Apart from BIG, the exact location and nature of new development over the next 25 years is not certain therefore, the City developed a forecast of future development to better plan and understand the need for public services and potential impacts—both for the EIR and long-term master plans. Because of the inexact nature of growth forecasts, and the large area being considered (the proposed General Plan area encompasses over 127,000 acres – nearly 200 square miles), much of the analysis for the proposed General Plan is conducted on a citywide scale.

The BIG Specific Plan, however, is incorporated into the EIR at a more detailed, project-level and would include parcel-specific information and analysis as well as mitigation measures unique to BIG. The BIG Specific Plan proposes to create a 4,300-acre modern rail facility that includes 9.0 million square feet of transload warehousing, with fully- and hybrid-electric equipment shifting and reconfiguring train loads based on their destination. Additionally BIG would be a closed integrated rail facility, meaning that goods would move from the rail yard to the transload warehouses via a grade-separated crossing, rather than public streets, thus, most goods would not travel on public roadways. Most of the freight movement would remain on site with goods moving from train to warehouse and back to train using internal roadways.

Through a combination of General Plan policies, universally applied construction standards, and construction permits, most environmental impacts can be reduced to a level that is below the threshold of significance discussed in each chapter of this EIR. The construction of BIG would take about three years and generate dust during grading, and noise during construction—impacts that are common with large projects. Growth and development over the next 25 years would also likely contribute to regional impacts like air quality or greenhouse gas emissions, and local impacts, such as noise and light exposure.

While the City would apply mitigation measures, some potential environmental impacts cannot be reduced to below the desired threshold. When this occurs, the impact is considered "significant and unavoidable" and the City Council would need to weigh the benefits of the project against the environmental impacts, ultimately making a statement of overriding considerations if they wish to move forward. BIG's benefits are summarized in **Section 4.2.2**.

1.3.1 PROPOSED GENERAL PLAN

The General Plan is a state-required legal document that provides guidance to decision-makers regarding the allocation of resources and determining the future physical form and character of development in the City and its SOI. It is the official statement of the City regarding the extent and types of development needed to achieve the community's physical, economic, social, and environmental goals. Although the General Plan is composed of individual chapters that individually address a specific area of concern, the General Plan embodies a comprehensive and integrated planning approach for the jurisdiction.

The proposed General Plan would provide the long-term planning blueprint for the improvements needed to accommodate the City's growing population over a 25-year planning horizon: 2023 to 2048. The Project includes a comprehensive update of the City's General Plan to refine current goals and policies to reflect the City's new vision, opportunities, and obligations; refine and expand circulation and infrastructure plans to align with the City's updated vision and land use plan; and expand opportunities for economic growth, prosperity, and community health.

1.3.1.1 Proposed General Plan

The proposed General Plan includes the following elements that address all the required topics in State law:

- Land Use Element
- Circulation and Mobility Element
- Public Facilities and Services Element
- Safety Element
- Open Space and Conservation Element
- Environmental Justice (policies are incorporated throughout the General Plan elements)

Land Use and Buildout

During the 25-year planning horizon of the proposed General Plan, the proposed General Plan area could potentially result in a growth of 6,326 households, 6,608 dwelling units, 18,531 residents, 15,341,198 square feet of non-residential uses, and 10,819 jobs by 2048, as shown in **Table 3-5: Proposed General Plan – 2048 Projections** in **Section 3.0: Project Description. Figure 3-9: 2015 General Plan Land Use Plan** and **Figure 3-13: Proposed General Plan Land Use Plan** in **Section 3.0: Project Description** shows the existing and proposed land use plan for the General Plan area.

The proposed Project also includes two proposed San Bernardino County Local Agency Formation Commission (SBLAFCO) actions (LAFCO Actions A and B) (annexations, detachments, and reorganizations). Two separate application requests of the two areas within the City's SOI for LAFCO Actions A and B would be submitted to LAFCO; LAFCO Action A includes a portion of the BIG Specific Plan area currently within the SOI.

In order to accommodate the zoning changes to implement the proposed General Plan, the Barstow Code Title 19: Zoning (i.e., the Zoning Ordinance) and the City's Zoning Map would be amended as a future action to include new zoning districts to implement the new Business Park (BP) and High Density Residential (HDR) General Plan land use designations, and would eliminate the Estate Residential (RE) General Plan land use designation.

1.3.2 BARSTOW INTERNATIONAL GATEWAY (BIG)

The BIG Specific Plan consists of a rail yard, a transload warehouse center, and a private utility (i.e., a solar farm). The rail yard would include a block swap yard, an intermodal facility, and ancillary rail areas (container yard, chassis storage, and maintenance of way). To serve the proposed rail yard and transload warehouse center, BIG proposes approximately 660 acres of various off-site rail and non-rail improvements (e.g., lead track extensions, drainage, utilities, and roadways). The total BIG footprint is approximately 5,000 acres. Final acreages will be determined based on site survey. Like other rail yards, BIG would operate 24 hours per day, 365 days per year.

The block swap yard would allow for the transfer of blocks of intermodal rail cars between trains. The intermodal facility would facilitate the transfer of containers between rail cars and the on-site transload warehouse center via zero-emission electric hostlers. This is different than the operations at a typical intermodal facility where the primary purpose is to transfer containers from heavy trucks to rail cars, and vice versa. At the BIG intermodal facility, only a small percentage of containers would arrive at/depart via heavy trucks. The vast majority of containers would arrive at/depart from the intermodal facility via train. The transload warehouse center consists of approximately 9.0 million square feet of transload warehouses that would primarily be dedicated to processing the contents of 20-foot and 40-foot international containers into 53-foot domestic containers for placement from and back onto the rail line. Importantly, the transload warehouse center would primarily serve containers processed at or destined for the BIG intermodal facility. BIG also proposes an approximately 140-acre solar farm, which would function as a private utility and generate a source of clean energy to supplement the Specific Plan's on-site demand. Areas within the Mojave River would remain ungraded. Additionally, to serve the proposed rail yard and transload warehouse center, BIG proposes various off-site improvements, which are outside the Specific Plan area. Additionally, BIG proposes various off-site non-rail improvements that include ancillary and related stormwater drainage, utilities, and circulation/roadway improvements.

BIG and its off-site improvements are discussed in more detail in **Section 3.0: Project Description**.

BIG would enhance supply chain resiliency, efficiency, and cost-effective goods movement by rail and was identified in the 2024 adopted California State Rail Plan to help build toward an integrated statewide rail and transit network and investments in zero emission infrastructure. BIG would shift cargo from heavy-duty trucking to rail transport at a location away from dense population centers, planned with the City as part of the proposed General Plan to site industrial uses on the western edge of the City away from residential uses. BIG would provide economic stimulus and revitalization to the City through higher paying jobs, expansion of local skills training, and improved public services, including fire, police and utility infrastructure.

BIG would create over 20 years: approximately 62,000 direct, indirect and induced construction jobs, including union construction jobs and approximately 15,000 direct, indirect, and induced operation jobs. In addition, the construction economic benefit is approximately $11 billion and operational economic benefit is approximately $7 billion.

BIG also includes several substantial public improvements, including:

- Widening Lenwood Channel by between 60 and 100 feet for more than two miles, substantially reducing existing flooding hazards.
- Replacing the existing Main Street low-water crossing over Lenwood Channel with a new four-lane bridge which would be designed for 100-year flood events.
- Replacing the existing Hinkley Road bridge over the Mojave River with a longer bridge to better match the channel width of the Mojave River at that location, reducing flooding compared to existing conditions.
- Expanding Golden State Water Company infrastructure to the western extent of the City, enabling nearby residents to connect to Golden State Water Company water lines.

Regarding air quality, the EIR demonstrates that:

- BIG would result in hundreds of millions of fewer truck miles as a result of converting freight movements from trucks to trains (see **Section 5.16: Transportation**).
- This substantial reduction in truck trips would in turn result in a net decrease in greenhouse gas emissions (see **Section 5.8: Greenhouse Gas Emissions**).
- BIG would also result in no increase in diesel particulate matter (DPM) in the corridor from the Ports to the BIG site compared to the no project condition, which includes all of SCAQMD and the western portion of the Mojave Desert Air Quality Management District (MDAQMD) (see **Section 5.3: Air Quality**).
- Mass emissions of criteria pollutants in the South Coast Air Quality Management District (SCAQMD) would be below the applicable SCAQMD thresholds (see **Section 5.3**).
- Some localized receptors would have health risk impacts above applicable thresholds despite mitigation measures (see **Section 5.3**).
- At the BIG site, criteria pollutant concentrations would not exceed ambient air quality standards for any pollutant (see **Section 5.3**).

1.4 SUMMARY OF PROJECT ALTERNATIVES

The CEQA Guidelines (§ 15126.6[a]) state that an EIR must address "a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives." The alternatives in this EIR were based, in part, on their potential ability to reduce or eliminate the impacts determined to be significant and unavoidable for implementation of the Project. Project alternatives are assessed in further detail in **Section 8.0: Alternatives.** Additionally, various alternatives to the proposed General Plan and BIG were considered but rejected.

1.4.1 GENERAL PLAN UPDATE

1.4.1.1 No Proposed General Plan/2015 General Plan Alternative

The No Proposed General Plan (No Project) Alternative would continue to implement the 2015 General Plan in addition to the adopted 2021 Safety Element, 2021 Environmental Justice Element, and 2021-2029 6th Cycle Housing Element. Under the No Project Alternative, the City would continue to use the 2015 General Plan Land Use Plan to permit development, as depicted in **Figure 3-9: 2015 General Plan Land Use Plan** and presented in **Table 3-4: Existing Land Use Designations**. As depicted in **Figure 3-9** and presented in **Table 3-4**, most of the City's incorporated area is designated General Industrial (approximately 5,240 acres or approximately 20 percent) and Single Family Residential (approximately 4,733 acres or approximately 18 percent). As shown in **Table 8-4: Buildout Statistical Summary to 2048 – Proposed General Plan** in **Section 8.0***,* this Alternative would have a buildout capacity of approximately 16,868 dwelling units and approximately 17,442,339 square feet of non-residential uses, with a forecast population of approximately 45,603 persons and approximately 19,810 jobs by 2048.

Under the No Project Alternative, none of the proposed General Plan's land use designation or policy changes would occur. Additionally, the 4,300-acre BIG Specific Plan would not be adopted, and the prezoning and annexation of 2,686 acres of unincorporated County land associated with BIG would not be completed. Therefore, under this Alternative, the City's land area would continue to total 26,427 acres, and the increased City limits resulting from the proposed General Plan's annexation (approximately 10 percent) would not occur. **Figure 3-8** and **Figure 3-13: Proposed General Plan Land Use Plan** shows that future development under the 2015 General Plan Alternative would allow new development and redevelopment in the same general areas as the proposed General Plan.

Development under the 2015 General Plan would be different and considerably less than under the proposed General Plan, as presented in **Table 3-4: Existing Land Use Designations**. As shown in **Table 3-5**, the land intended for development within the City under this Alternative would also be less than the proposed General Plan.

The No Project Alternative would keep the approximately 4,733 acres designated Single Family Residential, or approximately 2,888 acres more than under the proposed General Plan. Similarly, under the 2015 General Plan approximately 520 acres are designated Medium Density Residential, or 869 acres less than under the proposed General Plan. As the proposed General Plan would designate more land to higher residential densities, the No Project Alternative would maintain the lower residential densities under the 2015 General Plan. This Alternative would result in less overall growth by 2048 than the proposed General Plan.

- Approximately 15 percent less growth in housing or approximately 2,870 fewer dwelling units;
- Approximately 34 percent less growth in non-residential development or approximately 8,970,451 less square feet;
- Approximately 14 percent less population growth or approximately 7,230 fewer persons; and
- Approximately 22 percent less job growth or approximately 5,426 fewer new jobs.

1.4.1.2 No BIG/Proposed General Plan Reduced Development Alternative

Unlike the No Project Alternative, the No BIG/Proposed General Plan Reduced Development Alternative would update the City's General Plan but would not approve the BIG Specific Plan. In place of BIG, this alternative would assume that the majority of job growth is associated with conventional logistics located near the interchanges of I-15 and Lenwood Avenue and Outlet Center Drive in the west, and SR-40 in the east. Many of the changes included in the proposed General Plan are intended to comply with State laws adopted since adoption of the 2015 General Plan, and to reflect development that has occurred since 2015. This alternative would implement the General Plan policy updates needed to remain compliant with State law but would not include the BIG Specific Plan and the associated General Plan land use designation changes and policies that support BIG.

The following Project features would remain:

- Changes to the Land Use Plan that focus housing east of I-15 to provide desirable separation between logistics uses and sensitive receptors;
- A new Business Park land use designation and zone district to provide additional non-logistics job growth opportunities in the City; and
- A new High Density Residential land use designation and zone district would remain to support housing types and densities discussed in the 2021–2029 Housing Element.

With ongoing long-term demand for logistics and fewer air quality restrictions in the MDAQMD, Barstow is likely to attract traditional truck-based warehousing without BIG. Based on input from property owners and speculative development interest, along with an evaluation of roadway capacity, this alternative assumes up to 10 million square feet of new traditional truck-based warehousing could be developed by 2048, which would generate up to 5,910 jobs and 1,413 new houses (using the same methodology as for the Project).

However, traffic in the area is already impacted by existing development along the I-15 corridor and traditional truck-based warehousing may require substantial improvements to local and State roadways (which may or may not be economically feasible). BIG is unique in that it has the potential to add many jobs without substantially increasing truck traffic on area roadways. With its focus on rail, BIG also capitalizes on the City's historic connection to rail services, without impacting regional transportation.

Additionally, a large number of employees on the BIG site would be unionized labor, with such jobs generally offering higher wages[1] compared to traditional truck-based warehousing jobs. With lower paid jobs in an alternative where nearly all the jobs are truck-based warehousing, more workers are likely to seek lower cost housing options in unincorporated communities outside of Bastow's SOI, leading to a lower percentage of households that live and work in Barstow and a longer average commute distance for the project.

