

3.12 MINERAL RESOURCES

This section evaluates the potential mineral resources impacts associated with the adoption and implementation of the proposed Project. This section describes the regulatory framework and existing conditions; identifies criteria used to determine impact significance; provides an analysis of the potential mineral resources impacts; and identifies the proposed General Plan 2045 goals and policies that would minimize potentially significant impacts.

As detailed in Chapter 3, *Environmental Analysis*, no concerns related to mineral resources impacts of the proposed Project were received during the EIR scoping period.

3.12.1 Regulatory Framework

STATE

Surface Mining and Reclamation Act

The California Department of Conservation, Geological Survey (California Geological Survey) classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board (SMGB), as mandated by the Surface Mining and Reclamation Act (SMARA) of 1975 (Public Resources Code Sections 2710 et seq.). Cities and counties are required to incorporate MRZs delineated by the State into their General Plans (Public Resources Code Section 2762(a)(1)). The MRZs identify whether known or inferred significant mineral resources are present in areas. MRZs are grouped by the State into four categories based on geologic factors, with MRZ-2 lands having the greatest importance. MRZ-2 sites are underlain by demonstrated mineral resources considered important to the region or the State as a whole. The other categories include MRZ-3, areas of undetermined mineral resource significance; MRZ-4, areas of unknown mineral resource potential; and MRZ-1, areas where geologic information indicates no significant mineral deposits are present. The SMGB also divides aggregate resources (MRZ-2) into regions and resource sectors.

REGIONAL

Alameda County East County Area Plan

The East County Area Plan (ECAP) outlines goals, policies, and programs to conserve natural resources for the eastern portion of Alameda County while ensuring adequate development to accommodate the growing population (Alameda County 2000). The ECAP covers the area surrounding Livermore; and the EIR Study Area is within the ECAP. Policy 52 of the ECAP requires the county to preserve open space areas for the protection of public health and safety, provision of recreational opportunities, production of natural resources (e.g., agriculture, wind

MINERAL RESOURCES

power, and mineral extraction), protection of sensitive viewsheds, preservation of biological resources, and the physical separation between neighboring communities.

3.12.2 Existing Conditions

The EIR Study Area is in the South San Francisco Bay Production-Consumption Region and consists of lands that have been assigned MRZ classifications by the California Geological Survey (DOC 1982). As shown on Figure 3.12-1, *Mineral Resource Zones*, most of the central and western portions of the EIR Study Area have been classified as MRZ-2, where the land is underlain by demonstrated mineral resources considered important to the region or the State as a whole. The southern portion of the EIR has been classified as MRZ-3, areas of undetermined mineral resource significance. A small portion of the northeastern and southeastern EIR Study Area have been classified as MRZ-4, areas of unknown mineral resource potential. The rest of the EIR Study Area has been classified as MRZ-1, areas where geologic information indicates no significant mineral deposits are present.

