

4.2 AGRICULTURAL AND FOREST RESOURCES

This section evaluates the potential of environmental impacts related to agricultural and forest resources and includes evaluation of potential impacts to farmland. The setting describes agricultural land use, soils found within the project area, recognition of farmland soils of Statewide, Local or Unique Importance, and the extent of forest resources.

IMPACTS EVALUATED IN OTHER SECTIONS

The following subjects are related to Agricultural and Forest Resources, but are evaluated in another section of this document:

- Consistency with land use designations and zoning is evaluated in Section 4.10, Land Use.
- Impacts to oak woodlands are analyzed in Section 4.4, Biological Resources.

SETTING

Agricultural Designations and Use

The Project site is designated as Agricultural with a Resource Conservation Overlay in the Solano County General Plan and is zoned Exclusive Agriculture (A20). Under the existing zoning, surface mining is allowed with a Conditional Use Permit. On Figure AG-1 Important Farmland in the Solano County General Plan the site is designated as “grazing land.” Portions of the Project site fall within the Western Hills Agricultural Region (Solano County General Plan Figure AG-4) which is characterized by “grasslands, oak woodlands, and mountain plateaus. The steep slopes and soil types currently limit the productive use of this land primarily to grazing.”

Grazing of livestock and other agricultural activities occur on adjacent parcels to the east of the Project site, but not within the project boundary. Properties adjoining the quarry site to the north, east and south are predominantly rangeland and open space. Blue Rock Springs Golf Course is located northwest of the quarry.

Williamson Act

The Project site does not contain any parcels under a Williamson Act contract.

Status Farmland

The areas surrounding the existing quarry operations are designated as grazing lands by the State Farmland Mapping and Monitoring Program (FMMP). Grazing lands are not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Farmland Mapping and Monitoring Program designations are described further below under Regulatory Framework. The existing quarry operations have the designation of “Other” which is a designation given to, among other things, mining operations.

Forest and Timber Land

There is limited discontinuous oak woodland within the Project site as shown in Figure 4.4-2. During field surveys for biological resources nine scattered patches of oak woodland were mapped within the Project site for a total of 14 acres (see Figure 4.4-1 in Section 4.4 Biological Resources). There is no timberland within the Project boundaries (USDA 2001).

REGULATORY FRAMEWORK

Federal and State Soil Classification

The suitability of land for agriculture is relative to soil composition. There are two systems used by the United States Soil Conservation Service (SCS) to determine a soil's agricultural productivity. The two systems are the Soil Capability Classification and the Storie Index Rating System. The Soil Capability Grouping determines a soil's productive capacity using Roman numerals I through VIII to indicate progressively greater limitations and narrower choices for practical use. This system takes into consideration soil limitations and the way in which soils respond to treatment. Lands in Classes I to IV inclusive are considered capable of sustained production of common cultivated field crops. Class V lands are capable of use only for producing perennial forage crops or specially adapted crops. Classes V to VII are considered to have limitations that restrict their use to pasture woodland, wildlife habitat, or recreation. Class VIII lands are incapable of use for either arable culture or grazing. The second rating system, Storie Index Rating, provides an additional index showing the relative degree of suitability, or value, of a soil for general intensive agriculture. The system ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating), which have few or no limitations for agricultural production, to Grade 6 soils (less than 10 rating), which are not suitable for agriculture. Under this system, soils deemed less than prime can operate as prime soils when limitations, such as poor drainage, slopes, or soil nutrient deficiencies, are partially or entirely removed.

State of California Department of Conservation

The California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing trends on California's agricultural lands (CDC 2011). The FMMP was established in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). The intent of the NRCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of this nationwide mapping effort, NRCS developed a series of definitions known as the Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production, which included physical and chemical characteristics of soils, as well as specified land use characteristics. The FMMP's Important Farmland Series Maps are derived from NRCS LIM criteria.

The FMMP uses soil surveys for determining the classification of agricultural land within each county and monitors the conversion of the state's farmland to and from agricultural use. These surveys are mapped and identify eight classifications of land capability and use a minimum mapping unit of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to nonagricultural use. The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Map" every two years. The FMMP is an informational service that does not constitute state regulation of local land use decisions.

Important Farmland Series Maps

The California Department of Conservation has modified the NRCS maps to show farmland and urban areas in California. The Important Farmland Series Maps (CDC 2004) classify the farmlands of the state as:

- Prime Farmland. This category of land has the best combination of physical and chemical characteristics to sustain long term agricultural production. The land has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops. Prime Farmland must have been used for irrigated agricultural production some time during the four years prior to the mapping date.
- Farmland of Statewide Importance. Although similar to Prime Farmland, this category of land has minor shortcomings, such as greater slopes or less ability to store soil moisture. This land must have been used for the production of irrigated crops at some time during the four years prior to the mapping date.

- Unique Farmland. This land has lesser quality soils and is used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Lands must have been cropped sometime during the four years prior to the mapping date.
- Farmland of Local Importance. This land is of importance to the local agricultural economy, determined by each county's board of supervisors and local advisory committees.

Throughout this section these categories of farmlands: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, are referred to collectively as Farmland, or status farmlands. The lands that comprise status farmlands do not include other mapping classifications such as Grazing land, Other land or Urban land. These are separate classifications not designated as status farmland by the California Department of Conservation.

Williamson Act (Land Conservation Act of 1965)

Another classification of agricultural lands of concern is Williamson Act (Government Code §51200 et seq.) Contract lands as defined in the California Land Conservation Act of 1965. The law was enacted to protect agriculture and open space land and to adjust imbalanced tax practices. Williamson Act Contracts, also known as Agricultural Preserves, offer tax incentives for agricultural land preservation by ensuring that land will be assessed for its agricultural productivity rather than its highest and best uses. Williamson Act Contracts are authorized from State policy administered by local governments. Local governments are not mandated to administer the Williamson Act Contracts, but those that do have some latitude to tailor the program to suit local goals and objectives. Parcel records for Williamson Act Contracts are recorded at the Solano County Assessor's Office located at 675 Texas Street, Suite 2700, Fairfield, CA, 94533.

Forest Resources

CEQA classifies forest resources of concern as "timberland" and "forest land." The following provides definition and context for each of these.

California Timberland Productivity Act of 1982 Government Code § 51104

Under the Timberland Productivity Act "timberland" means privately owned land, or land acquired for state forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre.

"Timberland production zone" or "TPZ" means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined below. With respect to the general plans of cities and counties, "timberland preserve zone" means "timberland production zone."

Z'berg-Nejedly Forest Practice Act of 1973 California Public Resources Code § 4526

Under the Forest Practice Act "timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species are determined by the board on a district basis after consultation with the district committees and others.

California Forest Legacy Program Act of 2007 California Public Resources Code § 12220

Under the Forest Legacy Program Act "forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for

management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Goals and Policies of the Solano County General Plan and Tri-City and County Cooperative Plan

The following are the goals, policies, and implementation programs from the Solano County General Plan and Tri-City and County Cooperative Plan that are applicable to this Project. RS.P-6 and RS.I-3, related to the protection of oak woodlands, are listed and discussed in Section 4.4 Biological Resources.

Solano County General Plan

- AR.G-1 Recognize, value, and support the critical roles of all agricultural lands in the stability and economic well-being of the county.**
- AR.G-2 Preserve and protect the county's agricultural lands as irreplaceable resources for present and future generations.**
- AR.G-5 Reduce conflict between agricultural and nonagricultural uses in Agriculture-designated areas.**
- AG.P-3 Encourage consolidation of the fragmented pattern of agricultural preserves and contracts established under the Land Conservation Act (Williamson Act) and the retention of agricultural preserves and contracts in agricultural, watershed, and marshland areas.
- AG.P-4 Require farmland conversion mitigation for either of the following actions:
 - a. a General Plan amendment that changes the designation of any land from an agricultural to a nonagricultural use or
 - b. an application for a development permit that changes the use of land from production agriculture to a nonagricultural use, regardless of the General Plan designation.
- AG.P-26 Acknowledge the 10 agricultural regions and address them in unique ways that support the maintenance and expansion of profitable agricultural production .The 10 agricultural areas are known as Winters Regions, Dixon Ridge, Elmira and Maine Prairie, Montezuma Hills, Ryer Island, Green Valley, Pleasants, Vaca and Lagoon Valleys, and Western Hills.
- AG.I-1 Create and adopt a farmland conversion mitigation program and ordinance. Require compensation for loss of agricultural land. Establish appropriate mitigation ratios for the program or utilize a graduated mitigation mechanism. The mitigation ratio shall be a minimum of 1.5:1 (1.5 acres of farmland protected through mitigation for each acre of farmland converted). The program shall not present regulatory barriers to agritourism, agricultural services, and agricultural processing in regions and within land use designations where such uses are permitted and encouraged. The program shall also establish mitigation within the same agricultural region as the proposed development project, or within the Agricultural Reserve Overlay district, as a preferred strategy. The program shall incorporate a fee option, and shall provide an exemption for farmworker housing. Mitigation lands shall be of similar agricultural quality to the lands being converted.
- AG.I-2 Adopt ordinances and policies to support development of an Agricultural Reserve Overlay district. Include lands with highest agricultural value, based on soil classifications, irrigation, and surrounding uses. Work with local farmers and ranchers to generate support for using the overlay district as a receiving area for the farmland conversion mitigation program.
- AG.I-10 Focus preservation efforts, including use of Williamson Act contracts and conservation easements, in areas where agriculture is to be the predominant land use. Maintain large minimum parcel sizes in these regions, and discourage rezoning that would negatively affect farming operations. Recognize that agriculture is to be the predominant land use in the Dixon Ridge, Elmira and Maine Prairie, Montezuma Hills, Ryer Island, and Winters

regions. Support long-term viability of commercial agriculture and discourage inappropriate development of agricultural lands within the Delta.

- AG.I-22 Promote sustainable agricultural activities and practices that support and enhance the natural environment. These activities should minimize impacts on soil quality and erosion potential, water quantity and quality, energy use, air quality, and natural habitats. Sustainable agricultural practices should be addressed in the County's proposed Climate Action Plan to address climate change effects.
- AG.3.2 Provide for the preservation of agricultural land use and compatible open space uses because of their importance to the economy, the continuation of the agricultural heritage of the area, and to visually preserve the rural character of the area. Agriculture is major industry and constitutes the largest land use in Solano County. The protection of agriculture from further encroachment by incompatible uses is of prime importance.

Tri-City and County Cooperative Plan for Agriculture and Open Space Protection

- 2.1 Establish permanent open space between the Cities of Benicia, Fairfield and Vallejo through the joint planning and management of a Cooperative Planning Area for Agriculture and Open Space ("Cooperative Planning Area") which furthers the mutual recreation, open space, habitat, managed resources production and agricultural resources protection policies of the members of the Group.
- 3.2 Provide for the preservation of agricultural land use and compatible open space uses because of their importance to the economy, the continuation of the agricultural heritage of the area, and to visually preserve the rural character of the area.
 - 3.2.1 Agricultural uses shall continue to be the primary use of land within the Cooperative Planning Area. Park and recreation uses shall not interfere with existing ranching operations. Trail corridors shall be located so as not to interrupt cattle migration patterns and overall ranching operations (such as cattle watering, calving, etc.), or other agricultural activities.
 - 3.2.2 Promote agricultural land uses within the Cooperative Planning Area and protect such uses from adjoining residential or commercial uses which could interfere with existing agricultural operations through support of the County's Right-to-Farm ordinance.

EVALUATION CRITERIA WITH THRESHOLDS OF SIGNIFICANCE

Table 4.2-2 summarizes both the evaluation criteria and significance thresholds used to address potential impacts to agricultural and forest resources.