Furthermore, the BIG Specific Plan is proposed by a single entity that has an existing footprint in Barstow and plays a fundamental role in the national supply chain. While the market for warehousing is strong

[1] Jacobs, Ken and Sarah Thomason. The Union Effect in California #1: Wages, Benefits, and Use of Public Safety Net Programs. Center for Labor Research and Education, University of California, Berkeley. May 2018.

throughout southern California and justifies an alternative with 10 million square feet of truck-based warehousing, there are reasons such warehousing may not be built at such scale and/or by 2048. The Victor Valley area to the south, for example, may support truck-based warehousing in advance of Barstow. The Victor Valley area contains thousands of acres of undeveloped land along I-15, SR-395, and the planned High Desert Corridor. Notably, the Southern California Logistics Airport (SCLA) and Desert Gateway Specific Plans[2] are both approved plans in the City of Victorville (with the Desert Gateway also overlapping with unincorporated areas). These two specific plans support the development of hundreds of acres of undeveloped industrial lands[3] that permit future truck-based warehousing in locations that have equal access to major transportation facilities and a larger labor pool compared to Barstow[4].

1.4.2 BARSTOW INTERNATIONAL GATEWAY

1.4.2.1 No BIG/No Annexation Alternative

The No Project Alternative is required to discuss the existing conditions at the time the notice of preparation is published and evaluate what would reasonably be expected to occur in the foreseeable future if BIG is not approved (CEQA Guidelines § 15126.6[e]). Pursuant to CEQA, this Alternative is also based on current plans and consistent with available infrastructure and community services. Therefore, the No BIG/No Annexation Alternative assumes that BIG would not be adopted, and development would occur based on market demand and the existing City and County zoning.

1.4.2.2 Reduced Intensity Alternative

The Reduced Intensity Alternative assumes development similar to BIG. However, under this Alternative, the rail yard and transload warehouse center's development intensity and footprint would be reduced by approximately 50 percent, as compared to BIG. As outlined in **Table 8-13: Reduced Intensity Alternative Compared to BIG**, the transload warehouse center under this alternative would be reduced to approximately 4.5 million square feet within 665 acres (from 9.0 million square feet within 1,330 acres under BIG) and the rail yard would be reduced to 975 acres (from 1,950 acres under BIG). Under this alternative, transload warehouse center development would be concentrated at the western end of the BIG footprint, as shown on **Figure 8-6: Reduced Intensity Alternative**. The area east of Lenwood Channel would not be redesignated to BIG Specific Plan, but would instead retain the existing land use designations, and is assumed to not be developed within the Horizon Year (2048). The solar farm would remain unchanged under this alternative. Additionally, BIG's proposed off-site improvements would remain unchanged under this alternative, except the following, which would be proportionately reduced under this alternative:

- Stormwater improvements, given the reduced impervious surfaces;
- Circulation/roadway improvements such as signalizing intersections, given the proportionate decrease in heavy-duty truck and passenger vehicle trips.

[2] https://www.victorvilleca.gov/government/city-departments/development/planning/land-use-plans

[3] See Table 3.1 and Exhibit 3.1 of the SCLA Specific Plan and Table 4.1 and Page 4-1 of the Desert Gateway Specific Plan, along with land use plans compared to 2025 aerials.

[4] The Victor Valley area, anchored by the cities of Victorville, Hesperia, and Apple Valley, contains over 340,000 residents based on 2024 figures from the California Department of Finance.

Under this alternative, like BIG, grading would need to occur throughout the rail yard area, requiring excess soil to be moved to the transload warehouse center. Based on the conceptual site plan for this alternative, earthwork is estimated to total approximately 22 million cubic yards (MCY), or approximately 15 percent less than BIG's estimated 26 MCY. Therefore, construction activities for the rail yard and transload warehouse center would be proportionately less under this alternative compared to BIG.

Operations under this alternative would involve proportionately fewer heavy-duty truck and vehicle trips, given the decreased intermodal facility and transload warehouse center capacity under this alternative. Utility demand and generation would be proportionately less than BIG, as this alternative would involve proportionately fewer operations and employees. Cross-dock intermodal operations consisting of transloading international container cargo into domestic containers would occur also under this alternative, but would be proportionately less. Therefore, vehicle miles traveled (VMT) under this alternative would be proportionately less than under BIG. Similarly, the reduction in existing regional VMT achieved by BIG would be proportionately less under this alternative. Train volumes and related rail yard equipment (cranes, electric hostlers, etc.) activity would be proportionately less under this alternative given reduced rail yard operations.

1.4.2.3 BIG West Transload Warehouse Center Alternative

Under the BIG West Transload Warehouse Center Alternative, a rail yard with block swap yard, intermodal facility, and ancillary rail areas (container yard/chassis storage and maintenance of way laydown) and a transload warehouse center would be developed as would under BIG, except no transload warehouse center buildings would be constructed east of the Lenwood Channel. As shown in **Figure 8-7: West Transload Warehouse Center Alternative**, this alternative would locate the transload warehouse center entirely west of the Lenwood Channel, resulting in a total transload warehouse center footprint of approximately 690 acres, or approximately 48 percent fewer acres than the approximately 1,330 acres proposed under BIG, inclusive of roadways and the Lenwood Channel. As a result, the transload warehouse center floor area under this alternative would total 7.3 million square feet, or approximately 19 percent less than the 9.0 million square feet proposed under BIG. BIG's proposed off-site improvements would remain unchanged under this alternative.

Under this alternative, the BIG Specific Plan would be implemented similar to BIG, but its boundaries would differ. The approximately 640 acres east of Lenwood Channel (i.e., "Industrial Park area) would be designated General Industrial (GI) pursuant to the proposed General Plan and pre-zoned Industrial. Therefore, under this alternative, the Industrial Park area would be excluded from the BIG Specific Plan. The General Industrial land use designation is intended for varieties of activities ranging from manufacturing, warehousing and distribution to industrial plants. Under this alternative, BNSF would not develop the Industrial Park area although it could be developed by others in accordance with the City's proposed General Plan General Industrial land use designation and Industrial pre-zoning.

Table 8-15: Development Assumptions Under Transload Warehouse Center Alternative shows the maximum and assumed development capacities for the Industrial Park area based on the City's proposed Industrial pre-zoning and allowable floor area ratios (FAR). The maximum development capacity for the Industrial Park area totals approximately 14 million square feet of industrial park uses.

Although the development presented in the table is allowed, it is highly unlikely that this area would be developed to this maximum capacity within the Horizon Year (2048) based on the Market Analysis that was conducted. The Market Analysis considered the market area's historic growth patterns and the BIG Specific Plan area's existing conditions, as well as the following factors:

- Review of historic records (see **Appendix 5.9 BIG-1** for historical land uses and development patterns) indicates much of this land has never been developed, indicating little to no market interest in its development.
- Review of existing and proposed zoning for parcels within the BIG footprint.
- Consideration of potential development constraints (utilities, roadway access and street improvements)

The Market Analysis found that this alternative would result in 550,000 to 900,000 square feet of industrial uses being built by 2048. Therefore, this alternative conservatively assumes development of approximately two percent of the maximum development capacity specified in **Table 8-15**, or approximately 550,000 square feet of industrial park uses. Overall, this alternative assumes development of approximately 8 million square feet of industrial uses, including approximately 550,000 square feet of industrial park uses, approximately 150,000-square-foot rail yard buildings and structures, and approximately 7.3 million square feet of transload warehouse center floor area.

Table 8-16: West Transload Warehouse Center Alternative Compared to BIG compares development under the West Industrial Alternative to development under BIG. Comparatively, this alternative involves approximately 11 percent less total industrial square footage than BIG, including approximately 19 percent less transload warehouse center floor area.

Under this alternative, construction would be approximately the same duration as under BIG but would result in approximately 3 million cubic yards less earthwork. Earthwork was estimated to total approximately 23 MCY, or approximately 12 percent less than BIG's estimated 26 MCY. Construction activities would be proportionately greater under this alternative compared to BIG, given the rail yard and off-site improvements would remain unchanged, though 1.1 million square feet more warehouse space would be constructed. The phasing and construction schedule is assumed to be the same given the rail yard and off-site improvements would remain unchanged.

Electric hostlers would need to travel farther under this alternative, given the transload warehouse center would be concentrated farther to the west, away from the proposed overpass from the rail yard to the transload warehouse center, see **Figure 8-7: West Transload Warehouse Center Alternative**. During operations, because transload warehouse center development would be farther from the proposed overpass from the rail yard to the transload warehouse center, electric hostlers would need to dray containers farther under this alternative, resulting in additional travel time and electric hostlers. Concentrating transload warehouse center development to the west would site the transload warehouse center further from sensitive receptors along Lenwood Road, but would allow traditional, truck intensive industrial uses within this area. Under this alternative, given reduced transload warehouse center square footage, BIG's intermodal facility operations would be proportionately less.

1.5 ENVIRONMENTAL PROCEDURES

This EIR has been prepared to assess the environmental effects associated with implementation of the Project, as well as anticipated future discretionary actions and approvals. There are six main objectives for an EIR:

1. Disclose to decision makers and the public the significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation in the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by a Lead Agency to consider the merits and impacts of a project that is subject to its discretionary authority. Before approving a project subject to CEQA, the Lead Agency must consider the information in the EIR; determine whether the EIR was prepared in accordance with CEQA; determine that it reflects the independent judgement of the Lead Agency; adopt findings concerning the project's significant environmental impacts and alternatives; and adopt a statement of overriding considerations if significant impacts cannot be avoided.

1.6 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the Project, the major issues to be resolved include decisions by the Lead Agency as to:

1. Whether this EIR adequately describes the environmental impacts of the project.
2. Whether the benefits of the project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the project besides the mitigation measures identified in the EIR.
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

1.7 AREAS OF CONTROVERSY

In accordance with Section 15123(b)(2) of the CEQA Guidelines, the EIR summary must identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. **Table 2-1: NOP Comment Letters and Scoping Meeting Summary** in **Section 2.0: Introduction and Purpose**, includes comments from the public and public agencies regarding the proposed Project. Concerns raised regarding the proposed Project include increase in noise, traffic, air quality, vibration, biological and cultural resources. These issues have been addressed throughout this EIR. In most instances the impacts of the proposed Project can be reduced to less than significant, however there are several impacts that will remain significant and unavoidable even with the application of feasible mitigation measures.

1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation and **Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG** summarize the conclusions of the environmental analysis contained in this EIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significant after imposition of the mitigation measures is also presented.

