

4.11 MINERAL RESOURCES

This section presents the regulatory setting, environmental setting (i.e., existing conditions), and potential impacts of the Master Plan Update (proposed Plan) related to mineral resources.

4.11.1 ENVIRONMENTAL SETTING

4.11.1.1 REGULATORY FRAMEWORK

This section provides an overview of the regulatory setting pertaining to mineral resources within the Parkway Plan Area.

State Regulations¹

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act (SMARA) sets forth policies for regulating surface mining and reclamation. Overall, SMARA's policies aim to ensure that: (a) adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition which is readily adaptable for alternative land uses; (b) the production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment; and (c) residual hazards to the public health and safety are eliminated.

Public Contract Code, Section 10295.5: Purchase and Use of Mined Materials by State and Local Agencies

Public Contract Code, Section 10295.5, establishes that no State agency shall acquire or utilize sand, gravel, aggregates, or other minerals produced from a surface mining operation subject to the Surface Mining and Reclamation Act of 1975, unless the materials were extracted from an identified and approved mining operation pursuant to SMARA regulations.

California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1: State Mining and Geology Board Reclamation Regulations

The State Mining and Geology Board Reclamation Regulations (Mining Regulations) consist of 14 Articles regulating mining within the state. These articles regulate mining and reclamation practice, designate areas of regional significance, set forth mineral resource management policies, establish reclamation standards, and set a fee schedule for mining operations and annual reporting.

¹ California Department of Conservation Office of Mine Reclamation, <http://www.conservation.ca.gov/dmr>, accessed April 20, 2017.

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Parkway Master Plan Policies

The Conservancy will implement its mission and the Parkway Master Plan in a manner consistent with its adopted Parkway Master Plan goals, objectives, policies, design guidelines, and best management practices (BMPs) to the extent practicable.

Local Regulations and Policies

The Conservancy is the lead agency responsible for preparing, approving, and implementing the proposed Parkway Master Plan. The Conservancy may assist other government agencies and nonprofit organizations in implementing elements of the proposed Plan. The Conservancy’s authorities and jurisdiction are described in Chapter 3, Project Description. Local land use policies relevant to Parkway development and implementation are discussed in this section.

Madera County General Plan

Section 5, Mineral Resources, contained in Part II of the Madera County General Plan contains several policies and goals pertaining to mineral resources operations in Madera County. Table 4.11-1 lists relevant policies and goals with respect to mineral resources in the Parkway Plan Area.

TABLE 4.11-1 MADERA COUNTY GENERAL PLAN POLICIES RELEVANT TO MINERAL RESOURCES

Policy / Goal Number	Policy/Goal
Goal 5.1	<i>To encourage commercial mining operations within areas designated for such extraction, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately mitigated, and to provide for the timely rehabilitation and appropriate reuse of mining sites.</i>
Policy 5.1.2	The County shall discourage the development of incompatible land uses in areas that have been identified as having potentially significant mineral resources, except where the California Department of Mines and Geology agrees that economic or environmental considerations make mineral extraction infeasible.
Policy 5.1.3	The County shall discourage the development of any uses that would be incompatible with adjacent mining operations or would restrict future extraction of significant mineral resources.
Policy 5.1.4	The County shall require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operation.

Source: Madera County General Plan, October 24, 1995.

Madera County Municipal Code

Chapter 19.01, Surface Mining and Reclamation of Mined lands, of the Madera County Municipal Code sets forth ordinances related to mining in the county. Recognizing the importance of the extraction of minerals as an economic driver in Madera County, Chapter 19.01 addresses: vested rights, processes to be followed for mining, operations, management plan requirements, and annual reporting requirements. Specifically, Section 19.01.170, Mineral Resource Protection, states that mine development is encouraged in compatible areas, and that such lands will be protected from incompatible land uses that may impede or preclude mineral extraction or processing.

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Fresno County General Plan

The Open Space and Conservation Element of the Fresno County General Plan includes policies and goals that relate to mineral resources in Fresno County. As shown in Table 4.11-2, multiple policies and goals seek to protect and enhance the continued operations of mining in Fresno County, while separating incompatible land uses wherever possible.

