

ATTACHMENT B

MEMORANDUM FROM TEICHERT MATERIALS
(OCTOBER 12, 2022)

MEMORANDUM

TO: Stephanie Cormier, Yolo County

CC: Jesse Yang

FROM: Jason Smith

DATE: October 12, 2022

SUBJECT: Shifler Mining Project: Satisfaction of Condition of Approval # 35

This memorandum describes Teichert's proposal to establish a conservation easement on an agricultural property located near the City of Woodland in order to mitigate impacts to farmland which may occur as a result of Teichert's Shifler Mining Project (Project). As discussed below, the proposed mitigation property consists of farmland of equivalent or better quality than that which will be impacted on the Shifler property (Shifler Property) by the Project. As such, establishment of a conservation easement on the mitigation property will satisfy the requirements of Yolo County Code, as well as the Project's conditions of approval and CEQA mitigation measures.

Mitigation Requirement

Condition of Approval #35 (COA 35) for the Project sets forth the Project's requirements for agricultural mitigation, including preservation of suitable farmland. For purposes of this memorandum, the key provision is subsection b, which provides as follows:

- b) Prior to the commencement of mining activity on any Prime Farmlands, Unique Farmlands, or Farmland of Statewide Importance, establish a permanent agricultural conservation easement on 408.9 acres (249.5 disturbed acres minus 113.2 reclaimed acres, at a 3:1 ratio) of equivalent or better (in quality and capability) Prime Farmland compliant with the requirements in County Code Sections 8-2.404(d) and Section 8-2.404(e-g). The total acreage placed in permanent easement may be reduced to a minimum of 136.3 acres (249.5 disturbed acres minus 113.2 reclaimed acres at a 1:1 ratio) in accordance with Sections 8-2.404(d) or 10-5.525(a), (b), (c) or (d), provided the total acreage is determined to be equivalent to the applicable ratio and acreage required under Section 8-2.404. The proposal and substantiation in support of finding equivalency shall be provided in writing by the applicant, for review by staff and acceptance by the Board of Supervisors. The County may in its discretion approve phasing of the required easement so long as mitigation is satisfied prior to or coincident with impacts to Prime Farmland.

Subsection c of COA 35 contains a nearly identical requirement for mitigating impacts to approximately 8.75 acres of Farmland of Statewide Importance and/or Unique Farmland. These requirements are also reflected in Mitigation Measure 4.2-1 of the Project’s EIR. Per Section 8-2.404, subdivision (e)(3) of the County Code, the determination regarding “equivalency” of soil type may be “based on the revised Storie index or NRCS soil survey maps.”¹

On April 12, 2022, the Board of Supervisors approved a conservation easement over another property in the County (APN 025-430-002) as mitigation for Phase A of the Project. The proposed easement that is the subject of this request would mitigate for the remaining acreage associated with the Project.

Shifler Property Characteristics

Within the approximately 264-acre mining area of the Shifler Property there are three types of “Important Farmland,” as designated by the California Department of Conservation through its Farmland Mapping and Monitoring Program: Prime Farmland (249.5 acres), Unique Farmland (8.25 acres) and Farmland of Statewide Importance (0.5 acres). (See Attachment A, FEIR Figure 6-5, Moore Canal Avoidance Alternative – Project Site Farmland Acreage Totals.) The Shifler Property is comprised of several soil types. The main soil types that will be impacted by the Project’s mining are Yolo silt loam (Ya) and Brentwood silty clay loam (BrA), which are coextensive with the Prime Farmland designation, and Loamy alluvial land (Lm), which is coextensive with the Unique Farmland Designation. (See Attachment B, DEIR, Figure 4.2-1, On-Site Soil Map.)

The acreages, associated Important Farmland designations and NRCS soil survey/LCCS ratings for the soils within the mining area on the Shifler Property are set forth in the table below:

Soil Name	Approx. Acres	Imp. Farmland Type	LCCS Class/Rating
Yolo silt loam (Ya)	248	Prime	I
Brentwood silty clay loam (BrA)	1.5	Prime	I
Sehorn-Balcom complex (SmD)	0.5	Statewide	IV
Loamy alluvial land (Lm)	8.25	Unique	IV

Proposed Mitigation Property Characteristics

¹ The EIR further explains the two systems utilized by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) to determine a soil’s agricultural productivity: the Land Capability Classification System (LCCS) and the Storie Index Rating System (Storie Index). (EIR, pp. 4.2-2 to 4.2-2.) The LCCS takes into consideration soil limitations, the risk of damage when soils are used, and the way soils respond to treatment. Capability classes range from Class I soils, which have few limitations for agriculture, to Class VIII soils, which are unsuitable for agriculture. (Id., p. 4.2-2.) The Storie Index ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating) which have few or no limits for agricultural production, to Grade 6 soils (less than 10 rating) which are not suitable for agriculture. (Id.)

