Evan Ditmars

From: Becky Steinbruner <ki6tkb@yahoo.com>
Sent: Sunday, February 15, 2026 12:01 AM
To: Evan Ditmars
Cc: Evan Ditmars; Becky Steinbruner
Subject: PUBLIC COMMENT FOR FEBRUARY 19, 2026 COUNTY AG POLICY ADVISORY COMMISSION RE: DRAFT BESS ORDINANCE
Attachments: BESS Ag Viability Study Duttle PA231038 August 30 2024.pdf; Measure J.pdf

Dear Santa Cruz County Agricultural Policy Advisory Commissioners,
I am writing to ask that your Commission schedule a Study Session in advance of reviewing the County Draft Battery Energy Storage System (BESS) Ordinance and concurrently, the Seahawk Energy Storage Project at 90 Minto Road, Watsonville, which is already in permit process.

According to the January 13, 2026 Planning Staff Report to the Board of Supervisors, your Commission will be required to review the Draft BESS Ordinance as amended as well as the environmental review of the Seahawk BESS project. https://cdi.santacruzcountyca.gov/Portals/35/CDI/UnifiedPermitCenter/BESS%20Ordinance%20Page/Files/BOS%20Approved%20Draft%20ESCD%20GP-Code%20Amendments%201-16-26.pdf?ver=xtvnQpWI_rF1YCE6eLwMtQ%3d%3d

"The attached draft documents contain language to address all of the issues the Board raised at the November 18, 2025 meeting. Some requirements, such as the 3:1 replacement ratio for impacts to Commercial Agriculture-zoned (CA) land, may be disproportionate to the impact, cost-prohibitive, and/or infeasible, with the result of driving developers to bypass the County's local ordinance in favor of the state process. To avoid this, staff suggests retaining the 1:1 replacement ratio when CA land is protected in a conservation easement, and adding additional language that allows the conservation of other land types, such as Agriculture-zoned (A) land, timber land, or habitat, at a 3:1 ratio to meet the offset requirement if protection of CA land is not feasible.

Financial Impact
This work will not impact the General Budget but does require significant staff time. If the Board decides to move forward, a consultant team will be hired to prepare the Supplemental Environmental Impact Report (EIR) to address both the ordinance and the proposed project at 90 Minto Road, as originally directed by the Board. Costs associated with the EIR consultants will be borne by the project applicant." (see Item #9: https://santacruzcountyca.primegov.com/Portal/Meeting?meetingTemplateId=1001

Your Commission will be required to review any BESS Projects:

13.10.409 Application and approval of energy storage projects in the "ESS" Energy Storage System Combining District.

(A) Applicants for proposed ESS facilities shall submit a Conditional Use Permit application and Conditional Site Development application for approval by the County of Santa Cruz Board of Supervisors, following a recommendation by the Santa Cruz County Planning Commission. ***Projects impacting agricultural resource land shall require a recommendation from the Agricultural Policy Advisory Commission to the Board of Supervisors. Public hearings, noticing, and community meetings shall be conducted according to the requirements for conditional use permits in SCCC 18.10.***

Many members of the public are alarmed by the Draft BESS Ordinance allowing agricultural land conversion to large BESS projects, an industrial utility use. This violates the voter-approved mandate issued in 1978 by Measure J, codified in current Santa Cruz County Planning Codes to preserve agricultural resources. (see attached)

The Santa Cruz County Agricultural Policy Advisory Commission (APAC) was formed by Measure J actions:

- *The commission was established by ordinance in 1978 to oversee agricultural land preservation and viability in the county.*
- ***Key Discussions:*** *In 1998 and later, the commission reviewed Model Right to Farm ordinances to protect agricultural operations, a key factor in long-term viability.*

The commission's work generally focuses on implementing policies to support commercial agricultural land, as required by the County General Plan and the 1978 Growth Management Referendum

The Draft BESS Ordinance conflicts with the Santa Cruz County General Plan Policies Chapter 16.50 to preserve agricultural resources. https://cdi.santacruzcountyca.gov/Portals/2/County/Planning/SustainabilityUpdate/Code_Amendments/16_50_AgriculturalLandPreservationandProtection_public_draft.pdf?ver=Yr7zjxTSSQBqmvffmqJxiQ%3D%3D

The Draft BESS Ordinance states:
(page 20)
(*4) The proposed project meets the criteria for the siting of energy facilities in General Plan Policy PPF-4.6.5,* ***except that the "full protection" of agricultural uses shall not apply to the conversion of agricultural lands necessary to site the facility*** *but shall apply to remaining agricultural lands;*

(5) Impacts to agricultural lands are proposed to be offset by the establishment of an agricultural conservation easement, as required by SCCC Section 13.10.408(B)

(Page 5) *Proposed energy storage systems must meet required findings in the Combining District regulations,*
incorporate state-of-the art technology and safety measures, and may be located on designated agricultural land when an agricultural viability study is prepared to determine the lack of economic viability of farming on the land. Systems shall be sited outside of Prime Farmland, as established by the State Department of Conservation where possible. Where agricultural protection policies within the General Plan or County Code conflict with the siting of an energy storage system within the Combining District, impacts to agricultural resource soils shall be offset through the establishment of an agricultural conservation easement, as provided by County Code.

(Page 11)
(*B) Environmentally sensitive resources shall be protected as required by SCCC Title 16. Any impacts to environmentally sensitive resources that cannot be protected shall be offset as required by SCCC Title16, except as noted below.*

(1) Agricultural Resources.
(a) Energy storage systems and all associated improvements, except perimeter fencing and drainage, shall be located a minimum of 100 feet from adjacent properties designated in General Plan maps as agricultural resource soil types, ***unless a lesser distance is determined to better accomplish the objectives of the agricultural buffering standards in SCCC Chapter 16.50, as approved by the Agricultural Policy Advisory Commission.***

(b) Energy storage systems proposed on Commercial Agricultural (CA)-zoned parcels in the "ESS" Combining District shall offset impacts to any agricultural resource soils that are identified in an agricultural viability study at a 1 to 1 ratio (e.g., one new acre protected for every one acre removed from agricultural production capability).

(i) Where an energy storage system occupies a portion of a site with Types 1-3 agricultural resource soils, the remainder of the site shall be permanently protected under an agricultural conservation easement, regardless of a proposed land division*.*

(Page 12)
(*ii) Where the agricultural easement on the remainder of the parcel does not equal the required 1 to 1 ratio, additional Types 1-3 agricultural resource land shall be placed into a permanent agricultural conservation easement, such that the full ratio of required agricultural land is protected.*

(iii) In the event that the full acreage of CA-zoned lands within the county cannot be identified, other resource lands, such as lands zone (A), timber lands, or habitat, may be protected within conservation easements at a 3:1 ratio.

(C) In order to ensure that environmental protections are in place with respect to potential discharge of hazardous materials, all energy storage systems shall be subject to the requirements of SCCC Title 7, Chapter 7.100, including but not limited to SCCC Section 7.100.060 and SCCC Section 7.100.110

Because the Seahawk BESS Project application is being simultaneously reviewed with the County Draft BESS Ordinance, Swift Consultants, the land use consultant for the Project, commissioned an agricultural viability analysis to support conversion of the agricultural land at the 90 Minto Road apple orchard, in compliance with the Draft BESS Ordinance requirements (page 10):

4) If located on agricultural resource type land, an agricultural viability study confirming that the project minimizes the loss of highest quality resource type land;

Santa Cruz County Agricultural Resources Preservation Policy 16.50.050 states:
The evaluation of agricultural viability shall include, but not be limited to, an economic feasibility evaluation which contains ***at least****:*

*(a) An analysis of the gross revenue from the agricultural products grown in the area for the **five years** immediately preceding the date of filing the application.; and*
(b) Analysis of the operational expenses, excluding the cost of land, associated with the production of the agricultural products grown in the area for the five years immediately preceding the date of filing application

The Seahawk BESS Ag Viability Supplementary Document Report, dated August 28, 2023, is attached below.

There are numerous inconsistent claims included in the Report that clearly have the developer's interest in focus.

While the Report claims the hydric soils render the parcels APN 051-101-77 and 78, formerly farmed by Mr. John Lukrich before his death in 2022 (https://www.mehlschapel.com/obituaries/John-Anthony-Lukrich?obId=26687720) agriculturally non-viable, note that **the Report cites no actual soil tests performed to render site-specific information.** The claim that the land is non-viable is scientifically inaccurate without site-specific hydrologic data. Hydric soil classification alone does not establish a lack of agricultural capability.

Hydric soils require management skills for apple orchards but do not automatically render the land agriculturally non-viable. Permanent conversion decisions require demonstration of true agricultural incapacity, NOT management limitations

The Report also fails to provide complete financial data over a long-term period, instead submitting only four years of incomplete data that was for a time period burdened with unprecedented economic pressures due to COVID. Economic fluctuation does not equal physical impossibility of agriculture.

The Farmland Mapping and Monitoring Program (FMMP) designates the agricultural land in the 90 Minto Road area as "Prime Farmland": https://maps.conservation.ca.gov/DLRP/CIFF/ Measure J codified in Santa Cruz County Policies 17.01.030 (a)*"Preservation of Agricultural Land. It **shall** be the policy of Santa Cruz County that prime agricultural lands and lands which are economically productive when used for agriculture **shall** be preserved for agricultural use."*

GP/LCP Objective 5.13 ' . ..prevent the conversion of commercial agricultural land to non-agricultural uses. To recognize that agriculture is a priority land use and to resolve policy conflicts in favor of preserving and promoting agriculture on designated commercial agricultural lands."

Section 30241.
The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:
(a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.
(b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is

already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.
(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.
(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.
(e) By assuring that public service and facility expansions and non-agricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.
(f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.
(Amended by Ch. 1066, Stats. 1981.)
(Amended by Ch. 43, Stats. 1982.)

https://www2.santacruzcountyca.gov/bds/board/19990413/065a.pdf

I respectfully request that your Commission schedule a Study Session before you review the Draft BESS Ordinance or the Seahawk BESS project application. According to my research, your Commission has not undertaken any review of agricultural viability application since September 18, 2003, when a Right-to-Farm Ordinance was considered as part of the County's Agricultural Land Preservation and Protection
Ordinance: https://www2.santacruzcountyca.gov/bds/board/19981208/053.pdf

Please acknowledge receipt of this request and letter.

Thank you.
Sincerely,
Becky Steinbruner

County of Santa Cruz
Community Development & Infrastructure
701 Ocean Street 4th Floor, Santa Cruz, CA 95060
www.cdi.santacrucountyca.gov

Discretionary Permit Supplemental Documents Index

The preparer is legally responsible for signatures whether a graphic, typewritten, or handwritten. Documents may not be restricted by digital signatures or otherwise.