TABLE 4.11-2 FRESNO COUNTY GENERAL PLAN POLICIES RELEVANT TO MINERAL RESOURCES

Policy/Goal Number	Policy/Goal
Goal OS-C	<i>To conserve areas identified as containing significant mineral deposits and oil and gas resources for potential future use, while promoting the reasonable, safe, and orderly operation of mining and extraction activities within areas designated for such use, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately mitigated.</i>
Policy OS-C.1	The County shall not permit incompatible land uses within the impact area of existing or potential surface mining areas.
Policy OS-C.2	The County shall not permit land uses incompatible with mineral resource recovery within areas designated as Mineral Resource Zone 2 (MRZ-2).
Policy OS-C.3	The County shall require that the operation and reclamation of surface mines be consistent with the State Surface Mining and Reclamation Act (SMARA) and special zoning ordinance provisions.
Policy OS-C.4	The County shall impose conditions as necessary to minimize or eliminate the potential adverse impact of a mining operation on surrounding properties.
Policy OS-C.5	The County shall require reclamation of all surface mines consistent with SMARA and the County's implementing ordinance.
Policy OS-C.6	The County shall accept California Land Conservation (Williamson Act) contracts on land identified by the State as containing significant mineral deposits subject to the use and acreage limitations established by the County.
Policy OS-C.7	The County shall require that new non-mining land uses adjacent to existing mining operation be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality.
Policy OS-C.8	The County shall, where feasible along the San Joaquin River, site recreational trails, bikeways, and other recreation areas at least three hundred (300) feet from the edge of active aggregate mining operations and separate them by physical barriers. Recreational trail/bikeway crossings of active haul routes should be avoided whenever possible; if crossings of haul routes are necessary, separate where feasible.
Policy OS-C.9	The County shall require that any proposed changes in land use within areas designated MRZ-2 along the San Joaquin and Kings Rivers comply with the provisions of the State Surface Mining and Reclamation Act (SMARA).
Policy OS-C.10	The County shall not permit land uses that threaten the future availability of mineral resource or preclude future extraction of those resources.

Source: Fresno County General Plan, October 2000.

Fresno County Municipal Code

Section 17.04.110, Mineral Resource Zone 2 Notice, of the Fresno County Municipal Code declares the protection and preservation of the county's mineral resources for the economic well-being of the county. As such, although

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development could be allowed near mining operations, permitted mining operations would be protected from encroachment by incompatible land uses. Additionally, Section 17.04.110 serves as a notice to residents that they may experience inconveniences and discomfort associated with mining operations in areas zoned as MRZ-2.

City of Fresno General Plan

The Resource and Conservation Element of the City of Fresno General Plan sets forth policies and objectives to protect mining operations, as shown in Table 4.11-3.

City of Fresno Municipal Code

Article 5.5, Surface Mining and Reclamation, of the City of Fresno Municipal Code regulates mining operations within the City of Fresno. Items addressed include vested rights for surface mining operations, permitting process, application requirements for surface mining activities, and standards for mining. Further, Section 12-5.508 states that all land-use actions on lands classified as containing mineral deposits shall be consistent with this ordinance or the policies and objectives contained in the Resource and Conservation Element of the City of Fresno 2025 General Plan, with respect to mineral resources.

4.11.1.2 EXISTING SETTING

The California Division of Mines and Geology is responsible for land classification of areas known or suspected to contain mineral resources. Assessed lands are classified into four categories or classifications known as Mineral Resource Zones (MRZ). The MRZ categories are defined as follows:²

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged there is a high likelihood for their presence.
- **MRZ-3:** Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- **MRZ-4:** Areas where available information is inadequate for assignment to any other mineral resource zone.

Madera County

The Madera County General Plan does not specify or identify any specific areas of mineral resources within the County to be protected; however, the Mineral Resources section of the General Plan includes goals and policies to support and encourage mining operations. As shown in Figure 4.11-1, Madera County has mineral resources classified as MRZ-1: lands determined to contain no significant mineral resources, located at the north end of the Parkway near Millerton Lake.

² County of Fresno, 2000. Fresno County General Plan Background Report, October, page 7-65.