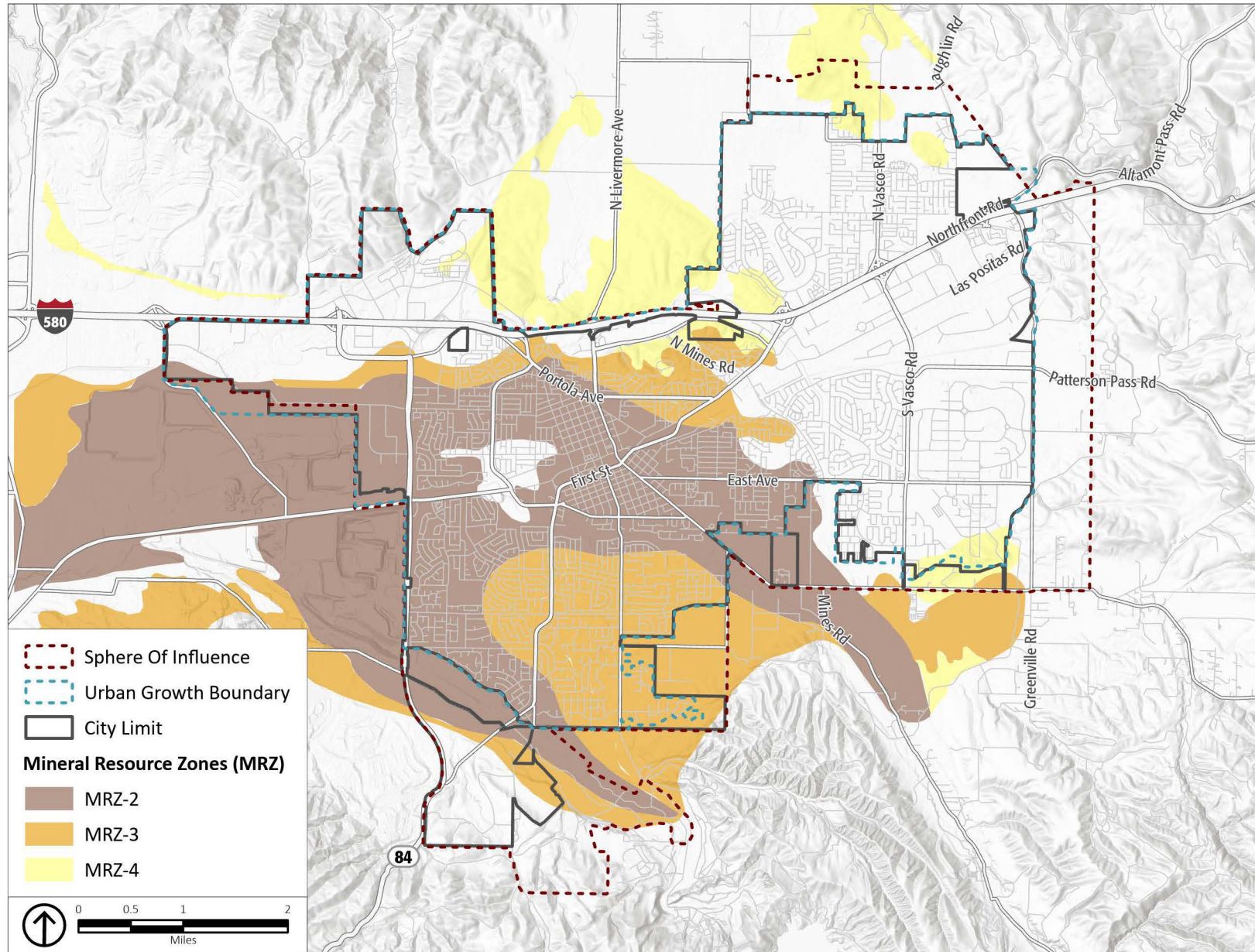
There are also three regionally significant construction aggregate resource areas in the vicinity of the EIR Study Area (DOC 1996). As shown on Figure 3.12-2, *Regionally Significant Construction Aggregate Resource Areas*, Sector A generally shares borders with the western boundary of the EIR Study Area, with portions of Sector A-2 falling within the EIR Study Area. Sector B is within the southern portion of the EIR Study Area, except for Sector B-1, which shares borders with the western boundary of the EIR Study Area. Sector C is south of the southeastern boundary of the EIR Study Area, with only Sector C-1 falling within the boundaries. Sector A consists of aggregate deposits and Sector B and Sector C consist of alluvial deposits. These sectors have been generally classified as MRZ-2. There are no active mines in the EIR Study Area (DOC 2025).