Project Information Date:

Permit No.:
APN(s): 051-101-77 and 78
Project Address or Location: 90 Minto Road
Legal Owner: Steven Dobler Email: sdobler@doblerandsons.com
Owner Mailing Address: 320 Edenvale Ct. Watsonville, CA 95076 Phone: (831)801-0008

Applicant

Name: Ken Hart Swift Consulting Services Email: ken@swiftconsulting service.co
Address: 500 Chestnut Street Santa Cruz, CA 95060 Phone: (831) 459-9992 - 102

Other Contact

Name: John Swift Swift Consulting Services Email: john@swiftconsultingservice.cc
Address: 500 Chestnut Street Santa Cruz, CA 95060 Phone: (831) 459-9992

Project Documents Checkmark and include all required supplemental documents

- ☐ Arborist Report (information here)
- ☐ Archeological Report (information here)
- ☐ Biological Report
- ☐ Drainage Calculations (information here)
- ☐ Geological Report (information here)
- ☐ Neighborhood Meeting Results (Levels VI and VII only) or Notification (information here)
- ☐ Non-conforming Structural Modification Worksheet (information here)
- ☐ Soils/ Geotechnical Report (information here)
- ☑ Other: Ag. Viability Report
- ☐ Other:
- ☐ Other:
- ☐ Other:
- ☐ Other:

RUSH & DUTTLE CONSULTING

AN ASSOCIATION OF AGRICULTURAL CONSULTANTS

Anthony Duttle, MS, MBA
Steven Morrison, Ph.D.
Dale W. Rush, Ph.D.
Albert A. Stoddard III, Ph.D.
Michael Atkins B.S.

California
6083 Fig Garden Drive, #671
Fresno, CA 93722
Texas
1473 County Road 270
Mico, TX 78056
Office: (831) 484-4834
Email: ADuttle@ymail.com

INITIAL REPORT

August 30, 2024, File No. 24030.01

Mr. John Swift
Swift Consulting Services, Inc.
500 Chestnut Street, Suite 100
Santa Cruz, CA 95060
(831) 459-9992

Re: Agricultural land assessment of APN 051-101-77 and 051-101-78, 90 Minto Road, Watsonville, California.

At the request of Mr. John Swift, an evaluation of the history, condition, and agricultural status of two parcels of land identified as APN 051-101-77 reported as 37 acres and APN 051-101-78 reported as 10 acres located at 90 Minto Road, Watsonville, CA was undertaken (Exhibit 1). The intent was to specifically address issues with respect to suitability and potential agricultural uses under the "CA" Commercial Agriculture designation, and the possible utilization of a portion of the subject property for a 200-Megawatt battery storage facility (Option 1-Exhibit 2 & Option 2- Exhibit 3), as might be allowed as a Public/Quasi - Public Community Facility under the Santa Cruz County Public Facilities (PF) zoning designation (Exhibit 4), the (A) Agriculture zoning designation or a new Combining District being considered by the County which would potentially allow public/quasi- public community facilities in all zone districts (Exhibit 5).

Qualifications

Dale W. Rush

I am an agricultural consultant and have resided in Monterey County since 1994. As a part of my normal work, I evaluate agriculture-related issues including losses or damage to crops, and/or associated property, and changes in land use. In addition, I have evaluated properties in the region including Monterey and Santa Cruz Counties with respect to agricultural land suitability studies and comparative land uses, where agricultural, commercial, residential and other alternate uses were considered under requests to local planning commissions, departments and review boards, and submitted analyses on behalf of various clients. I also provide expert witness services in hearings and litigation. I have a bachelor's degree in environmental biology, a master's degree in Soil Science, a Doctorate degree in Soil Science from the University of California, more than 40 years of national, regional and local professional and field experience. I am a nationally and regionally certified Professional Agronomist, Soil Scientist, and Crop Advisor (ARCPACS combined certification No. 04904), and California licensed Pest Control Adviser.

Anthony E. Duttle

I am an agricultural consultant and have resided in Monterey County for several years. As a part of my normal work, I evaluate agriculture-related issues including losses or damage to crops, and/or associated property, and changes in land use. In addition, my firm evaluates properties in the region including Monterey and Santa Cruz Counties with respect to agricultural land suitability studies and comparative land uses, where agricultural, commercial, residential and other alternate uses are considered under requests to local planning commissions, departments review boards and submitted analyses on behalf of various clients. I also provide expert witness services in hearings and litigation. I have a bachelor's degree in Agricultural Biology, a Master of Science degree in Agricultural Biology, a Masters of Business Administration from the University of California, and more than 30 years of national, regional, local, professional and field

experience. I am a nationally and regionally Certified Crop Advisor, and California licensed Pest Control Adviser.

The proposed project

The proposed project is to construct an energy storage facility to occupy portions of two parcels of land bordering an electrical substation on Minto Road (ref. Exhibit 2 & Exhibit 3). The project would consist of a collector substation in the northwestern portion of the property, transmission lines parallel to the existing access easement towards a 200-megawatt energy storage unit in the southeast portion of the property, Option 1, (Exhibit 2) or along the northerly property line, Option 2 (Exhibit 3). The entire project would occupy approximately 12 to 16 acres or 26 to 34 percent of the combined parcels.

The property

The two adjoining APN's are variably shaped parcels with significant variations in slope and contour that are currently cultivated in apples (Exhibit 6). The larger parcel, APN 051-101-77 contains agricultural maintenance, storage buildings, equipment storage areas, and an agricultural well along the eastern boundary. A rectangular portion of the parcel is separated from the main area by an access easement for Minto Road parallel to the northeastern boundary (ref. Exhibit 1). The smaller parcel, APN 051-101-78, borders the southeast boundary of the larger parcel with both designated as Commercial Agriculture "AG-1A" under the Santa Cruz County general plan.

The property is surrounded by a mixture of properties which include public utilities, large scale commercial vegetable, berry and nursery farming as well as residential developments. The subject land is bordered at the northwest corner by an electrical substation with residential development beyond to the west and northwest (Exhibit 7). The Pajaro Valley Independent School District bus maintenance and storage facility are adjacent to the parcel at the south (Exhibit 8) with both of these neighboring parcels designated as "PF" Public and Community Facilities zones. The area immediately to the southeast is occupied by traditional greenhouse, berry and vegetable truck farms (Exhibit 9). The land to the west is occupied by an abandoned berry field and a small farming operation which is fallow but for a small portion occupied by marijuana production and the land beyond variably flooded wetlands for College Lake (Exhibit 10). The berry production on the adjoining parcel was reported to be abandoned mid-season by a previous tenant when seasonal rains saturated the soil, which prevented access and severely impacted normal farming activities.

There were no major impediments observed regarding the surrounding land uses which would limit agricultural activities on the parcels. Additionally, Installation of the proposed project would not limit normal agricultural activities on the remainder of the parcel or surrounding agricultural community.

The orchard is currently commercially cultivated using conventional irrigation and production methods typical in the area for an orchard of this age, row and tree spacing (Exhibit 11). Historical imagery indicates the parcels have been planted in apples since at least 1993 and are reported by the ownership to have been cultivated in apples since the mid-twentieth century (Exhibit 12). The orchard has large areas of missing and replanted trees with the patterns of tree mortality, reduced vigor and tree replacement generally aligned with observed variations in soil types of the parcels (Exhibit 13).

It was reported by the current ownership that attempts to cultivate vegetable and berry truck crops typically grown in the area were unsuccessful when the parcels were originally purchased in the mid-20th century. Accounts of these attempts indicated significant portions of the parcels became saturated after seasonal rains with soils reported to remain saturated for extended periods, limiting access for cultural activities and increasing disease incidence. It was also reported that apples were selected at that time due to the minimal soil disturbance associated with cultivation and relative tolerance for the soil conditions of the parcels. While apples are currently cultivated, extensive measures are required annually to minimize the damaging effects of saturated conditions which can occur during the winter and spring. These activities include installation of temporary drainage channels to slough off water, restricting cultural activities in the orchard

for extended periods to prevent disturbing the soils. The subject parcels were managed by the current ownership from the mid-20th century to 2013, having been leased to two different firms since.

Commercial Agricultural performance history

Review of profit and loss statements provided by the two tenants who leased the land during the last 5 years (Exhibit 14), revealed a history of consistent, unsustainable financial performance. Apple production of the orchard resulted in net losses ranging from ($98,845), to ($277,188). This poor financial performance resulted in the initial tenant (2013 to 2022) declining to renew the lease in 2022. The current tenant reported a loss of ($277,188) for the 2023 season which is similarly unsustainable. The relatively recent lease activity has highlighted the financial performance of the parcels as a separate entity. Analysis of the orchards financial records reveal that the orchard has not been economically viable as a stand-alone venture for at least 5 years.

Additionally, the historical average gross revenues of the subject orchard ranged from approximately 16% to 83% of the reported Santa Cruz County average apple production from 2019 to 2022 (Exhibit 15). These data indicate yield and gross revenue of the subject orchard consistently and significantly below that of apple farms in the surrounding area.

Soil survey

The land within the subject APN's is represented within the United States Department of Agriculture, Natural Resources Conservation Soil Survey (Exhibit 16). The survey includes specific soils information as well as ratings for potential uses including agriculture, industrial, recreation, construction, etc. A primary area of focus of this evaluation is the appropriateness of the land within this area for agricultural purposes.

There are six soil series in the parcel, of which 4 are insignificant and irrelevant due to their small areas within the parcel. The two primary soils of the property make up more than 95% of the total land area and are the focus of the analysis.

The largest portion of the property, 26.4 acres or 55.4% is made up of variably contoured land of Watsonville loam soils with slopes of 2 to 15 percent. This area is in the northern portion of the parcel and extends in a diagonal direction from northwest to southeast, generally parallel to the parcels longest boundaries transiting both parcels. This soils unit is classified as Farmland of Statewide Importance and has an Irrigated Land Capability Classification of 3 with a Subclassification of "e" for its significant potential for erosion. Class 3 soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.

The California Revised Storie Index is a widely known and accepted method of rating soils for agricultural potential in California which assesses the productivity of a soil from the following four characteristics: Degree of soil profile development, texture of the surface layer, slope, and manageable features, including drainage, microrelief, fertility, acidity, erosion, and salt content. While the soils in largest portion of the parcel are considered Farmland of Statewide Importance, the soils in this classification unit have a California Revised Storie Index value of Grade 5 (very poor).