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TABLE 4.11-3 CITY OF FRESNO 2025 GENERAL PLAN POLICIES RELEVANT TO MINERAL RESOURCES

Policy/Objective Number	Policy/Objective
Objective G-7	Provide for the conservation of, and mineral extraction potential of, aggregate mineral resources within the city's planning area, as identified by the Division of Mines and Geology.
Policy G-7-b	<p>The city shall maintain its multi-use open space land use planning designation and shall, through annexation and entitlements, apply zoning consistent with mineral extraction in the entire San Joaquin Riverbottom, including the proposed expanded urban boundary of the North Growth Area shown on the 2025 Fresno General Plan Land Use and Circulation Map (Exhibit 4).</p> <ul style="list-style-type: none"> ▪ Allow for, and support, the continuance of multiple open space uses in the San Joaquin Riverbottom such as mineral extraction operations conducted in conformance with the SMARA, the city's Surface Mining Ordinance, and existing conditional use permits that meet SMARA requirements. ▪ In the San Joaquin riverbottom, accommodate only those mineral processing activities associated and co-located with mining operation and do not stimulate unplanned growth or conversion of multi-use open space to urban uses.
Policy G-7-c	<p>A Mineral Zone ("MZ") overlay zone district shall be created when the city's Zoning Ordinance is revised, to denote lands which need to be protected for mineral resource conservation purposes and to provide for consistent application of conservation policies when land use decisions are made.</p> <ul style="list-style-type: none"> ▪ Designated MRZ-2 land within the city's incorporated boundaries shall be assigned MZ overlay zoning. ▪ All properties in the city with permitted surface mining operations shall be assigned "MZ" overlay zoning, whether or not such properties have been formally designated MRZ-2 by the Department of Conservation. ▪ Maps and exhibits used for permitting and entitlements on, or abutting these areas shall depict the boundaries of any MZ overlay zoning.
Policy G-7-d	<p>The city shall prohibit land uses and development projects that preclude extraction in potential high-quality mineral resource areas designated MRZ-2. A use will be considered incompatible with potential surface mining if it meets any or all of the following criteria:</p> <ul style="list-style-type: none"> ▪ It is a land use or involves improvements or activities not designated or provided for in the general plan or current approved entitlements for the site. ▪ It would create parcels or lots smaller than 20 acres that are not created for the purposes of resolving a state ownership of land or are not created for establishing/augmenting public facilities that are consistent with the general plan. ▪ It physically or materially obstructs future use of the site for mineral extraction. ▪ It would create an economic value of land through site improvements such as grading or structures (paid for by public or private investment) that are unrelated to mineral extraction or post-mining reclamation and that would make mineral extraction a financially infeasible use. ▪ It involves the institution of activities on land that would make mineral extraction a comparatively financially infeasible use. ▪ Any San Joaquin River Parkway facilities developed or approved by the city shall be designed, constructed, and operated in such a way that sand and gravel mining operations are not adversely affected and future mineral extraction will not be precluded in MRZ-2 designated areas.
Policy G-7-e	Provide appropriate buffering for current and future mineral extraction operations by establishing compatible, non-sensitive land uses adjacent to permitted mining operation and designated MRZ-2 areas, in order to prevent land use conflicts over attractive nuisances, dust, noise, and viewshed impacts.

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TABLE 4.11-3 CITY OF FRESNO 2025 GENERAL PLAN POLICIES RELEVANT TO MINERAL RESOURCES

Policy/Objective Number	Policy/Objective
	<ul style="list-style-type: none"> ▪ The city shall identify permitted surface mining operations in, and adjacent to, its planning area shall maintain a record of their locations, and the locations of approved haul routes serving these surface mining sites. ▪ Land bordering, and within a 1/8-mile distance of the following will be considered "potential mineral extraction impact area:" all land that qualifies for the abovementioned "MZ" overlay zoning; all permitted surface mining operations adjacent to the city; and all approved haul routes serving permitted mining operations. ▪ Maps and exhibits used for permitting and entitlements shall depict any potential mineral extraction impact areas. ▪ In potential mineral extraction impact areas, the city will not approve land uses that are inherently incompatible with mining and related activity due to sensitivity of these land uses to levels of noise and/or dust that may be associated with mineral extraction and on-site processing. ▪ Project proposals that might create a conflict with permitted surface mining or future mining activities need to provide on-site mitigation of potential conflicts. Sufficient buffering measures (such as setbacks, walls, and landscaping) shall be required when a potentially incompatible land use is proposed adjacent to permitted mining operations and/or designated MRZ-2 land.