Consistent with subdivisions b and c of COA 35, Teichert has identified a suitable site for establishment of an agricultural conservation easement (the Mitigation Property). The Mitigation Property is identified as Yolo County APN 025-340-027-000 and is located on the northwestern edge of the City of Woodland (City). The Mitigation Property is located just northwest of the intersection of County Road 20 and County Road 98. The Mitigation Property is a single parcel that is located within 0.25 mile of the City’s sphere of influence; therefore, the 1:1 mitigation ratio referenced in COA 35 would apply. (See Figure 1; Yolo County Code, § 8-2.404, subd. (d)(1).) The site is roughly 100 acres in size, about 80 acres of which will be subject to the conservation easement. The Mitigation Property is currently leased to a tenant. Peppers are currently being grown on the site but a variety of other crops have been grown there in the past. The owner of the Mitigation Property is willing to encumber the site with a conservation easement, as they intend to utilize the site for agriculture in perpetuity.

The Mitigation Property is designated entirely as Prime Farmland. It is comprised of two soil types: about 49 acres of Brentwood silty clay loam, 0 to 2 percent slopes (BrA), and about 51 acres of Yolo silt loam, 0 to 2 percent slopes (Ya). The acreages, Important Farmland designations and NRCS soil survey/LCCS ratings for the soils on the Mitigation Property are described in detail in the reports included in Attachment C. A summary of these features is set forth in the table below:

Soil Name	Approx. Acres	Imp. Farmland Designation	LCCS Class/Rating
Yolo silt loam	51	Prime	I
Brentwood silty clay loam	49	Prime	I

The Mitigation Property has a well and pump system which will ensure an adequate water supply to continue irrigation of the site at a level sufficient to support ongoing agricultural uses. (Yolo County Code, § 8-2.404, subd. (e)(4).) In addition, the Mitigation Property is not currently encumbered by an easement or other property restriction, or any other physical or legal constraint, which would prevent conversion the site to non-agricultural uses. (Id., § 8-2.404, subd. (f).)

Justification of Equivalency

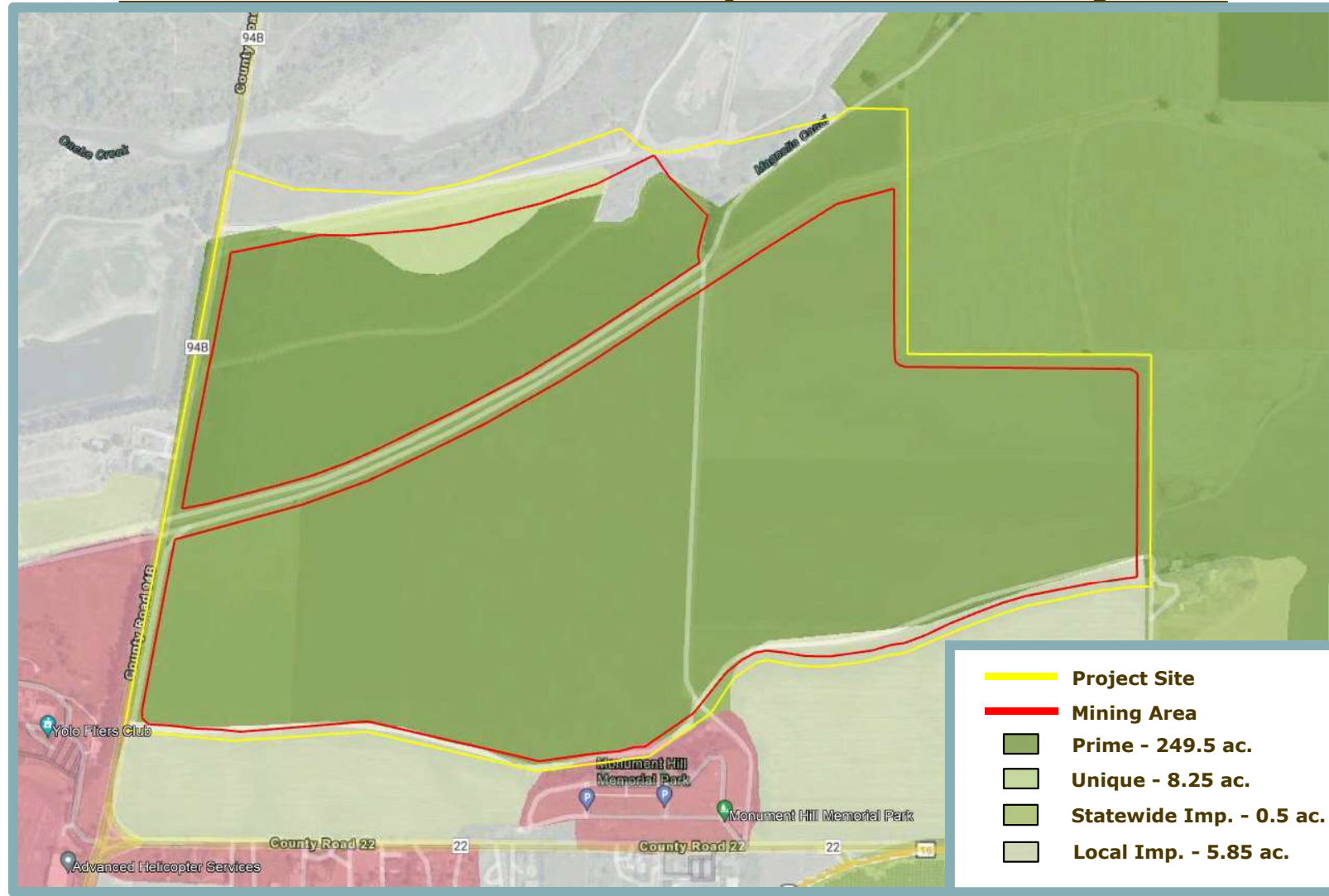
The Mitigation Property is comprised of equivalent or better (in quality and capability) Important Farmland than that which exists at the Project site. As mentioned, all 100 acres of the Mitigation Property are designated as Prime Farmland, and are considered to have Class I soils. The site also meets all other criteria specified in the Yolo County Code for eligible agricultural mitigation lands:

- The Mitigation Property is being acquired from a willing seller. (Yolo County Code, § 8-2.404, subd. (e)(1).)
- The Mitigation Property is roughly 100 acres, regularly configured and surrounded by other agricultural properties, so it is of an adequate size, configuration and location to be viable for continued agricultural use. (Id., § 8-2.404, subd. (e)(2).)

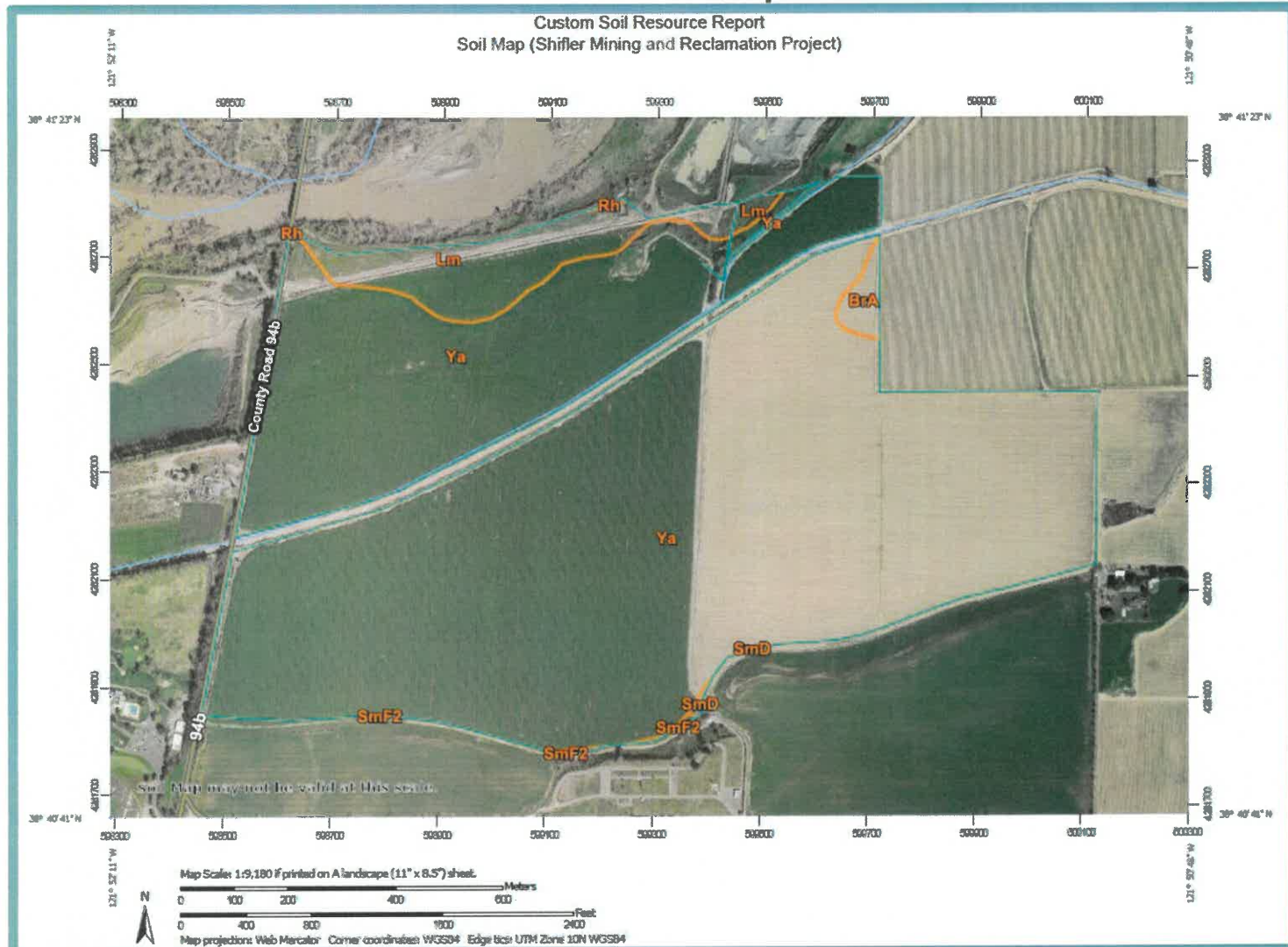
- The Mitigation Property has a well and pump system and therefore will have an adequate supply of water to continue to support agricultural uses. (Id., § 8-2.404, subd. (e)(4).)
- The Mitigation Property is located within 0.25-mile of the sphere of influence of the City of Woodland: a location identified by the County for mitigation. (Id., §§ 8-2.404, subd. (e)(5), 8-2.404, subd. (g)(2)(i).)