A major factor contributing to the reduced Revised California Storie Index and Land Capability ratings for the soils of this unit is the Hydric rating of 88%, indicating very hydric soils. Hydric soils are defined as soils that form under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Hydric Soils have conditions which can limit root growth and significantly favor development of highly damaging soil borne plant pathogens. These circumstances significantly increase the potential for disaggregation, reduced fertility, increased salt accumulation and erosion which can be significantly increased with cultivation.

The second significant soils unit is comprised of Pinto loam soils with 2 to 9 percent slopes comprising 19 acres or 40% of the area within the subject parcels. This area follows the southern parcel boundaries, occupies roughly half of the main portion of both parcels. The soils of this unit have an Irrigated Land Capability Classification of 2 with a Subclassification of "e" for its significant potential for erosion. Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices. The soils of this soil unit are considered Prime Farmland if Irrigated and have a Revised Storie Index rating of Grade 1 – Excellent. The crop condition in this portion of the parcel was observed to be generally more vigorous and uniform relative to the northern, hydric portion of the parcel.

Evaluation and assessment

Santa Cruz County lands designated as Agriculture Type 1A "Viable Agricultural Land" comprise areas of known high productivity which are not located in any utility assessment district for which bonded indebtedness has been incurred. These lands essentially meet the U.S. Department of Agriculture Soil Conservation Service and the California Department of Food and Agriculture criteria for "prime" and "unique" farmland and "prime" rangeland (Exhibit 17).

The soil characteristics described in USDA NRCS soils report for the parcels indicate moderate to severe limitations for agricultural uses exist across most of the parcels. These ratings are consistent with the observed conditions in the orchard and reported history of management challenges required to cultivate the crops under the varied soil conditions. Additionally, these observations indicate the California Revised Storie Index ratings accurately describe the agricultural production capabilities of the soils in these parcels.

While the land has historically been engaged in commercial agricultural production, yield data and farming income have shown the parcels have not been economically viable for the past several years. However, these results do not account for the variance in production consistent with the variances in soil conditions across the parcels. There are clearly portions of these parcels which are agriculturally viable and consistent with the Santa Cruz County lands Agriculture Type 1A designation. These portions of the parcel appear capable of sustaining profitable agricultural endeavors for the foreseeable future if managed independently from the less viable areas.

Efforts should be made to preserve and protect the agricultural value of these portions of the parcels in accordance with requirements of the Santa Cruz County Code 16.50 Agricultural Land Preservation and Protection. The project as proposed in Option 1 would occupy an approximate land area of 12-16 acres of which approximately 4 acres would reside in areas of the parcel considered to have excellent agricultural potential. The project as proposed in Option 2 would occupy an approximate land area of 12-16 acres but would be contained entirely in areas of the parcel with soils having a California Revised Storie Index value of Grade 5 (very poor).

Summary

The construction of the energy storage unit, would likely have a significant, much needed stabilizing effect on the electrical supply to the surrounding community including the increasing demand for electric power by the agricultural community for electric farm equipment and machinery. A public/quasi-public community facility such as a battery storage facility is currently a conditionally allowed use in the "A" Agricultural and "PF" Public Facilities zone districts. However, it is understood that the County is considering amending the Zoning Code to allow Public/Quasi-Public Facilities in all zone districts including the CA zone, provided impacts to viable agricultural land are minimized.

The area of the parcels with a soil Storie Index rating of Grade 1 "Excellent" may be more accurately described by the Agricultural 2A zoning designation due to limitations arising from the variations in slope and the hydric nature of the soils which have demonstrably limited the types of crops and cultural practices used on the parcels. The installation of the energy storage facility would not limit agricultural activities on the remainder of the subject parcels or surrounding commercial farming activities.

It is evident that the poorer performing portions of the parcels have been burdensome on the overall fiscal performance of the parcels. These areas have required increased management inputs while historically having lower yields and gross income due to poor vigor, tree loss and frequent replacement. Farming operations of these parcels have not been a viable agricultural enterprise for at least five years and attempts to cultivate alternative cropping systems in the past have been similarly unsustainable.

The installation of the power storage facility as shown in Option 1 (ref. Exhibit 2) would remove approximately 4 acres or 21% of land with a Storie Index rating of Grade 1 "Excellent" from production and approximately 8 to 12 acres of land considered Grade 5. The removal of 4 acres of the more productive Grade 1 land from agricultural use would likely have a significant impact on the overall agricultural production potential of the parcel.

Alternatively, the placement of the energy storage facility as shown in Option 2 (ref. Exhibit 3) would reside entirely within the 26.4 acres of the parcel having a Storie Index rating of Grade 5 "Very Poor". This would remove areas of the parcels which are not now, or likely to become commercially viable, profitable, farmland in the foreseeable future. Further, the removal of areas demonstrated to be extremely sensitive to disturbances associated with agricultural practices and poor fiscal performance would likely improve the financial stability of agricultural ventures in the balance of the parcel.

Respectfully submitted,

Dale W. Rush, PhD, CPAg/SSc, CCA, PAC, QAL

Anthony Duttle MS, MBA, CCA, PCA

RUSH & DUTTLE CONSULTING

AN ASSOCIATION OF AGRICULTURAL CONSULTANTS

Anthony Duttle, MS, MBA
Steven Morrison, Ph.D.
Dale W. Rush, Ph.D.
Albert A. Stoddard III, Ph.D.
Michael Atkins, B.S.

California
6083 Fig Garden Drive, #671
Fresno, CA 93722
Texas
1473 County Road 270
Mico, TX 78056
Office: (831) 484-4834
Email: ADuttle@ymail.com

File 24030.01
Exhibits 1-17

SEAHAWK - 200 MWAC - BESS PROJECT

Contents

Exhibit 1. APN 051-101-77 and APN 051-101-78.

RUSH & DUTTLE CONSULTING

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Fresno, CA 93722
Texas
1473 County Road 270
Mico, TX 78056
Office: (831) 484-4834
Email: ADuttle@ymail.com

Exhibit 2. Proposed BESS project, option 1

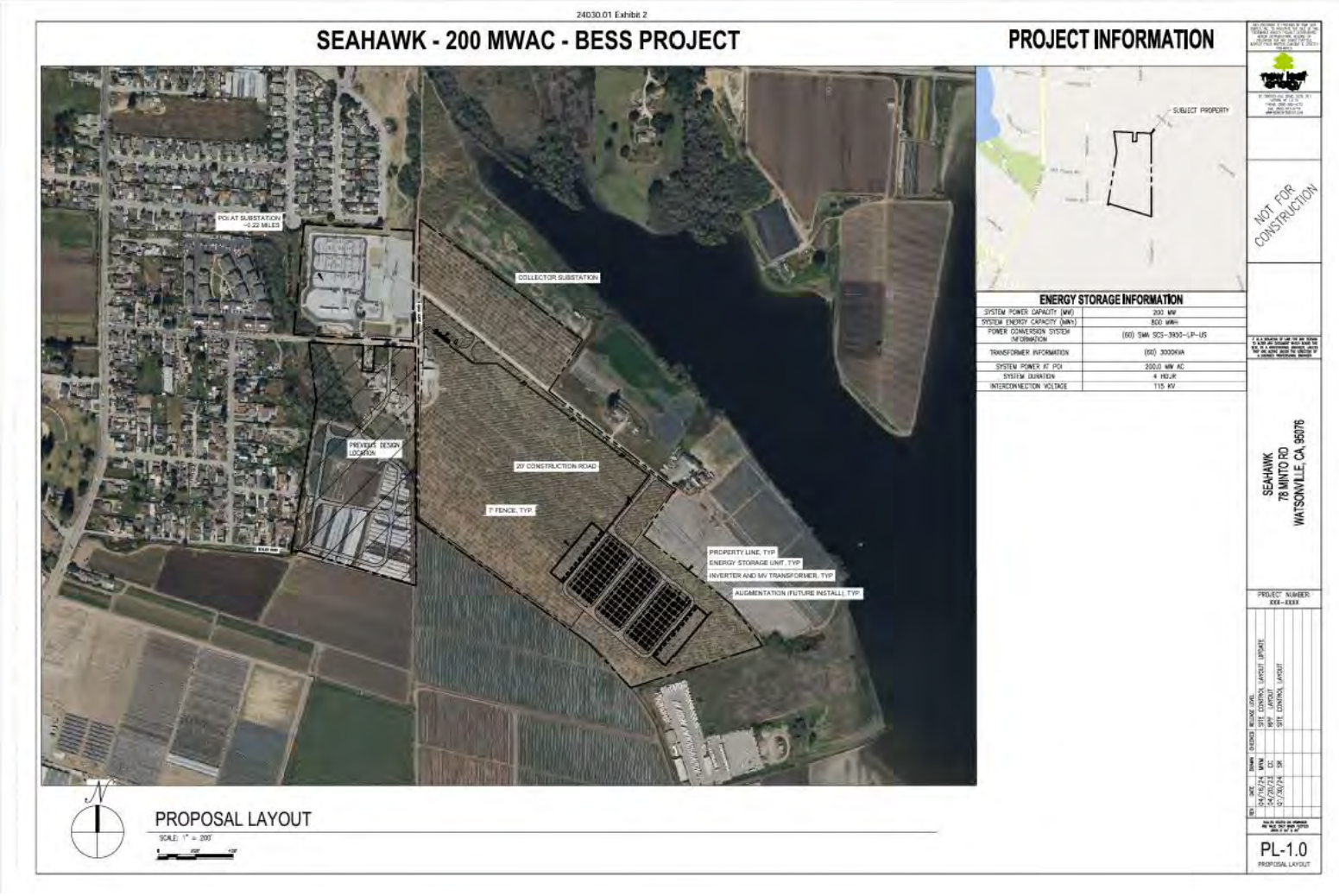

Exhibit 3. Proposed BESS project, option 2

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California
6083 Fig Garden Drive, #671
Fresno, CA 93722
Texas
1473 County Road 270
Mico, TX 78056
Office: (831) 484-4834
Email: ADuttle@ymail.com

Exhibit 4. Santa Cruz County Zone districts

24030.01 Exhibit 4

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

Basic Zone Districts – Summary of Uses

The following list is provided to give a general idea of the uses allowed in each zone district. Most non-residential uses are allowed only with a development permit (use approval), approved by the County. A building permit is also required for a use involving new construction or structural additions and remodels. For a complete list of uses allowed in any given zone district and the level of review required, contact the Zoning Counter at (831) 454-2130, between the hours of 1:00 p.m. and 4:00 p.m.daily.