Source: City of Fresno 2025 General Plan, February 1, 2002.

Fresno County

Fresno County is active in terms of mineral resource extraction. According to the Fresno County General Plan, the San Joaquin River has several areas that mine sand and gravel, including portions of the Parkway Plan Area. The California Division of Mines and Geology (CDMG) has classified the Fresno Production Consumption (P-C) Region according to the presence or absence of Portland cement-concrete (PCC)-grade aggregate deposits. According to the Fresno General Plan Update Background Report, there are areas of MRZ-1 and MRZ-2 zones in the vicinity of the Parkway Plan Area, as shown on Figure 4.11-1.

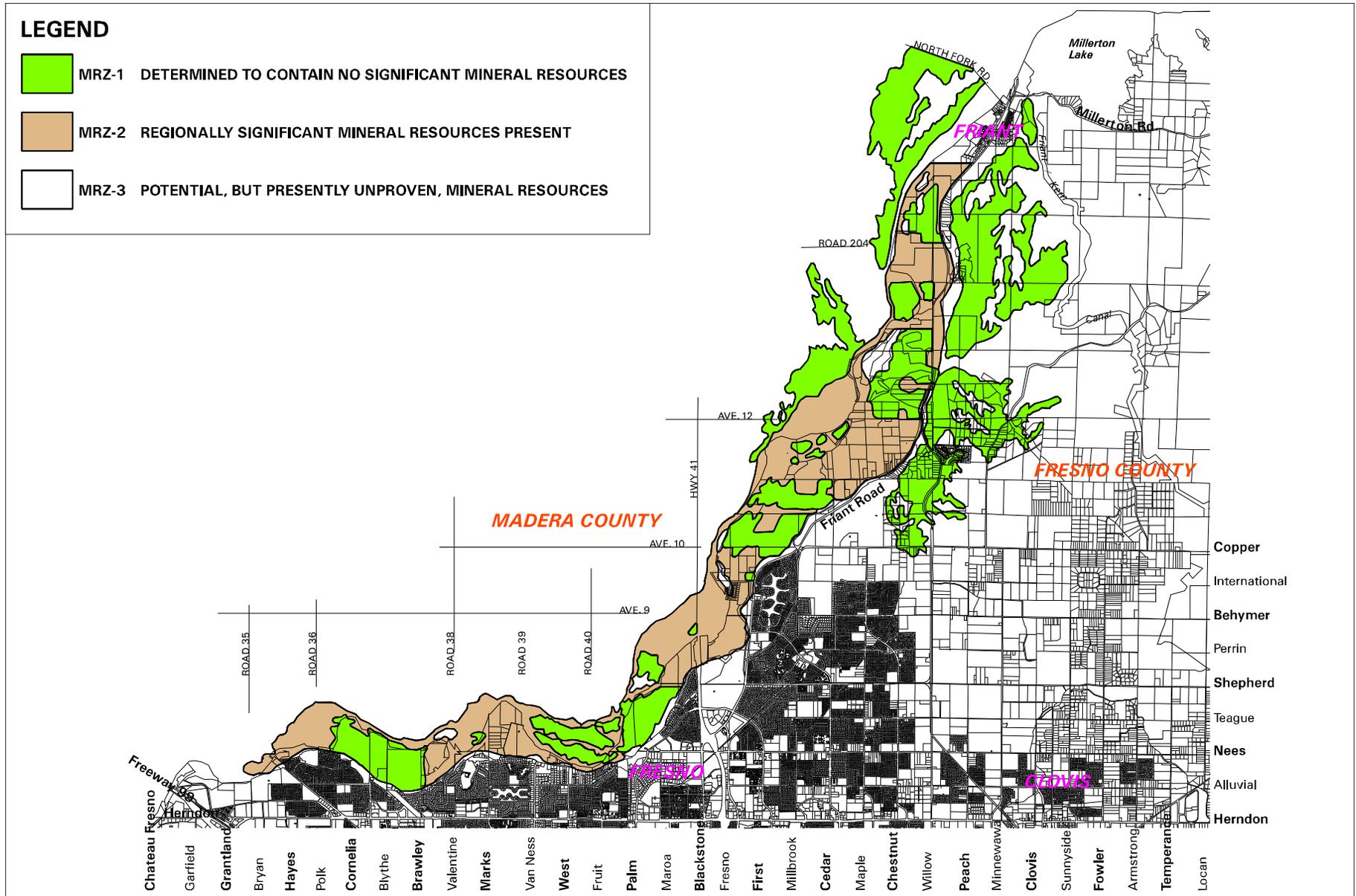
Although other mineral resources, such as copper, coal, chromite, tungsten, manganese, and several others are known to exist within Fresno County, sand and gravel is the primary mineral resource in the vicinity of the Parkway Plan Area, therefore, consideration of other minerals are not further analyzed.