3.12.3 Standards for Analysis

SIGNIFICANCE CRITERIA

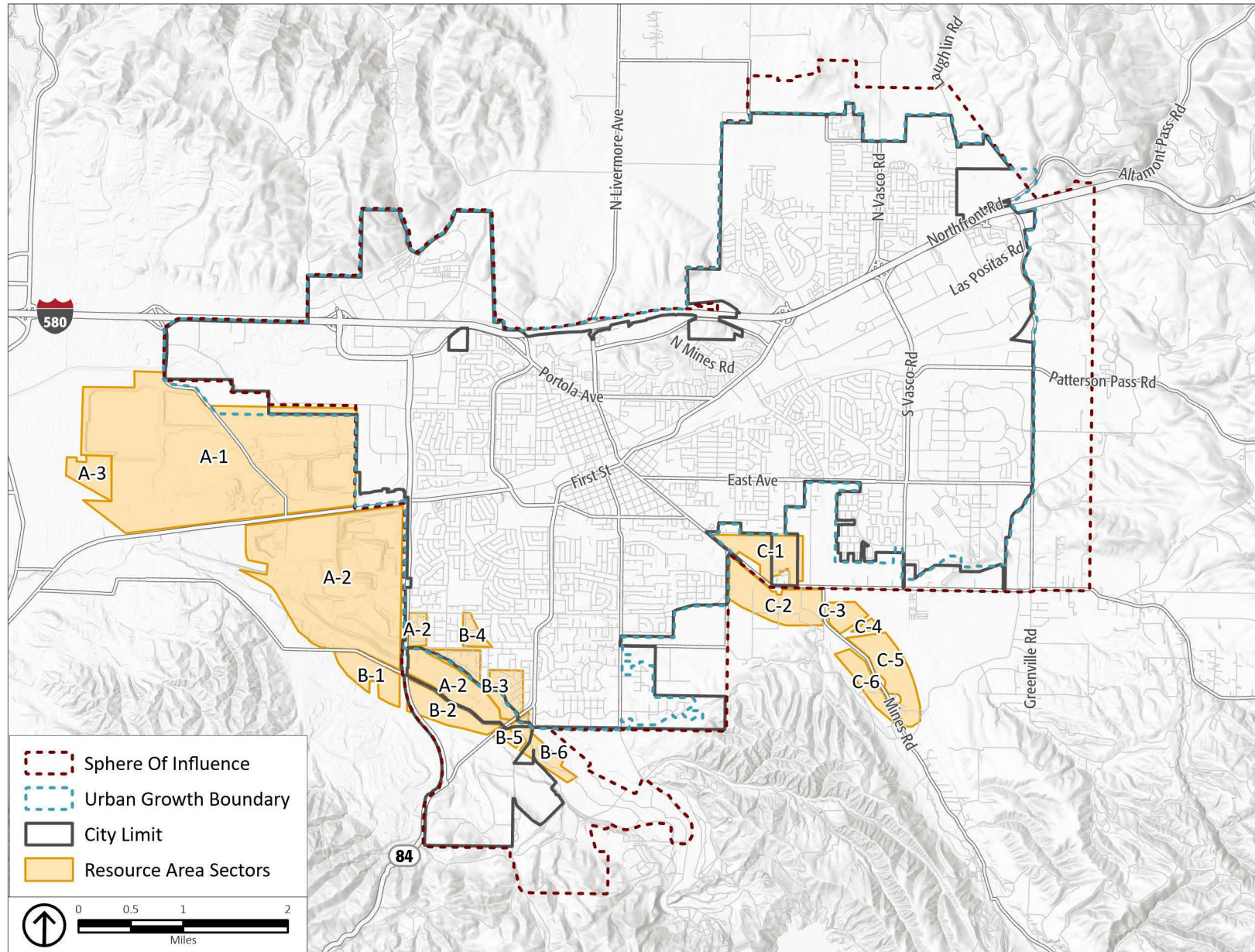
Appendix G, *Environmental Checklist Form*, of the CEQA Guidelines states that the proposed Project would result in a significant impact related to mineral resources if it would:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.
- b) 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.



Source: City of Livermore, 2022; California Department of Conservation, 1986.

Figure 3.12-1
Mineral Resource Zones



Source: City of Livermore, 2022; California Department of Conservation, 1996.

Figure 3.12-2
Regionally Significant Construction Aggregate Resource Areas

3.12.4 Project Impact Analysis

a) **Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?**

Significant and Unavoidable. As shown on Figure 3.12-1, most of the central and western portions of the EIR Study Area, including existing developed neighborhoods and commercial areas, have been classified as MRZ-2, where the land is underlain by demonstrated mineral resources considered important to the region or the State. As shown on Figure 3.12-2, the southern portion of the EIR Study Area contains regionally significant construction aggregate resources where land has been classified as MRZ-2.

SMGB policy states that land uses that require a high public or private investment in structures, land improvements, and landscaping, or that would otherwise prevent mining (e.g., high-density residential development, public facilities, intensive industrial, and commercial uses) are inherently incompatible with the conservation and extraction of mineral resources. Those land uses that require a low public or private investment in structures, land improvements, and landscaping that would allow mining (e.g., extensive industrial, recreation, agricultural, and open space uses) could be compatible. The proposed General Plan 2045 land use map would designate lands classified as MRZ-2 as a mix of compatible and incompatible land uses, as defined by the SMGB policy. In much of the area classified as MRZ-2, the proposed General Plan 2045 land use designations reflect existing built development.

Future development would be required to comply with the SMARA, which aims to protect significant mineral resources from the intrusion of incompatible land uses. Additionally, development on lands classified as MRZ-2 and MRZ-3 would be subject to the provisions of SMARA Section 2762(e), which requires an evaluation of the site to ascertain the significance of the mineral deposit in the area. The results of the evaluation would be submitted to the State Geologist and the SMGB for review.