Zone District	Allowed Uses
"CA" Commercial Agriculture	Commercial agriculture, farm buildings, livestock raising, green-houses, farm worker camps. One single-family dwelling.
"A" Agriculture	Agriculture, farm buildings, livestock raising, lumber mills, visitor accommodations, zoos & natural science museums. One single-family dwelling.
"AP" Agricultural Preserve	Similar to "CA" zone; applies to parcels under agricultural preserve contracts with the County.
"RA" Residential Agricultural	One single-family dwelling, one second dwelling unit, home occupations, small-scale agriculture, greenhouses, wineries, private stables and paddocks, schools, community facilities, open space and recreational uses.
"RR" Rural Residential	One single-family dwelling, one second dwelling unit, home occupations, and horses with a use approval.
"R-1" Single-Family Residential	One single-family dwelling, one second dwelling unit, home occupations, not more than 2 cats and 2 dogs, community facilities.
"RB" Single-Family Ocean Beach Residential	One single-family dwelling, one second dwelling unit, home occupations, not more than 2 cats and 2 dogs.
"RM" Multi-Family Residential	Single- and multi-family dwellings and dwelling groups, mobile home parks, home occupations, 2 cats and 1 dog per dwelling.

"PA" Professional-Administrative Office	Banks, community facilities, travel agencies, medical, insurance, real estate and executive offices, nursing homes, and conference facilities.
"VA" Visitor Accommodations	Hotels, motels, inns, conference centers, organized camps, vehicle and tent camping parks.
"CT" Tourist Commercial	Gas stations, restaurants, and visitor accommodations.
"C-1" Neighborhood Commercial	Animal grooming, banks, barber & beauty shops, small repair shops, print shops, shoe repair, offices (not exceeding 50% of the building area), fitness centers, restaurants, bookshops, bicycle shops, hardware stores, jewelry stores, pet shops, clothing stores, and stationary stores. Multi-family residential as a mixed use up to 50% of floor area.
"C-2" Community Commercial	All uses permitted in the "C-1" zone plus veterinary clinics (without overnight boarding), offices, indoor theaters, and retail sales involving large areas such as appliance showrooms, automobile supply stores, department stores, and garden supply stores. Plus hotels, motels, and inns. Multi-family residential as a mixed use up to 50% of floor area.
"C-4" Commercial Services	Boat building, sales, and storage, nightclubs, bowling alleys, indoor theaters, flea markets, skating rinks, sports arenas, contractor's shops, mini-storage buildings, automobile repair shops, contractors' storage yards, shipping terminals, automobile sales, building materials yards, nurseries, feed and farm supply stores, and all allowed uses in the "M-1" zone with certain restrictions.
"M-1" Light Industrial	Agricultural service establishments, poultry hatcheries, light manufacturing, assembly, or processing.
"M-2" Heavy Industrial	Large factories involving hazardous chemicals such as manufacture of construction materials or household goods, glass, carpets, pharmaceuticals, petroleum processing, and wood processing.
"M-3" Mineral Extraction Industrial	Quarries and mining.
"PR" Parks, Recreation and Open Space	Community centers, open space uses, recreational facilities, visitor accommodations, and timber harvesting.
"PF" Public and Community Facilities	Administrative offices, cemeteries, churches, community centers, fire stations, hospitals, libraries, nursing homes, parks, and schools and colleges.
"TP" Timber Production	Growing and harvesting of timber and other forest products, agriculture. One single-family dwelling.
"SU" Special Use	All uses allowed in the "RA" or "R-1" zone district provided the use is consistent with the General Plan. All other permitted or conditionally permitted uses provided they are consistent with the General Plan and a Level 5 use approval is obtained.

RUSH & DUTTLE CONSULTING

AN ASSOCIATION OF AGRICULTURAL CONSULTANTS

Anthony Duttle, MS, MBA
Steven Morrison, Ph.D.
Dale W. Rush, Ph.D.
Albert A. Stoddard III, Ph.D.
Michael Atkins, B.S.

California
6083 Fig Garden Drive, #671
Fresno, CA 93722
Texas
1473 County Road 270
Mico, TX 78056
Office: (831) 484-4834
Email: ADuttle@ymail.com

Combining Zone Districts

The following combining districts have been applied to the basic zone districts in order to impose specific limitations or exercise some form of land use regulation.

Overlay Zone	Summary of Limitations Imposed
"AS" Aptos Seascape	Designates and regulates those lands which are in Aptos Seascape Subdivision Tracts 483, 511, and 574 to which special site standards apply.
"D" Designated Park Site	Designates land as a potential County park site.
"GH" Geologic Hazards	Denotes the presence of physical hazard to development and that any use is subject to the Geologic Hazards Ordinance.
"H" Assisted Housing	Denotes where affordable housing priority site regulations apply.
"I" Statement of Intention	Board of Supervisors has agreed not to rezone the property in the foreseeable future.
"L" Historic Landmark	The property or structure has been designated a historic landmark and is subject to the Historic Resources Ordinance.
"MH" Mobile Home Park	Denotes the location of a legal mobile home park.
"O" Open Space Easement	Owner has executed an open space easement contract with the County to maintain the land in its natural state for 10-years.
"P" Agricultural Preserve and Farm-land Security	Owner has executed an Agricultural Preserve or Farmland Security contract with the County to maintain the land in its natural state for 10-years.
"PP" Pleasure Point Community Design	Denotes parcels subject to special residential design standards and guidelines specific to the Pleasure Point Neighborhood.
"R" Regional Housing Need	Designated sites for development at 20 units per acres in order to meet the requirements of the Regional Housing Needs Allocation as required by State Government Code Section 65584.
"SP" Salamander Protection	Denotes areas where special site standards apply to protect endangered species and that uses are subject to the Sensitive Habitat Protection Ordinance.
"W" Watsonville Utility Prohibition	Designated to prevent the provision of urban services to undeveloped/rural areas west of the City of Watsonville, so as to discourage urban development in the farmlands, wetlands and other environmentally sensitive areas in the Coastal Zone west of Watsonville.

Exhibit 5. Santa Cruz County board meeting , Minutes - August 13, 2024

11. Consider directing Community Development and Infrastructure to create an overlay zone or combining district to be applied to property in all zoning designations within a specified proximity to existing electricity transmission centers that allow energy storage systems to be developed with a discretionary Planning Commission Conditional Use Permit where determined to be of significant benefit to public health, safety and welfare as “public/quasi-public community facilities”, and take related actions (District 4 - Supervisor Hernandez and District 5 - Supervisor McPherson)
Recommended Action: Directed Community Development and Infrastructure to create an overlay zone or combining district to be applied to property in all zoning designations within a specified proximity to existing electricity transmission centers (substations) that allow energy storage systems to be developed with a discretionary Planning Commission Conditional Use Permit (CUP-PC) where determined to be of significant benefit to public health, safety and welfare as “public/quasi-public community facilities”, and return to the Board on or before October 29, 2024, with the draft ordinance.
Public Comment 2 people addressed the Board in chambers No one addressed the Board via Zoom
RESULT: APPROVED AS AMENDED [UNANIMOUS] MOVER: Bruce McPherson, Fifth District Supervisor SECONDER: Felipe Hernandez, Fourth District Supervisor AYES: Koenig, Friend, Cummings, Hernandez, McPherson.

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Texas
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Mico, TX 78056
Office: (831) 484-4834
Email: ADuttle@ymail.com

Exhibit 6. Contour of subject parcels

Exhibit 7. Electrical substation and Residential areas to the Northwest of the subject parcels.

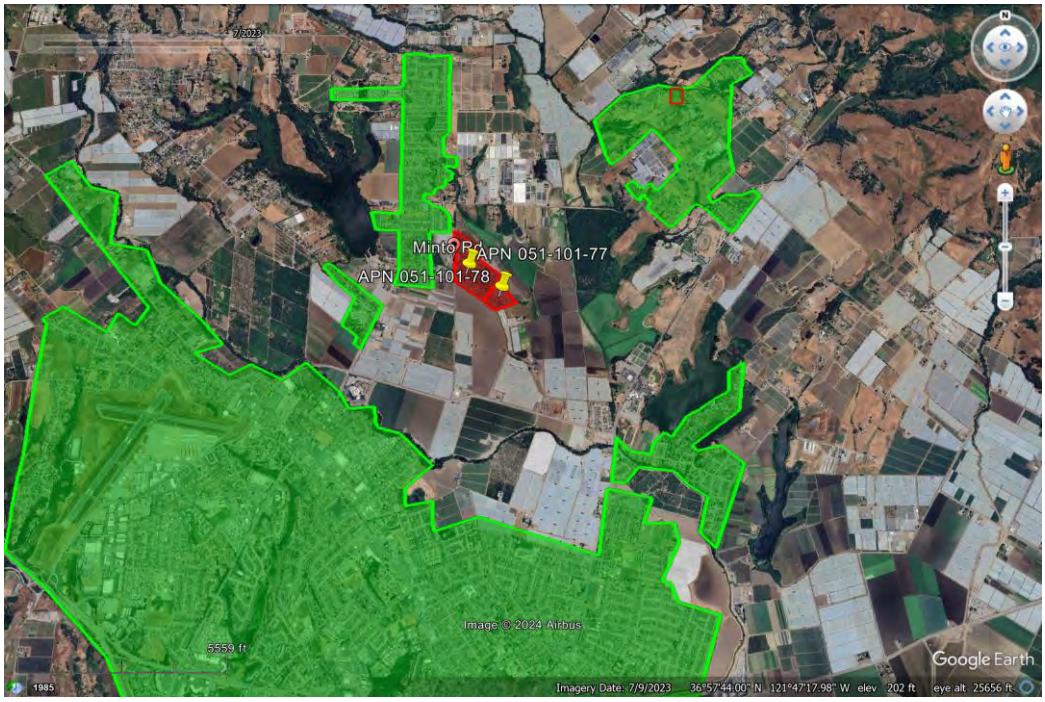
Minto Rd
APN 051-101-77
APN 051-101-78
Image © 2024 Airbus
5559 ft
Google Earth
Imagery Date: 7/9/2023

Exhibit 8. Pajaro Valley School District bus maintenance and storage facility.

Exhibit 9. Southwest adjoining parcels

Exhibit 10. Adjoining parcels to the east, College Lake, and abandoned Berry fields.

Exhibit 11. Current Apple production.

Exhibit 12. Historical Imagery of the subject parcels. Circa 1993.

Exhibit 12. Historical imagery of the subject parcels. Circa 2003.