Based on the foregoing, Teichert submits that the Mitigation Property is sufficient to satisfy COA 35 for the Project.

Figure 6-5
Moore Canal Avoidance Alternative – Project Site Farmland Acreage Totals



**Figure 4.2-1
 On-Site Soil Map**



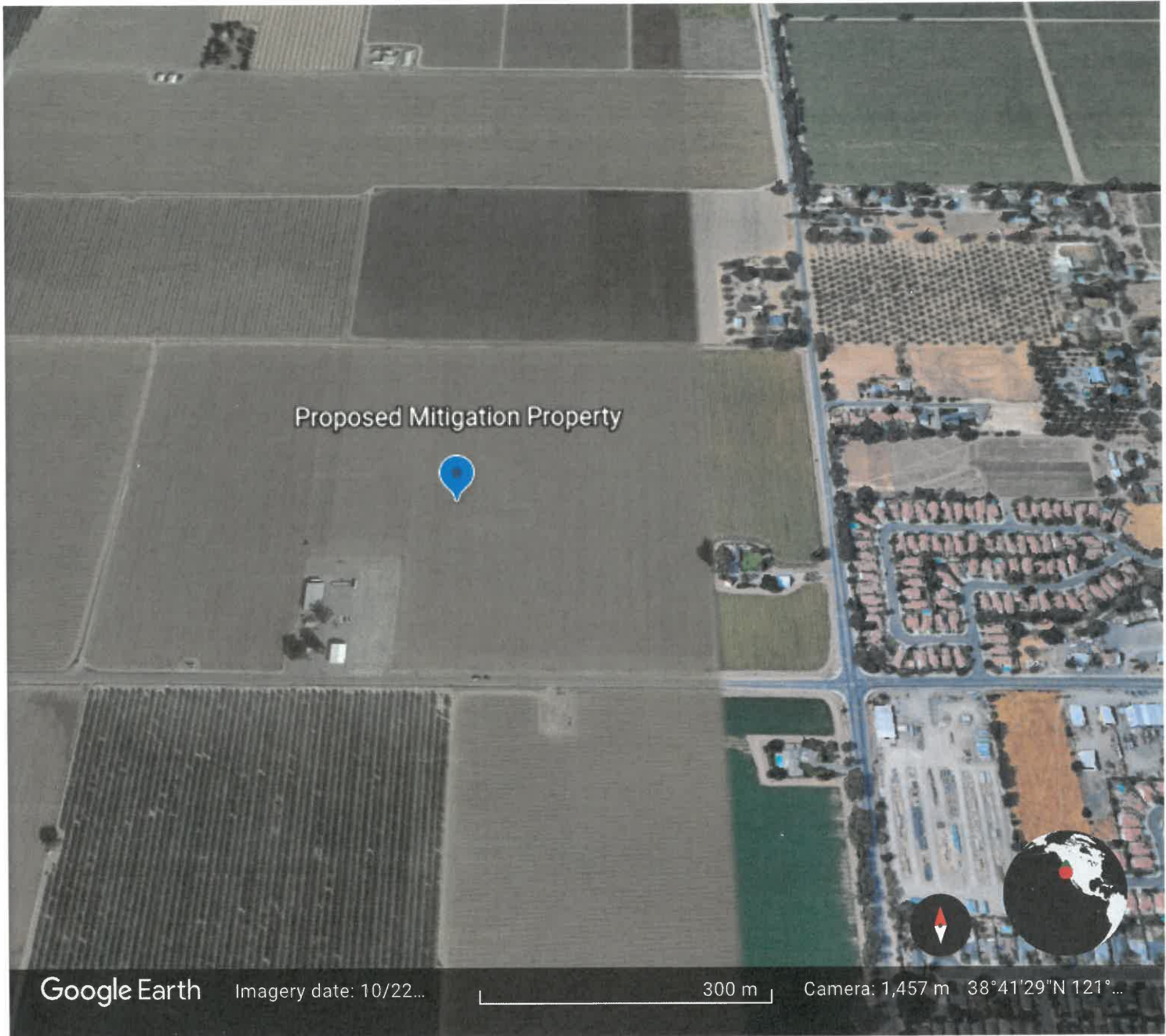
Source: USDA NRCS, 2019.