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
5.1 AESTHETICS			
Impact 5.1-1: Would the Project have a substantial adverse effect on a scenic vista?	No Impact	No mitigation measures are required.	No Impact
Impact 5.1-2: Would the Project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.1-3: Would the Project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Potentially Significant	**MM BIG AES-1: Construction Lighting and Screening Plan.** Prior to any BIG Specific Plan area site clearance or grading activity, the implementing entity shall prepare a Construction Lighting and Screening Plan (CLSP), which shall be submitted to the City of Barstow Planning Department for review and approval. The City shall review the CLSP to verify that it identifies for the construction phase, lighting practices and systems (e.g., shielded and directional lighting oriented toward work areas and to avoid light trespass onto residential or other sensitive receptor properties) that minimize light pollution, glare, and light trespass, while maintaining nighttime safety, visibility, utility, and productivity pursuant to the following: ▪ Barstow Code § 19.06.010(e) - Light Trespass and Control of Glare concerning trespass of light onto adjacent properties/light-sensitive uses. (e.g., maximum brightness values not to be exceeded by artificial bulbs, screening around BIG footprint to limit light and glare, use of non-reflective glass, etc.), and prohibiting aiming, directing, and focusing to cause direct light from the luminaire to be directed toward residential buildings on adjacent or nearby land, or to create glare perceptible to persons operating motor vehicles on public ways. Use of the minimum lighting levels approved by the Occupational Safety and Health Administration (OSHA) pursuant to 29 CFR 1926.56 for general construction (i.e., 5 foot-candles or 54 lux).	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		▪ Use remote monitoring systems or other methods to ensure security of the construction site outside of construction hours. The CLSP shall also include specifications requiring that temporary construction fencing be installed along the BIG Specific Plan construction areas where adjacent to residences to screen views of construction activity and promote safety. Construction fencing shall be up to the height permitted by Barstow Code Section 19.18.060 (i.e., 8.0 feet), and include a privacy screen to provide as a safeguard from the surrounding environment, prevent trespassers from entering.	
Impact 5.1-4: Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	Potentially Significant	No feasible mitigation measures.	Significant and Unavoidable
5.2 AGRICULTURE AND FORESTRY RESOURCES			
Impact 5.2-1: Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Potentially Significant	**MM GP AG-1:** Prior approval of any development permit on land considered Prime Farmland, Farmland of Statewide Importance, and Unique Farmlands, the City shall require the following: 1. Future development shall first seek to avoid developing on land classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. 2. Completion of the California Department of Conservation Land Evaluation & Site Assessment Model. If the model score is 39 points or less, conversion of the land is not significant, and no further mitigation is required. If the model score is between 40 and 79 points, conversion of the land to urban uses may be significant but will depend on the results of the model. A LESA model score of 80 or greater identifies the conversion as significant. 3. If the LESA model results determine that conversion of the agricultural land to urban uses is a significant impact, the development shall be conditioned to provide either an agricultural easement on existing farmland with a similar or	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		greater LESA model score, or the creation of new agricultural land and easement at a 1:1 ratio.	
Impact 5.2-2: Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?	Potentially Significant Impact	No feasible mitigation measures	Significant and Unavoidable
Impact 5.2-3: Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC § 12220(g)), timberland (as defined by PRC § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?	No Impact	No mitigation measures are required.	No Impact
Impact 5.2-4: Would the Project result in the loss of forest land or conversion of forest land to non-forest use?	No impact	No mitigation measures are required.	No impact
Impact 5.2-5: Would the Project involve other changes in the existing environment that, due to their location or nature, could result in conversion of [Important] Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Less than Significant	No mitigation measures are required.	Less than Significant
5.3 AIR QUALITY			
Impact 5.3-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant	**MM GP AQ-1: Reduce Emissions from Construction Activities.:** Prior to issuance of any construction permits for development projects subject to CEQA review (i.e., non-exempt projects), development project applicants shall prepare and submit to the City of Barstow (City) Planning Division a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with the Mojave Desert Air Quality	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		Management District methodology and guidelines for projects in the Mojave Desert Air Basin. If construction-related criteria air pollutants are determined to have the potential to exceed the adopted thresholds of significance of the applicable air district, the City Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds, to the extent feasible. These identified measures shall be incorporated into appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City Public Works Division. Mitigation measures to reduce construction-related emissions could include, but are not limited to: a. Use of construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower. A list of construction equipment by type and model year shall be maintained by the construction contractor on-site and available for City review upon request. b. Ensure construction equipment is properly serviced and maintained to the manufacturer's standards. c. Use of alternative-fueled or catalyst-equipped diesel construction equipment, if available and feasible. d. Clearly posted signs that require operators of trucks and construction equipment to minimize idling time (e.g., five minute maximum). e. Preparation and implementation of a fugitive dust control plan that may include the following measures: f. Disturbed areas (including storage piles) that are not being actively utilized for construction purposes shall be effectively stabilized using water or chemical stabilizer/suppressant, or covered with a tarp or other suitable cover (e.g., revegetated).	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		g. On-site unpaved roads and off-site unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant. h. Land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking. i. Material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained when materials are transported off-site. j. Operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) k. Following the addition of materials to or the removal of materials from the surface of outdoor storage piles, said piles shall be effectively stabilized to prevent fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. l. Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday. m. Any site with 150 or more vehicle trips per day shall prevent carryout and track out. n. Limit traffic speeds on unpaved roads to 15 mph. o. Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. p. Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area. **MM GP AQ-2: Reduce Emissions from Operation.** Prior to discretionary approval by the City of Barstow (City) Planning Division for development projects subject to CEQA review (i.e., nonexempt	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		projects), project applicants shall prepare a technical assessment evaluating potential air quality impacts related to the project operation phase and submit it to the City Planning Division for review and approval. The evaluation shall be prepared in conformance with the Mojave Desert Air Quality Management District (MDAQMD) methodology and guidelines for projects in the Mojave Desert Air Basin. If operation-related air pollutants are determined to have the potential to exceed the MDAQMD-adopted thresholds of significance, the City Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions to the extent feasible during operational activities. The identified measures shall be included as part of the conditions of approval. Possible Mitigation measures to reduce long-term emissions can include, but are not limited to: a. For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions. b. Applicants for manufacturing and light industrial uses shall utilize energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use. c. Applicants for non-residential developments with over 50 employees shall provide changing/shower facilities as specified, at minimum, or greater than in the California Green Building Standards (CALGreen) Code (Non-residential Voluntary Measures). d. Applicants for multifamily, hotel, and motel developments shall provide bicycle parking facilities equivalent to or greater than as specified in the Residential Voluntary Measures of the CALGreen Code. e. Applicants for non-residential developments with 50 or more parking spaces shall provide preferential parking spaces for low-	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		emitting, fuel-efficient, and carpool/van vehicles equivalent to or greater than the CALGreen Code (Non-residential Voluntary Measures). f. Applicants for non-residential developments and multi-family residential developments shall provide facilities to support electric charging stations identified in the Non-residential Voluntary Measures and Residential Voluntary Measures of the CALGreen Code, respectively. g. Applicant-provided appliances shall be Energy Star-certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star-certified or equivalent appliances shall be verified by Building & Safety during plan check. h. Applicants for future development projects along existing and planned transit routes shall coordinate with the City of Barstow and the applicable transit agency to ensure that bus pad and shelter improvements are incorporated, as appropriate.	
Impact 5.3-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	Potentially Significant	See **MM GP AQ-1** and **MM GP AQ-2.**	Significant and Unavoidable
Impact 5.3-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant	**MM GP AQ-3: Operational Health Risk Assessment.** Applicants for new discretionary industrial or warehousing projects or commercial land uses that would generate substantial diesel truck travel—i.e., 40 diesel trucks per day per the Mojave Desert Air Quality Management District (MDAQMD) CEQA Guidelines, or 40 or more trucks with diesel-powered transport refrigeration units per day based on the California Air Resources Board recommendations for siting new sensitive land uses—and that are within 1,000 feet of existing or planned sensitive land uses shall prepare a health risk assessment (HRA). Sensitive land uses consist of residences, senior living/assisted living communities,	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		schools, daycare centers, playgrounds, and medical facilities. All HRAs shall be submitted to the City of Barstow Planning Division and the MDAQMD for evaluation. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and MDAQMD for projects in the Mojave Desert Air Basin (MDAB). If the HRA shows that the project incremental cancer risk exceeds ten in one million (10E-06) or the risk thresholds in effect at the time a project is considered, or that the appropriate noncancer hazard index exceeds 1.0 or the thresholds as determined by MDAQMD at the time a project is considered, the applicant will be required to identify and demonstrate that measures are capable of reducing potential cancer and noncancer risks to an acceptable level to the extent feasible, including appropriate enforcement mechanisms. Measures to reduce risk impacts may include but are not limited to: a. Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible. b. Electrifying warehousing docks. c. Requiring use of newer equipment and/or vehicles. d. Restricting off-site truck travel through the creation of truck routes. Measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed project.	
Impact 5.3-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than Significant	No mitigation measures are required.	Less than Significant
5.4 BIOLOGICAL RESOURCES			
Impact 5.4-1: Would the Project have a substantial adverse effect, either directly or through habitat	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			
Impact 5.4-2: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.4-3: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.4-4: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.4-5: Would the Project conflict with any local policies or ordinances protecting biological	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
resources, such as a tree preservation policy or ordinance?			
Impact 5.4-6: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	Less than Significant	No mitigation measures are required.	Less than Significant
5.5 CULTURAL RESOURCES			
Impact 5.5-1: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15067.5?	Potentially Significant	**MM GP CUL-1: Assessment of Historic Built Environment Resources.** Prior to any construction or demolition activities on the site of a federal, state, or local registered landmark or historic resource, a Historical Resources Assessment shall be prepared by an architectural historian or historian who meets the Secretary of the Interior's Professionally Qualified Standards (PQS) in architectural history. This shall include a records search and the qualified architectural historian or their designee shall conduct a reconnaissance-level and/or intensive-level survey of the project site in accordance with the California Office of Historic Preservation (OHP) guidelines to identify and record any previously unrecorded historic structures that may be potentially affected by the proposed project. To minimize the potential for projects requiring the relocation, rehabilitation, or alteration of a historical resource to adversely change the significance of a historical resource, the proposed action on the site of a federal, state, or local registered landmark or historic resource must follow Secretary of the Interior's Standards for the Treatments of Historic Properties. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting Secretary of the Interior's PQS. Prior to any construction or demolition activities that may affect the historical resource, a report identifying and specifying the recommended treatment of the resource, any actions to preserve the resource's character-defining features, and recommended measures for pre-construction and construction phase	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		actions shall be provided to the City of Barstow for review and approval. All final documentation shall be submitted to the City of Barstow and the South Central Coastal Information Center (SCCIC). **MM GP CUL-2: Treatment of Historic Built Environment Resources.** If a proposed project on the site of a federal, state, or local registered landmark or historic resource would result in the demolition or significant alteration of a historical resource, then prior to any demolition or alteration, an architectural historian who meets the PQS, shall conduct additional recordation of the resource. Recordation shall take the form of Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation. The specific scope and details of documentation shall be developed at the project level but shall follow the standards for documentation as outlined in the Department of the Interior's Archaeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines, and the National Park Service Heritage Documentation Program guidelines for HABS/HAER/HALS. Final documentation shall be submitted to the City of Barstow, the Barstow Branch of the San Bernardino County Library, and the South Central Coastal Information Center (SCCIC). **MM GP CUL-3: Assessment of Archaeological Resources**. For projects for which CEQA requires an environmental impact report, mitigated negative declaration, or negative declaration, and that are proposed in areas that have not been previously graded or disturbed by development, or would extend below the area previously disturbed, an Archaeological Resources Assessment shall be prepared, during environmental review and prior to project approval, by an archaeologist who meets the Secretary of the Interior's Professionally Qualified Standards (PQS) in archaeology. The Assessment shall include a records search for the project area to determine if any archaeological resources have been previously recorded, evaluated, and/or listed, or recommended eligible for listing, in the National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), and/or any local registers. Following the records	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		search, the qualified archaeologist or their designee shall conduct a reconnaissance-level and/or intensive-level survey in accordance with the California Office of Historic Preservation (OHP) guidelines to identify and record any previously unrecorded archaeological resources that may be potentially affected by the proposed project. If tribal resources are discovered during the preparation of the Archaeological Resources Assessment, the City shall consult with the tribes on record as required by law. Following recordation, the archaeologist shall evaluate any identified resources for eligibility for listing in the NRHP, CRHR, and any local registers, as well as its potential as a historical resource and/or unique archaeological resource under CEQA. Final documentation shall be submitted to the City of Barstow and the South-Central Coastal Information Center (SCCIC). **MM GP CUL- 4: Treatment of Archaeological Resources.** If archaeological resources that are eligible for listing in the NRHP, CRHR, and/or local register are identified within or adjacent to a proposed development evaluated under GP CUL-3, the City shall consider the feasibility of avoidance, or preservation in place, of the resource. For resources that would be avoided and preserved in place, the site of the archaeological resource, plus a 50 foot buffer around the archaeological resource, shall be clearly flagged to identify the construction avoidance area and assure impacts to these resources are avoided during construction activities. Flagging may be completed using construction tape, caution tape, or installing fencing around the area, and off-limits signs may be placed near the area. Once areas are delineated, and prior to any ground disturbance, a qualified archaeologist shall verify that the flagging clearly delineates the avoidance area and construction limits. Since the location of some archaeological resources is confidential, these resources shall be flagged as environmentally sensitive areas (ESA). The qualified archaeologist or their designee shall be present to monitor any ground disturbing activity for any projects that have eligible archaeological resources. For any archaeological resources that cannot be avoided or	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		preserved in place, the qualified archaeologist shall prepare a data recovery (i.e., excavation) plan that shall be submitted to the City for review and approval. The plan shall include methods for treatment of recovered resources, such as reburial or curation, that are appropriate for the specific project.	
Impact 5.5-2: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15067.5?	Potentially Significant	See **MM GP CUL-3** and **MM GP CUL-4.**	Significant and Unavoidable
Impact 5.5-3: Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?	Potentially Significant	See **MM BIG CUL-8.**	Less than Significant
5.6 ENERGY			
Impact 5.6-1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.6-2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than Significant	No mitigation measures are required.	Less than Significant
5.7 GEOLOGY, SOILS AND MINERAL RESOURCES			
Impact 5.7-1: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			
Impact 5.7-2: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-3: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-4: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-5: Would the Project result in substantial soil erosion or the loss of topsoil?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-6: Would the Project be on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact 5.7-7: Would the Project be on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-8: Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-9: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-10: Would the Project result in the loss of availability of a known mineral resource that would be of economic value to the region and the residents of the state?	Potentially Significant	No feasible mitigation measures.	Significant and Unavoidable
Impact 5.7-11: Would the Project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	Potentially Significant	No feasible mitigation measures.	Significant and Unavoidable
5.8 GREENHOUSE GAS EMISSIONS			
Impact 5.8-1: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant	**MM GP GHG-1: Climate Action Plan.** The City of Barstow shall prepare a Climate Action Plan (CAP) to align GHG emissions targets in the City with the GHG reduction targets of Assembly Bill (AB) 1279. The CAP shall be completed within 36 months of certification of the General Plan EIR. The CAP shall be updated every five years to ensure the City	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		is monitoring the plan's progress toward achieving the City's greenhouse gas (GHG) reduction target and to require amendment if the plan is not achieving specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under AB 1279 for year 2045, and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP. The CAP shall include the following: ▪ GHG inventories of existing and forecast year GHG levels. ▪ Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction and carbon neutrality goal for year 2045 of Assembly Bill 1279. These may include, but are not limited to: ▪ Encouraging electric vehicle adoption through incentive or education programs. ▪ Adopting local ordinances or policies that require greater energy efficiency, waste reduction, and water conservation in new construction, additions, and/or alterations. ▪ Encouraging the construction of solar arrays above parking lots, as well as the integration of solar and other renewable energy generation technologies in new construction, additions, and/or alterations. ▪ Encouraging the incorporation of energy storage and other grid-harmonizing infrastructure in new construction, additions, and/or alterations. ▪ Collaborating with Southern California Edison to encourage existing developments to upgrade natural gas equipment (e.g., furnaces) with electric equipment (e.g., heat pumps). Plan implementation guidance that includes, at minimum, the following components consistent with the proposed CAP: ▪ Administration and Staffing ▪ Finance and Budgeting ▪ Timelines for Measure Implementation ▪ Community Outreach and Education ▪ Monitoring, Reporting, and Adaptive Management	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		▪ Tracking Tools. **MM GP GHG-2:** Implementation of **MM BIG AQ-1** through **MM BIG AQ-14.**	
Impact 5.8-2: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant	See **MM GP AG-1.**	Significant and Unavoidable
5.9 HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE			
Impact 5.9-1: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.9-2: Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.9-3: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.9-4: Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to CGC § 65962.5 and, as a result, would it create a	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
significant hazard to the public or the environment?			
Impact 5.9-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact	No mitigation measures are required.	No Impact
Impact 5.9-6: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than Significant	No mitigation measures are required.	Less than significant
Impact 5.9-7: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.9-8: If located in or near state responsibility areas (SRAs) or lands classified as very high fire severity zones (FHSZs), would the Project substantially impair an adopted emergency response plan or emergency evacuation plan, exacerbate wildlife risks which would expose occupants to pollutant concentrations, require the installation or maintenance of associated infrastructure, or expose people or structures to flooding or	No Impact	No mitigation measures are required.	No Impact