The Open Space and Conservation (OS) Element of the proposed General Plan 2045 contains the following goal and policy designed to minimize impacts related to the loss of mineral resources:

- **Goal OS-9:** Preserve and use mineral resources in the city and its Planning Area, while ensuring minimal adverse impacts on environmental resources and surrounding uses.
 - **Policy OS-9.1: Mineral Resources Consideration.** Consider potentially available mineral resources on the property or in the vicinity when considering land use proposals.

Proposed Policy OS-9.1 would require the City to consider potentially available mineral resources on a proposed development site; however, the land could still be developed with uses that are incompatible with mineral resource protection. As a result, undeveloped lands

MINERAL RESOURCES

classified as MRZ-2 could be converted to non-mineral uses, and this impact is *potentially significant*.

Impact MIN-1: Implementation of the proposed Project could result in the loss of availability of known mineral resources that would be of value to the region and the residents of the State.

The proposed General Plan 2045 contains a policy that requires the City to preserve mineral resources. Specifically, proposed Policy OS-9.1 requires the City to consider potentially available mineral resources on the property or in the vicinity when considering land use proposals. In addition, the provisions of the SMARA would reduce impacts to aggregate mineral resources to the extent possible by requiring site-specific evaluations to discover the presence of mineral resources. However, the only way to fully avoid the impact to mineral resources from implementation of the proposed Project is to not allow incompatible land uses in areas classified as MRZ-2, thereby eliminating the impact. There are undeveloped areas classified as MRZ-2 that may develop over the horizon of the proposed Project with incompatible uses. The City has a responsibility to meet other conflicting obligations, including increasing the number and types of jobs available in Livermore and reducing the need for residents to commute to high-quality jobs. These measures are critical to reducing single-occupant vehicle travel to and from Livermore and meeting State targets for greenhouse gas reduction. The City needs to continue to allow development within areas classified as MRZ-2 with incompatible uses, as appropriate, to promote future economic development and corresponding residential development, as required by State housing law, within its adopted urban growth boundary. Accordingly, there are no feasible mitigation measures and impacts would remain **significant and unavoidable**.

b) 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. As shown on Figure 3.12-2, the EIR Study Area consists of regionally significant construction aggregate resource areas. The proposed General Plan 2045 Land Use Map retains the Open Space/Sand and Gravel (OSP/S&G) land use designation for most of the lands as designated in the existing General Plan and Resource Area Sector A-2. The lands designated Open Space/Sand and Gravel are defined as areas of statewide concern due to the demonstrated level of quality aggregate. The sand and gravel also have both local and regional significance; resources extracted at these sites are used in local and regional development and municipal construction projects. The primary use allowed in areas designated Open Space/Sand and Gravel is open space while sand and gravel extraction, processing, and related activities are secondary. Some of the Resources Area Sectors and land that was designated Open Space/Sand and Gravel (OSP/S&G) under the existing General Plan would be redesignated for agricultural,

industrial office, and open space and park uses under the proposed General Plan 2045 land use map. As described under impact discussion (a), land uses that require a low public or private investment in structures, such as land improvements, and landscaping that would allow mining (e.g., extensive industrial, recreation, agricultural, and open space uses) could be compatible. The proposed redesignations to agricultural, industrial office, and open space and park uses would be compatible uses that would not result in the loss of availability of a locally important mineral resource recovery site. Therefore, because there would be no permanent obstruction of the mineral resources designated as Open Space/Sand and Gravel (OSP/S&G), as shown on the proposed General Plan 2045 land use map, there would be no loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan impacts are **less than significant**.

3.12.5 Cumulative Impact Analysis

The following discussion considers the proposed Project's potential cumulative contribution to the loss of a known mineral resources that would be of value to the region or loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. For purposes of this cumulative analysis, the geographic scope encompasses the Eastern Alameda County region, including the EIR Study Area and adjacent unincorporated lands where MRZ-2 and regionally significant mineral resource sectors are located.

Would the project have a cumulative effect related to mineral resources?

Significant and unavoidable.