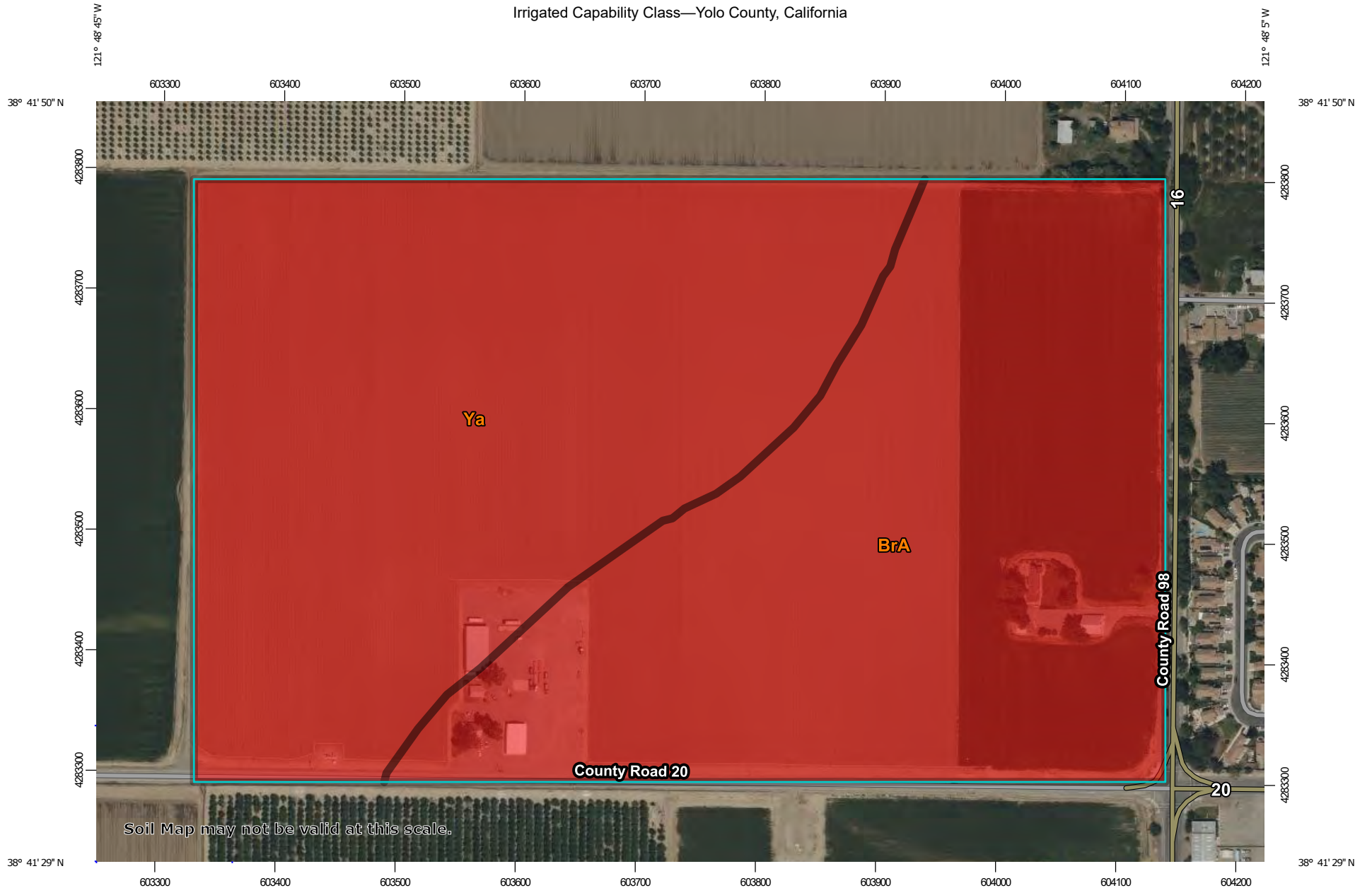
Figure 1

9/27/22, 5:01 PM

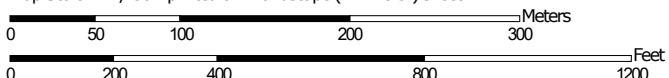
Google Earth



Irrigated Capability Class—Yolo County, California



Map Scale: 1:4,450 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84












MAP LEGEND

Area of Interest (AOI)