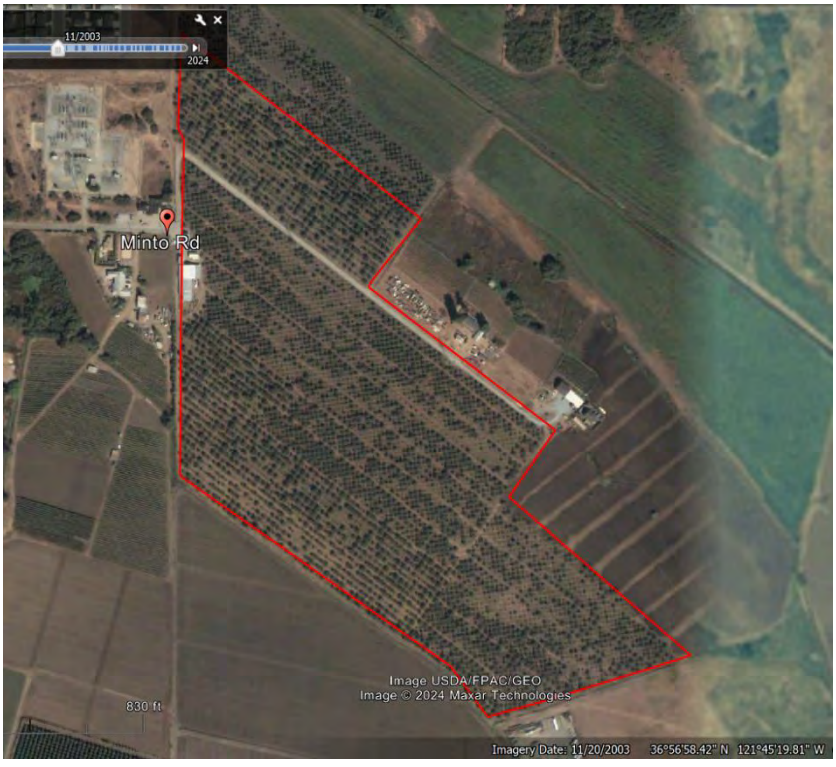

Exhibit 12. Historical imagery of the subject parcels. Circa 2004.

Exhibit 12. Historical imagery of the subject parcels. Circa 2010.

Exhibit 12. Historical imagery of the subject parcels. Circa 2015.

Exhibit 12. Historical imagery of the subject parcels. Circa 2020.

Exhibit 12. Historical imagery of the subject parcels. Circa 2023.

Exhibit 13. Variance in tree size and missing trees in hydric portions of orchard.

Exhibit 14. Five-year financial performance of the orchard.

24030.01 Exhibit 12

Combined 5 year financial P&L history for APN 051-101-77 and 051-101-78, 78 Minto Road, Watsonville, California.

Lukrich P&L trend		Leasee 2013-2022 2019	Leasee 2013-2022 2020	Leasee 2013-2022 2021	Leasee 2013-2022 2022	Leasee 2023-2024 2023
		47	47	47	47	47
Total bins		**490**	**819**	**1287**	**733**	Not provided
Contract bins		287	819	1287	733	Not provided
Windfalls bins		203	-	-	-	Not provided
Contract bins % of total		100%	100%	100%	100%	Not provided
Expenses Operating Expenses						
Labor		122,182	141,225	166,403	133,982	$97,157
Non-Harvest Labor	Fixed	75,556	87,975	$90,784	85,337	$47,736
Harvest Labor	Variable	46,626	53,250	75,618	48,645	$49,421
Equipment Fuel		175	37	-	-	$2,500
Equipment Lease & Depreciation		6,817	1,024	-	7,833	Not provided
Materials		9,877	17,399	16,790	6,824	$9,982
Miscellaneous		2,374	903	-	-	$2,700
Orchard Shared Expenses				(1,333)	2,247	Not provided
Overhead - Administrative		15,333	12,892	12,000	12,000	Not provided
Repairs & Maintenance		-	871	59	7,052	Not provided
Small Equip/Tools		140	-	-	-	Not provided
Utilities		7,110	12,920	13,934	11,947	$6,154
Total		**164,008**	**187,271**	**207,851**	**181,886**	**$215,650**
OPEX/acre		**3,490**	**3,984**	**4,422**	**3,870**	**$4,588**
Lease and Property Tax						
Property Taxes		9,771	9,975	9,304	9,342	$9,598
Lease		94,000	94,000	94,000	78,333	$94,000
Total		103,771	103,975	103,304	87,676	$103,598
Interest		-	-	-	-	$4,931
EXPENSES Grand Total		**267,779**	**291,246**	**311,156**	**269,561**	**$388,439**
GROSS REVENUE Grand Total		**72,047**	**141,569**	**212,310**	**129,526**	**$111,251**
Handpicked		48,790	141,569	212,310	129,526	Not provided
Windfall		23,257	-	-	-	Not provided
TONNAGE Grand Total		**225**	**364**	**571**	**336**	Not provided
Handpicked		130	364	571	336	Not provided
Windfall		95	-	-	-	Not provided
Handpicked %		57.8%	100.0%	100.0%	100.0%	Not Provided
Windfall %		42.2%	0.0%	0.0%	0.0%	Not provided
HP Tons/Acre		3	8	12	7	Not provided
HP & WF Tons/Acre		5	8	12	7	Not provided
NET INCOME		**(195,732)**	**(149,676)**	**(98,845)**	**(140,035)**	**$ (277,188)**
Revenue/Ton		320	389	372	386	Not provided
Cost / Ton		1,190	800	556	803	Not provided
Opex/Ton (Excluding lease and prop. tax)		729	515	364	542	Not provided
Net Income / Ton		(870)	(411)	(184)	(417)	Not provided
Revenue/Acre		1,533	3,012	4,517	2,756	$2,367
Cost / Acre		5,697	6,197	6,753	5,735	$8,265
Opex/Acre (Excluding lease and property tax)		3,490	3,984	4,555	3,870	$4,588
Net Income /Acre		(4,165)	(3,185)	(2,235)	(2,979)	$ (5,898)
Net Income Margin		**-272%**	**-106%**	**-49%**	**-108%**	**-154%**

Exhibit 15. Santa Cruz County Apple production statistics 2019 to 2022.

		Leasee 2013-2022 2019	Leasee 2013-2022 2020	Leasee 2013-2022 2021	Leasee 2013-2022 2022	Leasee 2023-2024 2023
Revenue/Acre parcels, APN 051-101-77 and 051-101-78		$1,533	$3,012	$4,517	$2,756	$2,367
Santa Cruz County average gross revenue per acre for apples		9712.08	5409.5	5446.4	6487.5	
APN deviation from Santa Cruz county		-$8,179	-$2,398	-$929	-$3,732	
Percent of Santa Cruz county annual reported yields		15.78%	55.68%	82.94%	42.48%	

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Santa Cruz County, California

August 30, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Map Scale: 1:4,440 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 1:24,000.

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: Santa Cruz County, California
Survey Area Data: Version 17, Sep 11, 2023

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

Date(s) aerial images were photographed: Mar 11, 2022—May 29, 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.

Map Unit Legend (Minto Road)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
126	Diablo clay, 5 to 25 percent slopes, MLRA 15	0.3	0.7%
129	Elder sandy loam, 0 to 2 percent slopes, MLRA 14	0.0	0.0%
161	Pinto loam, 0 to 2 percent slopes	0.3	0.6%
162	Pinto loam, 2 to 9 percent slopes	19.0	39.9%
163	Pinto loam, 9 to 15 percent slopes	1.6	3.3%
177	Watsonville loam, 2 to 15 percent slopes	26.4	55.4%
Totals for Area of Interest		**47.6**	**100.0%**

Map Unit Descriptions (Minto Road)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Santa Cruz County, California

126—Diablo clay, 5 to 25 percent slopes, MLRA 15

Map Unit Setting

National map unit symbol: 2w63g
Elevation: 0 to 2,490 feet
Mean annual precipitation: 11 to 43 inches
Mean annual air temperature: 56 to 60 degrees F
Frost-free period: 260 to 365 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Diablo and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Diablo

Setting

Landform: Mountain slopes, hillslopes
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Residuum weathered from calcareous shale

Typical profile

A1 - 0 to 5 inches: clay
A2 - 5 to 18 inches: clay
Bkss1 - 18 to 30 inches: clay
Bkss2 - 30 to 39 inches: clay
Ck - 39 to 53 inches: clay
Cr - 53 to 79 inches: bedrock

Properties and qualities

Slope: 5 to 25 percent
Depth to restrictive feature: 40 to 59 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R015XD001CA - CLAYEY
Hydric soil rating: No

Minor Components

Haire

Percent of map unit: 3 percent
Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Raynor

Percent of map unit: 3 percent
Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Clear lake

Percent of map unit: 2 percent
Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Linne

Percent of map unit: 2 percent
Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Soper

Percent of map unit: 2 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Concave, convex
Across-slope shape: Convex
Ecological site: R015XE094CA - GRANITIC
Hydric soil rating: No

San benito

Percent of map unit: 2 percent
Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Altamont

Percent of map unit: 1 percent
Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

129—Elder sandy loam, 0 to 2 percent slopes, MLRA 14

Map Unit Setting

National map unit symbol: 2tyyj
Elevation: 50 to 1,570 feet
Mean annual precipitation: 11 to 29 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 300 to 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Elder and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elder

Setting

Landform: Flood plains, alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

Ap - 0 to 8 inches: sandy loam
A - 8 to 23 inches: sandy loam
AC - 23 to 31 inches: sandy loam
C - 31 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.83 to 9.92 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 3c
Hydrologic Soil Group: A
Ecological site: R014XY001CA - LOAMY BOTTOMLAND
Hydric soil rating: No

Minor Components

Arroyo seco
Percent of map unit: 4 percent
Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Gorgonio
Percent of map unit: 4 percent
Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Elkhorn, sandy loam
Percent of map unit: 2 percent
Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

San emigdio, sandy loam
Percent of map unit: 1 percent
Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Xerofluvents, sand
Percent of map unit: 1 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Watsonville, loam
Percent of map unit: 1 percent
Landform: Marine terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Baywood, loamy sand
Percent of map unit: 1 percent
Landform: Dunes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex

Across-slope shape: Convex
Hydric soil rating: No

Metz, loamy sand

Percent of map unit: 1 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

161—Pinto loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: h9fn
Elevation: 20 to 1,000 feet
Mean annual precipitation: 20 to 35 inches
Mean annual air temperature: 59 degrees F
Frost-free period: 245 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Pinto and similar soils: 85 percent
Minor components: 7 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pinto

Setting

Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or marine deposits

Typical profile

H1 - 0 to 21 inches: loam
H2 - 21 to 51 inches: sandy clay loam
H3 - 51 to 65 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R014XG912CA - Loamy Terrace
Hydric soil rating: No

Minor Components

Elkhorn, sandy loam

Percent of map unit: 5 percent
Hydric soil rating: No

Pinto

Percent of map unit: 1 percent
Hydric soil rating: No

Watsonville

Percent of map unit: 1 percent
Landform: Marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Hydric soil rating: Yes