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
landslides as a result of post-fire instability?			
5.10 HYDROLOGY AND WATER QUALITY			
Impact 5.10-1: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-2: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-3: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Result in substantial erosion or siltation on- or off-site?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-4: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Substantially increase the rate or amount of surface run-off in a	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
manner that would result in flooding on- or off-site?			
Impact 5.10-5:Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Create or contribute run-off water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted run-off?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-6: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Impede or redirect flood flows?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-7: Would the Project result in flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-8: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
5.11 LAND USE AND PLANNING			
Impact 5.11-1: Would the Project physically divide an established community?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.11-2: Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted by an agency with jurisdictional authority over the project, for the purpose of avoiding or mitigating an environmental effect?	Less than Significant	No mitigation measures are required.	Less than Significant
5.12 NOISE			
Impact 5.12-1: Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Potentially Significant	**MM GP NOI-1: Construction Noise Measures**. Construction contractors shall implement the following measures for construction activities conducted in the City of Barstow. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans. The City of Barstow shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading, and/or building permits. ▪ Limit construction activities to the hours of 7:00 AM and 7:00 PM Monday through Sunday, unless an exception is approved by the Community Development Director, and enforce FTA nighttime construction noise standards outside of these hours. ▪ During active construction, project equipment and trucks used for project construction shall use the best-available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible. Proper mufflers and/or silencers can achieve a 4 to 5 dBA reduction, while engine enclosers can achieve 8 to 10 dBA reduction.	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		▪ Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where pneumatic tools must be used, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools. Pneumatic tools typically measure at a noise level of 6 to 8 dBA lower than impact tools. ▪ Stationary equipment, such as generators and air compressors, shall be located as far as feasible from nearby noise-sensitive uses. ▪ Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors. ▪ Construction traffic shall be limited, to the extent feasible, to approved haul routes established by the City Community Development Department. ▪ At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City. ▪ During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. ▪ If construction is anticipated for prolonged periods adjacent to sensitive receptors, as required by the Community Development Director, erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier. **MM GP NOI-2: Traffic Noise Measures**. No feasible mitigation measures have been identified that would substantially reduce impacts associated with a substantial increase in traffic noise levels for all roadways showing significant impacts. However, the following measures may be considered for mitigating or avoiding traffic noise impacts. Special Roadway Paving. Notable reductions in tire noise have been achieved via the implementation of special paving materials. For example, the California Department of Transportation (Caltrans) conducted a study of pavement noise along Interstate 80 in Davis and found an average improvement of 6 dBA to 7 dBA compared to conventional asphalt overlay (Caltrans, 2011). Sound Barrier Walls. Review of aerial depictions of the impacted segments show most residences along the study segments have direct access (via driveways) to the associated roadways. Therefore, barrier walls would prevent access to/from individual properties and would be infeasible because to be effective the barrier needs to break the line of sight of the receptor (home) from the noise source (road) which would mean blocking the driveway. Further, these impacted homes are on private property outside of the control of future project developers, so there may be limited admittance onto these properties to construct such walls. Lastly, the costs versus benefits ratio in relation to the number of benefited households may not be feasible and reasonable in all cases. Sound Insulation of Existing Residences and Sensitive Receptors. Exterior-to-interior noise reductions depend on the materials used, the design of the homes, and their conditions. To determine what upgrades would be needed, a noise study would be required for each house to measure exterior-to-interior noise reduction. Sound insulation may require upgraded windows, upgraded doors, and a means of mechanical ventilation to allow for a “windows closed”	

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		condition. There are no funding mechanisms and procedures that would guarantee that the implementation of sound insulation features at each affected home would offset the increase in traffic noise to interior areas and ensure that the State's 45 dBA CNEL standard for multifamily residences would be achieved.	
Impact 5.12-2: Would the Project result in generation of excessive groundborne vibration or noise levels?	Potentially Significant	**MM GP NOI-3: Construction Vibration Analysis.** Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, within 100 feet of nonengineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed the City's or FTA's architectural damage thresholds shown in **Table 5-12.5**. If vibration levels would exceed these thresholds, alternative methods shall be used, such as drilling piles instead of pile driving and static rollers instead of vibratory rollers. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded. **MM GP NOI-4: Operation Vibration Analysis.** Prior to issuance of a building permit for equipment that has the potential to result in significant vibration, a vibration analysis shall be conducted to assess and mitigate potential vibration impacts. This vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest practices, and precedents to show compliance with Strategy 2.B-2 vibration standard of 0.2 in/sec PPV.	Less than Significant
Impact 5.12-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the	No Impact	No mitigation measures are required.	No Impact

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Project expose people residing or working in the project area to excessive noise levels?			
5.13 POPULATION AND HOUSING			
Impact 5.13-1: Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.13-2: Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Less than Significant	No mitigation measures are required.	Less than Significant
5.14 PUBLIC SERVICES AND RECREATION			
Fire Protection And Emergency Services			
Impact 5.14-1: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Police Protection			
Impact 5.14-2: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services?	Less than Significant	No mitigation measures are required.	Less than Significant
School Services			
Impact 5.14-3: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services?	Less than Significant	No mitigation measures are required.	Less than Significant
Library Services			
Impact 5.14-4: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services?			
Parks			
Impact 5.14-5: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks? Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Less than Significant	No mitigation measures are required.	Less than Significant
5.15 TRANSPORTATION			
Impact 5.15-1: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact 5.15-2: Would the Project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	Potentially Significant	No feasible mitigation measures.	Significant and Unavoidable
Impact 5.15-3: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.15-4: Would the Project result in inadequate emergency access?	Less than Significant	No mitigation measures are required.	Less than Significant
5.16 TRIBAL CULTURAL RESOURCES			
Impact 5.16-1: Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	Potentially Significant	See **MM GP CUL-1** and **MM GP CUL-3.**	Significant and Unavoidable
Impact 5.16-2: Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources	Potentially Significant	See **MM GP CUL-1** and **MM GP CUL-3.**	Significant and Unavoidable

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency in its discretion and supported by substantial evidence to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?			
5.17 UTILITIES AND SERVICE SYSTEMS			
Impact 5.17-1: Would the Project require or result in the relocation or construction of new or expanded water, wastewater/wastewater treatment, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Potentially Significant	Mitigation measures provided in **Section 5.1** through **Section 5.17** of this EIR are proposed to minimize environmental impacts associated with providing utilities and service systems to projects consistent with the proposed General Plan.	Significant and Unavoidable
Impact 5.17-2: Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-1: Proposed General Plan: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
development during normal, dry, and multiple dry years?			
Impact 5.17-3: Would the Project 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?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.17-4: Would the Project 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?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.17-5: Would the Project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	Less than Significant	No mitigation measures are required.	Less than Significant

Note that a number of mitigation measures may ultimately fall under the responsibility of the party that constructs or operates transload warehouses, thus, the following list of mitigation measures at times use the term “implementing entity” to refer to the responsible party (either BNSF, it’s contractor, or a transload warehouse developer or their contractor).

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.1 AESTHETICS			
Impact 5.1-1: Would the Project have a substantial adverse effect on a scenic vista?	No Impact	No mitigation measures are required.	No Impact
Impact 5.1-2: Would the Project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.1-3: Would the Project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Potentially Significant	**MM BIG AES-1: Construction Lighting and Screening Plan**. Prior to any BIG Specific Plan area site clearance or grading activity, the implementing entity shall prepare a Construction Lighting and Screening Plan (CLSP), which shall be submitted to the City of Barstow Planning Department for review and approval. The City shall review the CLSP to verify that it identifies for the construction phase, lighting practices and systems (e.g., shielded and directional lighting oriented toward work areas and to avoid light trespass onto residential or other sensitive receptor properties) that minimize light pollution, glare, and light trespass, while maintaining nighttime safety, visibility, utility, and productivity pursuant to the following: Barstow Code § 19.06.010(e) - Light Trespass and Control of Glare concerning trespass of light onto adjacent properties/light-sensitive uses. (e.g., maximum brightness values not to be exceeded by artificial bulbs, screening around BIG footprint to limit light and glare, use of non-reflective glass, etc.), and prohibiting aiming, directing, and focusing to cause direct light from the luminaire to be directed toward residential buildings on adjacent or nearby land, or to create glare perceptible to persons operating motor vehicles on public ways.	Significant and Unavoidable

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		Use of the minimum lighting levels approved by the Occupational Safety and Health Administration (OSHA) pursuant to 29 CFR 1926.56 for general construction (i.e., 5 foot-candles or 54 lux). Use remote monitoring systems or other methods to ensure security of the construction site outside of construction hours. The CLSP shall also include specifications requiring that temporary construction fencing be installed along the BIG Specific Plan construction areas where adjacent to residences to screen views of construction activity and promote safety. Construction fencing shall be up to the height permitted by Barstow Code Section 19.18.060 (i.e., 8.0 feet), and include a privacy screen to provide as a safeguard from the surrounding environment, prevent trespassers from entering.	
Impact 5.1-4: Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	Potentially Significant	See **MM BIG AES-1.**	Significant and Unavoidable
5.2 AGRICULTURE AND FORESTRY RESOURCES			
Impact 5.2-1: Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Less than Significant	No mitigation measures are required.	No Impact
Impact 5.2-2: Would the Project conflict with conflict with existing zoning for agricultural use, or a Williamson Act contract?	Less than Significant	No mitigation measures are required.	No Impact
Impact 5.2-3: Would the Project conflict with existing zoning for, or	No impact	No mitigation measures are required.	No impact

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
cause rezoning of, forest land (as defined in PRC § 12220(g)), timberland (as defined by PRC § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?			
Impact 5.2-4: Would the Project result in the loss of forest land or conversion of forest land to non-forest use?	No impact	No mitigation measures are required.	No impact
Impact 5.2-5: Would the Project involve other changes in the existing environment that, due to their location or nature, could result in conversion of [Important] Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Less than Significant	No mitigation measures are required.	No impact
5.3 AIR QUALITY			
Impact 5.3-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant	See **MM BIG AQ-1** through **MM BIG AQ-14.**	Significant and Unavoidable
Impact 5.3-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	Potentially Significant	**MM BIG AQ-1: Fugitive Dust Emissions**. During construction, the contractor shall employ the following measures to minimize and control fugitive dust emissions. The contractor shall prepare a fugitive dust control plan that complies with Mojave Desert Air Quality Management (MDAQMD) Rule 403, which, at a minimum, shall describe how each measure would be employed, identify the individual responsible for ensuring implementation, and address the following components unless alternative measures are approved by the MDAQMD. ▪ Water unpaved road surface shall be maintained with adequate moisture.	Significant and Unavoidable