TABLE 4.2-1

Evaluation Criteria with Significance Threshold – Agricultural and Forest Resources

Evaluation Criteria	As Measured by	Significance Threshold	Sources of Criteria
AF-1. Will the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use?	Acres of status farmland lost.	Greater than 0 acres.	CEQA Guidelines, Appendix G, Checklist, Item II(a) CA Department of Conservation Farmlands Mapping Unit Solano County General Plan
AF-2. Will the Project conflict with existing zoning for agricultural use or a Williamson Act contract?	Number of conflicts.	Greater than 0.	CEQA Guidelines, Appendix G, Checklist, Item II(b)
AF-3. Will the Project conflict with existing zoning for forest land or timberland, or result in loss of forest land or conversion of forest land to non-forest use?	Acres of forest land lost (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526).	Greater than 0 acres.	CEQA Guidelines, Appendix G, Checklist, Item II(c and d) Solano County General Plan
AF-4. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	Number of acres.	Greater than 0 acres.	CEQA Guidelines, Appendix G, Checklist, Item II(e) Solano County General Plan

METHODOLOGY

Loss of Farmland

Potential loss of farmland was evaluated by reviewing status farmland documents provided by the California Department of Conservation, which are available online at the Department's website under Farmland Mapping and Monitoring Program. Loss of farmland refers to the conversion of status farmland into non-agricultural uses. The Important Farmland Data prepared by the Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program (CDC 2011) was also utilized in evaluation of potential impacts.

Conflict with Williamson Act Contracts

Potential conflicts with the Williamson Act were evaluated by determining if any parcels within the Project site are under contract by reviewing Assessor Parcel information within the GIS web-based program available at <http://gis.solanocounty.com/solanomaps/>. The GIS web-based program is maintained and updated by the County.

Forest Resources

The U.S. Forest Service (USDA 2001) mapping system was used to determine if "forest land" or "timberland" are present at the Project site.

IMPACTS AND MITIGATION MEASURES

Impact: AF-1. Will the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use?

Analysis: *No Impact*

With the exception of the existing quarry operations, the Project site is designated as grazing lands by the State and the County (Solano County 2008; CDC 2011). Grazing lands are not considered status farmland. In addition, the Solano County General Plan identifies portions of the Project site as within the Western Hills Agricultural Region which is limited to grazing because of soil type and steep terrain. Therefore, the Project would not result in any impact to status farmland.

Mitigation: No mitigation is necessary

Impact: AF-2. Will the Project conflict with existing zoning for agricultural use or a Williamson Act contract?

Analysis: *No Impact*

The zoning designation for Lake Herman Quarry is A (Extensive Agriculture.). Extensive Agriculture designates property with lower quality soils used for dry land farming and range land. Surface mining operation is allowed under the "A" zoning designation with a conditional use permit (Solano County Zoning Regulations Sec. 28-21). None of the parcels at the Project site were found to be under Williamson Act. The Project would not conflict with the "A" zoning designation or a Williamson Act Contract.

Mitigation: No mitigation is necessary

Impact: **AF-3. Will the Project conflict with existing zoning for forest land or timberland, or result in loss of forest land or conversion of forest land to non-forest use?**

Analysis: *No Impact*

According to the U.S. Forest Service (USDA 2001), the Project site is mapped as "barren", "herbaceous", and "urban". No part of the project site is mapped as forest land. Therefore, the Project would not result in the loss of forest land.

Mitigation: No mitigation is necessary

Impact: **AF-4. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?**

Analysis: *No Impact*

Agriculture use consistent with the current zoning would be the intended use following reclamation of the Project site. Final reclamation includes the removal of equipment and structures, final slope grading, resoiling, and revegetation. At that time the land would be returned to grazing lands (excluding the quarry pit). The Project site does not include any status Farmland nor do any of the surrounding parcels. The Project would not result in the conversion of Farmland to non-agricultural use.

Mitigation: No mitigation is necessary

CUMULATIVE IMPACTS

Impact: **AF-C1. Will the Project's incremental effect on agricultural or forest resources be cumulatively considerable, based on evaluation criteria 1 thru 4?**

Analysis: *No Impact*

The Project does not result in any impact to agricultural or forest resources therefore it cannot contribute to a cumulative impact.

Mitigation: No mitigation is necessary

REFERENCES

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