162—Pinto loam, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: h9fp
Elevation: 20 to 1,000 feet
Mean annual precipitation: 20 to 35 inches
Mean annual air temperature: 59 degrees F
Frost-free period: 245 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Pinto and similar soils: 85 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pinto

Setting

Landform: Alluvial fans, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

H1 - 0 to 21 inches: loam
H2 - 21 to 51 inches: sandy clay loam
H3 - 51 to 65 inches: sandy clay loam

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R014XG918CA - Loamy Fan
Hydric soil rating: No

Minor Components

Watsonville

Percent of map unit: 5 percent
Landform: Marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Hydric soil rating: Yes

Elkhorn, sandy loam

Percent of map unit: 5 percent
Hydric soil rating: No

163—Pinto loam, 9 to 15 percent slopes

Map Unit Setting

National map unit symbol: h9fq
Elevation: 20 to 1,000 feet
Mean annual precipitation: 20 to 35 inches
Mean annual air temperature: 59 degrees F
Frost-free period: 245 to 275 days
Farmland classification: Not prime farmland

Map Unit Composition

Pinto and similar soils: 85 percent
Minor components: 7 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pinto

Setting

Landform: Alluvial fans, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or marine deposits

Typical profile

H1 - 0 to 21 inches: loam
H2 - 21 to 51 inches: sandy clay loam
H3 - 51 to 65 inches: sandy clay loam

Properties and qualities

Slope: 9 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R014XD089CA - CLAYPAN
Hydric soil rating: No

Minor Components

Elkhorn, sandy loam

Percent of map unit: 5 percent
Hydric soil rating: No

Pinto

Percent of map unit: 1 percent
Hydric soil rating: No

Watsonville

Percent of map unit: 1 percent
Landform: Marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Hydric soil rating: Yes

177—Watsonville loam, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: h9g5
Elevation: 20 to 1,200 feet
Mean annual precipitation: 28 inches
Mean annual air temperature: 57 degrees F
Frost-free period: 245 to 275 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Watsonville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Watsonville

Setting

Landform: Marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

H1 - 0 to 18 inches: loam
H2 - 18 to 39 inches: clay
H3 - 39 to 63 inches: sandy clay loam

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: R014XD089CA - CLAYPAN
Hydric soil rating: Yes

Minor Components

Elkhorn, sandy loam
Percent of map unit: 5 percent
Hydric soil rating: No

Pinto, loam
Percent of map unit: 4 percent
Hydric soil rating: No

Watsonville, thick surface
Percent of map unit: 3 percent
Landform: Marine terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Hydric soil rating: Yes

Elder
Percent of map unit: 1 percent
Hydric soil rating: No

Cropley, silty clay
Percent of map unit: 1 percent
Hydric soil rating: No

Danville
Percent of map unit: 1 percent
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

California Revised Storie Index (CA) (Minto Road)

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.

Map—California Revised Storie Index (CA) (Minto Road)

Map Scale: 1:4,440 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

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 1:24,000.

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: Santa Cruz County, California
Survey Area Data: Version 17, Sep 11, 2023

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

Date(s) aerial images were photographed: Mar 11, 2022—May 29, 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.

Table—California Revised Storie Index (CA) (Minto Road)

Map unit symbol	Map unit name	Rating	Component name (percent)	Acres in AOI	Percent of AOI
126	Diablo clay, 5 to 25 percent slopes, MLRA 15	Grade 4 - Poor	Diablo (85%)	0.3	0.7%
			Clear Lake (2%)		
129	Elder sandy loam, 0 to 2 percent slopes, MLRA 14	Grade 1 - Excellent	Elder (85%)	0.0	0.0%
161	Pinto loam, 0 to 2 percent slopes	Grade 1 - Excellent	Pinto (85%)	0.3	0.6%
162	Pinto loam, 2 to 9 percent slopes	Grade 1 - Excellent	Pinto (85%)	19.0	39.9%
163	Pinto loam, 9 to 15 percent slopes	Grade 2 - Good	Pinto (85%)	1.6	3.3%
177	Watsonville loam, 2 to 15 percent slopes	Grade 5 - Very Poor	Watsonville (85%)	26.4	55.4%
Totals for Area of Interest				**47.6**	**100.0%**

Rating Options—California Revised Storie Index (CA) (Minto Road)

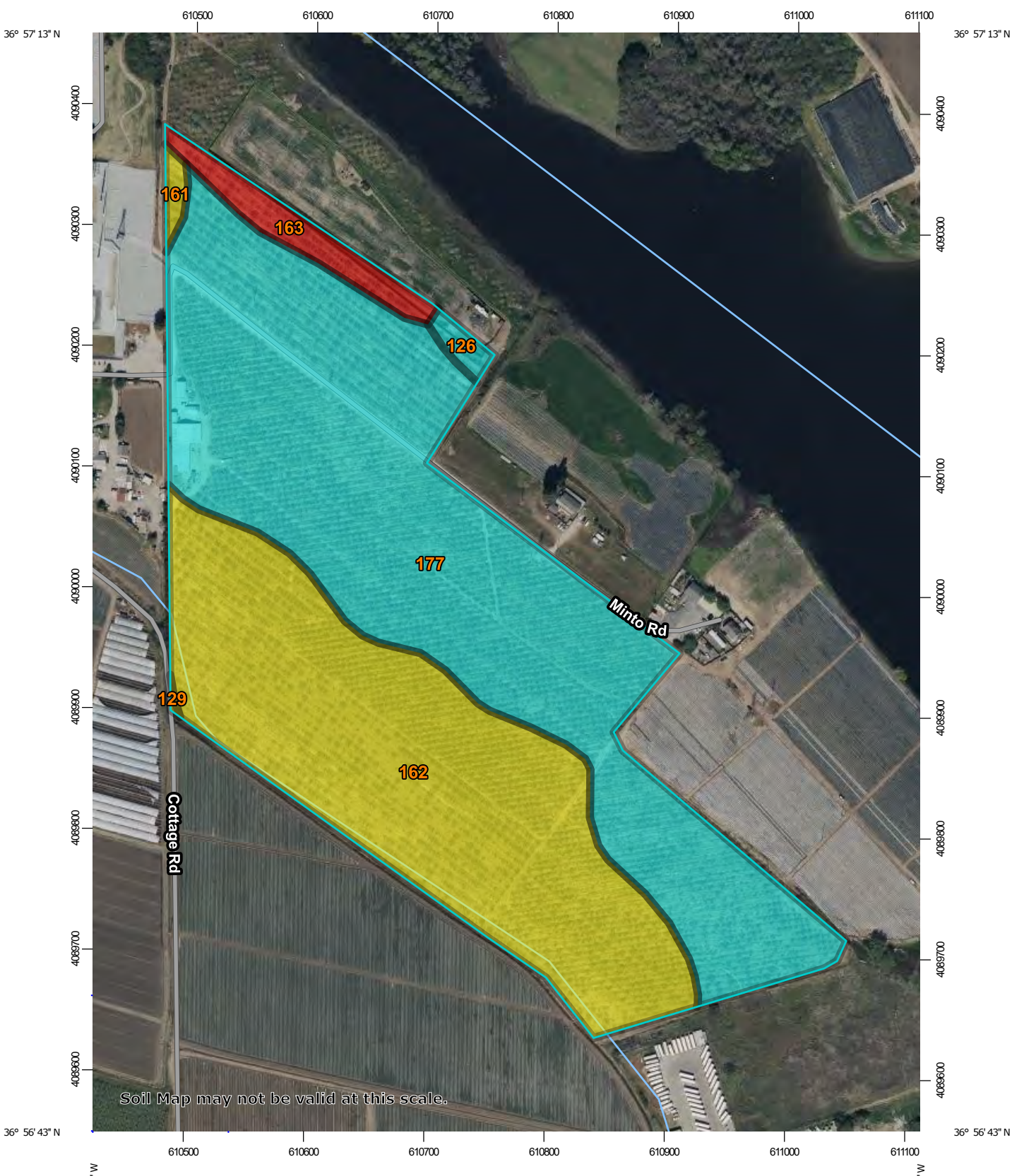
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Farmland Classification (Minto Road)

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.



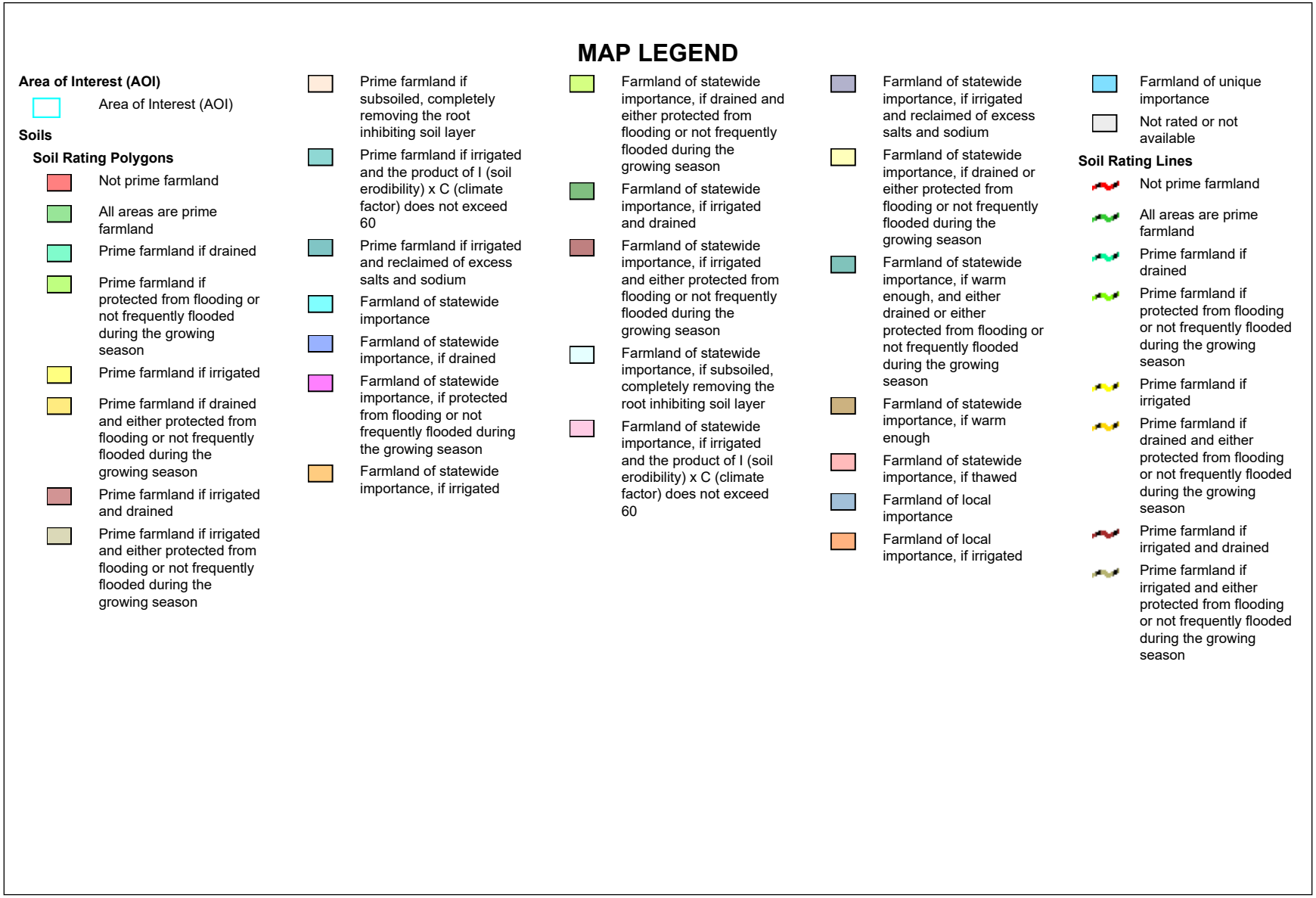
Map Scale: 1:4,440 if printed on A portrait (8.5" x 11") sheet.

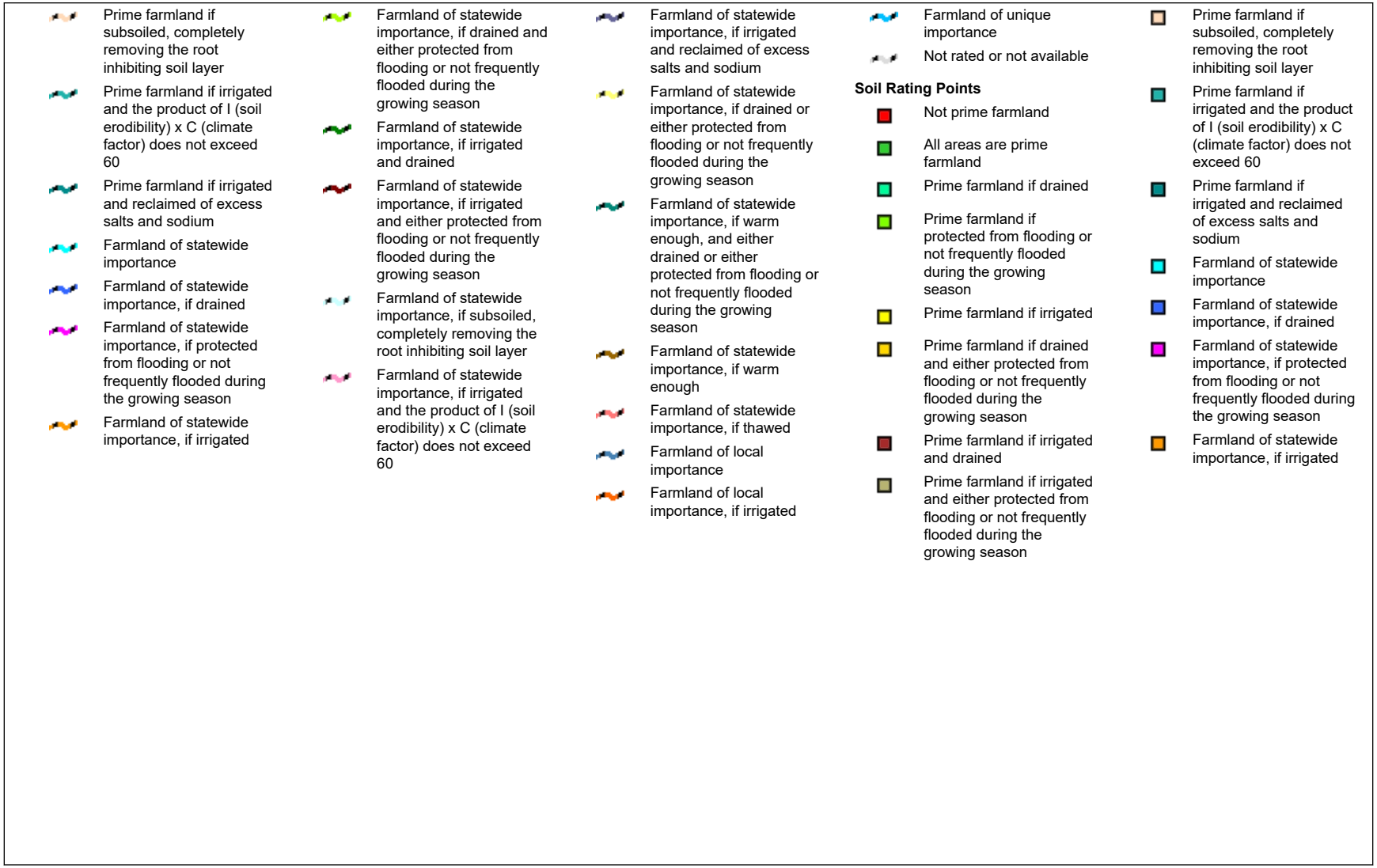
N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

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


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 Points
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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:24,000.

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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)

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Soil Survey Area: Santa Cruz County, California
Survey Area Data: Version 17, Sep 11, 2023

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

Date(s) aerial images were photographed: Mar 11, 2022—May 29, 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.

Table—Farmland Classification (Minto Road)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
126	Diablo clay, 5 to 25 percent slopes, MLRA 15	Farmland of statewide importance	0.3	0.7%
129	Elder sandy loam, 0 to 2 percent slopes, MLRA 14	Prime farmland if irrigated	0.0	0.0%
161	Pinto loam, 0 to 2 percent slopes	Prime farmland if irrigated	0.3	0.6%
162	Pinto loam, 2 to 9 percent slopes	Prime farmland if irrigated	19.0	39.9%
163	Pinto loam, 9 to 15 percent slopes	Not prime farmland	1.6	3.3%
177	Watsonville loam, 2 to 15 percent slopes	Farmland of statewide importance	26.4	55.4%
Totals for Area of Interest			**47.6**	**100.0%**

Rating Options—Farmland Classification (Minto Road)

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Irrigated Capability Class (Minto Road)

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.

Map—Irrigated Capability Class (Minto Road)

Map Scale: 1:4,440 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

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 1:24,000.

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: Santa Cruz County, California
Survey Area Data: Version 17, Sep 11, 2023

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

Date(s) aerial images were photographed: Mar 11, 2022—May 29, 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.

Table—Irrigated Capability Class (Minto Road)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
126	Diablo clay, 5 to 25 percent slopes, MLRA 15	4	0.3	0.7%
129	Elder sandy loam, 0 to 2 percent slopes, MLRA 14	1	0.0	0.0%
161	Pinto loam, 0 to 2 percent slopes	2	0.3	0.6%
162	Pinto loam, 2 to 9 percent slopes	2	19.0	39.9%
163	Pinto loam, 9 to 15 percent slopes	3	1.6	3.3%
177	Watsonville loam, 2 to 15 percent slopes	3	26.4	55.4%
Totals for Area of Interest			**47.6**	**100.0%**

Rating Options—Irrigated Capability Class (Minto Road)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Irrigated Capability Subclass (Minto Road)

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 subclasses are soil groups within one capability class. They are designated by adding a small letter, "e," "w," "s," or "c," to the class numeral, for example, 2e. The letter "e" shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; "w" shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); "s" shows that the soil is limited mainly because it is

shallow, droughty, or stony; and "c," used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by "w," "s," or "c" because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, or wildlife habitat.

Map—Irrigated Capability Subclass (Minto Road)

Map Scale: 1:4,440 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

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
- Erosion
- Soil limitation within the rooting zone
- Excess water
- Climate condition
- Not rated or not available

Soil Rating Lines
- Erosion
- Soil limitation within the rooting zone
- Excess water
- Climate condition
- Not rated or not available

Soil Rating Points
- Erosion
- Soil limitation within the rooting zone
- Excess water
- Climate condition
- 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 1:24,000.

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)

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Date(s) aerial images were photographed: Mar 11, 2022—May 29, 2022

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Table—Irrigated Capability Subclass (Minto Road)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
126	Diablo clay, 5 to 25 percent slopes, MLRA 15	e	0.3	0.7%
129	Elder sandy loam, 0 to 2 percent slopes, MLRA 14		0.0	0.0%
161	Pinto loam, 0 to 2 percent slopes	s	0.3	0.6%
162	Pinto loam, 2 to 9 percent slopes	e	19.0	39.9%
163	Pinto loam, 9 to 15 percent slopes	e	1.6	3.3%
177	Watsonville loam, 2 to 15 percent slopes	e	26.4	55.4%
Totals for Area of Interest			**47.6**	**100.0%**

Rating Options—Irrigated Capability Subclass (Minto Road)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Hydric Rating by Map Unit (Minto Road)

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Map—Hydric Rating by Map Unit (Minto Road)

Map Scale: 1:4,440 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

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
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- 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

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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)

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Table—Hydric Rating by Map Unit (Minto Road)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
126	Diablo clay, 5 to 25 percent slopes, MLRA 15	2	0.3	0.7%
129	Elder sandy loam, 0 to 2 percent slopes, MLRA 14	2	0.0	0.0%
161	Pinto loam, 0 to 2 percent slopes	1	0.3	0.6%
162	Pinto loam, 2 to 9 percent slopes	5	19.0	39.9%
163	Pinto loam, 9 to 15 percent slopes	1	1.6	3.3%
177	Watsonville loam, 2 to 15 percent slopes	88	26.4	55.4%
Totals for Area of Interest			**47.6**	**100.0%**

Rating Options—Hydric Rating by Map Unit (Minto Road)

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

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United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

16.50.040 Criteria for designation.

The following criteria shall be used to determine into which agricultural land type the ~~commercial~~ agricultural resource lands (commercial agricultural land) of the County will be classified:

(A) Type 1 "Commercial Agricultural Land." This type is for viable agricultural lands outside the Coastal Zone which have been in, or have a history of, commercial agriculture over a long period of time, and are likely to continue to be capable of commercial agricultural use in the foreseeable future.

(1) Type 1A "Viable Agricultural Land." Type 1A agricultural lands comprise areas of known high productivity which are not located in any utility assessment district for which bonded indebtedness has been incurred. These lands essentially meet the U.S. Department of Agriculture Soil Conservation Service and the California Department of Food and Agriculture criteria for "prime" and "unique" farmland and "prime" rangeland.

(2) Type 1B "Viable Agricultural Land in Utility Assessment Districts." This type includes viable agricultural lands, as defined above, which are within a utility assessment district for which bonded indebtedness has been incurred, except agricultural preserves.

(B) Type 2 "Commercial Agricultural Land." This category is for agricultural lands outside the Coastal Zone which would be considered as Type 1A, except for one or more limiting factors, such as parcel size, topographic conditions, soil characteristics or water availability or quality, which may adversely affect continued productivity or which restrict productivity to a narrow range of crops. Despite such limitations, these lands are considered suitable for commercial agricultural use. Type 2 agricultural lands are currently in agricultural use (on a full-time or part-time basis), or have a history of commercial agricultural use in the last 10 years (the Agricultural Resources map generally reflects conditions as of 1982 when agricultural designations were established) and are likely to continue to be capable of agricultural use for a relatively long period. In evaluating amendments to Type 2 designations the preceding factors, along with adjacent parcel sizes, degree of nonagricultural development in the area and proximity to other agricultural uses, shall be considered in addition to the criteria listed under each individual type below.

(1) Type 2A "Limited Agricultural Lands in Large Blocks." These lands are in fairly large blocks, are not in any utility assessment district which has incurred bonded indebtedness, and are not subject to agricultural-residential use conflicts.

(2) Type 2B "Geographically Isolated Agricultural Land with Limiting Factors." This category includes agricultural lands with limiting factors which are geographically isolated from other agricultural areas. These lands are not in a utility assessment district which has incurred bonded indebtedness and are not subject to agricultural-residential use conflicts.

(3) Type 2C "Limited Agricultural Lands in Utility Assessment Districts." This type includes agricultural lands with limiting factors which are in a utility assessment district which has incurred bonded indebtedness.

(4) Type 2D "Limited Agricultural Lands Experiencing Use Conflicts." These are agricultural lands with limiting factors which are experiencing extreme pressure from agricultural-residential land use conflicts such as pesticide application, noise, odor or dust complaints, trespass, or vandalism.

(5) Type 2E "Vineyard Lands." These are agricultural lands that may or may not be located on lands zoned "Commercial Agriculture" ("CA"), and often occur in the Rural Residential (RR), Special Use (SU) Agricultural (A), and Rural Residential (RA).~~rural residential (RR), special use (SU) and non-commercial agricultural (A, RA)~~ zone districts.

(C) Type 3 Coastal Zone Prime Agricultural Land. This category includes all of the following lands outside the urban services line and the rural services line within the Coastal Zone in Santa Cruz County:

(1) Land which meets the U.S. Department of Agriculture Soil Conservation Service criteria of prime farmland soils and which are physically available (i.e., open lands not forested or built on) for agricultural use.

(2) Land which meets the California Department of Food and Agriculture criteria for prime rangeland soils and which are physically available (i.e., open lands not forested or built on) for agricultural use.

(3) Land planted with fruit or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years, and which normally return during the commercial bearing period on an annual basis from the production of unprocessed plant production not less than $200.00 per acre; the $200.00 per acre value shall be utilized to establish a base value per acre as of 1965. This base value per acre figure shall be adjusted annually in accordance with any change in the San Francisco Bay Area Consumer Price Index to reflect current values.

(4) Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than $200.00 per acre for three of the five previous years, as provided in subsection (C)(3) of this section.

(5) Land which meets the California Department of Food and Agriculture criteria for unique farmland of Statewide importance and which is physically available (i.e., open lands not forested or built on) for agricultural use. The criteria for "prime farmland soils," "prime

CHAPTER 17.01

GROWTH MANAGEMENT

Sections:

17.01.010 PURPOSE. One purpose of this Chapter is to state clearly various policies which should govern the future growth and development of Santa Cruz County. A further purpose is to provide for the enactment of a Growth Management System to regulate the character, location, amount, and timing of future development so as to achieve the stated policies. A further purpose of this Chapter is to provide for increased housing opportunities for persons with average and below average incomes who wish to reside in Santa Cruz County. Finally, it is the purpose of this Chapter to protect the public health, safety, and welfare by regulating the future use and development of land in Santa Cruz County. (Ord. 2561.1, 7/5/78)

17.01.020 FINDINGS. It is hereby found and determined as follows:

(a) Rapid Population Growth. Santa Cruz County is one of the fastest growing counties in the State of California and in the United States. Since 1970, Santa Cruz County has experienced a rate of growth which has been at least twice that experienced by the State of California as a whole.

(b) Continued Growth Likely. It is likely, absent the enactment of a Growth Management System, that Santa Cruz County will continue to experience an extremely rapid rate of population growth, at a rate forecasted to be approximately twice the rate experienced by the State of California as a whole.

(c) Santa Clara County Plans for Santa Cruz County to Grow. It is particularly likely that Santa Cruz County will continue to experience rapid population growth because jurisdictions in the adjoining Santa Clara Valley have provided, in their General Plans, and in their other planning policies, to generate a demand for new residential housing which such jurisdiction plan shall be located in Santa Cruz County.

(d) Environmental Damage and Economic Effects. Rapid population growth and development is causing extremely serious adverse environmental and economic effects, some of which are specified below:

1. Loss of Agricultural Lands. The County possesses significant agricultural lands, including prime agricultural lands, and agricultural lands which, while not defined as "prime", are economically productive or potentially economically productive. Such agricultural lands are a local, state and national resource, which should be preserved. These agricultural lands are being lost to development, and the continued viability of commercial agriculture in Santa Cruz County is threatened by rapid population growth and inappropriately placed development.

2. Mineral and Timber Resources. Rapid population growth and development also threaten the timber harvesting and mineral industries which are significant factors in the County's economy.

3. Fish and Wildlife Resources. The County has other important natural resources, including wildlife, anadromous fish, and unique plant communities, which should be preserved; these are endangered by rapid growth and inappropriate development.

4. Marine Habitats. Coastal lagoons and marine habitats which should be preserved for their economic and biologic value are being degraded and destroyed by rapid population growth and inappropriate development.

5. Air and Water Quality. Rapid population growth and development are causing the degradation of Santa Cruz County's air and water quality and threatening the health and well-being of present and future residents.

6. Scenic and Aesthetic Resources. The scenic and aesthetic qualities of Santa Cruz County are being destroyed by inappropriately placed development.

7. Water Supplies. The "safe yield" capacity of natural surface and groundwater sources is being exceeded in many areas of the County, causing water supply and water quality problems which will be irreversible or extremely expensive to correct. Overpumping of the Pajaro Valley groundwater basin, in particular, threatens future agricultural water supply and, consequently, Santa Cruz County's commercial agriculture.

(e) Cost of Services. Rapid population growth and development has expanded the demand for governmentally-provided services beyond the ability of the public to pay for and provide such services. Specifically, in many parts of the County the public is unable to pay for, provide, or maintain adequately the following services required by new development:

1. An adequate number of elementary and secondary school classrooms and teachers;

2. Adequate law enforcement and fire protection;

3. Adequate roads, sewers, and water.

School overcrowding, traffic congestion, higher crime rates, and increasingly inadequate water supplies, roads, and sewage facilities will be the result of continued rapid population growth and development. These problems are greatly aggravated when new development takes place in rural areas rather than in areas where urban services can be provided at less cost to taxpayers.

(f) Housing Crisis. Santa Cruz County is experiencing a housing crisis. Increasingly, persons with average and below average incomes whose work or other connections with the County of Santa Cruz lead them to wish to live here are unable to locate housing at a price they can afford.

Economically disadvantaged citizens are increasingly excluded from living in Santa Cruz County. The increasing demand for housing in Santa Cruz County which has accompanied the rapid population growth and development now taking place has aggravated the housing crisis, and any growth management system designed to minimize or prevent the problems caused by rapid population growth and development must simultaneously provide a positive program to increase the availability of housing for people with average and below average incomes. (Ord. 2561.1, 7/5/78)

17.01.030 POLICIES. The findings made in this Chapter identify environmental, economic, and housing problems caused by or associated with the rapid population growth and development of Santa Cruz County. It is hereby determined that in order to minimize or eliminate such problems, and to assure the public health, safety, and welfare, the following policies shall guide the future growth and development of Santa Cruz County.

(a) Preserve Agricultural Lands. It shall be the policy of Santa Cruz County that prime agricultural lands and lands which are economically productive when used for agriculture shall be preserved for agricultural use.

(b) Distinguish "Urban" and "Rural" Areas. It shall be the policy of Santa Cruz County to preserve a distinction between areas in the County which are "urban", and areas which are "rural". Divisions of land in rural areas shall be discouraged, and new residential developments shall be encouraged to locate in urban areas.

(c) Urban Area Protection. It shall be the policy of Santa Cruz County to insure that new development in the unincorporated "urban" areas does not proceed without the provision of adequate services which will enhance the quality of life for current and future residents of these urban areas; the County Capital Improvement Plan shall reflect this commitment.

(d) Annual Population Growth Limit. It shall be the policy of Santa Cruz County to set an annual population growth for this County which shall limit growth to that amount which represents Santa Cruz County's fair share of each year's statewide population growth.

(e) Housing for Persons with Average Incomes. It shall be the policy of Santa Cruz County that at least 15 percent of those housing units newly constructed for sale or rental each year shall be capable of purchase or rental by persons with average or below average incomes.

(f) Resource Protection. It shall be the policy of Santa Cruz County to prevent the division or other development of lands which contain timber resources, mineral resources, and wildlife habitat or other natural resources, except when any such development is conditioned so as to prevent the loss of or damage to such resources. (Ord. 2561.1, 7/5/78)

17.01.040 GROWTH MANAGEMENT SYSTEM.

(a) Within six months of the date this Chapter becomes effective, the Board of Supervisors shall enact, by such ordinance, or ordinances as may be required, a Growth Management System to regulate the character, location, amount, and timing of future residential and other development in Santa Cruz County. Said ordinance or ordinances shall provide for the establishment, each year, of an annual population growth goal which shall limit population growth during that year to an amount which represents Santa Cruz County's fair share of statewide population growth. Said ordinance or ordinances shall likewise carry out the other policies and provisions specified in this Chapter.

(b) The Board of Supervisors may, from time to time, amend any ordinance enacted by them to carry out the provisions of this Chapter. No part of this Chapter, however, shall be amended or repealed except by a vote of the people.

(c) If any portion of this Chapter is hereafter determined to be invalid, all remaining portions of this Chapter shall remain in full force and effect and, to this extent, the provisions of this Chapter are separable. (Ord. 2561.1, 7/5/78)