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		▪ Limit vehicle travel speed on unpaved roads to 25 miles per hour for loaded haul trucks which may be exceeded if visible fugitive dust is not generated. ▪ Reduce non-essential dust-generating activities when average wind speed exceeds 25 mph. ▪ Stabilize disturbed surface areas, including storage piles, that are not being used for over two weeks, by using water, a chemical stabilizer/suppressant, hydro mulch, or by covering with a tarp or other suitable cover or vegetative ground cover, to control fugitive dust emissions effectively. In areas adjacent to organic farms, the Contractor would use non-chemical means of dust suppression. Use of a water truck during visible dusting episodes is considered sufficient for compliance with this measure. For disturbed surface areas, project-related dust generating activities should be based on the difference between upwind and downwind dust (i.e., the metric should be no more dust than currently exiting the site). ▪ For buildings up to 6 stories in height, wet all exterior surfaces of buildings during demolition. **MM BIG AQ-2: Low VOC Paint (Construction and Operations).** During construction and operations, the implementing entity shall utilize “Super-Compliant” low VOC paints. Super-Compliant low VOC paints shall be no more than 10 grams per liter of VOC. Prior to issuance of building permits, the City of Barstow Building and Safety Department shall confirm that plans include the following specifications: ▪ All architectural coatings will be super-compliant low VOC paints. ▪ Recycle leftover paint. Take any leftover paint to a hazardous waste center; do not mix leftover water-based and oil-based paints. ▪ Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors. ▪ For water-based paints, clean up with water only. Whenever possible, do not rinse the cleanup water down the drain or pour it directly into the ground or the storm drain. Set aside the can	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		of cleanup water and take it to the hazardous waste center (www.cleanup.org). ▪ Use compliant low-VOC cleaning solvents to clean paint application equipment. ▪ Keep all paint- and solvent-laden rags in sealed containers to prevent VOC emissions. ▪ Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable. ▪ Use high-pressure/low volume paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. **MM BIG AQ-3: Reduce Exhaust Emissions from Off-Road Construction Equipment.** Prior to issuance of construction contracts, BNSF or its designee shall incorporate the following off-road construction equipment exhaust emissions requirements into the contract specifications: ▪ All heavy-duty diesel off-road construction equipment used during the construction phase shall meet Tier 4 Final engine requirements, except for specialized equipment, such as Caterpillar 657 Scrapers, Caterpillar 777 Articulated Off-Highway Trucks, track laying machines, ballast regulators, and other specialized rail equipment that are not commercially available as Tier 4. In the event that non-specialized construction equipment cannot meet Tier 4 Final engine certification, the implementing entity must demonstrate through future documentation with written findings that no Tier 4 equipment of that type are reasonably available. ▪ A copy of each unit's certified tier specification and shall be made available to the City in quarterly reports. **MM BIG AQ-4: Renewable Diesel (Construction).** During construction, the implementing entity shall use renewable diesel fuel to minimize and control exhaust emissions from heavy-duty diesel-fueled construction equipment and off-road heavy diesel trucks, except that	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		traditional diesel can be used where renewable diesel is not available from suppliers within 200 miles of the BIG footprint. Renewable diesel shall meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity no greater than 50 percent of diesel with the lowest carbon intensity among petroleum fuels sold in California. The implementing entity shall provide the City with quarterly reports of renewable diesel purchase records and equipment and vehicle fuel consumption. The construction contract shall identify the quantity of traditional diesel purchased and fully document the availability and price of renewable diesel to meet BIG demand. **MM BIG AQ-5: Reduce Exhaust Emissions from On-Road Construction Equipment.** Prior to issuance of construction contracts, the implementing entity shall incorporate the following material-hauling heavy truck fleet mix requirements into the contract specifications: ▪ All on-road trucks used to haul construction materials shall consist of an average fleet mix of equipment model year 2010 or newer, but no less than the average fleet mix for the current calendar year as set forth in the CARB's EMFAC2021 database. ▪ The contractor shall provide documentation to BNSF of efforts to secure such a fleet mix. ▪ The implementing entity shall keep a written record of the fleet mix for on-road construction equipment during BIG construction and provide the City annual reports documenting compliance. **MM BIG AQ-6: Reduce the Potential Impact of Concrete and Asphalt Batch Plants.** Prior to the construction or arrival of a batch plant on site, the implementing entity shall provide the City with documentation demonstrating that batch plants are sited at least 1,000 feet from sensitive receptors, including places such as daycare centers, hospitals, senior care facilities, residences, parks, and other areas where people may congregate. Batch plants shall implement control measures required by MDAQMD as part of the Permit to Construct in order to reduce fugitive dust, such as water sprays,	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		enclosures, hoods, curtains, shrouds, movable and telescoping chutes, central dust collection systems, and other suitable technology, to reduce emissions to be equivalent to the U.S. EPA AP-42 controlled emission factors for batch plants. The implementing entity shall provide a copy of the MDAQMD permit application to the City that each batch plant meets this standard during operation. **MM BIG AQ-7: Sweep Paved Areas.** During operations, paved areas such as parking lots, internal roadways, the container yard, chassis storage area, and cargo handling areas shall be swept at least once every 7 calendar days. **MM BIG AQ-8: Renewable Diesel RTG Cranes.** Rubber Tired Gantry (RTG) cranes shall be powered with renewable diesel. BNSF shall provide the City of Barstow with evidence demonstrating use of renewable diesel for RTG cranes prior to the issuance of certificate of occupancy. **MM BIG AQ-9: Truck Idling Limits and Truck Route Signage.** Prior to the issuance of a tenant occupancy permit, the Planning Division shall confirm that all truck access gates and loading docks within the BIG site shall have posted signage posted that states: ▪ Truck drivers shall turn off engines when not in use. ▪ Truck drivers shall shut down the engine after two minutes of continuous idling operation. Once the vehicle is stopped, the transmission is set to “neutral” or “park”, and the parking brake is engaged. ▪ Telephone numbers of the building facilities manager, the South Coast AQMD, and CARB to report violations. ▪ Signs shall also inform truck drivers about the health effects of diesel particulates, the California Air Resources Board diesel idling regulations, and the importance of being a good neighbor by not parking in residential areas. ▪ Clearly mark truck routes with trailblazer signs, so that trucks will not travel next to or near sensitive land uses (e.g., residences, schools, day care centers, etc.).	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		▪ Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the proposed Project site. ▪ The implementing entity shall designate an officer to monitor trucks on-site for compliance. Signs and drive aisle pavement markings shall clearly identify the on-site circulation pattern to minimize unnecessary on-site vehicular travel. ▪ Additionally, signs shall be provided at every truck exit driveway showing directional information to the off-site truck route. To the extent feasible, the BIG shall direct trucks away from sensitive receptors. All signage installed as part of BIG shall be legible, durable, and weather-proof. This mitigation measure applies only to tenant improvements and not the building shell approvals. **MM BIG AQ-10: Tier 4 Emergency Back-Up Generators.** Prior to the issuance of a tenant occupancy permit, the Planning Division shall confirm that the BIG plans and specifications require all standard emergency generators (i.e., non-cold storage generators) to meet California Air Resources Board Tier 4 Final emissions standards. A copy of each unit's Best Available Control Technology (BACT) documentation (certified tier specification) and CARB or Mojave DesertAQMD operating permit (if applicable) shall be provided to the City. This mitigation measure applies only to tenant improvements and not the building shell approvals. **MM BIG AQ-11: Carl Moyer Truck Efficiency Improvements.** Prior to the issuance of a tenant occupancy permit, the Planning Division shall confirm that tenant lease agreements include specifications that require vendor trucks for the industrial buildings include energy efficiency improvement features through the Carl Moyer Program—including truck modernization, retrofits, and/or aerodynamic kits and low rolling resistance tires— to reduce fuel consumption. This mitigation measure applies only to tenant improvements and not the building shell approvals.	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		MM BIG AQ-12: EPA Smart Way Program. Prior to the issuance of a tenant occupancy permit, the Planning Division shall confirm that tenant lease agreements include specifications that require tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and tenants shall be required to use carriers that are SmartWay carriers. This mitigation measure applies only to tenant improvements and not the building shell approvals. **MM BIG AQ-13: Electric Landscape Equipment.** Prior to the issuance of occupancy permits, the implementing entity shall confirm that agreements for landscaping services include contractual language that all handheld landscaping equipment used on-site shall be 100 percent electrically powered. This mitigation measure applies only to tenant permits and not the building shell approvals. **MM BIG AQ-14: Future EV Charging Infrastructure.** Prior to the issuance of a building permit for transload warehouse facility tenant improvements, the implementing entity shall confirm that the BIG transload facility is designed to include the following: ▪ Prior to issuance of a Building Permit for the Shell Design, the buildings' electrical room shall be sufficiently sized to hold additional panels that may be needed to supply power for the future installation of EV truck charging stations on the site. Conduit should be installed from the electrical room to tractor trailer parking spaces in a logical location(s) on the site determined by the implementing entity during construction document plan check, for the purpose of accommodating the future installation of EV truck charging stations at such time this technology becomes commercially available and the buildings are being served by trucks with electric-powered engines. ▪ The buildings' electrical room shall be sufficiently sized to hold additional panels that may be needed in the future to supply power to trailers with TRUs during the loading/unloading of refrigerated goods, if required by future tenants who utilize cold storage. Conduit should be installed from the electrical room to	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		the loading docks in a location determined by the tenant as the logical location(s) to receive trailers with TRUs.	
Impact 5.3-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant	See **MM BIG AQ-1** through **MM BIG AQ-14**. No additional mitigation is feasible.	Significant and Unavoidable
Impact 5.3-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than Significant	No mitigation measures are required.	Less than Significant
5.4 BIOLOGICAL RESOURCES			
Impact 5.4-1: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant	**MM BIG BIO-1: Worker Environmental Awareness Program and Training.** Prior to construction mobilization, designated biologists shall prepare a Worker Environmental Awareness Program (WEAP), including a training presentation and key fact sheet, to train construction crews to be aware of and recognize sensitive biological resources that may be encountered within, or adjacent to, the BIG footprint as well as measures required to minimize and avoid impacts to such resources. The WEAP training materials shall be submitted to the City for review. Prior to construction mobilization, the designated biologists or biological monitors shall provide the approved WEAP training materials, including but not limited to the key fact sheet, to all construction personnel. The fact sheet shall be provided to construction personnel in other languages, as necessary, to accommodate non-English speaking workers. Additionally, prior to beginning construction work, all construction personnel shall attend the WEAP training presentation. A refresher WEAP training shall be completed annually thereafter during construction. At a minimum, WEAP training materials reviewed during training shall include the following information: ▪ Key provisions of the FESA, CESA, the MBTA, CFGC § 1600, Porter-Cologne Act, and the CWA as they relate to BIG;	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		▪ Potential consequences and penalties for violation or noncompliance with these laws, regulations, and associated permits; ▪ General information, identification, and characteristics of special status wildlife and plant species, jurisdictional waters, and sensitive natural communities present on and adjacent to the BIG footprint as well as the required construction footprint boundaries; ▪ A discussion concerning the threat of common ravens (*Corvus corax*) to desert tortoise and instructions to not feed wildlife or dispose of food waste in a way that could attract and provide food for ravens; ▪ Hazardous substance spill prevention and containment measures; ▪ Contact information for designated biologists and instructions to call in the event of the discovery of a special status species or injured or dead wildlife; and ▪ Relevant mitigation measures and maps showing areas affected by resource-specific measures, as applicable. Upon completion of each WEAP training, each member of the construction personnel shall sign a form stating that they attended the training, understood the information presented, and agree to comply with the WEAP training requirements. The designated biologist or biological monitor shall provide training updates to construction personnel, as needed. **MM BIG BIO-2 Biological Resource Monitoring.** At least 30 days prior to start of construction mobilization activities, the implementing entity shall submit for review and approval by USFWS and CDFW the designated biologists' and Species-Specific biological monitors name(s) and qualifications retained to oversee biological resource monitoring activities during BIG construction. No vegetation removal or mass grading shall begin until the implementing entity has received written confirmation from USFWS and CDFW that the designated biologists have been approved. A request for designated biologist and	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Species-Specific biological monitor approval shall be submitted in writing and shall include adequate information regarding the proposed designated biologist and Species-Specific biological monitor qualifications for a reasonable person to determine qualification status. If USFWS and/or CDFW do not respond within 30 days after a verifiable written request for designated biologist and biological monitor approval is submitted, the designated biologist and/or Species-Specific biological monitor shall be deemed approved. Should a new designated biologist and/or Species-Specific biological monitor be necessary, the implementing entity shall seek approval through the same process as above, with the request being deemed approved after 30 days after the written request. Note that the implementing entity's selection of General biological monitors does not require USFWS and CDFW approvals. Designated biologists shall oversee the timely implementation of all biological mitigation measures as outlined in the Mitigation Monitoring and Reporting Program (MMRP) during construction and the applicable post-construction monitoring period as required by the City and CDFW/USFWS for permit validity. The designated biologists shall also be responsible for guiding and directing the biological monitor's work. The designated biologists shall oversee the preparation of quarterly monitoring reports and the post-construction monitoring report summarizing compliance with BIG-specific mitigation measures submitted to the City. Species-Specific biological monitors shall be responsible for implementation of species-specific mitigation measures for the species for which they have been approved and would report directly to a designated biologist. Qualifications for Species-Specific biological monitors can be found in the species-specific mitigation measures. General biological monitors shall be responsible for conducting WEAP training, facilitating implementation of general mitigation measures, except where specified that a specific individual with specific qualifications (such as designated biologist) must implement the mitigation measures, conducting general compliance monitoring, and	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		reporting on compliance monitoring activities. General biological monitors shall perform daily monitoring during initial vegetation removal and construction activities that result in the breaking of the ground surface. Following initial vegetation removal and construction activities, General biological monitors shall perform regular random checks (not less than once per week but could be required more frequently depending on the presence of special status species) to ensure that mitigation measures are implemented. General biological monitors would report directly to a designated biologist. **MM BIG BIO-3: Work Stoppage**. During BIG construction, the implementing entity shall adhere to the following guidelines: ▪ A designated biologist with appropriate qualifications shall be retained to move special status species or other wildlife of low or limited mobility out of harm's way. Movement of wildlife out of harm's way shall be limited to only those individuals that would otherwise be injured or killed from BIG-related activities and shall be moved only as far as necessary to ensure their safety. ▪ If a biological or aquatics resources issue or concern is observed during monitoring (e.g., a special status wildlife species within an active construction area), the designated biologist or biological monitor shall have the authority to stop work as soon as practicable and shall immediately notify the City and the foreman and/or supervisor for the specific activity/area. The foreman/supervisor shall seek a timely resolution of the biological or aquatics resources issue or concern. ▪ If the issue or concern involves special status species, work shall not resume until the species has left the work area, or until a designated biologist implements the appropriate species-specific measures to avoid take, which may involve coordination with USFWS and/or CDFW. ▪ If construction personnel or biological monitor observe a burrowing owl, desert tortoise, American badger, or desert kit fox individual or active burrow within the BIG footprint or in the	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		vicinity of construction activities, the foreman/supervisor shall contact a designated biologist immediately and all work in the vicinity of the animal/active burrow which could cause disturbance, injury, or mortality, shall cease until a designated biologist or Species-Specific biological monitor provides clearance. ▪ If construction personnel or a biological monitor observe a Mojave fringe-toed lizard within the BIG footprint or in the vicinity of construction activities, the foreman/supervisor shall contact a designated biologist immediately and all work in the vicinity of the lizard which could cause disturbance, injury, or mortality, shall cease until a designated biologist or Species-Specific biological monitor provide clearance. ▪ If adverse impacts on willow flycatcher and/or yellow-billed cuckoo are documented by a Species-Specific biological monitor, all work within 500 feet of occupied habitat, or as deemed necessary by the Species-Specific biological monitor, shall cease until a designated biologist or Species-Specific biological monitor provide clearance. ▪ If a bird nest is discovered by construction personnel, the foreman/supervisor shall contact a designated biologist immediately and all work within 500 feet of the nest shall cease until it can be determined if the nest is active (e.g., eggs, juveniles, and/or adults present) and, if necessary, the biological monitor shall establish an appropriate buffer. ▪ If an injured wildlife species is observed within or adjacent BIG, a designated biologist shall be notified immediately to determine if it is appropriate to release or transport the wildlife species to the nearest CDFW permitted veterinarian or rehabilitation center. The designated biologist shall follow all relevant guidelines for sensitive species. ▪ If entrapped wildlife is discovered within an open excavation, project personnel shall halt work (when safe to do so) and contact a designated biologist. Project personnel shall avoid the	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		area to prevent disturbing the wildlife until a designated biologist or biological monitor provide clearance. ▪ If entrapped wildlife is discovered in any open pipes, culverts, and other similar structures, project personnel shall halt all work (when safe to do so) and contact a designated biologist. Project personnel shall avoid disturbing the wildlife and shall not move the structures until a designated biologist or biological monitor provide clearance. **MM BIG BIO-4: Vehicles and Equipment.** During BIG construction, the implementing entity shall ensure that vehicle traffic within the construction limits is restricted to established roads, construction areas, and other permissible areas. Access routes (ingress and egress to the site) shall be flagged and marked, and measures shall be adopted to prevent off-road vehicle traffic into species habitats beyond the approved project limits. If any vehicle must drive off established routes or cleared construction limits in suitable desert tortoise or burrowing owl habitat, a Species-Specific biological monitor shall walk the vehicle path in search of desert tortoise and/or burrowing owl and confirm the species are absent from the area, prior to use of the path The Species-Specific biological monitor shall visually account for the route or construction site footprint plus a 15-foot buffer on each side. During the construction phase, the implementing entity shall implement the following measures: ▪ Vehicles shall not exceed 25 miles per hour. Nighttime vehicle speeds may be reduced at the discretion of the designated biologist and as described in the Nighttime Construction and Lighting Plan to be prepared per MM-BIO 8. ▪ If special status species are present within or near BIG access routes, speed limits shall be reduced at the discretion of a designated biologist. All personnel shall abide by the reduced speed limit within the designated area. ▪ A biological monitor shall oversee the adherence to on-site speed limits within Mojave fringe-toed lizard occupied habitat	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		during species' active periods; for the purposes of this measure the active period is defined as March through September when temperatures are above 70. The biological monitor shall require additional speed limit signs, temporary speed bumps, or additional WEAP training to ensure compliance with this measure. ▪ All BIG and construction personnel shall stop and/or avoid wildlife that are present on roads (if safe to do so). ▪ BIG personnel shall not intentionally harm or harass wildlife that are present on roads. ▪ If wildlife are blocking vehicle and equipment access and do not move of their own volition within 10 minutes, BIG personnel shall contact a designated biologist. ▪ All wildlife vehicle or equipment strikes shall be reported to a designated biologist. ▪ Prior to moving a parked vehicle or staged equipment, all BIG personnel shall check under the vehicles and equipment for special-status wildlife. If wildlife is discovered under vehicles or equipment, project personnel shall halt work and allow wildlife to move safely away prior to moving vehicles or equipment. BIG personnel shall not harm or harass wildlife seeking refuge under vehicles and equipment. If wildlife do not move of their own volition within 10 minutes, project personnel shall contact a designated biologist. ▪ If a vehicle or construction equipment is parked for more than 10 minutes outside of the desert tortoise exclusion fenced area within suitable desert tortoise habitat, the ground under the vehicle shall be inspected for the presence of desert tortoise before the vehicle or equipment is moved. If a desert tortoise is present, the vehicle or equipment shall not be moved until the desert tortoise moves on its own away from the vehicle or equipment. If, during construction, a desert tortoise does not move within 10 minutes, an agency-approved Species-Specific biological monitor shall move the animal out of harm's way to a	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		safe location no greater than 300 meters (984 feet), according to USFWS protocol. ▪ Drip pans shall be placed under parked (for an hour or more) or staged equipment that is near native habitat or aquatic resources that are to be avoided by BIG. ▪ The implementing entity shall ensure that these measures have been properly communicated to all personnel associated with BIG. **MM BIG BIO-5: Compliance Reporting.** A designated biologist shall report any non-compliance or unauthorized take of special-status species to the appropriate agencies within 48 hours of its occurrence. Monitoring reports that document compliance status with the MMs shall be prepared by designated biologists and submitted quarterly and post construction to the City. All mitigation measures shall be implemented as stated herein except for necessary modifications approved by a qualified biologist. Failure to implement mitigation measures shall be reported in monitoring reports. **MM BIG BIO-6: Weed Control and Landscaping.** Prior to the start of construction mobilization activities, the implementing entity shall prepare and submit to the City for review an Adaptive Weed Control Plan to avoid and minimize the spread of non-native plant species from BIG to adjacent undeveloped lands during construction and operation. BIG landscape plans shall be reviewed by a designated biologist; any invasive plant species, as defined by the California Invasive Plant Council (www.cal-ipc.org), California Native Plant Society (www.cnps.org) or similar, shall be prohibited. Provisions of the Adaptive Weed Control Plan may include the following: a. installation of container plants and/or hydro-seeding areas adjacent to existing, undisturbed native vegetation areas with native plant species that are common within adjacent areas; b. review and screening of proposed plants to identify and avoid potential invasive species; c. weed removal during the initial planting of landscaped areas;	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		d. methods to survey for and treat weeds during BIG construction and operations, particularly in disturbed areas after native vegetation and soils removal where weeds can quickly establish; e. weed controls for heavy equipment that come onto the site, e.g., track outs, all equipment pieces are delivered clean as confirmed via inspection, etc. Any site landscaping shall use water-wise concepts, including drought tolerant vegetation and native vegetation to the greatest extent feasible. To prevent weeds growing as a result of available water (and further ameliorate the water demands of BIG), water efficient and targeted irrigation systems (such as drip irrigation with a smart controller) shall be installed where necessary in lieu of traditional watering methods. Furthermore, the implementing entity shall comply with 49 CFR § 213 which includes prohibitions and requirements regarding vegetation growth within and adjacent to the rail right-of-way. **MM BIG BIO-7: Delineation of Construction Work Limits.** To prevent inadvertent disturbance to areas outside the delineated construction work areas, prior to start of all construction mobilization activities, including equipment staging and maintenance and vegetation removal, the implementing entity shall clearly delineate the construction work limits (e.g., installation of flagging, staking, or other delineation methods approved by a designated biologist), and require construction personnel not to go beyond the delineated areas. All construction work shall be conducted within the delineated construction work limits, which shall be maintained throughout BIG construction. Should temporary visibility construction fencing be installed to delineate the construction work limits, that do not allow for dispersal of wildlife from construction work limits into adjacent undeveloped lands, a biological monitor shall check the perimeter fence at the beginning of each work day. The implementing entity shall consult with approved designated biologists to confirm that marking of construction boundaries are adequate to prevent unauthorized access	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		beyond the limits of work while facilitating wildlife escape from active construction areas. **MM BIG BIO-33: Staging, Stockpiles, Materials and Equipment Storage.** During BIG construction, all construction materials, staging, employee parking, storage, dispensing, fueling, maintenance activities, and spoils shall be located only in areas cleared within the previous 48 hours by a designated biologist or a previously disturbed area. For off-site construction activities, staging areas shall be located within permanent impact areas or previously disturbed areas (e.g., developed areas, areas already disturbed by construction). Efforts shall be made to discourage sensitive wildlife inhabitation of spoils, stockpiles, and materials (i.e. covering with secured tarps, spreading out materials, etc.) in consultation with approved designated biologists. Uncovered/ unmanaged spoils and stockpiles left undisturbed for 48 hours or more shall be inspected before being disturbed as determined necessary by the designated biologist. **MM BIG BIO-37: Desert Native Plant Salvage Plan.** Prior to start of construction mobilization activities, the implementing entity shall prepare a Desert Native Plant Salvage Plan for the removal of any plant species regulated under the CDNPA and County Code § 88.01.060. Adequate mitigation for CDNPA/County-protected plants may include the salvage of plants for translocation to a suitable recipient site if removal cannot be avoided. In the case of translocation, the Desert Native Plant Salvage Plan shall be prepared for review and approval by the City. The plan shall include a description and map showing plants to be salvaged, salvage and transport methods, the proposed recipient site, and disposition of the plant specimens at the recipient site. Recipient sites may include existing conservation areas, botanical preserves, museums and zoological societies, among other conservation organizations that provide adequate habitat and management of desert native plants.	
Impact 5.4-2: Would the Project have a substantial adverse effect on any riparian habitat or other	Potentially Significant	**MM BIG BIO-28: Compensatory Mitigation for Sensitive Natural Communities.** Prior to start of construction mobilization activities, the implementing entity shall prepare a compensatory mitigation plan for	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		permanent impacts of 1,014 acres of dune vegetation communities, including high-quality *Dicoria canescens – Abronia villosa – Panicum urvilleanum* sparsely vegetated alliance (e.g., active desert dunes; 551.5 acres), moderate-quality *Dicoria canescens – Abronia villosa – Panicum urvilleanum* sparsely vegetated alliance – partially stabilized (e.g., partially stabilized desert dunes; 7.1 acres), and low-quality *Dicoria canescens – Abronia villosa – Panicum urvilleanum* sparsely vegetated alliance – disturbed/stabilized (e.g., disturbed/stabilized desert dunes; 450.6 acres) at a minimum 1:1 ratio. Dune habitat shall be mitigated in-kind through the acquisition and preservation of dune habitat. If all or any portion of the acquired Mojave fringe-toed lizard (**MM BIG BIO-24**) or other required compensatory mitigation lands/credits meet the criteria above, it may be used to fulfill that portion of the obligation for CDFW sensitive upland vegetation communities.	
Impact 5.4-3: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant	**MM BIG BIO-29: Jurisdictional Aquatic Resources Permit Requirement.** Prior to impacting jurisdictional aquatic resources, the implementing entity shall obtain a Clean Water Act (CWA) Section 404 Individual Permit from the U.S. Army Corps of Engineers (USACE) for permanent impacts on non-wetland waters of the U.S., a CWA Section 404 water quality certification (or other required permit) from the Regional Water Quality Control Board (RWQCB) for permanent impacts on non-wetland waters of the U.S./State, and a California Fish and Game Commission (CFGC) Section 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) for impacts on vegetated streambed and unvegetated streambed and watercourse jurisdictional by CDFW. The implementing entity shall implement/comply with all permit conditions and mitigation measures required by the resource agencies. Compensatory mitigation to offset impacts on jurisdictional aquatic resources may be implemented through on-site and/or off-site, permittee-responsible mitigation, mitigation bank credit purchase (e.g., purchase of enhancement and/or preservation credits at the Mojave River Watershed Mitigation Bank or other approved mitigation bank), or a	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		combination of these options depending on availability. The proposed mitigation strategy shall prioritize in-kind and in-watershed options per the regulatory agencies' preferences. A minimum compensatory mitigation ratio of 1:1 will be required; final mitigation ratios and credits shall be determined in consultation with USACE, RWQCB, and CDFW based on agency evaluation of current resource functions and values and through each agency's respective permitting process. Should implementing entity-sponsored mitigation be implemented, a Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared and approved by the agencies in accordance with the proposed program permits. The HMMP shall include but is not limited to a conceptual planting plan including planting zones, grading, and irrigation, as applicable; a conceptual plant palette; a long-term maintenance and monitoring plan; annual reporting requirements; and proposed success criteria. Any off-site applicant-sponsored mitigation shall be conserved and managed in perpetuity. **MM BIO-30: Water Quality Best Management Practices.** Prior to construction mobilization activities, the implementing entity shall prepare a Storm Water Pollution Prevention Plan (SWPPP) in conformance with California Construction Stormwater General Permit Order 2022-0057-DWQ requirements to avoid and minimize impacts associated with erosion, runoff, and storm water contaminants. The SWPPP shall include best management practices (biological monitors) to avoid and minimize impacts on downstream jurisdictional aquatic resources including, but not limited to: ▪ Vehicles and equipment should not be operated in ponded or flowing water except as described in permits. ▪ Water containing mud, silt, or other pollutants from grading or other activities should not be allowed to enter jurisdictional waters adjacent to BIG or be placed in locations that may be subjected to high storm flows. ▪ Spoil sites should not be located within 30 feet from the boundaries of downstream jurisdictional waters or in locations	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		that may be subject to high storm flows, where spoils might be washed back into drainages adjacent to BIG. ▪ Raw cement/concrete or washings thereof; asphalt, paint or other coating material; oil or other petroleum products; or any other substances that could be hazardous to vegetation or wildlife resources, resulting from BIG construction, should be prevented from contaminating the soil and/or entering avoided jurisdictional waters downstream of BIG. ▪ No equipment maintenance or fueling should be performed within 100 feet of jurisdictional waters downstream of BIG, where petroleum products or other pollutants from the equipment may enter these areas. ▪ Temporary structures, storage of construction materials, and staging/storage of construction equipment should be located outside jurisdictional waters downstream of BIG. **MM BIO-31: Vegetation Removal.** The implementing entity shall ensure that all cut vegetation is hauled out of any waterways and stored, if necessary, where it cannot be washed by rainfall or runoff into waterways. When maintenance activities are completed, any excess vegetation shall be removed from the BIG footprint.	
Impact 5.4-4: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant	See **MM BIG BIO-1** through **MM BIG BIO-4**, **MM BIG BIO-8**, **MM BIG BIO-18** through **MM BIG BIO-19**, **MM BIG BIO 35**. **MM BIO-32: Wildlife Crossings.** As part of BIG construction, a wildlife crossing shall be constructed at the Unnamed Stream (Milepost 12.5) below the BNSF tracks and Main Street to facilitate wildlife movement between areas of natural habitat on either side of the railway and road. This railway crossing feature shall be placed alongside four smaller culverts constructed to convey water: three 36-inch and one 48-inch diameter culverts. The wildlife crossing shall be an 84-inch diameter culvert designed to facilitate passage beneath the rail right-of-way, which would connect open space east of the railway to the Mojave River, thereby maintaining access to existing linkages (i.e., the Rank 4/5 ACE, California Desert Linkage Network, and CEHC Potential Riparian Connection). Design features for facilitating wildlife culvert	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		usage shall include installing inlet and outlet points. A long term management plan for the wildlife crossing shall be submitted to the City for review prior to start of vegetation removal and/or mass grading. The long-term management plan shall include: ▪ Additional measures to encourage wildlife use include, but are not limited to, maintenance or restoration of native vegetation near, but not obstructing, culvert mouths, and invasive plant removal. ▪ Routine clearing of debris and trash from the culvert shall be completed on a quarterly basis and following large storm events to allow ample space is available for wildlife travel. ▪ Access points to the culvert shall contain rocks or woody refuge sites to attract subterranean wildlife. Habitat quality (i.e., the percentage of invasive versus native plants and level of anthropogenic degradation) within a 200-meter radius surrounding the culvert access points shall be monitored quarterly by a qualified biologist to confirm wildlife corridor functionality. ▪ A mitigation entity responsible for the implementation of the long-term management plan	
Impact 5.4-5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less than Significant Impact	See **MM BIG BIO-1** through **MM BIG BIO-4**, **MM BIG BIO-8**, **MM BIG BIO-9**, **MM BIG BIO-12**, **MM BIG BIO-21**, **MM BIG BIO-22**, and **MM BIG BIO-33**.	Less than Significant
Impact 5.4-6: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	No Impact	No mitigation measures are required.	No Impact

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
5.5 CULTURAL RESOURCES			
Impact 5.5-1: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15067.5?	Potentially Significant	**MM BIG CUL-1: Phase III Data Recovery.** Prior to any ground-disturbing activities, a Phase III Data Recovery Plan for the 19 archaeological sites identified as historical resources and unique archaeological resources shall be planned and implemented. Prior to BIG approval, an archaeologist that meets Secretary of Interior Professional Qualifications in Archaeology and who has at least 10 years of experience in the Mojave Desert for both prehistoric and historic era resources, henceforth identified as the BIG Project Archaeologist, shall prepare a Phase III Data Recovery Plan. Approval of the Plan may be completed after BIG approval, though implementation of the Plan must occur prior to, or concurrent with, installation of fencing for Desert Tortoise that is required as biological resources mitigation. The Plan shall include details related to research design, excavation methodology, and final disposition, and shall be reflective of requirements outlined in BIG CUL mitigation measures. Additionally, the plan shall be reflective of BIG design and proposed ground disturbance, in that if any of the 19 archeological sites or portions of sites that will not be subject to physical impacts should be left in place. The Plan shall be submitted to the Lead Agency, as well as the Cultural Resources Management Department for the Yuhaaviatam of San Manuel Nation and the Tribal Historic Preservation Office for the Morongo Band of Mission Indians, henceforth referred to as the consulting Tribes, for review and comment. Parties shall be provided with a comment period of 20 business days from the date of receipt. Once approved by the City and U.S. Army Corps of Engineers, the plan shall be overseen by the BIG Project Archaeologist, with fieldwork overseen and implemented by archaeological field staff that have demonstrated experience in the Mojave Desert for both prehistoric and historic era resources. The BIG Project Archaeologist and City (or City and U.S. Army Corps of Engineers, as applicable) shall coordinate with consulting Tribes who have elected to place a Native American monitor on-site during data recovery regarding schedule and monitor acquisition. For any consulting Tribe that requires a formal agreement to obtain a Native American monitor, the applicant shall enter into	Significant and Unavoidable

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		said agreement with the respective Tribe. Data recovery shall require a Tribal monitor. Upon completion of the data recovery field efforts, a draft Phase III Rata Recovery Report shall be compiled and submitted to the implementing entity, City, U.S. Army Corps of Engineers, and consulting Tribes for review and comment no later than 120 days after fieldwork completion. Once approved and considered final by the consulting Tribes, City, and U.S. Army Corps of Engineers, a final copy shall be submitted to the aforementioned recipients, as well as the South Central Coastal Information Center (SCCIC). **MM BIG CUL-2: Cultural Resources Monitoring Plan.** Prior to the installation of fencing for Desert Tortoise that is required as biological resources mitigation, as well as any other ground-disturbing activities connected to BIG, a Cultural Resources Monitoring and Management Plan (CRMMP) must be approved by the City and US Army Corps of Engineers that shall be enforced for all ground-disturbing activities that take place within the BIG footprint after BIG approval. The CRMMP shall be prepared by the BIG Project Archaeologist and be reflective of cultural resources mitigation and outlines requirements for conducting Worker Environmental Awareness Program (WEAP) training, archaeological and Native American monitoring, and inadvertent discoveries of archaeological resources. The CRMMP shall include, but is not limited to, roles and responsibilities, summary description of known and potential cultural resources, monitoring procedures, process for inadvertent discovery of cultural resources, process for determining treatment of cultural resources, and process for inadvertent discovery of human remains. The CRMMP shall also include appendices with the approved mitigation measures/conditions of approval, as well as contact information for all relevant parties. The draft CRMMP shall be submitted to the implementing entity, City, US Army Corps of Engineers, and consulting Tribes for review and comment. Parties shall be provided with a comment period of 15 business days from the date of receipt. Once approved by the City and U.S. Army Corps of Engineers, the CRMMP shall be enforced through	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		the duration of all ground-disturbing activities associated with BIG site preparation and construction. **MM BIG CUL-3: Worker's Environmental Awareness Program.** Concurrently with the preparation of the CRMMP, the BIG Project Archaeologist shall prepare a Worker Environmental Awareness Program (WEAP) training for all on-site personnel related to cultural resources for BIG. The draft WEAP training shall be submitted to the implementing entity, City, US Army Corps of Engineers, and consulting Tribes for review and comment. Parties shall be provided with a comment period of 15 business days from the date of receipt. Once approved by the City and US Army Corps of Engineers, the training shall be utilized for all WEAP trainings provided by the BIG Project Archaeologist, or their designee, throughout BIG site preparation and construction. The WEAP shall include an overview of the requirements in the CRMMP, applicable mitigation measures, and information related to cultural resources that may be identified during BIG site preparation and construction, how to identify them, and the process to follow in the case of inadvertent discovery. The consulting Tribes shall be contacted with an invitation to participate in the initial training at least 10 business days prior to the scheduled date. All personnel that access the site during BIG site preparation and construction must undergo this training, to include any personnel that access the BIG footprint after the initial WEAP training is provided but prior to completion of construction. Methods and timing for providing the training may vary throughout BIG construction depending on schedule, though the training itself shall not exceed 1 hour and all participants shall be required to add their name to a sign-in sheet for tracking purposes. **MM BIG CUL-4: Construction Monitoring.** Archaeological monitors shall be present during all ground-disturbing activities. Archaeological monitors shall be designated as either a Crew Chief or Field Technician, with a ratio of no fewer than one Crew Chief for every eight Field Technicians. Crew Chiefs are required to have a bachelor's degree in Anthropology, Archaeology, or a related field and at least 3	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		years of demonstrated experience in Mojave Desert archaeology. Field Technicians are required to have a bachelor's degree in Anthropology, Archaeology, or a related field. All Field Technicians are required to undergo an Archaeological Resources Training prepared by the BIG Project Archaeologist or their designee prior to accessing the BIG footprint. A sufficient number of archaeological monitors shall be present each work day to ensure that simultaneously occurring ground disturbing activities receive thorough levels of monitoring coverage. The monitors would work under the direct supervision of the BIG Project Archaeologist, who shall serve as the Principal Investigator for BIG. In addition, the consulting Tribes shall be contacted with an invitation to provide Native American monitors representing each respective Tribe who shall be present during all ground-disturbing activities. However, ground-disturbing activities shall be permitted to continue on any days that were included in the schedule and for which a Tribal monitor is not provided. "Ground-disturbing activities" mean tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, fence/gate removal and installation, drainage and irrigation removal and installation, and archaeological work. The tribal representative, in coordination with the BIG Project Archaeologist, and review of the CRMMP, may determine that certain ground-disturbing activities are exempt from monitoring. For any consulting Tribe that requires a formal agreement to obtain a Native American monitor, the implementing entity shall enter into said agreement with the respective Tribe. All archaeological and Native American monitors shall have the authority to temporarily divert, redirect, or halt ground-disturbing activities to address potential inadvertent discoveries. **MM BIG CUL-5. Inadvertent Discoveries of Cultural Resources.** In the event that cultural resources are discovered during BIG construction, all earthwork and ground-disturbing activities shall halt within 50 feet of the discovery. The on-site archaeological monitor shall immediately notify the BIG Project Archaeologist, who shall work with both the archaeological monitor to identify if the resource is potentially a	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Historical Resource and/or Unique Archaeological Resource (i.e., significant). All prehistoric resources shall be considered tribal cultural resources. For any resources that are not potentially significant, or within the boundary of previously recorded site that was identified as ineligible/not significant during BIG environmental review, the BIG Project Archaeologist shall prepare a site record or site record update, as appropriate, and the monitors shall collect the resource for later reburial as treatment for its status as a tribal cultural resource. Work shall continue in the area once this is completed. Should a resource be identified within a previously recorded site that is potentially significant and, therefore, potentially increase the eligibility status of the site from ineligible to eligible, the site shall be treated as a potentially significant resource, and steps A through B below shall be followed. Similarly, for any previously unknown and unrecorded resources that are potentially significant, steps A through B below shall be followed. A. An Archaeological Resource Area (ARA) shall be established around the find plus the 50 foot buffer via the placement of a physical barrier/demarcation, such as fencing or caution tape. This material shall be provided by the implementing entity and put in place by construction personnel in the presence of, and at the direction of, the archaeological and Native American monitors. B. The archaeological monitors shall immediately contact the BIG Project Archaeologist, who shall contact the consulting Tribes, City, and U.S. Army Corps of Engineers within 1 business day to provide notification of the find, details related to the nature of the resource, and evaluation recommendations or recommended effort to support evaluations, such as subsurface testing of the resource. Parties must respond within 1 business day with feedback. Should no response be provided by the City and U.S. Army Corps of Engineers within 1 business day, the evaluation recommendations or recommendations for	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		additional effort to support evaluations shall be considered approved. For resources that require additional effort, implementation of the additional work shall occur within 1 business day of approval or non-response. Upon completion of the additional work, the BIG Project Archaeologist shall submit the evaluation recommendations to the parties. Parties must respond within 1 business day with feedback. Should no response be provided by the City and U.S. Army Corps of Engineers within 1 business day, the evaluation recommendation shall be considered approved. For resources that are evaluated as ineligible, the previously noted steps in this mitigation measure related to recordation and collection shall be followed. a. For significant/eligible cultural resources, the BIG Project Archaeologist shall make recommendations to the City and U.S. Army Corps of Engineers and consulting Tribes regarding the measures that shall be implemented to avoid or mitigate impacts to the resource. Parties must respond within 3 business days with feedback. Should no response be provided by the City and U.S. Army Corps of Engineers within 3 business days, the recommendations shall be considered approved. Treatment measures shall be considered in the following order: i. Preservation in place (i.e., avoidance) is the preferred manner of treatment. In this case, the site shall be recorded on a site record and the established ARA shall remain in place until all ground-disturbing activities are completed within that area of the BIG footprint. ii. If preservation in place is determined to be infeasible by the BIG Project Archaeologist based on input from the implementing entity, City, and U.S. Army Corps of Engineers, treatment may include implementation of archaeological data recovery (i.e., excavations) to remove the resource along with subsequent	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		laboratory processing and analysis. Should this be the case, a Data Recovery Plan shall be prepared by the BIG Project Archaeologist and submitted to the City and consulting Tribes for review and approval. Timelines for review and approval may vary depending on the resource, but all Data Recovery Plans for inadvertent discoveries should be approved within 10 business days of discovery. Upon conclusion of Data Recovery, all findings shall be recorded on site records, as well as included in a report drafted by the BIG Project Archaeologist after the completion of BIG and submitted to the City, U.S. Army Corps of Engineers, and consulting Tribes for review and approval. (i) Prehistoric archaeological material shall be reburied in an area that shall not be impacted by future earth-moving activities and reside in a permanent conservation easement or Deed Restriction. Such an area shall be identified by the Lead Agency in consultation with the applicant, BIG Project Archaeologist, and consulting Tribes. Should reburial be infeasible, the material and associated site records/ reports shall be curated at a Tribal-accredited facility or an American Association of Museums (AAM)-accredited facility within the County or adjacent Counties, as agreed by the consulting Tribes. (ii) Historic archaeological material shall be curated at an American Association of Museums (AAM)-accredited facility within the County or adjacent Counties. If no institution accepts the historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. If no one accepts the	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		material, the resource may be destroyed after recordation. **MM BIG CUL-6: Reporting Protocols** Once all ground-disturbing activities are complete and all resources have been appropriately reburied or curated, the BIG Project Archaeologist shall draft a Monitoring Report that includes details related to BIG construction, duration of monitoring, inadvertent discoveries, eligibility evaluations, and final disposition of all inadvertent discoveries. The draft Monitoring Report shall be submitted to the implementing entity, City, U.S. Army Corps of Engineers, and consulting Tribes for review. In addition to the submission of the Phase III Data Recovery Report to the SCCIC, as noted in MM BIG CUL-1, the Monitoring Report, CRMMP, any additional data recovery plans and reports, and all site records shall be submitted to the implementing entity, consulting Tribes, City, U.S. Army Corps of Engineers, and SCCIC once final. **BIG CUL-7: Public Education** Once all ground-disturbing activities are complete and all resources have been appropriately reburied or curated for construction of the railyard, the BIG Project Archaeologist shall work with the consulting Tribes to develop a public education program focused on the history and culture of the Serrano people indigenous to the Barstow area. The program shall include broad information related to the archaeological resources identified within the BIG footprint, as appropriate to preserve the confidentiality of archaeological data and as agreed upon by the consulting Tribes, as well as information that demonstrates the long history and connection the Serrano people have to the area. Additionally, the program shall underline the living Serrano communities and their active stewardship of their ancestral lands, including the Barstow area. BNSF shall be responsible for funding, completing, and disseminating the materials. All materials, to include any text, imagery, and format, shall be subject to final approval by the consulting Tribes. The program shall include: A. An educational booklet (10-15 pages) that shall be provided to local museums, libraries, schools, historical societies, and the consulting Tribes. The product shall be primarily geared toward a	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		younger audience and shall be printed and available online. The educational booklet shall be due within one year of railyard construction being completed. B. Outreach to a local museum, library, or a publicly accessible administrative building/community center to identify a location to develop a museum exhibit or mural. Should a property agree to house such an exhibit, the exhibit shall be completed within 5 years of project completion. C. A plaque acknowledging that the City of Barstow and BIG occupy unceded Maara'yam (Serrano) ancestral territory, to be developed in consultation with the consulting Tribes. This plaque shall be displayed in any location identified by the City of Barstow that agrees to do so, as well as on the home page of the BIG project website, within 1 year of railyard construction completion.	
Impact 5.5-2: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15067.5?	Potentially Significant	See **MM BIG CUL-1** through **MM BIG CUL-7.**	Significant and Unavoidable
Impact 5.5-3: Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?	Potentially Significant	**MM BIG CUL-8: Inadvertent Discoveries of Human Remains.** For discoveries of Native American human remains, PRC § 5097.98 and HSC § 7050.5 shall be followed. If human remains are encountered, all ground-disturbing activities shall halt within 100 feet of the find. A Sensitive Resource Area (SRA) shall be established around the site plus the 100 foot buffer via the placement of a physical barrier/demarcation, such as fencing or caution tape. The human remains, along with any associated grave goods and associated burial and sacred items, shall remain in place until the procedures as outlined in PRC § 5097.98 and HSC § 7050.5 are completed. No photographs of the remains or associated funerary objects shall be taken unless specifically requested by the County Coroner as a part of the legal process.	Less Than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
5.6 ENERGY			
Impact 5.6-1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation?	Potentially Significant	Also see **MM BIG AQ-1** through **AQ-6, MM BIG AQ-8,** and **MM BIG AQ-10** **MM BIG EN-1: On-site Renewable Electricity Generation**. Prior to the issuance of building permits for intermodal facility structures or transload facilities, BIG shall install on-site rooftop solar generation beyond Title 24 compliance, or approximately 17 megawatts direct current (MWdc) for the total 9 million square-foot warehouse building area. Solar panel installation shall be phased proportionally with buildout of the Transload Warehouse Center (i.e., on-site solar generation shall generally be distributed equally among future buildings and the total 17 MWdc may not be required less than 9 million square feet are not ultimately developed). BIG shall ensure solar photovoltaic (PV) panels or other source of renewable energy generation is incorporated into the design based on the maximum solar roof area available. The maximum solar roof area available will be building specific and dependent on the structural considerations of each building and the ability to maximize the solar zone of each building (as defined in Section 110.10 of the California Energy Code). The solar zone (i.e., the location where solar panels can be installed) shall comply with 2022 California Energy Code, § 110.10, and shall comply with access, pathway, ventilation, and spacing requirements and excluding any skylight area. The final PV generation facility size is dependent on the maximum solar roof area available and shall be approved by Southern California Edison (SCE). SCE's Rule 21 governs operating and metering requirements for any facility connected to SCE's distribution system. Should SCE limit the off-site electricity export, BIG may utilize a battery energy storage system (BESS) to lower off-site export while maintaining on-site renewable generation to off-set consumption. Each building shall include an electrical system and other infrastructure sufficiently sized to accommodate the PV arrays. The electrical system and infrastructure shall be clearly labeled with	Less Than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		noticeable and permanent signage. This mitigation measure applies only to tenant or occupancy permits and not the building shell approvals. **MM BIG EN-2: CALGreen Tier 2.** Prior to the issuance of building permit for intermodal facility structures or transload facilities, the City shall provide documentation to the City of Barstow demonstrating that BIG is designed in a manner consistent with 2025, or then current, CALGreen Tier 2 standards in effect at the time of building permit application.	
Impact 5.6-2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Potentially Significant	See **MM BIG AQ-1** through **MM BIG AQ-6**, **MM BIG AQ-8, MM BIG AQ-10, MM BIG EN-1**, and **MM BIG EN-2.**	Less Than Significant
5.7 GEOLOGY, SOILS AND MINERAL RESOURCES			
Impact 5.7-1: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-2: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact 5.7-3: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-4: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-5: Would the Project result in substantial soil erosion or the loss of topsoil?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-6: Would the Project be on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-7: Would the Project be on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.7-8: Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact	No mitigation measures are required.	No Impact

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact 5.7-9: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant	**MM BIG GEO-1:** The implementing entity shall submit a Paleontological Resources Impact Mitigation Program (PRIMP) prepared by a qualified paleontologist to the City of Barstow (City) prior to construction commencing. A qualified paleontologist is defined as an individual with an M.S./M.A. or Ph.D. in paleontology or geology who is familiar with paleontological procedures and techniques, and who is knowledgeable in the geology and paleontology of the area. The PRIMP shall be consistent with the Society of Vertebrate Paleontology 2010 guidelines. The PRIMP shall include, but is not limited to, the requirements for preconstruction meeting attendance and worker environmental awareness training, where monitoring is required within the BIG footprint based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring, discoveries treatment protocols and timelines, paleontological methods including any sediment sampling, reporting, and collections management/curation. **MM BIG GEO-2:** A qualified paleontologist shall attend preconstruction meetings to consult with the grading and excavation contractors concerning planned depths, excavation schedules, paleontological field techniques, and safety issues. In addition, all on-site construction personnel shall receive Worker Education and Awareness Program training prior to the commencement of excavation work. All BIG construction occurring within previously undisturbed fossil bearing formations shall be monitored by a qualified paleontologist or qualified paleontological monitor. Detailed narrative and exhibit outlining areas and depths that require monitoring across the BIG footprint shall be included in the Paleontological Resources Impact Mitigation Program (PRIMP). A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials and works under the direction of a qualified paleontologist. If fossils are discovered, the paleontologist (or paleontological monitor) will recover them. In most cases, this fossil salvage can be completed in a short period of time; however, some fossil specimens, such as a	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		complete large mammal skeleton, may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) will be allowed to temporarily direct, divert, or halt grading in the vicinity to allow recovery of fossil remains in a timely manner, which will be outlined and defined in the PRIMP. Because of the potential for the recovering of small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on site. **MM BIG GEO-3**: Fossil remains collected during the monitoring and salvage portion of the Paleontological Resources Impact Program (PRIMP) shall be cleaned, repaired, sorted, and catalogued. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will be deposited (as a donation) in a scientific institution with permanent paleontological collections located within San Bernardino County (or, if no repository is available, adjacent Counties). A final data recovery report shall be completed by a qualified paleontologist that outlines the results of the paleontological monitoring program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. The report shall be submitted to the implementing entity and City upon completion.	
Impact 5.7-10: Would the Project result in the loss of availability of a known mineral resource that would be of economic value to the region and the residents of the state?	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.7-11: Would the Project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
5.8 GREENHOUSE GAS EMISSIONS			
Impact 5.8-1: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant	See **MM BIG AQ-3** through **MM BIG AQ-5**, **MM BIG AQ-8** through **MM BIG AQ-10**, **MM BIG AQ-13**, **MM BIG AQ-14**, and MM **BIG EN-1** through **MM BIG EN-2.**	Less than Significant
Impact 5.8-2: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant	See **MM BIG AQ-3** through **MM BIG AQ-5**, **MM BIG AQ-8** through **MM BIG AQ-10**, **MM BIG AQ-13**, and **MM BIG AQ-14**. Also refer to **MM BIG EN-1** and **MM BIG EN-2** in **Section 5.6: Energy.**	Less than Significant
5.9 HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE			
Impact 5.9-1: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially Significant	**MM BIG HAZ -1: Limited Soil Management Plan**. Prior to construction commencement, the implementing entity shall retain a qualified environmental consultant to prepare a Limited Soil Management Plan (SMP) for only areas considered as RECs within the BIG footprint. The SMP shall establish procedures for identification and management of impacted and clean soil, segregation, and management of impacted soil in accordance with regulatory requirements, transportation of impacted soil to an off-site disposal facility licensed to accept such soil, and identification and management of construction debris during excavation, grading, and construction activities to be completed within the BIG footprint. The SMP shall be submitted to the City of Barstow Building and Safety Division for review and approval. The SMP shall include the following: ▪ Procedures for identification, handling, reporting, and removal of the known or unknown ASTs/USTs, piping, dispensers, or other storage tank components that may be encountered (see MM BIG HAZ-3). ▪ Health and safety measures for when performing demolition, grading, or other construction activities, which may include but are not limited to, personal protective equipment and periodic work breathing zone monitoring for volatile organic compounds	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		using a handheld organic vapor analyzer in the event impacted soils are encountered during excavation activities. This will be documented through a health and safety plan as it pertains to on-site workers that may come in contact with contaminated soil. ▪ The limited SMP shall be prepared and executed for point source areas based on the Phase I and II ESA reports, which define soil, soil vapor, and groundwater impacts throughout the BIG footprint. The limited SMP shall require the timely testing and sampling of soils so that contaminated soils can be separated from inert soils for proper disposal versus reused on the site. The limited SMP shall specify the testing parameters and sampling frequency as well as transportation and disposal requirements. If groundwater is anticipated to be encountered within collocated areas of the limited SMP, then provisions for groundwater management shall be considered within the limited SMP. ▪ During BIG construction, the implementing entity's contractor shall remove and properly dispose of impacted materials in accordance with the provisions of the limited SMP. If soil is stockpiled prior to disposal, it will be managed in accordance with the SMP and BIG's Storm Water Pollution Prevention Plan, prior to its transfer for treatment and/or disposal.	
Impact 5.9-2: Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Potentially Significant	See **MM BIG AQ-1**, **MM BIG HAZ-1**, **MM BIG HAZ-2**, **MM BIG HAZ-3** and **MM BIG HAZ-4.** **BIG HAZ-2: Water Well Abandonment.** The intent for water well abandonment is to ensure that wells associated with the former residential operations within BIG are properly sealed and abandoned. Well abandonment or reuse treatment will require adherence to State RWQCB and regional Certified Unified Program Agency (CUPA) guidelines for well abandonment if wells are not planned to be used for future development. **BIG HAZ-3: AST or UST Removal**. AST and UST removal is intended to provide specific sampling and removal procedures for AST/USTs known	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		or unknown at the start of construction. Prior to demolition permit issuance, the implementing entity shall demonstrate to the Barstow Department of Building and Safety and San Bernardino County Fire Protection District Hazardous Materials Division (CUPA) that a licensed contractor authorized to remove the above ground/USTs has been retained. The ASTs/USTs shall include the required permitting, soil sampling testing, and reporting the CUPA. If soil contamination exists, then impacted soils shall be removed and handled properly according to the Limited Soil Management Plan (see **MM BIG HAZ-1**). If previously unidentified USTs and/or ASTs are discovered during demolition or any ground disturbing activities, all construction within a 30-feet radius exclusion zone of the unidentified USTs and/or ASTs shall stop work. Implementation of proper permitting, cleaning, sampling, and reporting as described above shall be completed. **BIG HAZ-4: Data Gaps Requiring Further Environmental Site Assessment.** Prior to the issuance of a grading permit, the Applicant shall conduct assessment in accordance with ASTM standards to address potential environmental concerns identified at PEC sites identified within the BIG footprint. Documentation shall include clearance or other forms of approval from responsible regulatory agencies, as warranted, confirming that the site conditions are suitable for the intended use and that any potential risks have been mitigated to a level that is safe for construction and future occupancy.	
Impact 5.9-3: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Potentially Significant	See **MM BIG HAZ-1**, **MM BIG HAZ-2**, and **MM BIG HAZ-3**.	Less than Significant
Impact 5.9-4: Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to CGC § 65962.5	Potentially Significant	See **MM BIG HAZ-2**.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
and, as a result, would it create a significant hazard to the public or the environment?			
Impact 5.9-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact	No mitigation measures are required.	No Impact
Impact 5.9-6: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant	No mitigation measures required.	Less than Significant
Impact 5.9-7: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.9-8: If located in or near state responsibility areas (SRAs) or lands classified as very high fire severity zones (FHSZs), would the Project substantially impair an adopted emergency response plan or emergency evacuation plan, exacerbate wildlife risks which would expose occupants to pollutant concentrations, require the installation or maintenance of associated infrastructure, or expose	No Impact	No mitigation measures are required.	No Impact

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
people or structures to flooding or landslides as a result of post-fire instability?			
5.10 HYDROLOGY AND WATER QUALITY			
Impact 5.10-1: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-2: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-3: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: i) Result in substantial erosion or siltation on- or off-site?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-4: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: i)Substantially increase the rate or amount of surface run-off in a	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
manner that would result in flooding on- or off-site?			
Impact 5.10-5: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Create or contribute run-off water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted run-off?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-6: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: i) Impede or redirect flood flows?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-7: Would the Project result in flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.10-8: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
5.11 LAND USE AND PLANNING			
Impact 5.11-1: Would the Project physically divide an established community?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.11-2: Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted by an agency with jurisdictional authority over the project, for the purpose of avoiding or mitigating an environmental effect?	Less than Significant	No mitigation measures are required.	Less than Significant
5.12 NOISE			
Impact 5.12-1: Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Potentially Significant	**MM BIG NOI-1: Construction Noise Logistics Plan.** Prior to construction, the implementing entity shall demonstrate to the satisfaction of the City of Barstow Director of Public Works or City Engineer that BIG includes a Nighttime Construction Noise Logistics Plan. The Construction Noise Logistics Plan shall identify the specific construction activity areas, list of construction equipment to be used during nighttime construction and include noise reduction measures to minimize nighttime construction noise levels at nearby residences to the extent feasible. Noise reduction measures may include, but are not limited to, the following: ▪ Install a temporary construction site sound barrier near the noise source. ▪ Prohibit unnecessary idling of internal combustion engines. Post signs at gates and other places where vehicles may congregate reminding operators of the State's Airborne Toxic Control Measure (ATCM) limiting idling to no more than 5 minutes. ▪ Utilize "quiet" air compressors and other stationary noise sources where technology exists.	Significant and Unavoidable

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		▪ Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices. ▪ Property owners and occupants located within 300 feet of BIG footprint shall be mailed a notice, at least 15 days prior to commencement of nighttime construction activities, regarding the construction schedule of BIG. A sign, legible at 50 feet shall also be posted at BIG's construction site. All notices and signs shall be reviewed and approved by the Director of Planning, Building and Code Enforcement or Director's designee, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number for the Noise Disturbance Coordinator where residents can inquire about the construction process and register complaints. ▪ Prior to construction, the implementing entity's contractor shall provide evidence that at all times during construction activities and on-site construction staff member will be designated as a Noise Disturbance Coordinator. The Noise Disturbance Coordinator is responsible for responding to complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall determine the cause (e.g., starting too early, bad muffler, etc.), implement reasonable measures to resolve the complaint, and document actions taken. All notices sent to residential units within 300 feet of the construction site and all signs posted at the construction site, shall include the contact name and the telephone number for the Noise Disturbance Coordinator. **MM BIG NOI-2: Noise Barriers.** The implementing entity shall construct three noise barriers as listed below to mitigate BIG's noise impacts:	

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
		▪ A 10-foot-high, approximately 700-foot-long absorptive noise barrier surrounding the BESS equipment in the northeastern portion of the solar farm (BAR-2); ▪ A 10-foot-high, approximately 470-foot-long noise barrier surrounding the substation in the northeastern portion of the solar farm (BAR-3); and ▪ A 14-foot-high, approximately 150-foot-long acoustic noise barrier along the eastern and southern boundary the emergency generators in the northeastern portion of the intermodal facility (BAR-5). To be effective, the barriers shall be constructed with a solid material with no gaps in the face of the wall or at the base. Openings or gaps between sound wall materials or the ground substantially reduce the effectiveness of the noise barrier. All noise control barrier walls shall be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion. The City Building Official shall review and approve all proposed designs prior to the issuance of a building permit. The approximate locations of the noise barriers are provided in **Figure 5.12 17** and **Figure 5.12 18.**	
Impact 5.12-2: Would the Project result in generation of excessive groundborne vibration or noise levels?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.12-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
5.13 POPULATION AND HOUSING			
Impact 5.13-1: Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.13-2: Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Less than Significant	No mitigation measures are required.	Less than Significant
5.14 PUBLIC SERVICES AND RECREATION			
Fire Protection and Emergency Services			
Impact 5.14-1: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?	Less than Significant	No mitigation measures required	Less than Significant
Police Protection			
Impact 5.14-2: Would the Project result in substantial adverse physical impacts associated with the	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
provision of new or physically altered police protection facilities, need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services?			
School Services			
Impact 5.14-3: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services?	Less than Significant	No mitigation measures are required.	Less than Significant
Library Services			
Impact 5.14-4: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
maintain acceptable service ratios, response times or other performance objectives for library services?			
Parks			
Impact 5.14-5: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks? Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Less than Significant	No mitigation measures are required.	Less than Significant
5.15 TRANSPORTATION			
Impact 5.15-1: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.15-2: Would the Project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
Impact 5.15-3: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.15-4: Would the Project result in inadequate emergency access?	Less than Significant	No mitigation measures are required.	Less than Significant
5.16 TRIBAL CULTURAL RESOURCES			
Impact 5.16-1: Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	Potentially Significant	See **MM BIG CUL-1** through **MM BIG CUL-8.**	Significant and Unavoidable
Impact 5.16-2: Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and	Potentially Significant	See **MM BIG CUL-1** through **MM BIG CUL-8.**	Significant and Unavoidable

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency in its discretion and supported by substantial evidence to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?			
5.17 UTILITIES AND SERVICE SYSTEMS			
Impact 5.17-1: Would the Project require or result in the relocation or construction of new or expanded water, wastewater/wastewater treatment, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Potentially Significant Impact	Mitigation measures provided in **Section 5.1** through **Section 5.17** are proposed to minimize environmental impacts associated with BIG development inclusive of utility and service system facilities; see **Section 5.1** through **Section 5.17** of this EIR.	Significant and Unavoidable
Impact 5.17-2: Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.17-3: Would the Project result in a determination by the wastewater treatment provider,	Less than Significant	No mitigation measures are required.	Less than Significant

Table 1-2: Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation – BIG			
Environmental Impact	**Level of Significance Before Mitigation**	**Mitigation Measures**	**Level of Significance After Mitigation**
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?			
Impact 5.17-4: Would the Project 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?	Less than Significant	No mitigation measures are required.	Less than Significant
Impact 5.17-5: Would the Project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	Less than Significant	No mitigation measures are required.	Less than Significant