4.11.2 STANDARDS OF SIGNIFICANCE

The proposed Plan would result in a significant impact to mineral resources if it would:

1. 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.
2. 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.

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Source: Department of Conservation.

Figure 4.11-1
 Mineral Resources in the San Joaquin River Parkway Plan Area

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4.11.3 IMPACT DISCUSSION

MR-1	The proposed Plan would not 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.
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The proposed Plan would have a significant impact if it would 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. The dominant activity with respect to mineral resource extraction in the Parkway Plan Area is surface sand and gravel mining. As discussed in the existing conditions of this chapter, the Parkway Plan Area contains several areas classified as MRZ-1 (known not to contain mineral resources) and MRZ-2 (known or likely mineral deposits), primarily within Fresno County (inclusive of the City of Fresno). Most of the significant deposits in the Plan Area are being actively extracted by permitted gravel mining operations, or the resources have already been exhausted.

Although other minerals have been identified throughout the greater area that could be of value to the region, they are not further considered since those minerals fall outside of the Parkway Plan Area and, therefore, would not be affected as a result of the proposed Plan.

As discussed above, Madera County's General Plan does not explicitly identify areas of significance with respect to mining or mineral resource extraction; however, it does contain several policies that support mining activity within Madera County.

Implementation of the proposed Plan would involve acquiring property for Parkway development, habitat restoration, and construction of new structures and facilities in the Parkway Plan Area to accommodate low-impact recreational and educational activities. Such structures could include additional restroom facilities, drinking water fountains, parking areas, hiking and biking trails, and observation areas. If such structures were developed on important sand and gravel deposits, such as MRZ-2 lands, they would interfere with the future availability of these resources. However, several policies under the proposed Plan would ensure that implementation would not disrupt any existing mining operations. The following policies would ensure that the proposed Plan would not result in the loss of availability of a known valuable mineral resource:

Mineral Resource

Goals:

- **MR1:** Work with gravel mining companies to acquire high priority properties after they have been mined. Promote reclamation plans that enhance and complement Parkway goals and are Parkway-ready to the extent practicable.
- **MR2:** Design, construct and manage the Parkway in a manner that will not conflict with sand and gravel mining operations.

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Policies:

MINERAL.3 In public Parkway areas that have significant sand and gravel reserves that may be needed for the San Joaquin River Restoration Program or other habitat and floodplain restoration needs, site significant permanent structures where they will not preclude or interfere with future extraction of those resources.

Public Access and Recreation

ACCESS.4 Ensure that Parkway plans do not interfere with existing development entitlements.

In addition to implementation of the above policies, consistency with the local jurisdictions' General Plans would ensure that there would be no loss to known mineral resources that would be of value to the residents or the State. The Madera County General Plan includes Goal 5.I, Policy 5.I.2, Policy 5.I.3, and Policy 5.I.4, which support and protect mining operations within the County. For potential development within Fresno County, General Plan Goal OS-C, and Policy OS-C.1 through Policy OS-C.10 would ensure that mining operations are adequately supported and protected. The City of Fresno General Plan includes protective and supportive policies such as Objective G-7, and Policy G-7-b through Policy G-7-e. Further, compliance with each jurisdictions' municipal codes to the extent of applicability, would ensure protection of valuable mineral resources.

Implementation of the proposed Plan would require that individual projects be subject to separate project-level CEQA review to identify specific impacts within the development's vicinity. In combination with compliance with State, federal, and local laws, potential impacts with respect to mineral resources would, be *less than significant*.