 Area of Interest (AOI)

Soils



Soil Rating Polygons








-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available

Soil Rating Lines

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available

Soil Rating Points






-  Capability Class - I
-  Capability Class - II

-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Yolo County, California
 Survey Area Data: Version 17, Sep 6, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2022—Apr 24, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Irrigated Capability Class

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BrA	Brentwood silty clay loam, 0 to 2 percent slopes	1	49.1	49.0%
Ya	Yolo silt loam, 0 to 2 percent slopes, MLRA 17	1	51.2	51.0%
Totals for Area of Interest			100.3	100.0%

Description

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

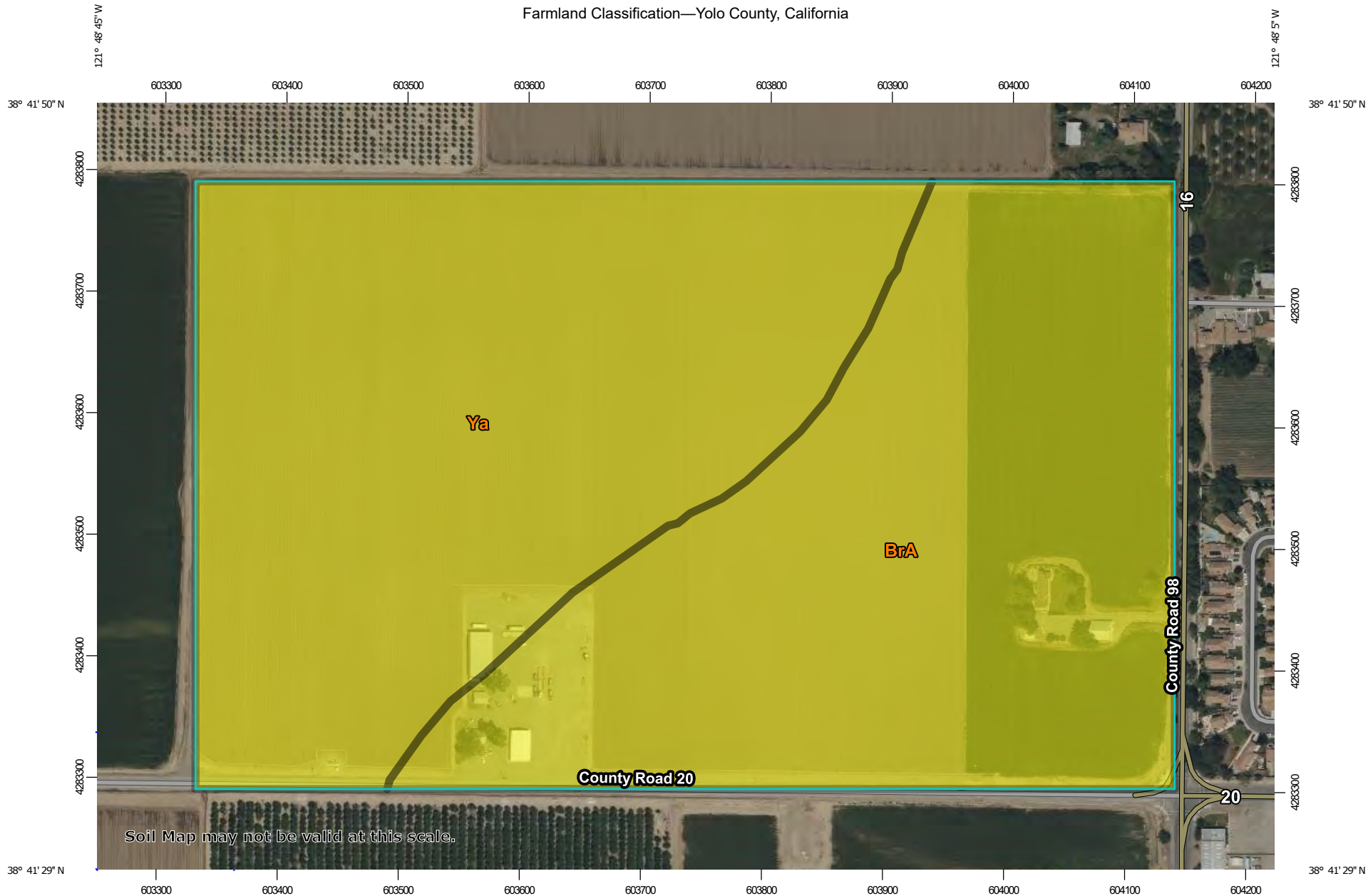
Rating Options

Aggregation Method: Dominant Condition

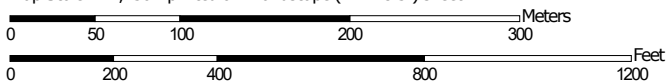
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Farmland Classification—Yolo County, California



Map Scale: 1:4,450 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84











MAP LEGEND








Area of Interest (AOI)






 Area of Interest (AOI)








Soils



Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

































-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available






















Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—Yolo County, California

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer	
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	Soil Rating Points		Not prime farmland		Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Prime farmland if drained		Prime farmland if irrigated and reclaimed of excess salts and sodium	
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Prime farmland if irrigated		Farmland of statewide importance	
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season	