Loss of Availability of a Known Mineral Resource

Existing mineral extraction in Eastern Alameda County is mainly in unincorporated Alameda County to the west of the EIR Study Area and outside of the Pleasanton City Limit. This land is designated as MRZ-2 as shown in Figure 3.12-1 and as regionally significant construction aggregate resources areas, Sector A, as shown in Figure 3.12-2. Future development in the region would be subject to the applicable jurisdiction's mineral resources regulations, including applicable municipal codes, as well as the SMARA Section 2762(e), which requires an evaluation of the site to ascertain the significance of the mineral deposit in the area to be submitted to the State Geologist and the SMGB for review. Because this land is within unincorporated Alameda County and is designated by the Alameda County General Plan as Water Management (WM), Large Parcel Agriculture (LPA), and Industrial (I), it is not anticipated that these existing extraction sites would be redeveloped to noncompatible land uses.

MINERAL RESOURCES

As described in impact (a), within the EIR Study Area, there are undeveloped areas classified as MRZ-2 that may develop over the horizon of the proposed Project with incompatible uses. The proposed General Plan 2045 contains a policy that requires the City to preserve mineral resources. Specifically, proposed Policy OS-8.1 requires the City to consider potentially available mineral resources on the property or in the vicinity when considering land use proposals. In addition, the provisions of the SMARA would reduce impacts to aggregate mineral resources to the extent possible by requiring site-specific evaluations to discover the presence of mineral resources.

Loss of Locally Important Mineral Resources Recovery Site Delineated on Land Use Plan

As described in the previous section, areas in Eastern Alameda County in unincorporated Alameda County that currently allow mineral extraction under existing land use plans would continue to allow such extraction. As discussed under impact discussion (a), the proposed General Plan 2045 land use map retains the Open Space/Sand and Gravel (OSP/S&G) land use designation for most of the lands as designated in the existing General Plan and Resource Area Sector A-2. The primary use allowed in areas designated Open Space/Sand and Gravel is open space while sand and gravel extraction, processing, and related activities are secondary. Some of the Resources Area Sectors and land that was designated Open Space/Sand and Gravel (OSP/S&G) under the existing General Plan would be redesignated for agricultural, industrial office, and open space and park uses under the proposed General Plan 2045 land use map. As described under impact discussion (a), land uses that require a low public or private investment in structures, such as land improvements, and landscaping that would allow mining (e.g., extensive industrial, recreation, agricultural, and open space uses) could be compatible. The proposed redesignations to agricultural, industrial office, and open space and park uses would be compatible uses that would not result in the loss of availability of a locally important mineral resource recovery site.

Summary

Because there would be no permanent obstruction of the mineral resources designated as Open Space/Sand and Gravel (OSP/S&G), as shown on the proposed General Plan 2045 land use map, there would be no loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan impacts and impacts would not be cumulatively considerable. However, there are undeveloped areas classified as MRZ-2 that may develop over the horizon of the proposed Project with incompatible uses. The only way to fully avoid this impact is to not allow incompatible land uses in areas classified as MRZ-2, thereby eliminating the impact. Although existing regulations as previously described and the policies in the proposed General Plan 2045 would reduce and partially offset cumulative impacts, the proposed Project would contribute to the loss of significant mineral resources impact in the region, and this impact is cumulatively *potentially significant*.

Impact MIN-3: Implementation of the proposed Project could result in a significant cumulative impact with respect to the loss of availability of known mineral resources that are of value to the region and the residents of the State.

Implementation of the proposed Project could result in significant and unavoidable impacts related to the loss of availability of known mineral resources that are of value to the region and the residents of the State. Although the proposed General Plan 2045 goals and policies would reduce potential impacts, they would not reduce them to less than significant, and, as discussed previously, there are no feasible mitigation available to reduce potential impacts. The City has a responsibility to meet other conflicting obligations, including increasing the number and types of jobs available in Livermore and reducing the need for residents to commute to high-quality jobs. These measures are critical to reducing single-occupant vehicle travel to and from Livermore and meeting State targets for greenhouse gas reduction. The City needs to continue to allow development within areas classified as MRZ-2 with incompatible uses, as appropriate, to promote future economic development and corresponding residential development, as required by State housing law, within its adopted urban growth boundary. Therefore, this cumulative impact would remain **significant and unavoidable**.

3.12.6 References

Alameda County. 2000 (amended). *East County Area Plan*.

<https://www.acgov.org/cda/planning/generalplans/documents/EastCountyAreaPlancombined.pdf>, accessed on September 25, 2025.

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<https://maps.conservation.ca.gov/cgs/minerals/?page=Mineral-Land-Classification>, accessed September 10, 2025.

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MINERAL RESOURCES

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