Applicable Laws, Regulations, and Permits, Relevant Local Land Use Policies:

- County of Madera General Plan (Goal 5.I, Policy 5.I.2, Policy 5.I.3, and Policy 5.I.4)
- County of Madera Municipal Code, Chapter 19.01, Surface Mining and Reclamation of Mined Lands
- Fresno County General Plan (Goal OS-C, and Policy OS-C.1 through Policy OS-C.10)
- Fresno County Municipal Code, Section 17.04.110, Mineral Resource Zone 2 Notice.
- City of Fresno General Plan (Objective G-7, and Policy G-7-b through Policy G-7-e)
- City of Fresno Municipal Code, Article 5.5, Surface Mining and Reclamation.

Significance Without Mitigation: Less than significant.

MR-2 The proposed Plan would not result in the loss of availability of a locally important mineral resource site delineated on a local general plan, specific plan, or other land use plan.

The proposed Plan would have a significant impact if it resulted in the loss of availability of a local important mineral resource site delineated on a local general plan, specific plan, or other land use plan. Implementation of the proposed Plan would involve acquiring property for Parkway development, habitat restoration, and construction of new structures and facilities in the Parkway Plan Area to accommodate low-impact recreational

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and educational activities, which could result in the loss of availability of a locally important mineral resource in the Parkway.

As discussed above, the Madera County General Plan does not identify any mineral resource sites of local importance. As such, the proposed Plan would have no impact with respect to potential facilities being sited within Madera County. Fresno County, however, has several sites along and adjacent to the Parkway classified as MRZ-2 mineral zones, which are considered to be areas of local importance with regard to mineral resources, primarily sand and gravel extraction.

Although implementation of the Project could acquire lands with mineral resources, or site facilities in and around areas considered to be of local importance with regard to mineral resources, several policies under the proposed Plan, presented in impact analysis MR-1 above, in combination with consistency with each jurisdiction's General Plan, would ensure that mineral resource sites of local importance are protected from development as a result of the proposed Plan. Because implementation of projects under the proposed Plan would require separate project-level CEQA review and consistency with the policies listed above, the potential impact with regard to mineral resources would be *less than significant*.

Applicable Laws, Regulations, and Permits, Relevant Local Land Use Policies:

- County of Madera General Plan (Goal 5.I, Policy 5.I.2, Policy 5.I.3, and Policy 5.I.4)
- County of Madera Municipal Code, Chapter 19.01, Surface Mining and Reclamation of Mined Lands
- Fresno County General Plan (Goal OS-C, and Policy OS-C.1 through Policy OS-C.10)
- Fresno County Municipal Code, Section 17.04.110, Mineral Resource Zone 2 Notice.
- City of Fresno General Plan (Objective G-7, and Policy G-7-b through Policy G-7-e)
- City of Fresno Municipal Code, Article 5.5, Surface Mining and Reclamation.

Significance Without Mitigation: Less than significant.

4.11.4 CUMULATIVE IMPACTS

MR-3	The Project, in combination with past, present, and reasonably foreseeable projects would not have a significant cumulative impact with respect to mineral resources.
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The proposed Plan would have a significant impact if, in combination with past, present, and reasonably foreseeable projects, it would result in a significant cumulative impact with respect to mineral resources. Because the geographic scope for the purpose of this cumulative analysis is comparable to the geographic scope used for the impact analyses above, and the mineral resources of the Plan Area are largely being mined at this time or exhausted, the impacts would, therefore, be the same. As such, cumulative impacts would be *less than significant* with respect to mineral resources.

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Applicable Laws, Regulations, and Permits, Relevant Local Land Use Policies:

- County of Madera General Plan (Goal 5.I, Policy 5.I.2, Policy 5.I.3, and Policy 5.I.4)
- County of Madera Municipal Code, Chapter 19.01, Surface Mining and Reclamation of Mined Lands
- Fresno County General Plan (Goal OS-C, and Policy OS-C.1 through Policy OS-C.10)
- Fresno County Municipal Code, Section 17.04.110, Mineral Resource Zone 2 Notice.
- City of Fresno General Plan (Objective G-7, and Policy G-7-b through Policy G-7-e)
- City of Fresno Municipal Code, Article 5.5, Surface Mining and Reclamation.

Significance Without Mitigation: Less than significant.

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