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season				Farmland of local importance		Prime farmland if irrigated and drained		Farmland of statewide importance, if irrigated	
	Farmland of statewide importance, if irrigated				Farmland of local importance, if irrigated		Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season			

Farmland Classification—Yolo County, California

<ul style="list-style-type: none">  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if irrigated and drained  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60 	<ul style="list-style-type: none">  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if warm enough  Farmland of statewide importance, if thawed  Farmland of local importance  Farmland of local importance, if irrigated 	<ul style="list-style-type: none">  Farmland of unique importance  Not rated or not available <p>Water Features</p> <ul style="list-style-type: none">  Streams and Canals <p>Transportation</p> <ul style="list-style-type: none">  Rails  Interstate Highways  US Routes  Major Roads  Local Roads <p>Background</p> <ul style="list-style-type: none">  Aerial Photography 	<p>The soil surveys that comprise your AOI were mapped at 1:20,000.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Warning: Soil Map may not be valid at this scale.</p> <p>Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.</p> </div> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Yolo County, California Survey Area Data: Version 17, Sep 6, 2021</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Apr 23, 2022—Apr 24, 2022</p> <p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>
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Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BrA	Brentwood silty clay loam, 0 to 2 percent slopes	Prime farmland if irrigated	49.1	49.0%
Ya	Yolo silt loam, 0 to 2 percent slopes, MLRA 17	Prime farmland if irrigated	51.2	51.0%
Totals for Area of Interest			100.3	100.0%

Description

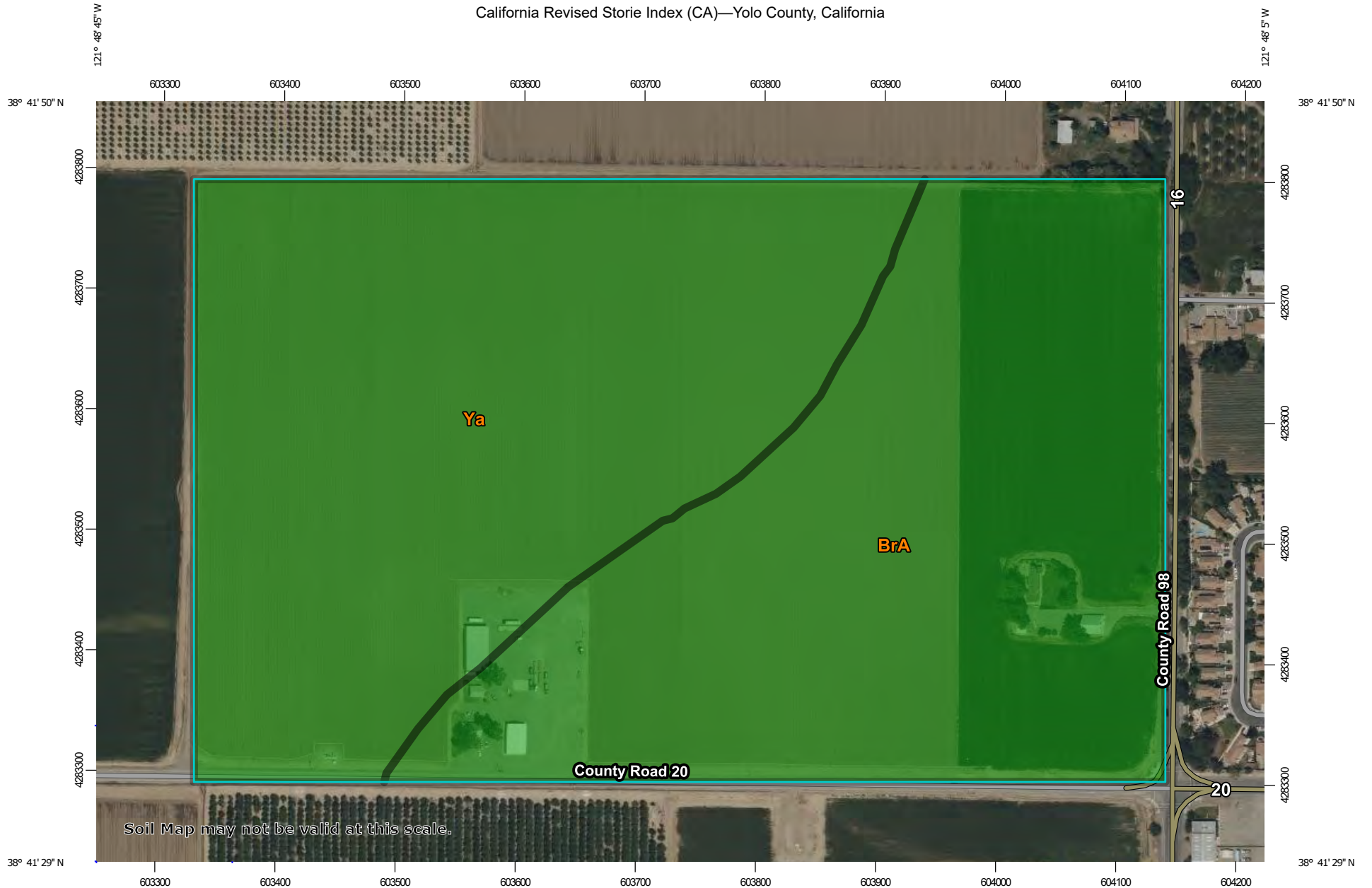
Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

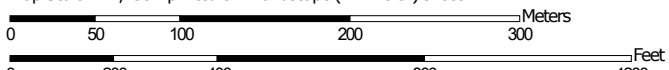
Tie-break Rule: Lower

California Revised Storie Index (CA)—Yolo County, California



Soil Map may not be valid at this scale.

Map Scale: 1:4,450 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84











MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils





Soil Rating Polygons





-  Grade 1 - Excellent
-  Grade 2 - Good
-  Grade 3 - Fair
-  Grade 4 - Poor
-  Grade 5 - Very Poor
-  Grade 6 - Nonagricultural
-  Not rated
-  Not rated or not available

Soil Rating Lines


-  Grade 1 - Excellent
-  Grade 2 - Good
-  Grade 3 - Fair
-  Grade 4 - Poor
-  Grade 5 - Very Poor
-  Grade 6 - Nonagricultural
-  Not rated
-  Not rated or not available

Soil Rating Points






-  Grade 1 - Excellent
-  Grade 2 - Good
-  Grade 3 - Fair
-  Grade 4 - Poor

-  Grade 5 - Very Poor
-  Grade 6 - Nonagricultural
-  Not rated
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Yolo County, California
Survey Area Data: Version 17, Sep 6, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2022—Apr 24, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

California Revised Storie Index (CA)

Map unit symbol	Map unit name	Rating	Component name (percent)	Acres in AOI	Percent of AOI
BrA	Brentwood silty clay loam, 0 to 2 percent slopes	Grade 1 - Excellent	Brentwood (85%)	49.1	49.0%
Ya	Yolo silt loam, 0 to 2 percent slopes, MLRA 17	Grade 1 - Excellent	Yolo (85%)	51.2	51.0%
Totals for Area of Interest				100.3	100.0%

Description

The Revised Storie Index is a rating system based on soil properties that govern the potential for soil map unit components to be used for irrigated agriculture in California.

The Revised Storie Index assesses the productivity of a soil from the following four characteristics:

- Factor A: degree of soil profile development
- Factor B: texture of the surface layer
- Factor C: steepness of slope
- Factor X: drainage class, landform, erosion class, flooding and ponding frequency and duration, soil pH, soluble salt content as measured by electrical conductivity, and sodium adsorption ratio

Revised Storie Index numerical ratings have been combined into six classes as follows:

- Grade 1: Excellent (81 to 100)
- Grade 2: Good (61 to 80)
- Grade 3: Fair (41 to 60)
- Grade 4: Poor (21 to 40)
- Grade 5: Very poor (11 to 20)
- Grade 6: Nonagricultural (10 or less)

The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one shown for the map unit. The percent composition of each component in a particular map unit is given to help the user better understand the extent to which the rating applies to the map unit.

Other components with different ratings may occur in each map unit. The ratings for all components, regardless the aggregated rating of the map unit, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower