

# ATTACHMENT A

## BOARD OF SUPERVISORS Yolo County, California

Meeting Date: November 22, 2022

To: Comm. Svcs. ✓

41.

Hold a public hearing to consider a recommendation by the Planning Commission to approve an ordinance to adopt a Zoning Code Amendment to update the Zoning Regulations for Telecommunication Facilities, Solar Energy Systems and Energy Storage Systems (Sections 8-2.1102, 8-2.1104 and 8-2.1105 of the Yolo County Code of Ordinances). In compliance with the California Environmental Quality Act, approve a resolution to adopt an Addendum to the 2011 Negative Declaration for Solar Facilities that has been prepared for the proposed Solar Energy Systems and Energy Storage Systems Ordinances and a Notice of Exemption has been prepared for the proposed amendments to the Wireless Telecommunication Facilities Ordinance. (No general fund impact) (Echiburu/Cormier)

Minute Order No. 22-121: Held public hearing and approved recommended action by **Zoning Ordinance No. 681.236 and Resolution No. 22-152** with the following amendment to Attachment C, Exhibit B, Sec. 8-2.1104(b) Definitions :

"Accessory solar energy system" shall mean an onsite solar energy system in which the energy generated ~~contributes to the supply~~ of supplies power to and/or offsets energy demands on the property, or on adjacent or contiguous properties.

And directed staff to return to the Board of Supervisors in six months with a report.

MOVED BY: Saylor / SECONDED BY: Barajas  
AYES: Villegas, Saylor, Sandy, Provenza, Barajas.  
NOES: None.  
ABSTAIN: None.  
ABSENT: None.



## County of Yolo

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To: The Chair and Members of the Board of Supervisors

Time Set 41.

### Board of Supervisors

#### Meeting Date:

11/22/2022

#### Brief Title:

Zoning Code Amendment related to telecommunication facilities and renewable energy systems

#### From:

Taro Echiburu, Director, Department of Community Services

#### Staff Contact:

Stephanie Cormier, Principal Planner, Department of Community Services, x8041

**Supervisorial District Impact:** Countywide

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### Subject

Hold a public hearing to consider a recommendation by the Planning Commission to approve an ordinance to adopt a Zoning Code Amendment to update the Zoning Regulations for Telecommunication Facilities, Solar Energy Systems and Energy Storage Systems (Sections 8-2.1102, 8-2.1104 and 8-2.1105 of the Yolo County Code of Ordinances). In compliance with the California Environmental Quality Act, approve a resolution to adopt an Addendum to the 2011 Negative Declaration for Solar Facilities that has been prepared for the proposed Solar Energy Systems and Energy Storage Systems Ordinances and a Notice of Exemption has been prepared for the proposed amendments to the Wireless Telecommunication Facilities Ordinance. (No general fund impact) (Echiburu/Cormier)

### Recommended Action

- A. Hold a public hearing, receive a staff presentation, and accept public comments on the proposed Zoning Code Amendment related to telecommunication facilities, solar energy systems, and energy storage systems (Att. A);
- B. Direct staff as to any further revisions to the proposed Zoning Code Amendment;
- C. Approve the resolution to adopt the Addendum to the 2011 Negative Declaration for the proposed Solar Energy Systems and Energy Storage Systems Ordinances and CEQA Exemption for the amendments to the Wireless Telecommunication Facilities Ordinance as the appropriate level of environmental documentation in accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines (Att. B); and
- D. Approve an Ordinance to adopt the Zoning Code Amendment to (a) update the Wireless Telecommunication Facilities Ordinance (County Code Section 8-2.1102) and (b) enact the Solar Energy Systems Ordinance (County Code Section 8-2.1104) and Energy Storage Systems Ordinance (County Code Section 8-2.1105) (Att. C).

### Strategic Plan Goal(s)



*Safe Communities*



*Sustainable Environment*



### **Reason for Recommended Action/Background**

The proposed Zoning Code Amendment seeks to amend and/or replace certain sections of the Zoning Regulations related to Wireless Telecommunication Facilities (Yolo County Code Section 8-2.1102) and Solar Energy Systems (County Code Sections 8-2.1104 and 8-2.1105), and proposes to add new provisions for regulating Energy Storage Systems. This proposed set of changes affects Article 11 (Energy and Telecommunication Development Standards) in Chapter 2 of Title 8, Yolo County Code of Ordinances. Only minor changes are proposed to Section 8-2.1102 (Wireless Telecommunication Facilities); however, considerable changes are proposed to Sections 8-2.1104 and 8-2.1105, which are addressed below.

The Zoning Code Amendment has been proposed to: (i) facilitate expedited reviews, (ii) clarify application and project review requirements, (iii) identify new use types, (iv) streamline the permitting process for ancillary uses, (v) continue to protect agricultural and habitat resources, and (vi) clarify zoning requirements by simplifying text. Each section includes updated definitions and a zoning table of allowed and permitted uses for ease of reference. Attachment A provides a summary of proposed amendments and redlined versions of each modified section. The exhibits in Attachment C contain clean copies of each updated and/or proposed new section.

### **Summary of Proposed Changes**

#### **Section 8-2.1102: Wireless Telecommunication Facilities**

The proposed changes to the Wireless Telecommunication Facilities Ordinance (Section 8-2.1102) are relatively minor and do not introduce any significant changes to the permitting requirements or approval process. New definitions and standards have been added to this section to codify requirements mandated under federal statute [Title 47 Code of Federal Regulations Section 1.6100(b) (7)] that provide for an expedited review of non-substantial modifications, including co-locations, to existing permitted cell towers and base stations in compliance with the 2012 Spectrum Act [Section 6409(a) of the Middle Class Tax Relief Act and Job Creation Act of 2012, U.S. Code, Title 47, Section 1455(a)]. These non-substantial changes are referred to as 'eligible facilities requests' involving only minor modifications for the co-location of new transmission equipment, removal of transmission equipment, or replacement of transmission equipment. Refer to Section 8-2.1102(b) in Exhibit A of Attachment C to review details regarding substantial changes to permitted telecommunication facilities.

Other notable, but minor, changes to Section 8-2.1102 include increasing the tower height for a small wireless telecommunication facility from *less than 80 feet* to no greater than 80 feet and clarifying application requirements for a more thorough project review. Standards have been enhanced to ensure co-location opportunities are maximized before a new cell tower is proposed and to better address aesthetic values in scenic corridors.

#### **Sections 8-2.1104: Small and Medium Solar Energy Systems and 8-2.1105: Large and Very Large Solar Energy Systems**

The solar energy systems ordinances (8-2.1104 and 8-2.1105) have been consolidated into one section (8-2.1104) and the provisions significantly modified to highlight the distinction between onsite or ancillary serving solar energy uses (especially solar uses serving agricultural operations) and utility serving solar energy uses, i.e., those solar energy systems that feed the electrical grid for offsite consumption.

The updated and revised section identifies new solar use types, broadens the expedited review process for small solar energy systems, streamlines the permitting process for solar uses that are ancillary to the primary uses of a property, and continues to protect agricultural and habitat resources. Four new use types have been added or updated to assist the public with permitting requirements for the following:

- The small accessory use ground-mounted and small accessory use roof-mounted solar energy system use types (up to 10kW alternating current or 30kW thermal) are proposed to replace the *small residential roof-mounted solar energy system* use type and will increase opportunities for expedited permitting under the Solar Rights Act and Assembly Bill 2188 (2014) that mandates a standardized and simplified procedure for permitting small solar energy systems up to 10kW.
- The accessory solar energy system use type (greater than 10kW and up to 7.5 acres) is proposed to replace the *small solar energy system* use type (up to 2.5 acres) to increase opportunities for permitting onsite serving solar energy systems, particularly in the agricultural areas where agricultural operators seek to maximize the use of renewable energy systems to offset energy needs. Current regulations for permitting ancillary solar energy systems are overly restrictive if the solar use will occupy more than 2.5 acres. It is staff's experience that a typical agricultural operation requires anywhere between one and three megawatts of solar energy, which translates to approximately 3.8 to 12 acres of land, to offset onsite energy demands. Thus, staff is proposing to streamline the permitting process for accessory solar uses provided the project meets required standards, as proposed, which include provisions for maintaining habitat resources. Refer to Exhibit B in Attachment C to review the definition of and standards for 'accessory solar energy systems' in the proposed Solar Energy Systems Ordinance.
- The medium-sized solar energy system use type (greater than 7.5 acres and up to 30 acres) has been modified to accommodate the proposed new accessory solar energy system use type. Currently, a medium-sized solar energy system is defined as occupying more than 2.5 acres and up to 30 acres and can be on and/or offsite serving. The proposed changes to the medium-sized solar energy system use type do not affect whether the system is onsite (accessory) or offsite (utility) serving and the use would still be subject to the same mitigation requirements, as applicable, which are further addressed below.
- The large-scale solar energy system use type (greater than 30 acres) replaces the *large solar energy system* (greater than 30 acres and up to 120 acres) and *very large solar energy system* (greater than 120 acres) use types and combines them into one use type. Large-scale solar energy systems would still be considered utility solar energy systems that are subject to a discretionary review and mitigation requirements for the issuance of a Major Use Permit. All large and very large solar energy systems currently require approval from the Board of Supervisors upon a recommendation from the Planning Commission; staff is proposing that large-scale solar energy systems no greater than 120 acres be approved by the Planning Commission and that any solar energy system larger than 120 acres would still require approval from the Board.

Current regulations regard medium-sized solar energy systems serving onsite agricultural operations as 'agricultural uses' under the County's Agricultural Conservation and Mitigation Program Ordinance, thereby excluding such uses from agricultural mitigation requirements [County Code Section 8-2.404(b)]. Staff is not proposing to change these provisions with respect to the redefined medium-sized solar energy system use type. Staff is proposing, however, that the size of a medium-sized solar energy system be increased from 2.5 acres to 7.5 acres to accommodate the proposed accessory solar energy system use type that supports ancillary/onsite serving uses.

Staff does not consider the aforementioned proposed changes to be in conflict with protections addressing agricultural resources. Likewise, new standards have been proposed to ensure that all accessory solar energy systems establish and maintain habitat value for wildlife use at a solar site; otherwise, the project would be subject to a higher level of review through the discretionary Use Permit process. Similarly, utility systems are proposed to encourage integration with the agricultural and natural landscape setting, as feasible, but would still be subject to a discretionary Use Permit process and environmental review.

All accessory and utility solar energy systems would be prohibited from encroaching into riparian corridors, and any solar energy system that removes Swainson's hawk foraging habitat would be required to mitigate for the loss. Refer to Exhibit B in Attachment C to review the proposed development standards for accessory, medium-sized, and large-scale solar energy systems.

## **Section 8-2.1105: Energy Storage Systems**

Staff is proposing to replace Section 8-2.1105 (Large and Very Large Solar Energy Systems) with a new ordinance for energy storage systems to foster potential future uses for additional renewable energy opportunities. It is more and more common for renewable energy projects, such as solar energy uses, to include battery storage as a component of the project. The proposed Energy Storage Systems Ordinance clarifies requirements for paired renewable energy systems and provides standards for standalone energy storage systems.

## **Planning Commission**

On September 8, 2022, the Planning Commission conducted a public workshop to review and accept comments on the staff proposed Zoning Code Amendment (reference Attachment D to review the 9.8.22 PC workshop staff report). The Planning Commission provided meaningful feedback and asked staff to consider a number of changes that were presented to the Commission during a public hearing held on October 13, 2022 (refer to Attachment D to review the 10/13/22 PC staff report). After additional discussion and some minor requests for edits, the Commission voted unanimously (6-0-0 with one absence) to recommend approval of the proposed Zoning Code Amendment. The proposed amendment before the Board has been updated to present the Commission's recommendation.

Discussion among the Commission during the public hearing included use of native vegetation from locally-sourced origins (refer to Exhibit B in Attachment C for language specific to native planting). Commissioner Reynolds, District 4, answered Commissioner's questions related to proposed requirements for native plantings to establish and maintain raptor use at solar sites (Attachment E).

The Commission also recommended removing any requirements that might hinder or prohibit development of small energy storage systems (i.e., small systems for home use) in Section 8-2.1105 and posed questions concerning parcel size requirements for cell tower heights in Section 8-2.1102 (note: staff is not proposing to change existing parcel sizes related to telecommunication facilities at this time).

Lastly, the Commission deliberated whether to limit or prohibit utility solar energy systems in the Primary Zone of the Delta. This latter topic was prompted by public comment from Delta Protection Commission (DPC) staff who felt large-scale solar energy systems were not an appropriate or compatible use in the agricultural areas of the Primary Zone (see Attachment F). Given the lack of infrastructure (i.e., substation) to support utility-scale renewable energy systems in the Delta, the Commission declined to entertain the commenter's suggestion, but directed staff to bring the matter to the attention of the Board.

Staff agrees with the Planning Commission that no changes would be necessary to the Solar Energy Systems Ordinance, since the discretionary review process would ensure that any utility/large-scale solar energy system proposed in the Primary Zone of the Delta meet the compatibility test under the DPC's Land Use and Resource Management Plan (LURMP), which is also a component of the Countywide General Plan. All development projects must be consistent with the County's General Plan and any components thereof.

## **Staff Recommendation**

In summary, the Zoning Code Amendment has been proposed to consider an update to the Zoning Regulations related to two topics: (1) an update to the Wireless Telecommunication Facilities Ordinance (County Code Section 8-2.1102) and (2) to enact two renewable energy ordinances: the Solar Energy Systems Ordinance (that will update and consolidate the existing solar energy regulations into County Code Section 8-2.1104) and the Energy Storage Systems Ordinance (County Code Section 8-2.1105). The updates have been packaged into one Zoning Code Amendment for the Board's consideration. All three sections are found in Article 11 (Energy and Telecommunication Development Standards) in Chapter 2 (Zoning Regulations) of Title 8, Yolo County Code.

An Addendum to the 2011 Negative Declaration Solar Facilities Ordinance has been prepared for the amendments to the Solar Energy Systems and Energy Storage Systems Ordinances and a CEQA Exemption has been prepared for the minor changes to the Wireless Telecommunication Facilities

Ordinances. Both CEQA documents are included in the CEQA Resolution in Attachment B for the Board's consideration.

Staff concurs with the Planning Commission's recommendation to adopt the Zoning Code Amendment, which supports numerous General Plan policies that seek to reduce dependence on fossil fuels, incorporate green building standards into project design, and preserve the agricultural and natural landscape through integrative site design.

**Collaborations (including Board advisory groups and external partner agencies)**

Planning staff consulted with the following agencies, advisory committees, and County partners:

- Sol Smart, a national organization dedicated to assisting cities, counties, and regional organizations to promote solar energy uses. Sol Smart provided Planning staff with technical assistance to clarify regulations and simplify the permitting process.
- Valley Clean Energy
- Citizens Advisory Committees (Capay Valley, Clarksburg, Dunnigan, Capay Valley) - please refer to the 10.8.22 PC public workshop staff report in Attachment D for Advisory Committee comments and recommendations.
- Planning Commission (Attachment D)
- Jim Estep, Estep Environmental Consulting (Attachment E)
- Comment letters from agency and interested parties reviews (Attachment F)

County Counsel has reviewed the proposed Zoning Code Amendment for legal considerations and approved the Resolution and Ordinance as to form.

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**Fiscal Information**

No Fiscal Impact

Fiscal Impact of this Expenditure

Total cost of recommended action	
Amount budgeted for expenditure	\$0
Additional expenditure authority needed	\$0
On-going commitment (annual cost)	\$0

Source of Funds for this Expenditure

General Fund	\$0
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**Attachments**

- Att. A. Zoning Code Amendment
  - Att. B. CEQA Resolution
  - Att. C. Article 11 Ordinance
  - Att. D. Planning Commission staff reports
  - Att. E. Estep Report
  - Att. F. Public Comments
  - Att. G. Presentation
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**Form Review**

Form Started By: Lupita Ramirez  
Final Approval Date: 11/17/2022

Started On: 11/09/2022 11:29 AM

**TABLE 1**  
**SUMMARY OF ZONING CODE**  
**AMENDMENT to SECTIONS 8-2.1102, 8-2.1104 and 8-2.1105 of Article 11 (Energy and Telecommunications Development Standards)**

Section Amended	Summary of Change	Reason/Justification for the Change
<b>Section 8-2.1102 Wireless Telecommunications Facilities</b>		
8-2.1102(b) Definitions	Add new and modify existing definitions  Allows for a small facility to have a tower height up to 80 feet	Updates ordinance to include provisions for eligible facilities requests and clarifies circumstances for permit streamlining for a non-substantial change to an existing permitted cell tower facility, as mandated by the FCC under federal regulations  Clarifies height requirements for small facilities
8-2.1102(c) Permits required	Removes text related to approvals and replaces with Zoning Table  Clarifies permitting process for attached towers  Specifies process for eligible facilities request	Reduces clutter and provides clarity, ease of reference for permitting requirements  Clarifies requirements for eligible facilities request – currently not codified
8-2.1102(d) Application	Adds additional requirements for submitting an application request for a new cell tower facility	Clarifies and enhances requirements for applicants – identifies standards necessary for effective project review Stresses colocation to limit the proliferation of multiple towers in one region
8-2.1102(e) Development standards	Adds additional standards for parcel size and facilities in scenic corridors	Limits large telecommunication facilities on parcels 2 acres or more Considers stealth design options for facilities proposed to locate in scenic areas
8-2.1102(f) Eligible Facilities Request	Adds new section for eligible facilities request	Establishes the criteria for minor modifications to existing permitted cell towers and base stations, per federal regulations

**TABLE 1**

**SUMMARY OF ZONING CODE**  
**AMENDMENT to SECTIONS 8-2.1102, 8-2.1104 and 8-2.1105 of Article 11 (Energy and Telecommunications Development Standards)**

Section Amended	Summary of Change	Reason/Justification for the Change
<b>Section 8-2.1104 <u>Solar Energy Systems</u> (proposed) Small and Medium Solar Energy Systems (existing)</b>		
8-2.1104(a) Purpose	Update to text	Minor text amendments to clarify and update nomenclature and mission statement
8-2.1104(b) Definitions	<p>Modifies existing definitions for clarity; adds new definitions and use types, as follows:</p> <ul style="list-style-type: none"> <li>• Small accessory use ground-mount and roof mount solar energy systems up to 10kW (replaces small residential roof-mount)</li> <li>• Accessory solar energy systems &gt;10kW up to 7.5 acres (replaces small up to 2.5 ac and medium up to 7.5 ac)</li> <li>• Medium-sized solar energy systems &gt;7.5 acres up to 30 acres</li> <li>• Large-scale solar energy systems &gt;30 acres</li> </ul> <p>Introduces accessory solar energy system and utility solar energy system use types</p> <p>Deletes very large solar energy systems definition – combines large and very large solar energy systems into one use type: large-scale solar energy systems</p>	<p>Replaces and updates existing definitions; introduces new definitions to provide distinction between accessory serving solar energy systems and utility serving solar energy systems. Removes overlapping use types.</p> <p>Broadens small accessory use types for streamlined permitting under the Solar Rights Act.</p> <p>Consolidates large and very large solar energy systems into one definition and use type for ease of reference.</p>
8-2.1104(c) Applicability	Update to text	Minor text amendment to clarify and update for consistency.

**TABLE 1**  
**SUMMARY OF ZONING CODE**  
**AMENDMENT to SECTIONS 8-2.1102, 8-2.1104 and 8-2.1105 of Article 11 (Energy and Telecommunications Development Standards)**

Section Amended	Summary of Change	Reason/Justification for the Change
8-2.1104(d) Administration and required approvals	<p>Clarifies small accessory solar energy systems allowed in all zones by-right</p> <p>Modifies and updates text; requires vegetative substrate for accessory systems</p> <p>Combines large and very large solar energy systems application process</p> <p>Requires compatibility findings for utility solar energy systems on Williamson Act land</p> <p>Encourages soft design features for future restoration</p>	<p>Minor text changes to comport with changes in definitions and use types. Updates approval requirements for clarity. Requires vegetative substrate sourced with native plantings for accessory solar uses; otherwise, use permit may be required.</p> <p>Allows large-scale solar energy system up to 120 acres to be approved by Planning Commission; large-scale solar energy systems greater than 120 acres would still require Board of Supervisors approval.</p> <p>Promotes full restoration of the land once a solar use has ceased</p>
8-2.1104(e) Permitted locations	Extensive text amendments; removes text related to permitting and zoning locations and replaces with Zoning Table	<p>Significant changes to reduce text and replace with Table for ease of reference.</p> <p>Provides consistency with other Articles using Zoning Tables</p>
8-2.1104(f) Development standards for small accessory use solar energy systems	Replaces existing standards for small solar energy systems and small residential rooftop solar energy system review process with small accessory use solar energy systems	Identifies standards for new and more broadly defined small accessory use solar energy systems that are subject to permit streamlining under the Solar Rights Act.

**TABLE 1**  
**SUMMARY OF ZONING CODE**  
**AMENDMENT to SECTIONS 8-2.1102, 8-2.1104 and 8-2.1105 of Article 11 (Energy and Telecommunications Development Standards)**

Section Amended	Summary of Change	Reason/Justification for the Change
		<p>Small energy systems use type redundant and replaced with small accessory use and accessory solar energy systems up to 2.5 acres</p> <p>Removes extraneous section for building permit reviews unrelated to Zoning Regulations and standards. These permit reviews are already in place and implemented under building permit and review protocols.</p>
<p>8-2.1104(g) Development standards for accessory solar energy systems</p>	<p>Replaces standards for medium-sized solar energy systems serving onsite uses with standards for accessory solar energy systems</p> <p>Includes standards for minimizing effects on habitat</p>	<p>Defines standards for new accessory solar energy systems use type, which are systems that support and offset energy needs onsite, but are not utility-scale.</p> <p>Requires systems over 2.5 acres that occupy Swainson’s hawk habitat to plant a vegetative substrate with locally sourced plantings to promote raptor use of the site. Prohibits systems within riparian corridors.</p> <p>Requires Use Permit if design cannot meet standards</p>
<p>8-2.1104(h) Development standards for medium-sized and large-scale solar energy systems</p>	<p>Adds new section for medium-sized and large-scale solar energy systems that replaces requirements for large and very large solar energy systems in Section 8-2.1105</p> <p>Includes standards for integration into the agricultural landscape and protection of natural features</p>	<p>Consolidates standards for large-scale systems into a single ordinance for ease of reference. Identifies development standards not previously specified – provides clarity.</p>

**TABLE 1**  
**SUMMARY OF ZONING CODE**  
**AMENDMENT to SECTIONS 8-2.1102, 8-2.1104 and 8-2.1105 of Article 11 (Energy and Telecommunications Development Standards)**

Section Amended	Summary of Change	Reason/Justification for the Change
		<p>Promotes habitat friendly utility solar energy systems as an alternative to mitigation; otherwise, mitigation required</p> <p>Prohibits systems near riparian corridors</p>
8-2.1104(i) Mitigation required	<p>Adds new section that replaces Section 8-2.1105(f) (<b><i>Agricultural land mitigation required</i></b>) with mitigation requirements for utility solar energy systems</p> <p>Includes mitigation requirements for solar energy systems that will remove Swainson’s hawk foraging habitat</p>	<p>Utility solar energy systems would still require ag mitigation under the County’s Agricultural Conservation and Mitigation Program</p> <p>Identifies new requirement for habitat mitigation for systems that are determined to remove or convert SH foraging habitat, i.e., systems that do not support ecological function for continued wildlife use</p>
8-2.1104(j) Decommissioning	Adds new section to require decommissioning	Decommissioning requirements currently not addressed in existing solar energy systems ordinances.
<p><b>Section 8-2-1105 <u>Energy Storage Systems</u> (proposed)</b>  <b>Large and Very Large Solar Energy Systems (existing)</b></p>		
8-2.1105	Replaces the Large and Very Large Solar Energy Systems Ordinance with the Energy Storage Systems Ordinance	<p>Identifies provisions for siting energy storage systems that can be coupled with a renewable energy system or designed as standalone systems</p> <p>Energy storage systems typically accompany solar energy system proposals – this ordinance establishes standard requirements.</p>

# ARTICLE 11 ZONING CODE AMENDMENT

Note: The following list includes text amendments to the Zoning Regulations in Article 11 of Title 8, Chapter 2 of the Yolo County Code. Specifically, Sections 8-2.1102, 8-2.1104 and 8-2.1105 related to telecommunication facilities and solar energy systems have been modified and/or replaced. All proposed text amendments are shown in bold legislative font (underline and ~~strikeout~~).

## AMENDMENTS TO CHAPTER 2, ARTICLE 11: ENERGY AND TELECOMMUNICATIONS DEVELOPMENT STANDARDS

### A. Amend Section 8-2.1102 Wireless telecommunication facilities, as follows:

#### (a) Purpose

The purpose of this ~~section~~ Section is to ~~establish~~ implement permit requirements and development standards for wireless telecommunication facilities in the unincorporated area of Yolo County.

#### (b) Definitions

##### Eligible facilities request

“Eligible facilities request” shall mean any request for modification of an existing permitted tower or base station that does not substantially change the physical dimension of the tower or base station, involving: (1) colocation of new transmission equipment; (2) removal of transmission equipment; or (3) replacement of transmission equipment.

##### **Radio**

Radio is a generic term for communication of sound, data, or energy by means of electromagnetic wave propagation. For regulatory purposes “radio” includes the popular terms “television” and “microwave”. The term “wireless” is interchangeable with “radio.”

##### Section 6409(a) modification

“Section 6409(a) modification” shall mean any eligible facilities request pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 (“Spectrum Act”), which mandates that a local government approve certain wireless broadband facilities siting requests for modifications and colocations of wireless transmission equipment on an existing tower or base station that does not result in a substantial change to the physical dimensions of the tower or base station.

##### Wireless facility modification, substantial change

A “substantial change to a wireless facility” shall be as defined by the Federal Communications Commission (FCC) in Title 47 Code of Federal Regulations (CFR) Section 1.6100(b)(7), including the following:

- (i) An increase in the height of a permitted tower, that is not in the public right of way, by more than 10 percent or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20 feet, whichever is greater; or, an increase in the height of a permitted support structure by more than 10 percent or more than 10 feet, whichever is greater.
- (ii) Adding an appurtenance to the body of a permitted tower, that is not in the public right of way, that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater; or, adding an appurtenance to the body of a permitted structure that would protrude from the edge of the structure by more than six feet.
- (iii) Installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed four cabinets; or, for permitted towers and base stations in the public right of way, installation of any new equipment cabinets on the ground if there are no existing ground cabinets associated with the structure or installation of ground cabinets that are more than 10 percent larger in height or overall volume than any other ground cabinets associated with the structure.
- (iv) Excavation or deployment outside of the permitted facility site; for permitted towers not in the public right of way any excavation or deployment of transmission equipment outside of the current site by more than 30 feet in any direction (measurement excludes existing access or utility easements related to the site).
- (v) Modifications that would defeat the concealment elements of the permitted support structure.
- (vi) The modification does not comply with conditions associated with the siting approval of the construction or modification of the permitted facility.

**Wireless telecommunication facility**

“Wireless telecommunication facility” shall mean an un-staffed facility for the transmission and reception of radio signals, including, but not limited to cellular radiotelephone service facilities, specialized mobile radio service facilities, microwave service facilities, broadband Internet service, communication towers, personal communication service facilities, and commercial paging service facilities.

**Wireless telecommunication facility, attached**

**“Attached wireless telecommunication facility” shall mean a telecommunication facility that is attached to an existing permitted structure whose tower height is no more than 80 feet.**

**Wireless telecommunication facility, small**

“Small wireless telecommunication facility” shall mean a telecommunication facility whose tower height is ~~less~~ **no more** than eighty (80) feet.

**Wireless telecommunication facility, large**

“Large wireless telecommunication facility” shall mean one whose tower height is **greater than** eighty (80) feet ~~or more~~.

**(c) Permits required**

(1) Construction of a ~~free-standing small~~ wireless telecommunication facility ~~on rural lands zoned for agricultural uses (including the Agricultural Intensive (A-N) zone, the Agricultural Extensive (A-X) zone, the Agricultural Commercial (A-C) zone, and the Agricultural Industrial (A-I) zone) may be approved through the issuance of a Site Plan Review approval by staff, provided the facility is located on a parcel 20 acres or more in size. This approval is a ministerial, “over the counter” approval like a building permit, and does not require a public hearing, unless may be approved in the following zoning districts, provided the facility meets development standards, as provided in Section 8-2.1102(e), below, as shown in Table 8-2.1102; the application fails to meet the minimum parcel size or any of the specific Development Standards set forth in Section 8-2.1102(e), below, in which case the application may be referred by staff to the Zoning Administrator or the Planning Commission for a hearing and decision to issue a Minor or Major Use Permit. Construction of a small wireless telecommunication facility on rural lands zoned for agricultural uses that are less than 20 acres in size shall be approved pursuant to Subsection (2), below.~~

**Table 8-2.1102**

**Allowed Wireless Telecommunications Facility Uses and Permit Requirements**

<b>A = Allowed use, subject to zoning clearance</b> <b>SP = Site Plan Review</b> <b>UP (m) = Minor Use Permit</b> <b>UP (M) = Major Use Permit</b> <b>N = Use Not Allowed</b>	<b><u>Land Use Permit Required by Zone</u></b>					
	<b><u>A-N, A-X,</u></b> <b><u>A-I</u></b> <b><u>A-C, A-R</u></b>	<b><u>RR-5, RR-2,</u></b> <b><u>R-L, R-M,</u></b> <b><u>R-H</u></b>	<b><u>C-L, C-G,</u></b> <b><u>DMX, C-H</u></b>	<b><u>I-L, I-H,</u></b> <b><u>OPRD</u></b>	<b><u>PQP</u></b> <b><u>POS, P-R</u></b>	<b><u>Specific Use Requirements or Performance Standards</u></b>

<b><u>Wireless Telecommunication Facility</u></b>						
<b><u>Small telecommunication facility (up to 80 ft on min parcel sizes) (a)</u></b>	<b><u>SP</u></b>	<b><u>UP (m)</u></b>	<b><u>UP (m)</u></b>	<b><u>UP (m)</u></b>	<b><u>UP (m)</u></b>	<b><u>20-ac minimum in agricultural zones</u></b> <b><u>2-ac minimum in all other zones</u></b> <b><u>See Sec. 8-2.1102(e)</u></b>
<b><u>Small telecommunication facility (up to 80 ft if min parcel size cannot be met) (b)</u></b>	<b><u>UP(m)</u></b>	<b><u>UP(M)</u></b>	<b><u>UP(M)</u></b>	<b><u>UP(M)</u></b>	<b><u>UP(M)</u></b>	<b><u>See Sec. 8-2.1102(e)</u></b>
<b><u>Large telecommunication facility (&gt;80 ft on 40 ac or more)</u></b>	<b><u>UP (m)</u></b>	<b><u>N</u></b>	<b><u>N</u></b>	<b><u>UP(m)</u></b>	<b><u>UP(m)</u></b>	<b><u>See Sec. 8-2.1102(e)</u></b>
<b><u>Large telecommunication facility (&gt;80 ft &lt;40 ac)</u></b>	<b><u>UP(M)</u></b>	<b><u>N</u></b>	<b><u>N</u></b>	<b><u>UP(M)</u></b>	<b><u>UP(M)</u></b>	
<b><u>Attached telecommunication facility (up to 80 ft)</u></b>	<b><u>A</u></b>	<b><u>UP (m)</u></b>	<b><u>SP</u></b>	<b><u>A</u></b>	<b><u>SP</u></b>	
<b><u>Eligible facilities request</u></b>	<b><u>A</u></b>	<b><u>A</u></b>	<b><u>A</u></b>	<b><u>A</u></b>	<b><u>A</u></b>	<b><u>See definition in Sec. 8-2.1102(b) and Sec. 8-2.1102(f)</u></b>

(a) **Must meet parcel size requirements: 20 acres or more in agricultural zones, 2 acres or more in all other zones**

(b) **Minor Use Permit required in the agricultural zones on parcels less than 20 acres, Major Use Permit required in all other zones on parcels less than 2 acres**

(2) Construction of a small wireless telecommunication facility on rural lands zoned for agricultural uses (~~including the Agricultural Intensive (A-N) zone, the Agricultural Extensive (A-X) zone, the Agricultural Commercial (A-C) zone, and the Agricultural Industrial (A-I) zone~~) may be approved through the

issuance of a Site Plan Review approval ~~by staff~~, provided the facility is located on a parcel 20 acres or more in size.

- (3) If ~~the an~~ application for a proposed small wireless telecommunication facility in the agricultural zones fails to meet the minimum parcel size or any of the specific ~~Development development Standards standards~~ set forth in Section 8-2.1102(e), below, the application ~~may shall~~ be referred to the Zoning Administrator ~~or the Planning Commission~~ for a hearing and decision to issue a Minor ~~or Major~~ Use Permit.
- (4) Construction of a ~~small~~ wireless telecommunication facility that is attached to an existing structure (such as a barn on rural lands zoned for agricultural uses, or a warehouse on lands zoned for industrial uses) regardless of the size of the parcel, may be approved with the issuance of a building permit only, provided the overall height of the tower is no more than 80 feet.
- (5) An attached telecommunication facility may be permitted in the commercial and public and open space zones through Site Plan Review approval so long as the overall tower height is no more than 80 feet.
- (36) ~~Construction of a small wireless telecommunication facility located on properties within non-agricultural or urban areas that are zoned for residential, commercial, and industrial uses are allowed through the issuance of a Minor or Major Use Permit, depending on the application's consistency with all of the Design Standards set forth in Section 8-2.1102(e), below. Specifically, wireless facilities are permitted with approval of a Minor Use Permit, issued by the Zoning Administrator, on lots of two acres or more, and which meet all of the Development Standards set forth in Section 8-2.1102(e), below, in areas zoned for residential uses (in the Rural Residential (RR-5 and RR-1), Residential Low (R-L), Residential Medium (R-M), and Residential High (R-H) zones); commercial uses (in the Local Commercial (C-L), the General Commercial (C-G), the Downtown Mixed Use (DMX), and the Highway Commercial (C-H) zones); industrial uses (in the Heavy Industrial (I-H), the Light Industrial (I-L) and the Office Park/Research and Development (OPRD) zones); and open space and recreation uses (in the Public Open Space (POS), Park and Recreation (P-R), and Public Quasi-Public (PQP) zones). If the an application for a small telecommunication facility is proposed in the residential, commercial, industrial, or public and open space zones on a small lot of less than two acres, or if the application fails to meet any of the Development development Standards standards set forth in 8-2.1102(e), below, the application may shall be referred by staff to the Planning Commission for a public hearing and to consider issuance of a Major Use Permit.~~

(47) Construction of large wireless telecommunication facilities on lands zoned for agricultural, industrial, open space and recreation uses, shall be **considered for approval of approved through the issuance of** a Minor Use Permit, provided the facility is located on a parcel 40 acres or more in size. Large wireless telecommunication facilities constructed on parcels less than 40 acres, on lands zoned for agricultural, industrial, open space and recreation uses, shall be **approved considered in all cases through the issuance for approval** of a Major Use Permit. The application shall meet all of the **Development development Standards-standards** set forth in Section 8-2.1102(e), below.

**(8) An applicant may submit in writing a request for modification to an existing permitted tower or base station. An eligible facilities request that does not substantially change the physical dimensions of the facility shall be approved in accordance with 47 CFR Section 1.6100, as described in subsection (f), below.**

(d) **Application**

~~In addition to the application requirements set forth in this chapter, e~~ **E**ach application for a wireless telecommunication facility permit ~~application~~ shall include the following:

(1) A graphic depiction of the search ring used in determining facility location. **The graphic shall identify all existing telecommunication tower sites within the search ring.**

**(2) A propagation or signal map showing the proposed coverage area (with and without the proposed facility).**

~~(23)~~ A photo simulation of the proposed developed site from four directions (north, south, east and west). ~~This requirement for photo simulations may be waived by staff for small wireless facility applications.~~

**(4) A written justification that identifies opportunities to collocate the proposed facility on an existing facility have either been exhausted or are not available in the area.**

(e) **Development standards**

The following development standards shall be satisfied prior to the approval of a **Conditional Use Permit for a** wireless communications facility:

(1) The site ~~is~~ **can provide all necessary infrastructure adequate** for the development of the proposed wireless communication facility. **The minimum parcel size required for a large telecommunication facility shall be two acres.**

(2) Opportunities to co-locate the subject facility on an existing facility have either been exhausted or are not available in the area.

- (3) The facility as proposed is necessary for the provision of an efficient wireless communication system.
- (4) The development of the proposed wireless communication facility will not significantly affect the existing onsite topography and vegetation; or any designated public viewing area, scenic corridor or any identified environmentally sensitive area or resource. **Wireless communication facilities proposed to locate in a designated scenic corridor, including areas identified by the General Plan as providing scenic value, may require stealth design elements to mitigate visual impacts.**
- (5) The proposed wireless communication facility will not create a hazard for aircraft in flight and will not hinder aerial spraying operations.
- (6) The applicant agrees to accept proposals from future applicants to co-locate at the approved site.
- (7) The applicant agrees to reserve space and/or provide conduit available for County and emergency communications.

**(f) Eligible Facilities Request for a Wireless Telecommunication Facility Modification**

- (1) **An application for a “Section 6409(a) Modification” on an existing wireless communication facility may be submitted to the Planning Division for processing. Federal law requires local government approval of any eligible facilities request for modification of an existing wireless tower or base station. An eligible facilities request is any request for modification of an existing tower or base station that does not substantially change the physical dimensions of such tower or base station, involving:**
  - i. **Colocation of new transmission equipment**
  - ii. **Removal of transmission equipment; or**
  - iii. **Replacement of transmission equipment.**
- (2) **A modification substantially changes the physical dimensions of an existing wireless communication facility if it meets the criteria listed in Sec. 8-2.1102(b) above.**

**B. Amend Section 8-2.1104 Small and Medium Solar Energy Systems, as follows:**

**Sec. 8-2.1104 ~~Small and medium s~~ Solar energy systems**

**(a) Purpose**

The purposes of this ~~section~~ **Section** are as follows:

- (1) To provide for the placement of ~~small to medium~~ solar energy systems to enable generation of electricity from the sun, for on- and/or off-site uses, thereby ~~reducing the consumption of electricity supplied by utility companies~~ **increasing local production and use of renewable energy and reducing peak demand on the power grid.**
- (2) To minimize potential adverse impacts associated with solar energy systems on area residents, historic sites, **and** agricultural and biological resources through careful siting, design and operation, consistent with State law.
- (3) To avoid or minimize public health and safety risks associated with solar energy systems by providing standards for the placement, design, construction, modification and removal of such systems, consistent with Federal, State and local regulations.
- (4) To streamline the solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 21, Statutes 2014) to achieve timely and cost-effective installations of small accessory use solar energy systems, as defined below.**

**(b) Definitions**

**Solar energy system**

~~“Solar energy system” has the same meaning set forth in paragraphs (1) and (2) of subdivision (a) of Section 801.5 of the Civil Code, as such section or subdivision may be amended, renumbered, or redesignated from time to time~~ **shall mean a device, array of devices, or structural design feature which is used to provide for generation and/or storage of electricity from sunlight, or the collection, storage, and distribution of solar energy for space heating or cooling, daylight for interior lighting, or water heating.**

**Accessory solar energy system**

**“Accessory solar energy system” shall mean an onsite solar energy system in which the energy generated contributes to the supply of power to and/or offsets energy demands on the property, or on adjacent or contiguous properties. An accessory solar energy system shall be limited to ground-mounted systems, roof-mounted systems, floating systems, and systems affixed to shade structures**

located over parking areas. Accessory solar energy systems do not include small accessory use roof-mounted and ground-mounted solar energy systems as defined in this Section. Accessory solar energy systems shall not occupy more than 7.5 acres of land. A solar energy system that produces power that is sold directly to the electrical grid with a generation capacity of more than one megawatt shall be considered a utility solar energy system, as defined below.

**Adjacent**

A property shall be “adjacent” to the property with the accessory solar energy system if the property lines are separated by less than 100 feet at their nearest point.

**Small accessory use ground-mounted solar energy system**

“Small accessory use ground-mounted solar energy system” shall mean a ~~single residential or small business-scale solar energy conversion system consisting of roof panels, ground-mounted solar arrays, or other solar energy fixtures, and associated control or conversion electronics, occupying no more than 2.5 acres of land, and that will be used to produce utility power primarily to on-site users or customers.~~ that:

- (i) is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal; and
- (ii) is structurally mounted to the ground.

**Small accessory use roof-mounted solar energy system**

“Small ~~residential~~ accessory use rooftop-mounted solar energy system” shall mean a all of the following system that:

- (iii) A solar energy system that is installed on a single or duplex family Dwelling mounted to the roof of a house, building, or other structure;
- ~~(ii) — A solar energy system that conforms to all applicable state fire, structural, electrical, and other building codes as adopted or amended by the County and paragraph (iii) of subdivision (c) of Section 714 of the Civil Code, as such section or subdivision may be amended, renumbered, or redesignated from time to time.~~
- (ii) A solar energy system that is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal; and
- (iii) A has a solar panel of or module array that does not exceed the maximum legal building height as defined by the authority having jurisdiction five feet above rooftop for photovoltaic or seven feet above rooftop for thermal solar systems.

### **Medium-sized solar energy system**

“Medium-sized solar energy system” shall mean a private on-site or utility ~~scale~~ solar energy conversion system consisting of many ground-mounted solar arrays, a solar photovoltaic system mounted on a rack or pole that is ballasted on or attached to the ground, in rows or roof-panels, and associated control or conversion electronics, occupying more than ~~2-57.5~~ acres and no more than 30 acres of land, and that will be used to produce utility power to on-site uses and/or off-site customers.

### **Large-scale solar energy system**

“Large-scale solar energy system” shall mean a utility ~~scale~~ solar energy conversion system consisting of many ground-mounted solar arrays, or a solar photovoltaic system mounted on a rack or pole that is ballasted on or attached to the ground, and associated control or conversion electronics, occupying more than 30 acres ~~and no more than 120 acres~~ of land, and that will be used to produce utility power to off-site customers.

### **Utility solar energy system**

“Utility solar energy system” shall mean a solar facility featuring panels designed to generate solar power that is fed directly into the electrical grid, supplying a utility company with energy which is distributed to offsite end users. For the purposes of this Section, a utility solar energy system has a total generation capacity of more than one megawatt. A solar energy system that feeds directly to the power grid but generates one megawatt or less shall be considered a medium-sized solar energy system as defined above.

### ~~Very large utility-scale solar energy system~~

~~“Very large utility-scale solar energy system” shall mean a utility-scale solar energy conversion system consisting of many ground-mounted solar arrays, or a solar photovoltaic system mounted on a rack or pole that is ballasted on or attached to the ground, and associated control or conversion electronics, occupying more than 120 acres of land, and that will be used to produce utility power to off-site customers.~~

### **Specific, Adverse Impact**

“Specific, Adverse Impact” means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

### **(c) Applicability**

The provisions of this ~~section~~ Section apply to onsite accessory and small accessory use solar energy systems, ~~and~~ medium-sized solar energy systems, and large-scale solar energy systems, as defined in subsection (b). These solar energy systems

require the issuance of a Building Permit, a Site Plan Review, or a ~~Minor-Use Permit, or a Major Use Permit~~, as set forth below. ~~Any solar systems installed following the issuance of appropriate County permits prior to the effective date of this section shall be treated as a prior legal nonconforming use pursuant to this Chapter unless, through the issuance of a permit pursuant to this section, they are subsequently made conforming.~~ Any ~~such~~ solar systems installed prior to the effective date of this Section shall be considered legal, conforming uses so long as a County use permit or approval was issued in connection with their installation.

(d) ~~Approvals~~ **Administration and required approvals**

The following types of approvals are required in addition to any other permits that may be required by State, federal, and regional agencies and by any other sections of this Code:

- (1) All solar energy systems shall meet applicable health and safety standards and requirements imposed by the state and the County Building and local fire department or districts.
- (2) Solar energy systems for heating water in single-family residences and for heating water in commercial or swimming pool applications shall be certified by an accredited listing agency as defined by the California Plumbing and Mechanical Code.
- (3) Solar energy systems for producing electricity shall meet all applicable safety and performance standards established by the California Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability.
- (4) Small **accessory use roof-mounted and ground-mounted** solar energy systems may be approved **in all zones** through the issuance of a Building Permit and a Zoning Clearance, provided the application meets setback and other standards, as provided in this Section. However, consistent with Section 65850.5 of the California Government Code, if the Chief Building Official has a good faith belief that the solar energy system could have a specific, adverse impact upon the public health and safety, the Official may require the applicant to apply for a Use Permit. Such a Use Permit shall be considered by the Zoning Administrator according to the requirements of Section 65850.5

~~Small residential rooftop solar energy systems legally established or permitted prior to the effective date of this Section are not subject to the requirements of this Section unless physical modifications or alterations are undertaken that materially change the size, type, or components of a small rooftop energy system in such a way as to require new permitting. Routine~~

~~operation and maintenance or like-kind replacements shall not require a permit.~~

- (5) ~~Medium-sized~~ **Accessory** solar energy systems **that occupy more than 2.5 acres, excluding ground-mounted systems located in the POS and P-R zones**, may be approved through the issuance of a Building Permit and Site Plan Review, provided the application meets the Development Standards set forth in Section 8-2.1104(g), below. The Site Plan Review approval is ministerial (not discretionary) and does not require a public hearing. If the application fails to meet any of the standards, the application shall instead be evaluated as an application for a Minor Use Permit by the Zoning Administrator.
- (6) **Accessory or medium-sized ground-mounted solar energy systems proposed to locate in the POS and P-R zones may be approved through the issuance of a Minor Use Permit as set forth in Section 8-2.1104(e)(4), below.**
- (7) Solar ~~facilities~~ **energy systems** proposed on a property or structure that is a designated Historic Landmark or is located within a designated Historic District may be permitted provided that the design of the facilities is consistent with the purposes of the Landmark or District designation.
- (8) **Medium-sized solar energy systems may be approved through Site Plan Review if the facility is located on non-prime farmland that is not under a Williamson Act contract and shall include a vegetative substrate, derived from source-identified plant materials whose origin includes Yolo County and surrounding counties, planted and maintained beneath and between the rows of panels. Any medium-sized solar energy system that is located on prime farmland or on land that is enrolled in the Williamson Act shall require the issuance of a Minor Use Permit provided the application is consistent with the conditions and standards set forth in subsections (h) and (i), below.**
- (9) Large-~~scale and very large~~ solar energy systems **occupying no more than 120 acres of land** may be approved through the issuance of a Major Use Permit by the **Planning Commission, provided the application is consistent with conditions and standards set forth in subsections (h) and (i).** **A large-scale solar energy system greater than 120 acres requires approval from the** Board of Supervisors, following a recommendation from the Planning Commission, provided the application is consistent with conditions and standards set forth in subsections ~~1105~~ **(h) and (fj)**, below.

~~If a medium-sized facility is located on predominantly prime farmland, a Minor Use Permit shall be required. If the facility is located on lands under a Williamson Act contract, a Minor Use Permit shall be required and shall include findings required under Section 51200 et seq of the California Government Code.~~

- (10) **If a utility solar energy system is proposed to locate on lands under a Williamson Act contract, the use must be found to be compatible in**

accordance with Section 106 of the Yolo County Williamson Act Guidelines, including compliance with the Williamson Act statutes governing the principles of compatibility required under Section 51238.1 of the California Government Code.

- (11) Solar energy development shall employ design features that allow for full restoration of the land once the system has ceased to generate electricity.

(e) Permitted locations

- (1) ~~Small~~Ssolar energy systems may be installed and operated in the following ~~zoning districts or specific~~ zones, provided the systems meet setback and other standards, as provided in this ~~section~~ Section and shown in Table 8-2.1104:

- ~~(i) all agricultural districts (including the Agricultural Intensive (A-N), the Agricultural Extensive (A-X), the Agricultural Commercial (A-C), the Agricultural Industrial (A-I), and the Agricultural Residential (A-R) zones);~~
- ~~(ii) all residential districts (including the Rural Residential (RR-5 and RR-1), the Residential Low (R-L), the Residential Medium (R-M), and the Residential High (R-H) zones);~~
- ~~(iii) all commercial districts (including the Local Commercial (C-L), the General Commercial (C-G), the Downtown Mixed Use (DMX), and the Highway Commercial (C-H) zones);~~
- ~~(iv) all industrial districts (including the Light Industrial (I-L), the Heavy Industrial (I-H), and the Office Park/Research and Development (OPRD) zones); and~~
- ~~(v) the Public and Quasi-Public (PQP) zone only.~~

- ~~(2) Medium-sized solar energy systems may be installed and operated in the following zoning districts or specific zones, provided the systems meet setback and other standards, as provided in this section:~~

- ~~(i) the following agricultural districts: the A-N, the A-X, and the A-I zones;~~
- ~~(ii) all commercial districts (the C-L, the C-G, the DMX, and the C-H zones);~~
- ~~(iii) all industrial districts (the I-L, I-H, and OPRD zones); and~~
  - ~~(iv) the PQP zone only.~~

**Table 8-2.1104**  
**Allowed Solar Uses and Permit Requirements**

<u>A = Allowed use, subject to zoning clearance</u> <u>SP = Site Plan Review</u> <u>UP (m) = Minor Use Permit</u> <u>UP (M) = Major Use Permit</u> <u>N = Use Not Allowed</u>	<u>Land Use Permit Required by Zone</u>							<u>Specific Use Requirements or Performance Standards</u>
	<u>A-N, A-X, A-I</u>	<u>A-C, A-R</u>	<u>RR-5, RR-2, R-L, R-M, R-H</u>	<u>C-L, DMX, C-G, C-H</u>	<u>I-L, I-H, OPRD</u>	<u>PQP</u>	<u>POS, P-R</u>	

<u>Solar Energy System</u>								
<u>Small accessory use roof-mounted solar energy system (up to 10kW)</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>Sec. 8-2.1104(f)</u>
<u>Small accessory use ground-mounted solar energy system (up to 10kW)</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>SP</u>	
<u>Accessory solar energy system (&gt;10kW, &lt; 2.5 ac)</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A/SP<sup>(a)</sup></u>	<u>Sec. 8-2.1104(g)</u>
<u>Accessory solar energy system (2.5 to 7.5 ac)</u>	<u>SP</u>	<u>SP</u>	<u>SP</u>	<u>SP</u>	<u>SP</u>	<u>SP</u>	<u>SP/UP(m)</u>	
<u>Medium-sized solar energy system (7.5 to 30 ac)</u>	<u>SP/UP(m)</u>	<u>N</u>	<u>N</u>	<u>SP/UP(m)</u>	<u>SP/UP(m)</u>	<u>SP/UP(m)</u>	<u>N</u>	<u>Sec. 8-2.1104(h)(i)</u>
<u>Large-scale solar energy system (&gt; 30 ac)</u>	<u>UP(M)</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>UP(M)</u>	<u>UP(M)</u>	<u>N</u>	

(a) Site Plan Review required for ground-mounted systems

- (2) Installation of roof-mounted solar arrays ~~as roof top displays~~ is encouraged in all public facilities in all zones districts so long as associated controls or conversion electronics do not impact other facilities.
- (3) ~~Small Accessory~~ and medium-sized solar energy systems ~~are prohibited~~ in the Public and Open Space (POS) and Park and Recreation (P-R) zones ~~with the exception of~~ are limited to roof-mounted panels and associated controller and conversion electronics.
- (4) Under circumstances where roof ~~top mounted~~ solar arrays alone cannot provide sufficient power for onsite uses in the POS or P-R zones, supplemental ground-mounted solar arrays may be permitted only to the extent necessary to provide sufficient power for onsite uses only through the issuance of a Minor Use Permit.

(5) Large scale and ~~very large scale~~ solar energy systems are prohibited in the Public Open Space (POS) and Parks and Recreation (P-R) zones.

~~(2) Medium-sized solar energy systems may be approved through the issuance of a Site Plan Review, provided the application meets the Development Standards set forth in Section 8-2.1104(g), below. The Site Plan Review approval is ministerial (not discretionary) and does not require a public hearing. If the application fails to meet any of the standards, the application must instead be evaluated as an application for a Minor Use Permit by the Zoning Administrator.~~

(f) **Development standards for small accessory use solar energy systems**

Applications for small accessory use roof-mounted and ground-mounted solar energy systems shall meet all of the following standards and any permit issued for such a system shall be conditioned to meet the standards:

(1) Photovoltaic solar energy systems may extend up to five (5) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the district zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

(2) Solar water or swimming pool heating systems may extend up to seven (7) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the district zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

(3) Excluding solar collection panels, solar energy system equipment may be installed within the required side and rear yards, but shall not be closer than ~~two (2)~~ ten (10) feet from any property line in agricultural, commercial, industrial, and public and open space zones and five (5) feet from any property line in residential zones.

(4) Pole mounted solar collection panels located in the residential zones shall comply with existing regulations for accessory structures (Section ~~8-2.506(ba)~~ and Table 8-2.506 of this Chapter), i.e., the panels may not exceed ten (10) feet in height in residential zones and must meet a rear yard setback of five (5) feet, ~~with the exception that small solar systems in the agricultural zones are not subject to the front yard setback.~~

(5) The solar panels of a small accessory use ground-mounted solar energy system shall not be included in any calculation of impervious surface for purposes of calculating lot coverage.

~~(g) Small Residential Rooftop Solar Energy System Review Process~~

~~(1) Purpose and Application~~

~~The purpose of this section is to adopt an expedited, streamlined solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 521, Statutes 2014) to achieve timely and cost-effective installations of small residential rooftop solar energy systems. This section encourages the use of solar systems by removing unreasonable barriers, minimizing costs to property owners and the County, and expanding the ability of property owners to install solar energy systems. This section allows the County to achieve these goals while protecting the public health and safety.~~

~~The provisions of this section apply to the permitting of all small residential rooftop solar energy systems in the County. Small residential rooftop solar energy systems legally established or permitted prior to the effective date of this section are not subject to the requirements of this section unless physical modifications or alterations are undertaken that materially change the size, type, or components of a small rooftop energy system in such a way as to require new permitting. Routine operation and maintenance or like-kind replacements shall not require a permit.~~

~~(2) Definitions~~

~~The following words and phrases as used in this section are defined as follows:~~

~~Association~~

~~An "Association" means a nonprofit corporation or unincorporated association created for the purpose of managing a common interest development.~~

~~Common Interest Development~~

~~A "Common Interest Development" means any of the following: a community apartment project; a condominium project; a planned development; a stock cooperative.~~

~~Electronic submittal~~

~~"Electronic submittal" means the utilization of one or more of the following: email; the Internet; or facsimile.~~

~~Reasonable Restrictions~~

~~"Reasonable Restrictions" on a solar energy system are those restrictions that do not significantly increase the cost of the system or significantly decrease its efficiency or specified performance, or that allow for an~~

~~alternative system of comparable cost, efficiency, and energy conservation benefits.~~

~~**Restrictions that do not significantly increase the cost of the system or decrease its efficiency or specified performance**~~

~~“Restrictions that do not significantly increase the cost of the system or decrease its efficiency or specified performance” means:~~

- ~~(i) For Water Heater Systems or Solar Swimming Pool Heating Systems: an amount exceeding 10 percent of the cost of the system, but in no case more than one thousand dollars (\$1,000), or decreasing the efficiency of the solar energy system by an amount exceeding 10 percent, as originally specified and proposed.~~
- ~~(ii) For Photovoltaic Systems: an amount not to exceed one thousand dollars (\$1,000) over the system cost as originally specified and proposed, or a decrease in system efficiency of an amount exceeding 10 percent as originally specified and proposed.~~

~~**Solar energy system**~~

~~“Solar energy system” has the same meaning set forth in paragraphs (1) and (2) of subdivision (a) of Section 801.5 of the Civil Code, as such section or subdivision may be amended, renumbered, or redesignated from time to time.~~

~~(3) Solar Energy Requirements~~

- ~~(i) All solar energy systems shall meet applicable health and safety standards and requirements imposed by the state and the County Building and local fire department or districts.~~
- ~~(ii) Solar energy systems for heating water in single-family residences and for heating water in commercial or swimming pool applications shall be certified by an accredited listing agency as defined by the California Plumbing and Mechanical Code.~~
- ~~(iii) Solar energy systems for producing electricity shall meet all applicable safety and performance standards established by the California Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability.~~

~~(4) Duties of Building Department/Building Official~~

- ~~(i) All documents required for the submission of an expedited solar energy system application shall be made available on the publicly accessible County Website.~~
- ~~(ii) Electronic submittal of the required permit application and documents by email, the Internet, or facsimile shall be made available to all small residential rooftop solar energy system permit applicants.~~
- ~~(iii) An applicant's electronic signature shall be accepted on all forms, applications, and other documents in lieu of a wet signature.~~
- ~~(iv) The County's Building Department shall adopt a standard plan and checklist of all requirements with which small residential rooftop solar energy systems shall comply to be eligible for expedited review.~~
- ~~(v) The small residential rooftop solar system permit process, standard plan(s), and checklist(s) shall substantially conform to recommendations for expedited permitting, including the checklist and standard plans contained in the most current version of the California Solar Permitting Guidebook adopted by the Governor's Office of Planning and Research.~~
- ~~(vi) All fees prescribed for the permitting of small residential rooftop solar energy system must comply with Government Code Section 65850.55, Government Code Section 66015, Government Code Section 66016, and State Health and Safety Code Section 17951.~~

~~(5) Permit Review and Inspection Requirements~~

- ~~(i) The County Building Department shall adopt an administrative, nondiscretionary review process to expedite approval of small residential rooftop solar energy systems within 30 days of the adoption on this Ordinance. The Building Department may issue a building permit or other nondiscretionary permit the same day for over-the-counter applications, or shall issue within one to three business days for paper or electronic applications, of receipt of a complete application that meets the requirements of the approved checklist and standard plan. The Chief Building Official may require an applicant to apply for a Use Permit if the official finds, based on substantial evidence, that the solar energy system could have a specific, adverse impact upon the public health and safety. Such decisions may be appealed to the County Planning Commission.~~

- ~~(ii) — Review of the application shall be limited to the building official’s review of whether the application meets local, state, and federal health and safety requirements.~~
- ~~(iii) — If a Use Permit is required, the building official may deny an application for the Use Permit if the official makes written findings based upon substantive evidence in the record that the proposed installation would have a specific, adverse impact upon public health or safety and there is no feasible method to satisfactorily mitigate or avoid, as defined, the adverse impact. Such findings shall include the basis for the rejection of the potential feasible alternative for preventing the adverse impact. Such decisions may be appealed to the County Planning Commission.~~
- ~~(iv) — Any condition imposed on an application shall be designed to mitigate the specific, adverse impact upon health and safety at the lowest possible cost.~~
- ~~(v) — “A feasible method to satisfactorily mitigate or avoid the specific, adverse impact” includes, but is not limited to, any cost-effective method, condition, or mitigation imposed by the County on another similarly situated application in a prior successful application for a permit. The County shall use its best efforts to ensure that the selected method, condition, or mitigation meets the conditions of subparagraphs (A) and (B) of paragraph (1) of subdivision (d) of Section 714 of the Civil Code defining restrictions that do not significantly increase the cost of the system or decrease its efficiency or specified performance.~~
- ~~(vi) — The County shall not condition approval of an application on the approval of an association, as defined in Section 4080 of the Civil Code.~~
- ~~(vii) — If an application is deemed incomplete, a written correction notice detailing all deficiencies in the application and any additional information or documentation required to be eligible for expedited permit issuance shall be sent to the applicant for resubmission.~~
- ~~(viii) — Only one inspection shall be required and performed by the Building Department for small residential rooftop solar energy systems eligible for expedited review. A separate fire inspection may be performed if an agreement with the local fire authority does not exist to perform safety inspections on behalf of the fire authority.~~

~~(ix) The inspection shall be done in a timely manner and should include consolidated inspections. An inspection will be scheduled within two business days of a request and provide a two-hour inspection window.~~

~~(x) If a small residential rooftop solar energy system fails inspection, a subsequent inspection is authorized but need not conform to the requirements of this Ordinance.~~

**(hg) Development standards for medium-sized accessory solar energy systems**

Applications for medium-sized accessory solar energy systems shall meet all of the following standards. If the application does not meet one or more of the standards, a Minor Use Permit shall be required and shall be conditioned to meet the standards, unless findings of fact to justify a waiver of any of the standards are adopted by the Zoning Administrator. A waiver may be granted only if the Zoning Administrator concludes that the waiver is consistent with the purposes of this ~~section~~ Section and that, due to unusual circumstances or other considerations, it is not reasonable to require compliance with one or more of the standards.

(1) Photovoltaic solar energy systems may extend up to five feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet). Medium-sized solar energy systems shall comply with subsection (1) of Section 8-2.1104(f) above.

(2) Solar water or swimming pool heating systems may extend up to seven (7) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

(23) Medium-sized Accessory solar facilities energy systems occupying more than 2.5 acres of land that are proposed in agricultural zones and the PQP zone are encouraged to locate on predominantly (more than 60 percent) non-prime farmland and or previously disturbed areas to the extent feasible to locate on non-Williamson Act contracted land. All medium-sized facilities are required to mitigate for the permanent loss of agricultural land, in accordance with Section 8-2.404 (the Agricultural Conservation and Mitigation Program).

(4) Ground-mounted solar facilities shall meet the front, rear, and side yard setback requirements of the zone in which they are located, with the following exceptions: Accessory solar energy systems in agricultural zones, ~~the setbacks shall be at least 50 feet from all property lines occupying no more than 2.5 acres shall not be required to meet the front yard setback. To address Fire Code requirements for weed control, a 10-foot perimeter is required from property~~

lines in all agricultural, commercial, industrial, and public and open space zones and a 5-foot perimeter is required in all residential zones.

(5) Ground-mounted solar facilities shall meet the height limit requirements of the zone in which they are located, except that auxiliary equipment may exceed this limit.

(6) ~~If the proposed solar facility will impact~~ Ground-mounted solar arrays that occupy more than 2.5 acres of Swainson's hawk foraging habitat, a Minor Use Permit shall be required and shall include conditions for mitigation for the permanent loss of Swainson's hawk foraging habitat, as required under the Yolo Natural Heritage Program require a management plan that includes a vegetative substrate, such as native grasslands habitat or pollinator habitat, planted and maintained beneath and between the rows of panels. Native vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.

~~(7) Accessory solar energy systems larger than 2.5 acres shall be located no closer than a minimum of 100 feet away from a riparian corridor.~~

~~Pole-mounted solar collection panels shall comply with existing regulations for accessory structures (Section 506(b) of this Chapter), i.e., the panels may not exceed ten (10) feet in height in residential zones and must meet a rear yard setback of five (5) feet, with the exception that small solar systems in the agricultural zones are not subject to the front yard setback.~~

~~(8) Accessory solar energy systems shall occupy no more than 7.5 acres of land or 20 percent of the area of the parcel, whichever is smaller.~~

~~(9) The solar panels of an accessory solar energy system shall not be included in any calculation of impervious surface for purposes of calculating lot coverage.~~

(h) Development standards for medium-sized and large-scale solar energy systems

(1) Medium-sized and large-scale solar energy systems are encouraged to locate on predominantly non-prime farmland and non-Williamson Act contracted land, as feasible. Any medium-sized solar energy system that locates on prime farmland or farmland under Williamson Act contract shall require a Minor Use Permit.

(2) Utility solar energy systems shall be integrated into the agricultural landscape by maintaining a substrate with a plant palette that supports ecological function and encourages and maintains wildlife use. Native vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.

- (3) Solar uses shall require a minimum 100-foot buffer from riparian corridors.
  - (4) ~~Ground-mounted~~ Medium-sized solar facilities energy systems shall meet the front, rear, and side yard setback requirements of the zone in which they are located, with the following exception: in agricultural zones, the setbacks shall be at least 50 feet from all property lines. A 10-foot perimeter shall be required in all other zones to address Fire Code requirements for weed control.
  - (5) Large-scale solar energy systems must be setback at least 50 feet from any property line.
  - (6) Utility solar energy systems shall be located no closer than 100 feet from any residential dwelling on an adjacent property.
  - (7) To the extent reasonably practicable, a utility solar energy system shall have a visual buffer of native vegetation that provides a visual screen to reduce the view of the solar energy system from residences on adjacent lots, including those lots located across a public right-of-way. Solar energy systems proposed to locate in a designated scenic corridor shall require visual screening. Vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.
  - (8) Solar panels shall not be included in any calculation of impervious surface or impervious cover.
- (fi) Agricultural land m-Mitigation required
- (1) All ~~utility-large and very large~~ solar ~~facilities~~ energy systems shall mitigate for the permanent loss of agricultural land, in accordance with Section 8-2.404 (the Agricultural Conservation and Mitigation Program). Medium-sized solar energy systems approved by Site Plan Review are exempt from this requirement.
  - (2) If a proposed utility solar energy system will remove Swainson's hawk foraging habitat, mitigation for the loss of foraging habitat shall be required to minimize adverse effects. For each acre of suitable land removed, a replacement acre shall be protected and managed to consistently provide suitable conditions for foraging Swainson's hawks. Mitigation can be accomplished by payment of a development fee for land in lieu, providing land in lieu of a development fee, or other arrangement in accordance with the California Department of Fish and Wildlife. Alternatively, a project proponent may seek coverage for the loss of habitat under the Yolo HCP/NCCP as a special participating entity.

**(i) Decommissioning**

**Unless otherwise approved by the County, decommissioning shall begin no later than 12 months after a medium-sized or large-scale solar energy system has ceased to generate electricity. Within six months of the beginning of decommissioning, the solar energy system and all structures associated with it shall be removed, all materials shall be recycled or otherwise reused to the extent reasonably practicable, and the property shall be returned to its condition prior to the installation of the solar energy system or to some other condition reasonably appropriate for the designated land use.**

C. Replace Section 8-2.1105 with the following:

**~~Sec. 8-2.1105 Large and very large solar energy systems~~**

**~~(a) Purpose~~**

~~The purpose of this Ordinance is to add provisions to the Yolo County Code to address the permitting of large and very large solar energy systems. These changes are necessary and appropriate to improve and enhance public welfare and safety, and to implement the Yolo County General Plan.~~

**~~(c) Applicability~~**

~~The provisions of this section apply to large and very large solar energy systems. These solar energy systems require the issuance of a Major Use Permit, as set forth below. Any such solar systems installed prior to the effective date of this Section shall be considered legal, conforming uses so long as a County use permit was issued in connection with their installation.~~

**~~(d) Permitted locations~~**

~~Solar facilities, depending on their size, may be located in the following zoning districts:~~

~~(1) Large utility scale solar energy systems used to produce electricity for off-site customers may be installed and operated in the following zoning districts or specific zones, provided the systems meet all the standards and requirements, as provided in this section: agricultural districts (the Agricultural Intensive (A-N) zone, the Agricultural Extensive (A-X) zone, and the Agricultural Industrial (A-I) zone); industrial districts (the Heavy Industrial (I-H) and the Light Industrial (I-L) zones); and Public Quasi-Public (PQP) zone; and.~~

~~(2) Very large utility scale solar energy systems used to produce electricity for off-site customers may be installed and operated in the following districts, provided the systems meet all the standards and requirements, as provided in this Section:~~

~~agricultural districts (the Agricultural Intensive (A-N) zone, the Agricultural Extensive (A-X) zone, and the Agricultural Industrial (A-I) zone).~~

## **Sec. 8-2.1105 Energy storage facilities**

### **(a) Purpose**

**The purpose of this Ordinance is to add provisions to the Yolo County Code to regulate the permitting and installation of energy storage systems. These changes are necessary and appropriate to improve and enhance public welfare and safety, to ensure compatible land uses in the vicinity of areas affected by energy storage systems, and to mitigate the impacts of energy storage systems on important environmental resources, such as agricultural lands and wildlife habitat.**

### **(b) Definitions**

#### **Dedicated use building**

**“Dedicated use building” shall mean a building that is constructed for the primary intention of housing battery energy storage system equipment, is classified as Group F-1 occupancy as defined in the California Building Standards Code, and complies with the following:**

- (i) The building’s only use shall be for energy storage, energy generation, and other electrical grid-related operations.**
- (ii) No other occupancy types shall be permitted in the building.**

#### **Participating property**

**“Participating property” shall mean an energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the energy storage system owner (or affiliate) regardless of whether any part of the energy storage system is constructed on the property.**

#### **Small energy storage system**

**“Small energy storage” shall mean one or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle. A small energy storage facility may be used in conjunction with an accessory renewable energy system and shall have an aggregate energy capacity less than or equal to 600kWh and consist of only a single energy storage system technology.**

#### **Energy storage system**

**“Energy storage system” shall mean one or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time. An energy storage system has an aggregate energy capacity greater than 600kWh or is comprised of more than one storage battery technology in a room or enclosed area. An energy storage system facility may be integrated with a utility renewable**

energy system with storage connected to the renewable energy system and the grid or may be a standalone storage facility with storage connected to the grid only.

**(c) Applicability**

The requirements of this Section shall apply to all energy storage systems permitted, installed, or modified in unincorporated Yolo County after the effective date of this ordinance, excluding general maintenance and repair. Energy storage systems constructed or installed prior to the effective date of this ordinance shall not be required to meet the requirements of this Section. Modifications to, retrofits or replacements of an existing energy storage system that increase the total energy storage system designed discharge duration or power rating shall be subject to the provisions of this Section.

**(d) Permitting requirements**

Energy storage facilities may be permitted to locate in the following zones:

**Table 8-2.1105  
Allowed Energy Storage System Uses and Permit Requirements**

<b>A = Allowed use, subject to zoning clearance*</b> <b>SP = Site Plan Review</b> <b>UP (m) = Minor Use Permit</b> <b>UP (M) = Major Use Permit</b> <b>N = Use Not Allowed</b>	<u>Land Use Permit Required by Zone</u>							<u>Specific Use Requirements or Performance Standards</u>
	<u>A-N, A-X, A-I</u>	<u>A-C, A-R</u>	<u>RR-5, RR-2, R-L, R-M, R-H</u>	<u>C-L, DMX, C-G, C-H</u>	<u>I-L, I-H, OPRD</u>	<u>PQP</u>	<u>POS, P-R</u>	

<u>Energy Storage System</u>								
<u>Small energy storage (≤600kW)</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>A</u>	
<u>Energy storage (&gt;600 kW to 2MW)</u>	<u>SP</u>	<u>SP</u>	<u>N</u>	<u>SP</u>	<u>SP</u>	<u>SP</u>	<u>N</u>	<u>See Sec. 8-2.1105(e)</u>
<u>Energy storage (&gt;2MW)</u>	<u>UP(m)</u>	<u>N</u>	<u>N</u>	<u>UP(m)</u>	<u>UP(m)</u>	<u>UP(m)</u>	<u>N</u>	

**(1) Energy storage systems shall meet all applicable safety and performance standards established by the California Building Standards Code.**

**(e) Development standards for energy storage systems**

**(1) Small energy storage systems must be installed in non-habitable spaces, such as utility rooms, garages, storage rooms or on the exterior of a building.**

- (2) Onsite utility lines shall be placed underground to the extent feasible and as permitted by the serving utility.
- (3) Lighting of an energy storage system shall be limited to that minimally required for safety and operational purposes and shall be shielded and downcast from abutting properties and public right-of-way, and shall take into consideration protection of the rural night sky.
- (4) Areas within 10 feet on each side of an energy storage system, excluding small energy storage systems, shall be cleared of combustible vegetation and other combustible growth. Removal of trees should be minimized to the extent possible.
- (5) Noise generated from energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of 60 dBA as measured at the property line of the nearest offsite residence. Applicants may submit equipment and component manufactures noise ratings to demonstrate compliance.
- (6) Energy storage systems, excluding small energy storage systems, shall comply with the setback requirements of the zone in which they are located.
- (7) Energy storage systems shall comply with the height limitations of the zone in which they are located.
- (8) Energy storage systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area.

(f) Decommissioning

- (1) A decommissioning plan, developed in accordance with all relevant codes, shall be submitted with any application for an energy storage system, but excluding a small energy storage system, and shall be implemented upon abandonment and/or in conjunction with removal from the facility. The decommission plan shall include:
  - (i) A narrative description of the activities to be accomplished for complete physical removal of all energy storage system components, batteries, structures, equipment, security barriers, and transmission lines from the site;
  - (ii) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;
  - (iii) The anticipated life of the energy storage system;
  - (iv) The estimated decommissioning costs and method of ensuring funds will be available for decommission and restoration of the site;

- (v) The manner in which the site will be restored, including a description of how any changes to the surrounding areas will be protected during decommissioning and confirmed as being acceptable after the system is removed; and
  - (vi) A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other natural disaster event.
- (2) The owner and/or operator of the energy storage system, not including a small energy storage system, shall continuously maintain a fund or bond payable to the County of Yolo, in a form approved by the County, for the removal of the energy storage system, in an amount to be determined by the County for the period of the life of the facility. All costs of the financial security shall be borne by the applicant.

**RESOLUTION NO. 2022-152****RESOLUTION OF THE YOLO COUNTY BOARD OF SUPERVISORS  
ADOPTING AN ADDENDUM  
FOR THE ZONING CODE UPDATE RELATED TO SOLAR ENERGY SYSTEMS AND  
ENERGY STORAGE SYSTEMS AND CEQA EXEMPTION FOR THE ZONING CODE  
AMENDMENTS RELATED TO TELECOMMUNICATION FACILITIES**

**WHEREAS**, on November 8, 2022, the Yolo County Board of Supervisors held a public hearing and considered a recommendation from the Planning Commission's October 13, 2022, decision on the Zoning Code Update (ZC #2022-02);

**WHEREAS**, the proposed ordinance consists of two separate components: (1) an update of the Zoning Regulations of the Yolo County Code related to solar energy systems and energy storage systems uses in the unincorporated area, to reduce regulatory hurdles, clarify terminology, and identify new uses while ensuring consistency with policies of the 2030 Countywide General Plan and with all aspects of State and federal laws related to planning and zoning ("Solar Energy Systems and Energy Storage Systems Ordinances"), and (2) amendments to the Zoning Regulations related to telecommunication facilities to clarify application of existing regulations, identify federal statutes already in effect, and reformat the section for ease of reference ("Wireless Telecommunications Facilities Amendments"); and

**WHEREAS**, as to the Solar Energy Systems and Energy Storage Systems Ordinances, the County seeks to encourage renewable energy systems that are ancillary to the primary uses of a property without compromising impacts to agriculture and natural resources, broaden permit streamlining opportunities for small accessory use solar energy systems, and specify development standards for energy storage systems; and

**WHEREAS**, the County prepared an Addendum to the previously adopted 2011 Negative Declaration for Solar Facilities Ordinances in connection with the updated solar energy systems and energy storage systems ordinances; and

**WHEREAS**, Section 15162(a) of the California Environmental Quality Act (CEQA) Guidelines states that "When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
  - (A) The project will have one or more significant effects not discussed in the previous EIR

or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative; and

**WHEREAS**, staff has determined that the action to update the solar energy facilities ordinances into one consolidated ordinance, broaden the expedited permit process for small accessory use solar energy systems, clarify the distinction between ‘accessory’ solar energy systems and utility solar energy systems, and address provisions for energy storage systems does not cause any “substantial changes,” “new information,” “significant effects,” or require any new or revised “mitigation measures or alternatives,” or trigger any of the other criteria listed in Section 15162(a) of the CEQA Guidelines that would require a subsequent environmental document to be prepared; and

**WHEREAS**, as explained in the Addendum, there is no substantial evidence in light of the whole record that the Solar Energy Systems and Energy Storage Systems Ordinances may have a significant effect on the environment; and

**WHEREAS**, as to the Wireless Telecommunications Facilities Amendments, the County encourages extending broadband services throughout the rural areas by clarifying requirements for telecommunication facilities, reducing the proliferation of new towers through collocation, and specifying federal provisions related to permit streamlining for non-substantial improvements to existing permitted facilities; and

**WHEREAS**, the County reviewed the Wireless Telecommunications Facilities Amendments under CEQA Guidelines Section 15061(b)(3) and determined the project is exempt from CEQA based on the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment; and

**WHEREAS**, a CEQA Exemption has been prepared for the update to the wireless telecommunication facilities ordinance because it can be seen with certainty there is no possibility the activity may have a significant effect on the environment; and

**WHEREAS**, prior to the Planning Commission’s decision on October 13, 2022, to recommend approval of the Zoning Code Update, the Commission reviewed and considered the Addendum to the 2011 Negative Declaration for the Solar Energy Systems and Energy Storage Systems Ordinances and common sense CEQA exemption for the Wireless Telecommunications Facilities Amendments; and

**WHEREAS**, the Addendum and exemption considered by the Planning Commission on October 13, 2022, constitute the environmental documents adopted pursuant to this Resolution in

compliance with the California Environmental Quality Act (CEQA) and CEQA Guidelines as they pertain to the Project considered by the Board of Supervisors on November 8, 2022.

**NOW, THEREFORE,** the Board of Supervisors hereby finds and resolves as follows:

1. The foregoing recitals are true and correct.
2. The Board of Supervisors has independently reviewed and analyzed the Addendum to the 2011 Negative Declaration Solar Energy Systems and Energy Storage Systems Ordinances, considered the information and analysis contained therein, and considered all written and oral comments received on the project and these documents.
3. Based on this review and analysis, the Board of Supervisors finds that the Addendum reflects the independent judgment and analysis of the Board of Supervisors. The Board of Supervisors also hereby makes the following additional findings:
  - A. The Addendum has been completed in compliance with CEQA and all other legal requirements and it is incorporated by reference; and
  - B. As further explained in the Addendum, no new or worse significant effects could occur, and no new mitigation measures would be required, pursuant to CEQA Guidelines Section 15162. No substantial changes are proposed in the Solar Energy Systems and Energy Storage Systems Ordinances that could involve new or worse significant impacts. There is no substantial new information that shows previously identified significant effects will be more significant than described in the 2011 Negative Declaration for the Solar Facilities Ordinances.
4. For the foregoing reasons, and for all reasons described in the Addendum to the Negative Declaration as well as all other documents in the record for this matter, the Board thus adopts the Addendum as the appropriate level of environmental review for the Solar Energy Systems and Energy Storage Systems Ordinances. The Board of Supervisors has considered the Addendum with the 2011 Negative Declaration prior to adoption of the Solar Energy Systems and Energy Storage Systems Ordinances
5. The Board of Supervisors has independently reviewed and analyzed the notice of exemption prepared for the Wireless Telecommunications Facilities Amendments, considered the information and analysis contained therein, and considered all written and oral comments received on the project and these documents.
6. Based on this review and analysis, the Board of Supervisors finds that the Wireless Telecommunications Facilities Amendments are subject to the common sense exemption because there is no substantial evidence, on the basis of the entire record, that the Wireless Telecommunications Facilities Amendments will have a significant effect on the environment. The Director of the Department of Community Services, or designee, is directed to file a notice of exemption for the Wireless Telecommunications Facilities Amendments.
7. The Director of the Department of Community Services, located at 292 West Beamer Street in Woodland, California, shall serve as the custodian of the administrative record.


**PASSED AND ADOPTED** by the Board on this 22 day of November, 2022, by the following vote:

**AYES: Villegas, Saylor, Sandy, Provenza, Barajas.**

**NOES: None.**

**ABSTENTIONS: None.**

**ABSENT: None.**

  
\_\_\_\_\_  
Supervisor Angel Barajas, Chair  
Yolo County Board of Supervisors

Attest:  
Julie Dachtler, Senior Deputy Clerk

By:   
\_\_\_\_\_  
Deputy (Seal)



Approved As To Form:  
Philip J. Pogledich, County Counsel

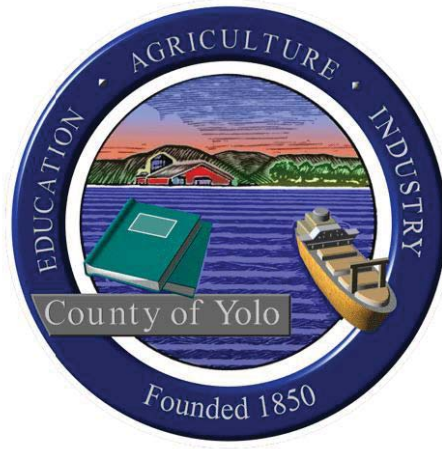
By:   
\_\_\_\_\_  
Eric May, Senior Deputy

**ATTACHMENTS:**

**Exhibit A – Addendum to Negative Declaration**

**Exhibit B – CEQA Exemption**

# EXHIBIT A



## YOLO COUNTY DEPARTMENT OF COMMUNITY SERVICES

**Addendum to the  
Yolo County Solar Facilities Ordinance Negative Declaration  
ZF 2010-005  
[Initially adopted by the Yolo County Board of Supervisors September 2011]**

**September 2022**

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## ADDENDUM TO NEGATIVE DECLARATION

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### CEQA REQUIREMENTS

This document has been prepared as an Addendum to the Yolo County Solar Facilities Ordinance Negative Declaration in accordance with the CEQA Guidelines Section 15164. This is the first Addendum to the Yolo County Solar Facilities Ordinance Negative Declaration, which was adopted by the County on September 27, 2011. Subsequently, on October 11, 2016, the County adopted Resolution No. 16-97 and Environmental Determination relying on the 2011 Negative Declaration as the adequate level of environmental review under CEQA for minor revisions to the Solar Facilities Ordinances. This Addendum analyzes a series of amendments to the Solar Facilities Ordinances codified in Article 11 of Chapter 2, Title 8, Yolo County Code, that would facilitate a more streamlined approach for accessory solar uses and renewable energy systems without compromising important natural resources.

Section 15164 of the CEQA Guidelines provides that the Lead Agency shall prepare an Addendum to an adopted Negative Declaration if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 call for preparation of a subsequent EIR or Negative Declaration. The Guidelines go on to state that: 1) the Addendum need not be circulated, but can be included in or attached to the adopted Negative Declaration (Section 15164(c)), and that 2) the County must consider the Addendum with the adopted Negative Declaration (Section 15164(d)).

The requirements of the Guidelines are described in more detail in the matrix below. Under the current situation, use of an Addendum is justified. This Addendum demonstrates that the circumstances, impacts, and requirements identified in the Yolo County Solar Facilities Ordinance Negative Declaration remain substantively unchanged by the situation described herein, and supports the finding that the proposed modifications do not raise any new issues and do not cause the level of impacts identified in the previous Negative Declaration to be exceeded. Pursuant to Section 15164(e) a brief explanation is provided herein documenting the County's decision that preparation of a subsequent EIR or Negative Declaration is not required.

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### BACKGROUND

The “project” that is the focus of this Addendum is a series of amendments to the Small and Medium Solar Energy Systems Ordinance and Large and Very Large Solar Energy Systems Ordinance, codified in Title 8, Article 11 of the Yolo County Code of Ordinances, that standardize the requirements for the siting of solar energy systems in the unincorporated area of the County. The Negative Declaration described onsite (or ‘accessory’) and utility (or ‘large-scale’) solar energy systems as part of the regulatory process for siting solar energy systems. However, the changes proposed to the ordinances, i.e., adding new nomenclature and clarifying definitions, are not covered by the Negative Declaration.

The proposed changes to the Solar Energy Systems Ordinances are described below, excerpted from the proposed amendments to Sections 8-2.1104 and 8-2.1105 of the Yolo County Code.

## Solar Energy Systems Ordinance

The proposed amendments to the Small and Medium Solar Energy Systems Ordinance (County Code Section 8-2.1104) and Large and Very Large Solar Energy Systems Ordinance (Section 8-2.1105) include a comprehensive consolidation of both ordinances into one Solar Energy Systems Ordinance (8-2.1104). The amendments provide a distinction between accessory solar energy systems (i.e., those systems that support or offset energy needs to onsite or adjacent uses) and utility solar energy systems, which are systems that produce and distribute energy directly to the electrical grid.

The changes proposed to the solar facilities regulations provide for greater permit streamlining opportunities under the Solar Rights Act and broaden provisions for ancillary uses without impacts to important County resources, such as removal of productive agricultural land and foraging habitat for the Swainson's hawk. The primary purpose for proposing these changes is to meet the needs of agricultural operators seeking to offset onsite energy demands with renewable energy sources. The current regulations are overly restrictive for systems that are ancillary to the primary uses of agricultural property. Indeed, on-site electric generation supportive of agricultural uses do not represent a conversion of agricultural land to non-agricultural uses and can be established in a way that is supportive of the Swainson's hawk foraging activities.

The proposed amendments, however, do not change the current requirements to mitigate for the conversion of agricultural land to non-agricultural uses, or the removal of Swainson's hawk foraging habitat for utility systems, i.e., medium-sized and large-scale systems that feed the electrical grid for offsite users. A discretionary process and environmental review would still be required for any utility energy system and for any accessory system that cannot meet standards for protecting natural resources.

## Energy Storage Systems Ordinance

The proposed amendments enact Section 8-2.1105 for regulating energy storage systems, an emerging renewable energy system that is often coupled or paired with solar energy systems. Most energy storage systems would be paired with another renewable energy system, such as a solar or wind energy system. A typical one-megawatt energy storage system is about the size of a shipping or storage container occupying very little space on a property. The proposed ordinance sets standards for energy storage systems, including occupancy requirements for housing energy storage systems, setback and height requirements, and addresses lighting, noise, removal of combustible vegetation, and decommissioning requirements. Any energy storage system that can produce or store more than two megawatts of energy would require a discretionary and environmental review prior to permitting.

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## **DETERMINATION**

The amendments to the Solar Energy Systems Ordinance and proposed Energy Storage Systems Ordinance do not represent a significant change to the County's Zoning Regulations regarding renewable energy sources as analyzed under the adopted Negative Declaration.

In order to assess whether additional CEQA review is required for the proposed amendments, an analysis of the applicability of Section 15162 of the CEQA Guidelines has been prepared. The table on the following pages provides verbatim wording from the Guidelines and a corresponding analysis of the applicability of each section to the proposed ordinances.

## COMPARISON OF CEQA REQUIREMENTS AND REQUEST

CEQA Requirement (Section 15162)	Relationship to Proposed Project
<p>(a) When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:</p>	<p>The Yolo County Solar Facilities Ordinance Negative Declaration was adopted by the Yolo County Board of Supervisors on September 27, 2011. Findings of Fact, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan were not applicable and therefore were not adopted at the same time.</p> <p>The information below summarizes the substantial evidence in support of the County's determination that the preparation of a subsequent EIR or subsequent negative declaration is not required.</p>
<p>(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;</p>	<p>There are no substantial changes proposed in amendments to Sections 8-2.1104 and 8-2.1105 of the Yolo County Code. The consolidation of the Small and Medium Solar Energy Systems and Large and Very Large Solar Energy Systems Ordinances, redefining terminology, and clarifying use types (i.e., accessory uses vs utility uses) does not change what was anticipated and described as part of the analyses in the Initial Study prepared for the Negative Declaration. The Negative Declaration already identified the potential for impacts to aesthetics, agricultural, air quality, and biological resources, GHG and climate change and concluded there would be less than significant effects. The energy storage systems contemplated by the Energy Storage Systems Ordinance are typically associated with the solar systems analyzed in the Negative Declaration, and the systems take up less than an acre of space and do not represent a substantial increase of land devoted to such systems.</p> <p>The proposed amendments to the Solar Energy Systems Ordinance and proposed new Energy Storage Systems Ordinance would be similar to the existing regulations that include standards for addressing and mitigating impacts to loss of agricultural resources and removal of habitat for special status species. The updated ordinances would not create any new potentially significant or significant and unavoidable impacts.</p>

## COMPARISON OF CEQA REQUIREMENTS AND REQUEST

CEQA Requirement (Section 15162)	Relationship to Proposed Project
<p>(2) Substantial changes will occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or</p>	<p>The Solar Energy Systems Ordinances were approved in September and October, 2011. No substantial changes have occurred with respect to the circumstances under which the updated ordinances will be undertaken that would warrant major revisions to the Negative Declaration. Therefore, the County has concluded that the proposed amendments are not a substantial change in circumstances.</p>
<p>(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the negative declaration was adopted, shows any of the following:</p>	
<p>(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;</p>	<p>There has been no new information of substantial importance that has become known since the Solar Energy Systems Ordinances were approved in September and October, 2011, that shows the project will have any significant impacts that were not discussed in the previous Negative Declaration.</p>
<p>(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;</p>	<p>There has been no new information of substantial importance that has become known since the Solar Energy Systems Ordinances were approved in September and October, 2011 that the project will contribute to, or substantially increase the severity of, any previously identified less than significant impacts.</p>
<p>(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or</p>	<p>There has been no new information of substantial importance that has become known since the Solar Energy Systems Ordinances were approved in September and October, 2011 that mitigation measures or alternatives previously found to be infeasible would in fact be feasible in mitigating significant effects of the project. The Negative Declaration does not include mitigation measures that would apply to the proposed amendments. There were no identified potential impacts in the previously adopted Negative Declaration.</p>
<p>(D) Mitigation measures or alternatives which are considerably different from</p>	<p>There were no mitigation measures analyzed in the previously adopted Negative Declaration that</p>

## COMPARISON OF CEQA REQUIREMENTS AND REQUEST

<b>CEQA Requirement (Section 15162)</b>	<b>Relationship to Proposed Project</b>
those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.	have been rejected by the County. There are no significant impacts from the proposed amendments that require mitigation measures to be considered.

## **CONCLUSION**

Based on the analysis provided above, the proposed changes to the Solar Energy Systems Ordinances, which would amend Sections 8-2.1104 and 8-2.1105 of the Yolo County Code, would not result in new or more severe environmental impacts and no subsequent EIR or subsequent negative declaration is required. This Addendum shall be attached to the existing Negative Declaration and will be considered by all relevant decision-making bodies prior to approval of the project.



**YOLO COUNTY  
PLANNING & PUBLIC WORKS DEPARTMENT**

**INITIAL STUDY/ NEGATIVE DECLARATION  
ZONE FILE # 2010-005**

**SOLAR FACILITIES ORDINANCE**

**February, 2011**

## Initial Environmental Study/Negative Declaration

1. **Project Title:** Zone File #2005-005
2. **Lead Agency Name and Address:**  
Yolo County Planning and Public Works Department  
292 West Beamer Street  
Woodland, CA 95695
3. **Contact Person, Phone Number, E-Mail:**  
Eric Parfrey, Principal Planner  
(530) 666-8043 eric.parfrey@yolocounty.org.
4. **Project Location:** The project would apply to all unincorporated properties in the agricultural, residential, commercial, industrial, and open space zoning districts in Yolo County
5. **Project Sponsor's Name and Address:**  
Yolo County Planning and Public Works Department  
292 West Beamer Street  
Woodland, CA 95695
6. **General Plan Designation(s):** Applies in unincorporated Yolo County within all of the land use designations
7. **Zoning:** Applies in unincorporated Yolo County within all zoning districts
8. **Project Summary:** The Solar Facilities Ordinance would amend the Yolo County Zoning Ordinance to provide an updated set of procedures and standards for the review and permitting of solar energy systems located on unincorporated lands.
9. **Surrounding Land Uses and Setting:** Not applicable (applies to many of the unincorporated properties in Yolo County)
10. **Other public agencies whose approval is required:** None
11. **Other Project Assumptions:** The Initial Study assumes compliance with all applicable State, Federal, and Local Codes and Regulations including, but not limited to, County of Yolo Improvement Standards, the California Building Code, the State Health and Safety Code, and the State Public Resources Code.

## Project Description

### Need for Project

In October, 2010, the Yolo County Board of Supervisors requested that the Planning and Public Works Department prioritize the adoption of updated zoning regulations for solar facilities, based on several discussions of tentative proposals for solar utility-scale projects in the unincorporated area. Two formal applications for one medium-sized, and one large, solar project have already been received by the department in the last year.

### Existing Regulations and Laws

The existing zoning regulations for Yolo County currently allow “freestanding household solar panels,” defined as “photovoltaic structures erected on a permanent foundation.” as an allowed “by right” accessory use in the agricultural and residential zones (Article 34 in Title 8, Chapter 2 of the Yolo County Code). The only other references in the County Code that apply to solar facilities are in the agricultural zones. In the Agricultural Preserve (A-P), Agricultural Exclusive (A-E), and Agricultural General (A-1) zones, “electrical distribution and transmission substations” are allowed through the issuance of a Minor Use Permit by the Zoning Administrator. The Zoning Administrator has interpreted this section to mean that solar facilities larger than “household solar panels” could be approved with a Use Permit since such facilities are substantially similar to an “electrical substation.” In the Agricultural Industrial (AGI) zone, electrical substations are allowed as a principal use without a Use Permit. There are no other standards or development criteria for larger solar facilities in the County Code. The only solar systems that have been approved by Yolo County until recently are small solar panels placed on private residences or public buildings.

Previously enacted State law (Section 65850.5 of the Government Code) encourages the installation of solar energy systems in order to reduce demands on public utilities, and restricts the ability of local jurisdiction from placing onerous conditions on their approval in some circumstances. Section 65850.5 does not apply, however, to solar facilities that provide power for offsite uses (including commercial sale). In addition, another State law, the Williamson Act, requires the County to make certain determinations and adopt findings that a proposed solar facility is a compatible use with the Williamson Act for lands under contract.

The 2030 Yolo Countywide General Plan and the draft Climate Action Plan (CAP) include numerous policies and measures to reduce fossil fuel reliance and greenhouse gas emissions by strongly encouraging and, in some cases, requiring, conversion to solar energy sources. For example, the draft CAP calls for establishment of a Community Choice Aggregation program where 50% of overall County purchases are from 50% renewable sources, and 25% of all County energy purchases are 100% renewable. The draft CAP also assumes that all new homes approved by the County would be required to install solar water heaters and photovoltaic systems.

## Proposed Solar Facilities Ordinance

The proposed Yolo County ordinance for solar energy systems has been drafted to be consistent with State law, the Yolo County General Plan and the Climate Action Plan. Table 1 on the following page summarizes the proposed permitting and mitigation requirements for solar facilities in the draft ordinance.

Solar facilities vary dramatically in size, depending on whether the system is generating electricity primarily for on-site uses such as a house or farm, or whether the project is a “utility size” project that feeds power into the statewide power grid.

The proposed Solar Facilities Ordinance requires a graduated review process for small, medium-sized, large, and very large solar energy systems., based on the size of the system (the amount of electricity generated), the zone district where it is to be located, and whether the solar system conforms to a list of design standards.

In terms of zoning, small solar systems would be allowed in all zoning districts in the unincorporated area, including agricultural, residential, commercial, industrial, and open space/park zones. Medium-sized solar facilities would be allowed in all zoning districts, except for the residential zones. Large and very large solar energy systems would be allowed only within agricultural and public/quasi-public zoning districts.

Small residential photovoltaic systems in the range of about 300 to 400 kilowatts (kw) are mounted on roofs or pole mounted in back yards. Under the proposed ordinance, these small systems would continue to be subject only to building permit requirements, with an over-the-counter “Zoning Clearance” review by planners to ensure that the project conforms to required property line setbacks, height limits, and other standards. The size threshold for small systems is defined as up to 0.5 megawatt (MW, or 500 kilowatts).

Industry representatives use the following “rule of thumb” to estimate the land needed for medium-sized and large commercial solar facilities: five or six acres of land for each megawatt generated. This rule assumes a typical site plan of flat, open land devoted to closely spaced rows of panels on a single axis poles that can rotate to maximize solar collection. This rule of thumb means that a small solar facility of 0.5 MW could take up approximately two or three acres of land.

The “medium-sized” category for regulating solar projects has been defined to include those generating between 0.5 MW and 5.0 MW of power. Projects in this range can be commercial or utility-sized, in contrast to small home or farm systems. However, facilities in this size may also be designed to serve primarily on-site uses, including providing electricity for large agricultural pumping operations. Using the land requirements noted above, a medium-sized solar facility of 5.0 MW could take up approximately 25 or 30 acres of land.

Medium-sized solar facilities would be allowed through the issuance of either a non-discretionary (no public hearing) Site Plan Review, or a discretionary Minor Use Permit approved by the Zoning Administrator following a public hearing. A Site Plan Review would normally be required if the project conforms to all standards, and the project is

## TABLE 1

### PROPOSED PERMITTING REQUIREMENTS FOR SOLAR FACILITIES

#### Small solar systems (up to 0.5 megawatt (MW))

Building Permit and Zoning Clearance required, for projects that meet the following criteria:

- meets all Building Code and zoning standards
- will impact less than 2.5 acres of prime agriculture soils or Swainson's hawk foraging habitat

#### Medium-sized solar systems (over 0.5 and less than 5.0 MW)

Site Plan Review (non-discretionary permit, but standard regulations attached) required for projects that meet the following criteria:

- meets all Building Code and zoning standards
- located on predominantly non-prime soils
- located on non-Williamson Act contracted land
- will impact less than 2.5 acres of Swainson's hawk foraging habitat
- no mitigation is required for permanent loss of agricultural land/soils or Swainson's hawk foraging habitat

Minor Use Permit (discretionary permit, with CEQA review and Conditions of Approval attached) required for the following projects:

- meets all Building Code and zoning standards
- located on predominantly prime soils and/or located on Williamson Act contracted land
- will impact more than 2.5 acres of Swainson's hawk foraging habitat
- mitigation required for permanent loss of agricultural land/soils and for Swainson's hawk foraging habitat, to be determined by a study and type of system, in-lieu fee option available for both

#### Large solar systems (5.0 to 20.0 MW)

Major Use Permit approved by the Planning Commission required with conditions:

- meets all Building Code and zoning standards
- findings of Williamson Act compatibility for contracted lands
- if project found not to be compatible with Williamson Act, cancellation required
- mitigation required for permanent loss of agricultural land/soils or Swainson's hawk foraging habitat, determined by a study, in-lieu fee option available for both for up to 20 acres of impact, on-site or off-site easements required for over 20 acres of impact (no "stacking" of agricultural and Swainson's hawk easements allowed on the same land)

#### Very Large solar systems (over 20.0 MW)

Major Use Permit approved by the Board of Supervisors, following a recommendation of the Planning Commission, required, with more conditions and more mitigation than specified above

located on non-prime agricultural lands and disturbs less than 2.5 acres of Swainson's hawk foraging habitat. Among other things, a Minor Use Permit would be required if the medium-sized solar facility is located on prime land, is incompatible with the Williamson Act, if it affects more than 2.5 acres of habitat, or if health and safety issues are raised.

For large solar energy systems generating between over 5.0 MW and up to 20.0 MW, all applications would be subject to a Major Use Permit issued by the Planning Commission. Very large solar facilities in excess of 20 MW in size would be referred to the Board of Supervisors for approval of a Major Use Permit. Large and very large solar energy systems, and those medium-sized systems that are required to undergo discretionary review through a Use Permit, would be required to conform to setback and other environmental regulations, and to mitigate for loss of agricultural and habitat lands.

### Environmental Effects of Proposed Solar Facilities Ordinance

This Initial Study/Negative Declaration analyzes the potential environmental impacts of the proposed ordinance. As noted above, the existing Yolo County zoning regulations currently allow mounted solar panels as a "by right" accessory use in the agricultural and residential zones, and "electrical distribution and transmission substations"—the regulatory analog for larger solar facility projects—are allowed through the issuance of a Minor Use Permit by the Zoning Administrator in the main agricultural zones (A-P and A-1). The proposed ordinance would continue to allow small solar facilities "by right" in all zones through the issuance of a building permit, if specific setback, height, and other standards are met. This change for small facilities represents a slight tightening of regulations, i.e., applying more specific development criteria, such as height and setback requirements, which should have a beneficial environmental impact.

For medium-sized solar facilities, the ordinance would allow certain projects to be approved with a non-discretionary Site Plan Review if the use was located on non-prime farmlands and on non-Williamson Act contracted lands, if Swainson's hawk foraging habitat impacts were less than 2.5 acres, if all other standards were met, and if no potentially significant environmental impacts would be caused by the project. This represents a streamlining of the current zoning regulations, which would normally be interpreted by staff to require a Minor Use Permit for any medium-sized facilities. Medium-sized solar facilities that meet the criteria cited above would not require discretionary and public review through the Zoning Administrator. This change would serve as an incentive for applicants to propose medium-sized solar projects on non-prime and non-contracted lands.

However, medium-sized facilities that do not meet the criteria above, i.e., the facilities are proposed on prime and/or Williamson Act contracted lands, or disturb more than 2.5 acres of foraging habitat, would continue to require a Minor Use Permit, similar to the current zoning requirements. In addition, the ordinance requires that any medium-size solar facility be designed to avoid any identified significant environmental resources. As is the case now, if, in the independent judgement of the Planning Director, the proposed project could cause a potentially significant environmental impact as defined under the California Environmental Quality Act, the ordinance requires that an Initial Study be prepared and that the project undergo discretionary review as a Minor (or Major) Use Permit.

The proposed Solar Facilities Ordinance would create the greatest change to the existing zoning regulations for large and very large solar systems. Currently, there are no development standards and defined mitigation requirements that could be applied to large and very large solar facilities in the unincorporated areas. Under existing regulations, large and very large solar projects could be required to mitigate for loss of Swainson's hawk foraging habitat, but the projects would be automatically exempted from mitigation for farmland loss. The proposed ordinance sets detailed standards and requirements, and requires mitigation for farmland loss, which should serve to reduce potential environmental impacts on resources in the rural and agricultural areas.

Under the existing zoning, large and very large solar facilities zones would be required by staff to submit an application for a Minor Use Permit, and staff would have the discretion to determine whether the project should be heard at the Zoning Administrator level or whether the complexity or controversial nature of the application warranted a hearing before the Planning Commission. With adoption of the proposed ordinance, large and very large solar facilities would be required to apply for a Major Use Permit, with large facility applications heard at the Planning Commission, and very large project applications heard at the Planning Commission, followed by a final hearing and decision at the Board of Supervisor. This means that all large and large solar systems would undergo more review, and in some cases, a higher level of review, than under current regulations and mitigation requirements

In addition to standards and requirements included within the ordinance that will reduce potential impacts, other parts of the Yolo County Code and the 2030 Countywide General Plan contain additional regulations, policies, and programs that also address and reduce impacts related to solar development. These additional regulations and policies are identified under the respective topic sections in the following analysis.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is still "Potentially Significant Impact" (after any proposed mitigation measures have been adopted) as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agricultural Resources             | <input type="checkbox"/> Air Quality              |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology / Soils          |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality          | <input type="checkbox"/> Land Use / Planning      |
| <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population / Housing     |
| <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                         | <input type="checkbox"/> Transportation / Traffic |
| <input type="checkbox"/> Utilities / Service Systems   | <input type="checkbox"/> Mandatory Findings of Significance |   |

### DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to the earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Planner's Signature

\_\_\_\_\_  
Date

## **PURPOSE OF THIS INITIAL STUDY**

This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the project as described herein may have a significant effect upon the environment.

## **EVALUATION OF ENVIRONMENTAL IMPACTS**

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect is significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
5. A determination that a “Less Than Significant Impact” would occur is appropriate when the project could create some identifiable impact, but the impact would be less than the threshold set by a performance standard or adopted policy. The initial study should describe the impact and state why it is found to be “less than significant.”
6. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration, pursuant to Section 15063 (c)(3)(D) of the California Government Code. Earlier analyses are discussed in Section XVII at the end of the checklist.
7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

## I. AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion of Impacts

(a, b), (c) *Less than Significant Impact.* The proposed Solar Facilities Ordinance would allow the construction of solar energy systems in residential, commercial, and rural agricultural areas which could affect scenic resources. However, the ordinance sets specific height and setback standards that must be met, which would help to avoid or mitigate potential impacts upon scenic vistas or visual resources. For example, Section 8-2.2420.4(a) of the ordinance limits small photovoltaic solar panels mounted on private homes in residential zones from extending more than five (5) feet above the roof surface, thereby reducing potential visual impacts to adjacent neighbors.

Similarly, Sections 8-2.2420.5 and 8-2.2420.6 include design standards that require medium-sized, large and very large solar systems to meet height, setback, and lot coverage standards that would reduce impacts to scenic vistas and other visual resources. Ground mounted solar arrays must meet a height limit of either 15 feet in commercial areas, or 25 feet in the agricultural areas, and must be set back from property lines 50 or 100 feet. The actual "footprint" of large and very large solar facilities should be no more than 5 percent of the property, with the total amount of the lot covered by all solar uses (roads, buildings) limited to 35% of the total area.

Sections 8-2.2420.5 and 8-2.2420.6 require that medium-sized, large, and very large solar facilities "shall be designed to minimize any identified impacts to natural features, e.g., sensitive and listed wildlife species and habitat, water courses, or heritage trees."

In addition, the 2030 Yolo Countywide General Plan contains the following policies related to protection of visual resources which must be applied when considering any solar development project:

Policy CC-1.5 Significant site features, such as trees, water courses, rock outcroppings, historic structures and scenic views shall be used to guide site planning and design in new development. Where possible, these features shall become focal points of the development.

Policy CC-1.12 Preserve and enhance the scenic quality of the County's rural roadway system. Prohibit projects and activities that would obscure, detract from, or negatively affect the quality of views from designated scenic roadways or scenic highways.

Policy CC-1.16 The following features shall be stringently regulated along designated scenic roadways and routes with the intent of preserving and protecting the scenic qualities of the roadway or route:

- Signage
- Architectural design of adjoining structures
- Construction, repair and maintenance operations
- Landscaping
- Litter control
- Water quality
- Power poles, towers, above-ground wire lines, wind power and solar power devices and antennae

Policy CC-1.17 Existing trees and vegetation and natural landforms along scenic roadways and routes shall be retained to the greatest feasible extent. Landscaping shall be required to enhance scenic qualities and/or screen unsightly views and shall emphasize the use of native plants and habitat restoration to the extent possible. Removal of trees, particularly those with scenic and/or historic value, shall be generally prohibited along the roadway or route.

Policy CC-1.18 Electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines shall be avoided along scenic roadways and routes, to the maximum feasible extent.

(d) *Less than Significant Impact.* Solar energy systems may be designed with outdoor lighting. If outdoor lighting is included in a project, standard conditions would be attached to the approval which require any lighting to be designed so that illumination is directed downward and shielded from spilling onto adjacent properties. Sections 8-2.2420.5 and 8-2.2420.6 specifically require that “The proposed solar facility shall be designed to minimize any glare or lighting on adjacent neighbors.”

## II. AGRICULTURAL RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to nonforest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion of Impacts

- (a) *Less than Significant Impact.* The proposed ordinance would continue to allow small solar facilities “by right” in all zones through the issuance of a building permit, if specific setback, height, and other standards are met. This change represents a slight tightening of regulations, i.e., applying more specific development criteria, which should have a beneficial environmental impact. In particular, the proposed ordinance would require medium, large, and very large solar facilities built on prime and non-prime farmland to comply with the Agricultural Conservation Easement Program and provide mitigation on at least a 1:1 basis. No such mitigation is required under the current regulatory scheme, since solar facilities are considered an allowed use under agricultural zoning and are exempt from mitigation requirements.

The ordinance would allow certain medium-sized facilities to be approved with a non-discretionary Site Plan Review if the use was located on non-prime and non-Williamson Act contracted lands, if biological resource impacts were less than 2.5 acres, if all other standards were met. This represents a streamlining of the current zoning regulations, which would normally be interpreted by staff to require a Minor Use Permit for any medium-sized facilities. Medium-sized solar facilities that meet the criteria cited above would not require discretionary and public review through the Zoning Administrator. This change would serve as an incentive for applicants to propose medium-sized solar projects on non-prime lands. However, medium-sized facilities that do not meet the criteria, i.e., the facilities are proposed on prime and/or Williamson Act contracted lands, or would disturb more than 2.5 acres of habitat, would continue to require a Minor Use Permit and, as discussed further below, will be required to mitigate the loss of farmland.

The biggest changes to existing zoning regulations by the proposed Solar Facilities Ordinance involve large and very large solar systems. Currently, there are no adopted development standards and few mitigation requirements that are applied to large and very large solar facilities. The proposed ordinance sets detailed standards and requirements, which should serve to reduce potential environmental impacts on resources in the rural and agricultural areas.

Yolo County has adopted the Agricultural Conservation Easement Program (Section 8-2.2416 of Title 8, Chapter 2, of the Yolo County Code), which requires that conversion of agricultural land to a non-agricultural use must mitigate for the loss at a ratio of one acre conserved for every acre lost (developed). Conversion from an agricultural use allowed under the agricultural zoning to another allowed agricultural use does not require mitigation. Solar facilities are an allowed or conditionally permitted use under the agricultural zoning, so mitigation for solar projects would not normally be required under the existing regulatory scheme. However, the proposed Solar Facilities Ordinance has been drafted to remove the exemption from mitigation for medium-sized (if built on prime and/or Williamson Act contracted lands), large, and very large solar projects, so that these projects would be required to mitigate for loss of agricultural land.

Under the proposed ordinance, medium-sized solar projects that impact less than 2.5 acres of Swainson’s hawk foraging habitat will not be required to mitigate for loss of foraging habitat or agricultural land. This threshold corresponds to the County’s existing “de minimus” finding for new rural residences that may be approved with a building permit with no mitigation requirement.

The proposed ordinance requires that other medium-sized solar projects that disturb over 2.5 acres of farmland or Swainson’s hawk foraging habitat, as well as all large and very large solar facilities, must mitigate for the “permanent loss” of agricultural and/or habitat lands. The ordinance does not define “permanent loss.” Rather, the loss of agricultural lands and habitat, whether “permanent” or temporary, is to be determined on a case-by-case basis by individual studies prepared by qualified professionals, including biologists. The design of individual

solar projects, including the spacing of the individual arrays, varies greatly and will determine the amount of mitigation that is required. Overall, the proposed ordinance ensures that the specific impacts of individual projects on these resources will be considered and appropriately mitigated.

Solar projects that include tightly clustered rows of solar panels would be required to mitigate for the total area of the solar arrays, while much larger systems that have widely spaced arrays may be able to design the project so that some form of agriculture (row crops or grazing) can continue (or be established) between the foundations.

The studies required by the ordinance will also address the issue of “permanent” versus temporary loss of agricultural productivity. Some, if not all, of the medium, large, and very large solar projects will sign 20- or 25-year “Power Purchase Agreements” with utilities, which must be approved by the California Public Utilities Commission. For these larger projects, the County must address through the Use Permit and environmental review process whether it is possible to “reclaim” agricultural and habitat values on the land if the solar facilities are removed after 25 years and the land is restored to its previous condition. A surety bond or similar financial guarantee will be required to ensure the appropriate reclamation of the site after the solar facilities are removed or become inoperative.

The proposed ordinance sets forth several types of mitigation that could be considered for loss of prime agricultural lands. The requirements included in the ordinance for mitigation of impacts to prime and non-prime agricultural lands would reduce the impact to a less-than-significant level.

- (b) *Less than Significant Impact.* Construction of solar facilities could conflict with existing zoning for agricultural uses and with existing Williamson Act contracts. Solar facilities would not conflict with agricultural zoning per se, since solar systems are an allowed or conditionally permitted uses under the County’s agricultural zoning. However, operation of solar facilities could cause land use conflicts with adjacent agricultural activities such as pesticide spraying and harvesting. To reduce the potential impacts to adjacent agricultural operations, Sections 8-2.2420.5 and 8-2.2420.6 require setbacks of 50 or 100 feet from all property lines. This section of the ordinance also requires that “The proposed solar facility shall be designed to minimize any identified impacts to adjacent agricultural operations, such as orchards that require aerial application of chemicals, which may require greater setbacks” than those required in the ordinance.

Regarding conflicts with the Williamson Act, all applications for medium-sized and large solar facilities that are proposed on lands under Williamson Act would be subject to a determination and finding by the County that the use is compatible with the Act, as required by State law. Since almost two-thirds of the agricultural land in Yolo County is under contract, it is assumed that a majority of medium, large, and very large solar facility applications that are proposed could fall into this category of review. Conversely, small systems would not be subject to this determination but would be assumed to be a compatible use with any existing Williamson Act contract.

According to the California Department of Conservation publication *Solar Power and the Williamson Act* (May, 2010), medium-sized to very large solar facilities may be found to be a compatible use under the Williamson Act if the project meets the following criteria:

- the proposed project would not significantly interfere with the underlying agricultural operation;
- the proposed project would displace a very small percentage of the overall agricultural operation.

This language has been incorporated into the proposed ordinance.

The determination of Williamson Act compatibility would be made on a case-by-case basis under the proposed ordinance, using the State guidelines and County policies and regulations. As noted above, the proposed ordinance includes several types of mitigation that are to be considered to address loss of prime agricultural lands and Swainson's hawk habitat. The ordinance would ensure that impacts to existing agricultural zoning and Williamson Act contracts are less-than-significant.

- (c) and (d) *No impact.* The proposed ordinance would not conflict with existing zoning for, or cause rezoning of, or result in the loss or conversion of forest or timberland. There is very little forest in Yolo County and the remoteness of the few forested areas would not be attractive for solar development, since they are not adjacent to existing substations.
- (e) *No impact.* The ordinance would not cause any other changes in the existing environment which could result in the conversion of farmland.

**III. AIR QUALITY:**

Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

**Thresholds of Significance:**

The Yolo Solano Air Quality Management District (YSAQMD) has published a set of recommendations that provide specific guidance on evaluating projects under CEQA relative to the above general criteria (YSAQMD, 2002). The Guidelines identify quantitative and qualitative long-term significance thresholds for use in evaluating the significance of criteria air pollutant emissions from project-related mobile and area sources. These thresholds include:

Reactive Organic Gases (ROG)	82 pounds per day (ppd)
Oxides of Nitrogen (NOx)	82 ppd
Particulate Matter (PM <sub>10</sub> )	150 ppd
Carbon Monoxide (CO)	550 ppd

Development projects are considered cumulatively significant if:

1. The project requires a change in the existing land use designation (i.e., general plan amendment, rezone); and
2. Projected emissions (ROG, NOx, or PM<sub>10</sub>) of the project are greater than the emissions anticipated for the site if developed under the existing land use designation.

**Impact analysis:**

- (a) *No Impact.* The solar energy ordinance would not substantially conflict with or obstruct implementation of the Yolo Solano Air Quality Management District Air Quality Attainment Plan (1992), the Sacramento Area Regional Ozone Attainment Plan (1994), or the goals and objectives of the County’s General Plan. Wind energy could have a beneficial impact by helping to reduce the County’s and the state’s reliance on power generation from polluting sources of energy such as natural gas or coal.
- (b), (c) *Less than Significant Impact.* The Yolo-Solano Region is a non-attainment area for state particulate matter (PM<sub>10</sub>) and ozone standards, and the Federal ozone standard. Development of solar energy systems would not contribute significantly to air quality impacts, but could generate some small amount of PM<sub>10</sub>, during grading of the site for the solar mounts and construction of access roads, etc. Standard dust and emissions control measures recommended by the YSAQMD would be attached to all Use Permits, Site Plan Reviews, and building permits issued for solar projects
- (d) *No Impact.* Adoption of the recommended changes in the zoning regulations to allow permitting of solar energy systems would not have the potential to expose any sensitive receptors to any substantial increase in pollutant levels, since setback requirements would preclude any site clearing or grading within proximity of nearby homes.
- (e) *No Impact.* The solar facilities would not generate any new odors.

**IV. BIOLOGICAL RESOURCES**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Discussion of Impacts**

(a), (b), (c) *Less than Significant Impact.* The proposed regulations include several development standards that would preclude the development of solar energy on sensitive lands with important biological resources and would require mitigation for any significant loss of habitat lands.

Section 8-2.2420.5(g) requires that “The proposed solar facility shall be designed to minimize any identified impacts to natural features, e.g., sensitive and listed wildlife species and habitat, water courses, or heritage trees.” This section applies to all medium-sized, large, and very large solar systems.

Numerous policies and programs included in the 2030 Yolo Countywide General Plan also require that any development project approved by the County meet environmental goals, such as:

Policy CO-2.9: Protect riparian areas to maintain and balance wildlife values.

Policy CO-2.14: Ensure no net loss of oak woodlands, alkali sinks, rare soils, vernal pools or geological substrates that support rare endemic species, with the following exception. The limited loss of blue oak woodland and grasslands may be acceptable, where the fragmentation of large forests exceeding 10 acres is avoided, and where losses are mitigated.

Policy CO-2.22: Prohibit development within a minimum of 100 feet from the top of banks for all lakes, perennial ponds, rivers, creeks, sloughs, and perennial streams. A larger setback is preferred.

Policy CO-2.30: Protect and enhance streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat and vernal pools in land planning and community design.

Policy CO-2.41: Require that impacts to species listed under the State or federal Endangered Species Acts, or species identified as special-status by the resource agencies, be avoided to the greatest feasible extent. If avoidance is not possible, fully mitigate impacts consistent with applicable local, State, and Federal requirements.

Section 8-2.2420.5(h) of the proposed Solar Facilities Ordinance specifies the type and amount of mitigation that is required to compensate for any loss of habitat. If the proposed solar facility will impact less than 2.5 acres of Swainson’s hawk foraging habitat, no mitigation for the loss of foraging habitat is required. If more than 2.5 acres of habitat is affected, a Minor Use Permit is required, as well as mitigation for the permanent loss Swainson’s hawk foraging habitat, at a ratio of at least 1:1 (one acre mitigated for one acre lost). This is consistent with existing County practices that require biological mitigation to be considered for all discretionary development projects, according to the Yolo County Natural Heritage Program based on discussions and prior agreements with the Department of Fish and Game.

Mitigation for the permanent loss of Swainson’s hawk foraging habitat may be satisfied by payment of an in-lieu fee (for small projects only), dedication of conservation easements either on-site or off-site, or other arrangements satisfactory to the County and the County’s Natural Heritage Program.

Large and very large solar facilities would also be required to meet stronger development standards as set forth in Section 8-2.2420.6 of the ordinance. The development standards for large and very large projects could include designing projects so that habitat could be established or enhanced in the space between solar arrays; and replacing poor foraging crops with crops that accommodate better prey populations and foraging.

In addition, Section 8-2.2420.6(e)(4) specifically prohibits large projects in the most common wetlands areas of Yolo County including rice fields in or near the Yolo Bypass. The ordinance states that “Solar facilities proposed in rice growing areas may be considered compatible only if solar equipment can be installed between the cultivated fields or along irrigation dikes.”

(d)(e) *Less than Significant Impact.* Application of adopted Yolo County General Plan policies to solar projects would reduce potential impacts to wildlife migration corridors. General Plan Policy CO-2.38 requires that all proposed projects comply with the following: “Avoid adverse impacts to wildlife movement corridors and nursery sites (e.g., nest sites, dens, spawning areas, breeding ponds). Preserve the functional value of movement corridors to ensure that essential habitat areas do not become isolated from one another due to the placement of either temporary or permanent barriers within the corridors. Encourage avoidance of nursery sites (e.g., nest sites, dens, spawning areas, breeding ponds) during periods when the sites are actively used and that nursery sites which are used repeatedly over time are preserved to the greatest feasible extent or fully mitigated if they cannot be avoided.”

The proposed ordinance would not conflict with any other local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The County does not have any other conservation ordinances, except for a voluntary oak tree preservation ordinance that seeks to minimize damage and require replacement when oak groves are affected by development.

(f) The Yolo County Heritage Program, a Joint Powers Agency composed of the county, the cities, and other entities, is in the process of preparing a Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for Yolo County. The NCCP/HCP will focus on protecting habitat of terrestrial (land, non-fish) species. In the interim, the program has implemented a mitigation program acceptable to the Department of Fish and Game for a main species of concern, the Swainson’s hawk. The agreement requires that local agencies review all discretionary applications for potential impacts to the hawk or hawk habitat, and either pay a per-acre in-lieu fee or purchase a conservation easement to mitigate for loss of habitat. See ordinance mitigation requirements as specified above in (a).

**V. CULTURAL RESOURCES**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a) *No impact.* The ordinance would preclude the placement of small solar systems on designated historical landmarks and structures in historical districts unless “the design of the facility is consistent with the purposes of the Landmark or District designation.”

(b), (c), (d) *No impact.* The ordinance would allow construction of solar facilities which could require some amount of ground clearing. No impacts on archaeological, or paleontological resources, or on human remains, would be anticipated. Standard County conditions attached to all Site Plan Review and Use Permit approvals require construction to be halted, and appropriate authorities notified, if any resources or remains are discovered during excavation. Also, environmental review for medium, large and very large systems would routinely evaluate projects for the location and extent of any known archaeological resources, so they can be avoided.

**VI. GEOLOGY AND SOILS**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known Fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?				
iii) Seismic-related ground failure, including liquefaction?				
iv) Landslides?				
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a) to (e) *No impact.* The proposed solar energy ordinance would not be expected to result in any new impacts related to geology, erosion, or soils. Existing requirements for erosion control, stability of the building site and building code compliance would remain in effect. The Use Permit approval process requires that any permitted solar facilities must comply with all building and electrical codes, and requires that applications for all large solar energy developments must submit detailed grading, geotechnical, erosion and sediment control plans.

VII.	GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Be affected by climate change impacts, e.g., sea level rise, increased wildfire dangers, diminishing snow pack and water supplies, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Environmental Setting

The issue of combating climate change and reducing greenhouse gas emissions (GHG) has been the subject of recent state legislation (AB 32 and SB 375). The Governor’s Office of Planning and Research has recommended changes to the California Environmental Quality Act (CEQA) Guidelines, and the environmental checklist which is used for Initial Studies such as this one. The recommended changes to the checklist, which have not yet been approved by the state, are incorporated above in the two questions related to a project’s GHG impacts. A third question has been added by Yolo County to consider potential impacts related to climate change’s effect on individual projects, such as sea level rise and increased wildfire dangers. To date, specific thresholds of significance to evaluate impacts pertaining to GHG emissions have not been established by local decision-making agencies, the Yolo Solano Air Quality Management District, the state, or the federal government. However, this absence of thresholds does not negate CEQA’s mandate to evaluate all potentially significant impacts associated with the proposed project.

The following discussion of GHG/climate change impact relies upon, and “tiers off” the analysis, conclusions, and measures included in the Final Environmental Impact Report (FEIR) of the 2030 Yolo Countywide General Plan. While the FEIR analysis concluded that the severity of impacts related to planned urban growth and GHG/climate change could be reduced by some policies and some available mitigation measures, the overall impact could not be reduced to a less than significant level. The impacts of countywide cumulative growth on GHG emissions, and the impacts of climate change on cumulative growth, are considered significant and unavoidable at this time.

The 2030 Yolo Countywide General Plan and accompanying draft Climate Action Plan (CAP) include numerous policies and measures to reduce fossil fuel reliance and greenhouse gas emissions by strongly encouraging and, in some cases, requiring, conversion to solar energy sources. For example, the CAP calls for establishment of a Community Choice Aggregation program where 50% of overall County purchases are from 50% renewable sources, and 25% of all County energy purchases are 100% renewable. The draft CAP also assumes that all new homes approved by the County would be required to install solar water heaters and photovoltaic systems.

## Discussion of Impacts

- a) *No Impact.* The proposed ordinance would regulate the construction of solar facilities, which could generate a small amount of GHG emissions due to operation of grading equipment and

vehicle employee trips generated during construction, however, these emissions would be more than offset by the beneficial effects of creating new sources of green energy to the local and state grid of electrical power.

- b) *No Impact.* The proposed ordinance would not conflict with any applicable plan, policy or regulation adopted to reduce GHG emissions, including the numerous policies of the adopted 2030 Yolo Countywide General Plan and the pending Climate Action Plan. The proposed ordinance would help to implement many of the policies.
- c) *Less than Significant Impact.* Solar projects approved under the ordinance would not be anticipated to be affected by certain identified climate change impacts, such as sea level rise and increased wildfire dangers. Individual projects would be evaluated for these impacts as a part of the normal project review process.

**VIII. HAZARDS AND HAZARDOUS MATERIALS**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working within the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a) to (d) *No impact.* Solar facilities do not use or emit any hazardous materials, other than small amounts of lubricating oil. The proposed ordinance would allow solar facilities in primarily rural agricultural areas, and would involve minimal ground disturbance, so no buried hazardous materials would be encountered. Solar systems allowed in commercial and industrial urban areas

which could have hazards would be required to undergo environmental review as part of a Site Plan Review and Use Permit process, so identification and mitigation of potential impacts would occur.

(e), (f) *No impact.* The solar energy ordinance includes fairly low height limits for solar arrays, so no impacts to private airports would occur.

(g) *No Impact.* The location of solar energy systems should not affect any emergency response plan.

(h) *Less than Significant Impact.* Most applications for medium to very large solar systems are anticipated to be for projects in areas in close proximity to existing PG&E substations, which are in the irrigated farmlands of Yolo County, not in the un-irrigated hilly areas of the western County, with the most significant fire hazards

## IX. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Significantly deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a) to (f) *No impact.* The proposed solar energy ordinance would not allow any structures that could affect drainage patterns, increase runoff, and affect water quality. No major new areas of impervious surface would be constructed with the solar facilities.

(g), (h) *No impact.* No housing is proposed. The County has existing regulations that contain specific requirements for solar systems that may be proposed in flood prone areas, to mitigate flooding impacts.

(i), (j) *No impact.* Solar facilities would not be expected to be located in any areas affected by dam failure, seiche, tsunami, or mudflow. Solar projects could be sited on agricultural lands adjacent to sloughs or other waterways that may be subject to levee failure.

**X. LAND USE AND PLANNING**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion of Impacts**

(a) *No Impact.* Solar development would not divide any established community.

(b) *No Impact.* The proposed ordinance would add regulations involving solar facilities accessory structures in agricultural and other areas. The ordinance would add clarity and certainty to the zoning code.

(c) *Less Than Significant Impact.* The County does not have an adopted HCP or NCCP, although a draft plan is now being prepared by the Yolo Natural Heritage Joint Powers Agency. No conflicts with the developing plan are anticipated. See discussion in Section II, Biological Resources, above.

**XI. MINERAL RESOURCES**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a), (b) *No impact.* The proposed ordinance changes would not affect areas designated as significant aggregate deposits, as classified by the State Department of Mines and Geology. Most aggregate resources in Yolo County are located along Cache Creek in the Esparto-Woodland area. Individual project evaluations would analyze any issues related to mineral resources.

**XII. NOISE**

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a) to (f) *No Impact.* Solar facilities do not generate large amounts of noise when in operation, so no impacts are expected.

**XIII. POPULATION**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion of Impacts**

(a) to (c) *No Impact.* The proposed ordinance would not result in increases in population and would not displace any existing housing or current residents.

#### XIV. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response time or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Discussion of Impacts

(a) to (e) *No Impact*. The proposed solar ordinance involves permitting of solar facilities that would not increase the need for any public services.

#### XV. RECREATION

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have been an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Discussion of Impacts

(a) *No Impact*. The proposed ordinance would not require the construction of additional recreational facilities nor substantially increase the use of existing recreational facilities.

(b) *No Impact*. The proposed ordinance changes would not include nor require the construction of additional recreational facilities.

**XVI. TRANSPORTATION/TRAFFIC**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase on either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(a) to (g) *No Impact*. The proposed ordinance would regulate the construction of solar facilities which could require a limited number of truck trips to deliver and assemble arrays and other parts to the site. A small number of employees could be involved in the construction of solar facilities, and for periodic maintenance. The number of trips generated during the construction period would not be expected to be substantial in relation to existing traffic loads, and would not exceed any levels of service standards of nearby roads or intersections. Solar development would not affect air traffic, access, or parking capacity.

**XVII. UTILITIES AND SERVICE SYSTEMS**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion of Impacts**

(a) to (g) *No Impact*. The proposed ordinance would have no new affects related to utilities or service systems because solar facilities do not rely on any of these services.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plan or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects)?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Does the project have environment effects which will cause substantial adverse effects on human beings, either directly or indirectly?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Discussion of Impacts**

(a) *No Impact*. Based on the information provided in this Initial Study, no potential environmental impacts would result from the project. No important examples of major periods of California history or prehistory in California were identified; and the habitat and/or range of any special status plants, habitat, or plants would not be substantially reduced or eliminated.

(b) *No Impact*. Based on the analysis provided in this Initial Study, the project would have no significant cumulative impacts. As noted in the Project Description, solar energy development will play a key role in reducing the consumption of non-renewable energy in the County and in California, and solar development in Yolo County could contribute to that beneficial cumulative impact to reduce greenhouse gases.

- (c) *No Impact.* Based on the analysis provided in this Initial Study, no impacts to human beings would result from the proposed project. The project as proposed would not have substantial adverse effects on human beings, either directly or indirectly.

## REFERENCES

- OPDE Solar Farm Conditional Use Permit application materials, City of West Sacramento (June, 2010)
- OPDE West Sacramento Solar Voltaic Renewable Energy Project Swainson's Hawk Habitat Management and Monitoring Plan, December, 2010)
- California Department of Conservation, Solar Power and the Williamson Act (May, 2010)
- PG&E map of Solar Voltaic Program Map at <http://www.pge.com/b2b/energysupply/wholesaleelectricssuppliersolicitation/PVRFO/pvmap/>
- Staff experience and knowledge
- 2030 Yolo Countywide General Plan
- Yolo County Code, Title 8, Chapter 2 (the Zoning Ordinance)

**COUNTY RECORDER**  
**Filing Requested by:**

**EXHIBIT B**

**Yolo County Department of Community Services**  
(ATTN: Stephanie Cormier)  
**292 West Beamer Street**  
**Woodland, CA 95695**

**Notice of Exemption**

To: Yolo County Clerk  
625 Court Street  
Woodland, CA 95695

To: Office of Planning and Research  
1400 Tenth Street, Room 121  
PO Box 3044  
Sacramento, CA 95812-3044



From: Yolo County Department of  
Community Services

State Clearinghouse Number: N/A

Project Title: 2022 Article 11 Zoning Code Amendment related to Wireless Telecommunication Facilities

Applicant: Yolo County Department of Community Services, Planning Division  
292 W. Beamer Street  
Woodland, CA 95695

Project Location: Affects all of the unincorporated area of the County

Assessor's Parcel Numbers: Multiple

Project Description: The project is a Zoning Code Amendment to Title 8, Chapter 2, Article 11 of the Yolo County Code of Ordinances related to Wireless Telecommunication Facilities (Section 8-2.1102). The proposed amendments to Yolo County Code Section 8-2.1102 are somewhat minor in nature and include clarifying definitions and application of standard requirements, codifying federal statutes regulating the permitting of non-substantial improvements to existing permitted towers [Title 27 CFR Section 1.6100(b)(7)], and a reorganization of the Section for clarity and ease of reference to provide consistency with other Articles in the Zoning Code. No significant changes are proposed that would reduce regulatory oversight relative to permissible tower heights or parcel size requirements, or otherwise result in a potentially significant impact on the environment.

Exempt Status: **Section 15061(b)(3): 'common sense exemption'**

Reasons why project is exempt: The project falls under the 'common sense exemption' that states: A project is exempt from CEQA where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment. Minor changes to the Yolo County Zoning Regulations regulating wireless telecommunication facilities include updating standards to clarify current practices for effective project review. No expansion of use is proposed. The amendment will allow for a more efficient application process and clarify allowable types of non-substantial improvements to permitted facilities as set forth under federal statutes.

**Lead Agency Contact Person:** Stephanie Cormier, Principal Planner

**Telephone Number:** (530) 666-8041

Signature (Public Agency):

Date: November 22, 2022

Date received for filing at OPR:

**ORDINANCE NO. 681.236**

**AN ORDINANCE OF THE YOLO COUNTY BOARD OF SUPERVISORS ADOPTING THE ZONING CODE AMENDMENT TO MODIFY CERTAIN SECTIONS OF ARTICLE 11 IN CHAPTER 2 OF TITLE 8, YOLO COUNTY CODE OF ORDINANCES RELATED TO TELECOMMUNICATIONS SYSTEMS, SOLAR ENERGY SYSTEMS, AND ENERGY STORAGE SYSTEMS**

The Board of Supervisors ("Board") of the County of Yolo, State of California, hereby ordains as follows:

**SECTION 1. PURPOSE**

This ordinance includes text amendments to certain sections of the Zoning Regulations (Chapter 2 in Title 8 of the Yolo County Code) relating to telecommunication systems, solar energy systems, and energy storage systems as set forth below. The Board of Supervisors hereby adopts the amendments set forth herein to the respective sections of the Yolo County Code to promote the public health, safety, and welfare of the residents of Yolo County, and for other reasons set forth in the staff report for this item.

**SECTION 2. AMENDMENTS TO TITLE 8, CHAPTER 2, ARTICLE 11**

- A. Section 8-2.1102 (Wireless telecommunication facilities) is hereby amended to read as reflected in Exhibit A.**
- B. Section 8-2.1104 is hereby amended to enact the Solar Energy Systems Ordinance as reflected in Exhibit B.**
- C. Section 8-2.1105 is hereby repealed and replaced with the Energy Storage Systems Ordinance as reflected in Exhibit C.**

**SECTION 3. Severability**

If any section, sub-section, sentence, clause, or phrase of this Ordinance is held by a court of competent jurisdiction to be invalid, such decision shall not affect the remaining portions this Ordinance. The Board of Supervisors hereby declares that it would have passed this Ordinance, and each section, sub-section, sentence, clause, and phrase hereof, irrespective of the fact that one or more sections, sub-sections, sentences, clauses, and phrases be declared invalid.

**Section 4. Effective Date**

This Ordinance shall take effect and be in force within 30 days of enactment. Prior to expiration of fifteen (15) days after its passage of this Ordinance, it shall be published by title and summary only in the Davis Enterprise or other newspaper of general circulation together with the names of members of the Board of Supervisors voting for and against the same.

I HEREBY CERTIFY that the foregoing Ordinance was introduced before the Board of Supervisors of the County of Yolo and, at a further public hearing, said Board adopted this Ordinance on the 22th day of November, 2022, by the following vote:

AYES: **Villegas, Saylor, Sandy, Provenza, Barajas.**


NOES: **None.**

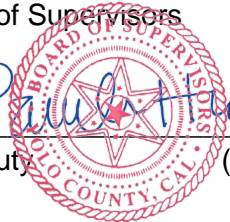
ABSENT: **None.**

ABSTAIN: **None.**

  
\_\_\_\_\_  
Angel Barajas, Chair  
Yolo County Board of Supervisors

ATTEST: Julie Dachtler, Senior Deputy Clerk  
Board of Supervisors

By   
\_\_\_\_\_  
Deputy (Seal)



APPROVED AS TO FORM:  
Philip J. Pogledich, County Counsel

By   
\_\_\_\_\_  
Eric May, Senior Deputy

# EXHIBIT A

## Sec. 8-2.1102 Wireless telecommunication facilities

### (a) Purpose

The purpose of this Section is to implement permit requirements and development standards for wireless telecommunication facilities in the unincorporated area of Yolo County.

### (b) Definitions

#### **Eligible facilities request**

“Eligible facilities request” shall mean any request for modification of an existing permitted tower or base station that does not substantially change the physical dimension of the tower or base station, involving: (1) colocation of new transmission equipment; (2) removal of transmission equipment; or (3) replacement of transmission equipment.

#### **Radio**

Radio is a generic term for communication of sound, data, or energy by means of electromagnetic wave propagation. For regulatory purposes “radio” includes the popular terms “television” and “microwave”. The term “wireless” is interchangeable with “radio.”

#### **Section 6409(a) modification**

“Section 6409(a) modification” shall mean any eligible facilities request pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 (“Spectrum Act”), which mandates that a local government approve certain wireless broadband facilities siting requests for modifications and colocations of wireless transmission equipment on an existing tower or base station that do not result in a substantial change to the physical dimensions of the tower or base station.

#### **Wireless facility modification, substantial change**

A “substantial change to a wireless facility” shall be as defined by the Federal Communications Commission (FCC) in Title 47 Code of Federal Regulations (CFR) Section 1.6100(b)(7), including the following:

- (i) An increase in the height of a permitted tower, that is not in the public right of way, by more than 10 percent or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20 feet, whichever is greater; or, an increase in the height of a permitted support structure by more than 10 percent or more than 10 feet, whichever is greater.
- (ii) Adding an appurtenance to the body of a permitted tower, that is not in the public right of way, that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater; or, adding an appurtenance to the body of a permitted structure that would protrude from the edge of the structure by more than six feet.
- (iii) Installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed four cabinets; or, for permitted towers and base stations in the public right of way, installation of any new equipment cabinets on

the ground if there are no existing ground cabinets associated with the structure or installation of ground cabinets that are more than 10 percent larger in height or overall volume than any other ground cabinets associated with the structure.

- (iv) Excavation or deployment outside of the permitted facility site; for permitted towers not in the public right of way any excavation or deployment of transmission equipment outside of the current site by more than 30 feet in any direction (measurement excludes existing access or utility easements related to the site).
- (v) Modifications that would defeat the concealment elements of the permitted support structure.
- (vi) The modification does not comply with conditions associated with the siting approval of the construction or modification of the permitted facility.

**Wireless telecommunication facility**

“Wireless telecommunication facility” shall mean an un-staffed facility for the transmission and reception of radio signals, including, but not limited to cellular radiotelephone service facilities, specialized mobile radio service facilities, microwave service facilities, broadband Internet service, communication towers, personal communication service facilities, and commercial paging service facilities.

**Wireless telecommunication facility, attached**

“Attached wireless telecommunication facility” shall mean a telecommunication facility that is attached to an existing permitted structure whose tower height is no more than 80 feet.

**Wireless telecommunication facility, small**

“Small wireless telecommunication facility” shall mean a telecommunication facility whose tower height is no more than eighty (80) feet.

**Wireless telecommunication facility, large**

“Large wireless telecommunication facility” shall mean one whose tower height is greater than eighty (80) feet.

**(c) Permits required**

- (1) Construction of a wireless telecommunication facility may be approved in the following zoning districts, provided the facility meets setback requirements and other standards, as provided in Section 8-2.1102(e), below, as shown in Table 8-2.1102.

**Table 8-2.1102**

**Allowed Wireless Telecommunications Facility Uses and Permit Requirements**

<b>A = Allowed use, subject to zoning clearance</b> <b>SP = Site Plan Review</b> <b>UP (m) = Minor Use Permit</b> <b>UP (M) = Major Use Permit</b> <b>N = Use Not Allowed</b>	Land Use Permit Required by Zone					
	A-N, A-X, A-I, A-C, A-R	RR-5, RR-2, R-L, R-M, R-H	C-L, C-G, DMX, C-H	I-L, I-H, OPRD	PQP, POS, P-R	Specific Use Requirements or Performance Standards

Wireless Telecommunication Facility						
Small telecommunication facility (up to 80 ft on min parcel sizes) <sup>(a)</sup>	SP	UP(m)	UP(m)	UP(m)	UP(m)	20-ac minimum in agricultural zones 2-ac minimum in all other zones See Sec. 8-2.1102(e)
Small telecommunication facility (up to 80 ft if min parcel size cannot be met) <sup>(b)</sup>	UP(m)	UP(M)	UP(M)	UP(M)	UP(M)	See Sec. 8-2.1102(e)
Large telecommunication facility (>80 ft on 40 ac or more)	UP(m)	N	N	UP(m)	UP(m)	See Sec. 8-2.1102(e)
Large telecommunication facility (>80 ft <40ac)	UP(M)	N	N	UP(M)	UP(M)	
Attached telecommunication facility (up to 80 ft)	A	UP(m)	SP	A	SP	
Eligible facilities request	A	A	A	A	A	See definition in Sec. 8-2.1102(b) and Sec. 8-2.1102(f)

(a) Must meet parcel size requirements: 20 acres or more in agricultural zones, 2 acres or more in all other zones

(b) Minor Use Permit required in the agricultural zones on parcels less than 20 acres, Major Use Permit required in all other zones on parcels less than 2 acres

(2) Construction of a small wireless telecommunication facility on rural lands zoned for agricultural uses may be approved through the issuance of a Site Plan Review approval, provided the facility is located on a parcel 20 acres or more in size.

- (3) If an application for a proposed small wireless telecommunication facility in the agricultural zones fails to meet the minimum parcel size or any of the specific development standards set forth in Section 8-2.1102(e), below, the application shall be referred to the Zoning Administrator for a hearing and decision to issue a Minor Use Permit.
- (4) Construction of a wireless telecommunication facility that is attached to an existing structure (such as a barn on rural lands zoned for agricultural uses or a warehouse on lands zoned for industrial uses), regardless of the size of the parcel, may be approved with the issuance of a building permit only, provided the overall height of the tower is no more than 80 feet.
- (5) An attached telecommunication facility may be permitted in the commercial and public and open space zones through Site Plan Review approval so long as the overall tower height is no more than 80 feet.
- (6) If an application for a small telecommunication facility is proposed in the residential, commercial, industrial, or public and open space zones on a small lot of less than two acres, or if the application fails to meet any of the development standards set forth in 8-2.1102(e), below, the application shall be referred to the Planning Commission for a public hearing to consider issuance of a Major Use Permit.
- (7) Construction of large wireless telecommunication facilities on lands zoned for agricultural, industrial, open space and recreation uses, shall be considered for approval of a Minor Use Permit, provided the facility is located on a parcel 40 acres or more in size. Large wireless telecommunication facilities constructed on parcels less than 40 acres, on lands zoned for agricultural, industrial, open space and recreation uses, shall be considered in all cases for approval of a Major Use Permit. The application shall meet all of the development standards set forth in Section 8-2.1102(e), below.
- (8) An applicant may submit in writing a request for modification to an existing permitted tower or base station. An eligible facilities request that does not substantially change the physical dimensions of the facility shall be approved in accordance with 47 CFR Section 1.6100, as described in subsection (f), below.

**(d) Application**

Each application for a wireless telecommunication facility permit shall include the following:

- (1) A graphic depiction of the search ring used in determining facility location. The graphic shall identify all existing telecommunication tower sites within the search ring.
- (2) A propagation or signal map showing the proposed coverage area (with and without the proposed facility).
- (3) A photo simulation of the proposed developed site from four directions (north, south, east and west).

- (4) A written justification that identifies opportunities to collocate the proposed facility on an existing facility have either been exhausted or are not available in the area.

**(e) Development standards**

The following development standards shall be satisfied prior to the approval of a wireless communications facility:

- (1) The site can provide all necessary infrastructure for the development of the proposed wireless communication facility. The minimum parcel size required for a large telecommunication facility shall be two acres.
- (2) Opportunities to co-locate the subject facility on an existing facility have either been exhausted or are not available in the area.
- (3) The facility as proposed is necessary for the provision of an efficient wireless communication system.
- (4) The development of the proposed wireless communication facility will not significantly affect the existing onsite topography and vegetation; or any designated public viewing area, scenic corridor or any identified environmentally sensitive area or resource. Wireless communication facilities proposed to locate in a designated scenic corridor, including areas identified by the General Plan as providing scenic value, may require stealth design elements to mitigate visual impacts.
- (5) The proposed wireless communication facility will not create a hazard for aircraft in flight and will not hinder aerial spraying operations.
- (6) The applicant agrees to accept proposals from future applicants to co-locate at the approved site.
- (7) The applicant agrees to reserve space and/or provide conduit available for County and emergency communications.

**(f) Eligible Facilities Request for a Wireless Telecommunication Facility Modification**

- (1) An application for a "Section 6409(a) Modification" on an existing wireless communication facility may be submitted to the Planning Division for processing. Federal law requires local government approval of any eligible facilities request for modification of an existing wireless tower or base station. An eligible facilities request is any request for modification of an existing tower or base station that does not substantially change the physical dimensions of such tower or base station, involving:
  - i. Colocation of new transmission equipment
  - ii. Removal of transmission equipment; or
  - iii. Replacement of transmission equipment.

- (2) A modification substantially changes the physical dimensions of an existing wireless communication facility if it meets the criteria listed in Sec. 8-2.1102(b) above.

## **Sec. 8-2.1104 Solar energy systems**

### **(a) Purpose**

The purposes of this Section are as follows:

- (1) To provide for the placement of solar energy systems to enable generation of electricity from the sun, for on- and/or off-site uses, thereby increasing local production and use of renewable energy and reducing peak demand on the power grid.
- (2) To minimize potential adverse impacts associated with solar energy systems on area residents, historic sites, and agricultural and biological resources through careful siting, design and operation, consistent with State law.
- (3) To avoid or minimize public health and safety risks associated with solar energy systems by providing standards for the placement, design, construction, modification and removal of such systems, consistent with Federal, State and local regulations.
- (4) To streamline the solar permitting process that complies with the Solar Rights Act and AB 2188 (Chapter 21, Statutes 2014) to achieve timely and cost-effective installations of small accessory use solar energy systems, as defined below.

### **(b) Definitions**

#### **Solar energy system**

“Solar energy system” shall mean a device, array of devices, or structural design feature which is used to provide for generation and/or storage of electricity from sunlight, or the collection, storage, and distribution of solar energy for space heating or cooling, daylight for interior lighting, or water heating

#### **Accessory solar energy system**

“Accessory solar energy system” shall mean an onsite solar energy system in which the energy generated supplies power to and/or offsets energy demands on the property, or on adjacent or contiguous properties. An accessory solar energy system shall be limited to ground-mounted systems, roof-mounted systems, floating systems, and systems affixed to shade structures located over parking areas. Accessory solar energy systems do not include small accessory use roof-mounted and ground-mounted solar energy systems as defined in this Section. Accessory solar energy systems shall not occupy more than 7.5 acres of land. A solar energy system that produces power that is sold directly to the electrical grid with a generation capacity of more than one megawatt shall be considered a utility solar energy system, as defined below.

#### **Adjacent**

A property shall be “adjacent” to the property with the accessory solar energy system if the property lines are separated by less than 100 feet at their nearest point.

**Small accessory use ground-mounted solar energy system**

“Small accessory use ground-mounted solar energy system” shall mean a system that:

- (i) is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal; and
- (ii) is structurally mounted to the ground.

**Small accessory use roof-mounted solar energy system**

“Small accessory use roof-mounted solar energy system” shall mean a system that:

- (i) is mounted to the roof of a house, building, or other structure;
- (ii) is no larger than 10 kilowatts alternating current nameplate rating or 30 kilowatts thermal;  
and
- (iii) has a solar panel or module array that does not exceed five feet above rooftop for photovoltaic or seven feet above rooftop for thermal solar systems.

**Medium-sized solar energy system**

“Medium-sized solar energy system” shall mean a private on-site or utility solar energy conversion system consisting of many ground-mounted solar arrays, a solar photovoltaic system mounted on a rack or pole that is ballasted on or attached to the ground, or roof-panels, and associated control or conversion electronics, occupying more than 7.5 acres and no more than 30 acres of land, and that will be used to produce utility power to on-site uses and/or off-site customers.

**Large-scale solar energy system**

“Large-scale solar energy system” shall mean a utility solar energy conversion system consisting of many ground-mounted solar arrays, or a solar photovoltaic system mounted on a rack or pole that is ballasted on or attached to the ground, and associated control or conversion electronics, occupying more than 30 acres of land, and that will be used to produce utility power to off-site customers.

**Utility solar energy system**

“Utility solar energy system” shall mean a solar facility featuring panels designed to generate solar power that is fed directly into the electrical grid, supplying a utility company with energy which is distributed to offsite end users. For the purposes of this Section, a utility solar energy system has a total generation capacity of more than one megawatt. A solar energy system that feeds directly to the power grid but generates one megawatt or less shall be considered a medium-sized solar energy system as defined above.

**Specific, Adverse Impact**

“Specific, Adverse Impact” means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

**(c) Applicability**

The provisions of this Section apply to onsite accessory and small accessory use solar energy systems, medium-sized solar energy systems, and large-scale solar energy systems, as defined in subsection (b). These solar energy systems require the issuance of a Building Permit, a Site Plan Review, or a Use Permit, as set forth below. Any solar systems installed prior to the effective date of this Section shall be considered legal, conforming uses so long as a County permit or approval was issued in connection with their installation.

**(d) Administration and required approvals**

The following types of approvals are required in addition to any other permits that may be required by State, federal, and regional agencies and by any other sections of this Code:

- (1) All solar energy systems shall meet applicable health and safety standards and requirements imposed by the state and the County Building and local fire department or districts.
- (2) Solar energy systems for heating water in single-family residences and for heating water in commercial or swimming pool applications shall be certified by an accredited listing agency as defined by the California Plumbing and Mechanical Code.
- (3) Solar energy systems for producing electricity shall meet all applicable safety and performance standards established by the California Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability.
- (4) Small accessory use roof-mounted and ground-mounted solar energy systems may be approved in all zones through the issuance of a Building Permit and a Zoning Clearance, provided the application meets setback and other standards, as provided in this Section. However, consistent with Section 65850.5 of the California Government Code, if the Chief Building Official has a good faith belief that the solar energy system could have a specific, adverse impact upon the public health and safety, the Official may require the applicant to apply for a Use Permit. Such a Use Permit shall be considered by the Zoning Administrator according to the requirements of Section 65850.5
- (5) Accessory solar energy systems that occupy more than 2.5 acres, excluding ground-mounted systems located in the POS and P-R zones, may be approved

through the issuance of a Building Permit and Site Plan Review, provided the application meets the Development Standards set forth in Section 8-2.1104(g), below. The Site Plan Review approval is ministerial (not discretionary) and does not require a public hearing. If the application fails to meet any of the standards, the application shall instead be evaluated as an application for a Minor Use Permit by the Zoning Administrator.

- (6) Accessory or medium-sized ground-mounted solar energy systems proposed to locate in the POS and P-R zones may be approved through the issuance of a Minor Use Permit as set forth in Section 8-2.1104(e)(4), below.
- (7) Solar energy systems proposed on a property or structure that is a designated Historic Landmark or is located within a designated Historic District may be permitted provided that the design of the facilities is consistent with the purposes of the Landmark or District designation.
- (8) Medium-sized solar energy systems may be approved through Site Plan Review if the facility is located on non-prime farmland that is not under a Williamson Act contract and shall include a vegetative substrate, derived from source-identified plant materials whose origin includes Yolo County and surrounding counties, planted and maintained beneath and between the rows of panels. Any medium-sized solar energy system that is located on prime farmland or on land that is enrolled in the Williamson Act shall require the issuance of a Minor Use Permit provided the application is consistent with the conditions and standards set forth in subsections (h) and (i), below.
- (9) Large-scale solar energy systems occupying no more than 120 acres of land may be approved through the issuance of a Major Use Permit by the Planning Commission, provided the application is consistent with conditions and standards set forth in subsections (h) and (i). A large-scale solar energy system greater than 120 acres requires approval from the Board of Supervisors, following a recommendation from the Planning Commission, provided the application is consistent with conditions and standards set forth in subsections (h) and (i), below.
- (10) If a utility solar energy system is proposed to locate on lands under a Williamson Act contract, the use must be found to be compatible in accordance with Section 106 of the Yolo County Williamson Act Guidelines, including compliance with the Williamson Act statutes governing the principles of compatibility required under Section 51238.1 of the California Government Code.
- (11) Solar energy development shall employ design features that allow for full restoration of the land once the system has ceased to generate electricity.

**(e) Permitted locations**

- (1) Solar energy systems may be installed and operated in the following zones, provided the systems meet setback and other standards, as provided in this Section and shown in Table 8-2.1104:

**Table 8-2.1104  
Allowed Solar Uses and Permit Requirements**

<b>A = Allowed use, subject to zoning clearance</b> <b>SP = Site Plan Review</b> <b>UP (m) = Minor Use Permit</b> <b>UP (M) = Major Use Permit</b> <b>N = Use Not Allowed</b>	<b>Land Use Permit Required by Zone</b>							<b>Specific Use Requirements or Performance Standards</b>
	<b>A-N, A-X, A-I</b>	<b>A-C, A-R</b>	<b>RR-5, RR-2, R-L, R-M, R-H</b>	<b>C-L, DMX, C-G, C-H</b>	<b>I-L, I-H, OPRD</b>	<b>PQP</b>	<b>POS, P-R</b>	

<b>Solar Energy System</b>								
Small accessory use roof-mounted solar energy system (up to 10kW)	A	A	A	A	A	A	A	Sec. 8-2.1104(f)
Small accessory use ground-mounted solar energy system (up to 10kW)	A	A	A	A	A	A	SP	
Accessory solar energy system (>10kW, < 2.5 ac)	A	A	A	A	A	A	A/SP <sup>(a)</sup>	Sec. 8-2.1104(g)
Accessory solar energy system (2.5 to 7.5 ac)	SP	SP	SP	SP	SP	SP	SP/UP(m)	
Medium-sized solar energy system (7.5 to 30 ac)	SP/UP(m)	N	N	SP/UP(m)	SP/UP(m)	SP/UP(m)	N	Sec. 8-2.1104(h)(i)
Large-scale solar energy system (> 30 ac)	UP(M)	N	N	N	UP(M)	UP(M)	N	

(a) Site Plan Review required for ground-mounted systems

- (2) Installation of roof-mounted solar arrays is encouraged in all public facilities in all zones so long as associated controls or conversion electronics do not impact other facilities.
- (3) Accessory and medium-sized solar energy systems in the Public and Open Space (POS) and Park and Recreation (P-R) zones are limited to roof-mounted panels and associated controller and conversion electronics.
- (4) Under circumstances where roof-mounted solar arrays alone cannot provide sufficient power for onsite uses in the POS or P-R zones, supplemental ground-mounted solar arrays may be permitted only to the extent necessary to provide sufficient power for onsite uses only through the issuance of a Minor Use Permit.

- (5) Large-scale solar energy systems are prohibited in the Public Open Space (POS) and Parks and Recreation (P-R) zones.

**(f) Development standards for small accessory use solar energy systems**

Applications for small accessory use roof-mounted and ground-mounted solar energy systems shall meet all of the following standards and any permit issued for such a system shall be conditioned to meet the standards:

- (1) Photovoltaic solar energy systems may extend up to five (5) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).
- (2) Solar water or swimming pool heating systems may extend up to seven (7) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).
- (3) Excluding solar collection panels, solar energy system equipment may be installed within the required side and rear yards, but shall not be closer than ten (10) feet from any property line in agricultural, commercial, industrial, and public and open space zones and five (5) feet from any property line in residential zones.
- (4) Pole mounted solar collection panels located in the residential zones shall comply with existing regulations for accessory structures (Section 8-2.506(a) and Table 8-2.506 of this Chapter), i.e., the panels may not exceed ten (10) feet in height in residential zones and must meet a rear yard setback of five (5) feet.
- (5) The solar panels of a small accessory use ground-mounted solar energy system shall not be included in any calculation of impervious surface for purposes of calculating lot coverage.

**(g) Development standards for accessory solar energy systems**

Applications for accessory solar energy systems shall meet all of the following standards. If the application does not meet one or more of the standards, a Minor Use Permit shall be required and shall be conditioned to meet the standards, unless findings of fact to justify a waiver of any of the standards are adopted by the Zoning Administrator. A waiver may be granted only if the Zoning Administrator concludes that the waiver is consistent with the purposes of this Section and that, due to unusual circumstances or other considerations, it is not reasonable to require compliance with one or more of the standards.

- (1) Photovoltaic solar energy systems may extend up to five feet above the roof surface even if this exceeds the maximum height limit for the principal structure for

the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).

- (2) Solar water or swimming pool heating systems may extend up to seven (7) feet above the roof surface even if this exceeds the maximum height limit for the principal structure for the zone in which it is located, or if this exceeds the height limit of an accessory structure (15 feet).
- (3) Accessory solar energy systems occupying more than 2.5 acres of land that are proposed in agricultural zones and the PQP zone are encouraged to locate on predominantly (more than 60 percent) non-prime farmland and/or previously disturbed areas to the extent feasible.
- (4) Ground-mounted solar facilities shall meet the front, rear, and side yard setback requirements of the zone in which they are located, with the following exceptions: Accessory solar energy systems in agricultural zones occupying no more than 2.5 acres shall not be required to meet the front yard setback. To address Fire Code requirements for weed control, a 10-foot perimeter is required from property lines in all agricultural, commercial, industrial, and public and open space zones and a 5-foot perimeter is required in all residential zones.
- (5) Ground-mounted solar facilities shall meet the height limit requirements of the zone in which they are located, except that auxiliary equipment may exceed this limit.
- (6) Ground-mounted solar arrays that occupy more than 2.5 acres of Swainson's hawk foraging habitat shall require a management plan that includes a vegetative substrate, such as native grasslands habitat or pollinator habitat, planted and maintained beneath and between the rows of panels. Native vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.
- (7) Accessory solar energy systems larger than 2.5 acres shall be located no closer than a minimum of 100 feet away from a riparian corridor.
- (8) Accessory solar energy systems shall occupy no more than 7.5 acres of land or 20 percent of the area of the parcel, whichever is smaller.
- (9) The solar panels of an accessory solar energy system shall not be included in any calculation of impervious surface for purposes of calculating lot coverage.

**(h) Development standards for medium-sized and large-scale solar energy systems**

- (1) Medium-sized and large-scale solar energy systems are encouraged to locate on predominantly non-prime farmland and non-Williamson Act contracted land, as feasible. Any medium-sized solar energy system that locates on prime farmland or farmland under Williamson Act contract shall require a Minor Use Permit.

- (2) Utility solar energy systems shall be integrated into the agricultural landscape by maintaining a substrate with a plant palette that supports ecological function and encourages and maintains wildlife use. Native vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.
- (3) Solar uses shall require a minimum 100-foot buffer from riparian corridors.
- (4) Medium-sized solar energy systems shall meet the front, rear, and side yard setback requirements of the zone in which they are located, with the following exception: in agricultural zones, the setbacks shall be at least 50 feet from all property lines. A 10-foot perimeter shall be required in all other zones to address Fire Code requirements for weed control.
- (5) Large-scale solar energy systems must be setback at least 50 feet from any property line.
- (6) Utility solar energy systems shall be located no closer than 100 feet from any residential dwelling on an adjacent property.
- (7) To the extent reasonably practicable, a utility solar energy system shall have a visual buffer of native vegetation that provides a visual screen to reduce the view of the solar energy system from residences on adjacent lots, including those lots located across a public right-of-way. Solar energy systems proposed to locate in a designated scenic corridor shall require visual screening. Vegetation shall be derived from source-identified plant materials whose origin includes Yolo County and surrounding counties.
- (8) Solar panels shall not be included in any calculation of impervious surface or impervious cover.

**(i) Mitigation required**

- (1) All utility solar energy systems shall mitigate for the permanent loss of agricultural land, in accordance with Section 8-2.404 (the Agricultural Conservation and Mitigation Program). Medium-sized solar energy systems approved by Site Plan Review are exempt from this requirement.
- (2) If a proposed utility solar energy system will remove Swainson's hawk foraging habitat, mitigation for the loss of foraging habitat shall be required to minimize adverse effects. For each acre of suitable agricultural land removed, a replacement acre shall be protected and managed to consistently provide suitable conditions for foraging Swainson's hawks. Mitigation can be accomplished by payment of a development fee for land in lieu, providing land in lieu of a development fee, or other arrangement in accordance with the California Department of Fish and Wildlife. Alternatively, a project proponent may seek coverage for the loss of habitat under the Yolo HCP/NCCP as a special participating entity.

**(j) Decommissioning**

Unless otherwise approved by the County, decommissioning shall begin no later than 12 months after a medium-sized or large-scale solar energy system has ceased to generate electricity. Within six months of the beginning of decommissioning, the solar energy system and all structures associated with it shall be removed, all materials shall be recycled or otherwise reused to the extent reasonably practicable, and the property shall be returned to its condition prior to the installation of the solar energy system or to some other condition reasonably appropriate for the designated land use.

# EXHIBIT C

## Sec. 8-2.1105 Energy storage facilities

### (a) Purpose

The purpose of this Ordinance is to add provisions to the Yolo County Code to regulate the permitting and installation of energy storage systems. These changes are necessary and appropriate to improve and enhance public welfare and safety, to ensure compatible land uses in the vicinity of areas affected by energy storage systems, and to mitigate the impacts of energy storage systems on important environmental resources, such as agricultural lands and wildlife habitat.

### (b) Definitions

#### **Dedicated use building**

“Dedicated use building” shall mean a building that is constructed for the primary intention of housing battery energy storage system equipment, is classified as Group F-1 occupancy as defined in the California Building Standards Code, and complies with the following:

- (i) The building’s only use shall be for energy storage, energy generation, and other electrical grid-related operations.
- (ii) No other occupancy types shall be permitted in the building.

#### **Participating property**

“Participating property” shall mean an energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the energy storage system owner (or affiliate) regardless of whether any part of the energy storage system is constructed on the property.

#### **Small energy storage system**

“Small energy storage” shall mean one or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle. A small energy storage facility may be used in conjunction with an accessory renewable energy system and shall have an aggregate energy capacity less than or equal to 600kWh and consist of only a single energy storage system technology.

#### **Energy storage system**

“Energy storage system” shall mean one or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time. An energy storage system has an aggregate energy capacity greater than 600kWh or is comprised of more than one storage battery technology in a room or enclosed area. An energy storage system facility may be integrated with a utility renewable energy system with storage

connected to the renewable energy system and the grid or may be a standalone storage facility with storage connected to the grid only.

**(c) Applicability**

The requirements of this Section shall apply to all energy storage systems permitted, installed, or modified in unincorporated Yolo County after the effective date of this ordinance, excluding general maintenance and repair. Energy storage systems constructed or installed prior to the effective date of this ordinance shall not be required to meet the requirements of this Section. Modifications to, retrofits or replacements of an existing energy storage system that increase the total energy storage system designed discharge duration or power rating shall be subject to the provisions of this Section.

**(d) Permitting requirements**

Energy storage facilities may be permitted to locate in the following zones:

**Table 8-2.1105  
Allowed Energy Storage System Uses and Permit Requirements**

<b>A = Allowed use, subject to zoning clearance*</b> <b>SP = Site Plan Review</b> <b>UP (m) = Minor Use Permit</b> <b>UP (M) = Major Use Permit</b> <b>N = Use Not Allowed</b>	Land Use Permit Required by Zone							Specific Use Requirements or Performance Standards
	A-N, A-X, A-I	A-C, A-R	RR-5, RR-2, R-L, R-M, R-H	C-L, DMX, C-G, C-H	I-L, I-H, OPRD	PQP	POS, P-R	

Energy Storage System								
Small energy storage (≤600Kw)	A	A	A	A	A	A	A	
Energy storage (>600kW to 2MW)	SP	SP	N	SP	SP	SP	N	See Sec. 8-2.1105(e)
Energy storage (>2MW)	UP(m)	N	N	UP(m)	UP(m)	UP(m)	N	

- (1) Energy storage systems shall meet all applicable safety and performance standards established by the California Building Standards Code.

**(e) Development standards for energy storage systems**

- (1) Small energy storage systems must be installed in non-habitable spaces, such as utility rooms, garages, storage rooms or on the exterior of a building.
- (2) Onsite utility lines shall be placed underground to the extent feasible and as permitted by the serving utility.
- (3) Lighting of an energy storage system shall be limited to that minimally required for safety and operational purposes and shall be shielded and downcast from abutting properties and public right-of-way, and shall take into consideration protection of the rural night sky.
- (4) Areas within 10 feet on each side of an energy storage system, excluding small energy storage systems, shall be cleared of combustible vegetation and other combustible growth. Removal of trees should be minimized to the extent possible.
- (5) Noise generated from energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of 60 dBA as measured at the property line of the nearest offsite residence. Applicants may submit equipment and component manufactures noise ratings to demonstrate compliance.

- (6) Energy storage systems, excluding small energy storage systems, shall comply with the setback requirements of the zone in which they are located.
- (7) Energy storage systems shall comply with the height limitations of the zone in which they are located.
- (8) Energy storage systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area.

**(f) Decommissioning**

- (1) A decommissioning plan, developed in accordance with all relevant codes, shall be submitted with any application for an energy storage system, but excluding a small energy storage system, and shall be implemented upon abandonment and/or in conjunction with removal from the facility. The decommission plan shall include:
  - (i) A narrative description of the activities to be accomplished for complete physical removal of all energy storage system components, batteries, structures, equipment, security barriers, and transmission lines from the site;
  - (ii) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;
  - (iii) The anticipated life of the energy storage system;
  - (iv) The estimated decommissioning costs and method of ensuring funds will be available for decommission and restoration of the site;
  - (v) The manner in which the site will be restored, including a description of how any changes to the surrounding areas will be protected during decommissioning and confirmed as being acceptable after the system is removed; and
  - (vi) A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other natural disaster event.
- (2) The owner and/or operator of the energy storage system, not including a small energy storage system, shall continuously maintain a fund or bond payable to the County of Yolo, in a form approved by the County, for the removal of the energy storage system, in an amount to be determined by the County for the period of the life of the facility. All costs of the financial security shall be borne by the applicant.



# County of Yolo

DEPARTMENT OF COMMUNITY SERVICES

Taro Echiburú  
DIRECTOR

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Time Set 11.

Planning Commission  
Meeting Date: 10/13/2022

Information

SUBJECT

**ZC #2022-02:** Public hearing to consider a recommendation to the Board of Supervisors on a Zoning Code Amendment to update the Zoning Regulations for Telecommunication Facilities, Solar Energy Systems and Energy Storage Systems (Sections 8-2.1102, 8-2.1104 and 8-2.1105 of the Yolo County Code of Ordinances). In compliance with the California Environmental Quality Act, an Addendum to the 2011 Negative Declaration for Solar Facilities has been prepared for the proposed Solar Energy Systems and Energy Storage Systems Ordinances and a Notice of Exemption has been prepared for the proposed amendments to the Wireless Telecommunication Facilities Ordinance. Applicant: Yolo County Planning Division; Planner: SCormier

SUMMARY

<b>FILE # ZC2022-02:</b> Proposed Zoning Code Amendment to Sections 8-2.1102, 8-2.1104 and 8-2.1105 of the Yolo County Code of Ordinances related to telecommunication facilities, solar energy and energy storage systems	
<b>APPLICANT:</b> Yolo County	<b>OWNER:</b> N/A
<b>LOCATION:</b> Countywide	<b>SOILS:</b> various
<b>GENERAL PLAN:</b> All land use designations	<b>WILLIAMSON ACT:</b> N/A
<b>ZONING:</b> All zones	<b>FLOOD ZONE:</b> N/A
<b>SUPERVISORIAL DISTRICT:</b> All	<b>FIRE SEVERITY ZONE:</b> N/A
<b>ENVIRONMENTAL DETERMINATION:</b> Addendum to Negative Declaration and common sense exemption	

RECOMMENDED ACTION

That the Planning Commission:

1. Hold a public hearing and accept public comments on the proposed Zoning Code Amendment to Sections 8-2.1102 Wireless Telecommunication Facilities, 8-2.1104 Small and Medium Solar Energy Systems and 8-2.1105 Large and Very Large Solar Energy Systems of the Yolo County Code of

Ordinances (summarized in Att. A); and

2. Consider a recommendation to the Yolo County Board of Supervisors to:

A. Hold a public hearing and accept public comments on the proposed Zoning Code Amendment related to telecommunication facilities, solar energy systems, and energy storage systems;

B. Approve the Resolution to adopt the Addendum to the 2011 Negative Declaration for the proposed Solar Energy Systems and Energy Storage Systems Ordinances and CEQA Exemption for the amendments to the Wireless Telecommunication Systems Ordinance as the appropriate level of environmental documentation in accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines (Att. B); and

C. Approve an Ordinance to adopt the Zoning Code Amendment to (i) update the Wireless Telecommunication Facilities Ordinance (County Code Section 8-2.1102) and (ii) enact the Solar Energy Systems Ordinance (County Code Section 8-2.1104) and Energy Storage Systems Ordinance (County Code Section 8-2.1105) (Att. C).

#### REASONS FOR RECOMMENDED ACTIONS/BACKGROUND

The purpose of this item is to consider updates to the zoning laws related to two topics: (i) an update to the Wireless Telecommunication Facilities Ordinance (County Code Section 8-2.1102), and (ii) enactment of two renewable energy ordinances: the Solar Energy Systems Ordinance (which will update and consolidate the existing solar regulations into County Code Section 8-2.1104) and the Energy Storage Systems Ordinance (which will be codified in County Code Section 8-2.1105). Although these two topics are distinct, the code updates are being brought as a single item because both sets of regulations are found in the same Article in the County's Zoning Code (Article 11. Energy and Telecommunications Development Standards).

On September 8, 2022, the Planning Commission conducted a public workshop to review and accept comments on proposed changes to certain sections of the Zoning Regulations related to telecommunication facilities, solar energy systems, and energy storage systems. Based on Planning Commission input and feedback from the public, Planning staff has prepared a revised set of changes to County Code Sections 8-2.1102, 8-2.1104, and 8-2.1105 for the Commission's consideration. Pending any further requested changes, staff is seeking a recommendation from the Planning Commission to the Board of Supervisors for adoption of the Zoning Code Amendment (Attachment A).

Staff has prepared a set of revised changes to Sections 8-2.1102 (Wireless Telecommunication Facilities), 8-2.1104 (proposed Solar Energy Systems), and 8-2.1105 (proposed Energy Storage Systems), which are briefly summarized below, and more fully summarized in Attachment A.

#### **Wireless Telecommunication Facilities Ordinance**

Staff's original amendment included proposed changes to the height requirements for small and large cell towers, which would increase the height of a small tower from 80 feet up to 120 feet and allow for an administrative Site Plan Review. Staff has removed that change from the proposed amendment at this time. The originally proposed setback requirement (equidistant to tower height) has also been removed. Instead, staff is proposing only minor changes to some of the standards to clarify permitting and application requirements, as well as to include provisions for reviewing non-substantial eligible facilities requests regulated under federal law. Staff believes the proposed changes to the Wireless Telecommunication Facilities Ordinance are minor in nature and do not constitute a significant change for the purposes of additional environmental review and a notice of exemption has been prepared for CEQA purposes. To view the proposed changes to the ordinance, please refer to Attachment A.

#### **Proposed Solar Energy Systems Ordinance**

The proposed consolidation of the solar energy systems ordinances includes additional changes based on feedback from the Commission and staff consultation with Jim Estep of Estep Environmental

Consulting. A clean copy with recent staff edits can be found in Attachment D. Attachment A includes the redlined version in its entirety.

Staff's original amendment proposed that 'accessory solar energy systems' shall occupy no more than 10 acres of land so long as the system was ancillary to the primary uses of the property. Staff has revised the proposed amendment to define an accessory solar energy system as an ancillary system that occupies no more than 7.5 acres of land to ensure that larger systems, whether accessory or utility in nature, would have a greater level of planning review and to prevent unforeseen cumulative impacts. Additional measures have been proposed to encourage that utility solar energy systems consider integrating into the agricultural or natural landscape in such a way as to establish, maintain, and/or promote wildlife use of the site. Protections have also been added to prevent solar energy systems from encroaching into riparian corridors. Lastly, in an effort to remove confusion, references to the Yolo HCP/NCCP have been omitted because renewable energy systems, such as solar and wind, are not covered actions under the HCP/NCCP. Instead, specific measures to address potential loss have been identified in the event a solar energy system will remove sensitive habitat.

The following sections have been modified since the September 8th Planning Commission workshop:

**8-2.1104(b) - Definitions:** Accessory solar energy system now defined as occupying no more than 7.5 acres of land; medium-sized solar energy system defined as occupying more than 7.5 acres of land and up to 30 acres of land.

**8-2.1104(d) - Administration and required approvals:** minor modification to subsection (8) to remove provisions related to the Yolo HCP/NCCP and replace with requirements for managing solar uses with a grassland substrate; subsection (11) has been added to encourage easy restoration of the site once the use has ceased.

**8-2.1104(g) - Development standards for accessory solar energy systems:** subsection (6) has been modified to require a management plan that is designed with a vegetative substrate that would promote raptor use of the site; subsection (7) has been added to clarify systems greater than 2.5 acres cannot be located within riparian areas, i.e., must maintain a 100-foot buffer.

**8-2.1104(h) - Development standards for medium-sized and large-scale solar energy systems:** subsection (2) added to require integration with agricultural landscape by maintaining a vegetative substrate that supports wildlife use; subsection (3) added to preclude siting within riparian corridors.

**8-2.1104(i) - Mitigation required:** subsection (2) modified to remove reference to Yolo HCP/NCCP and require mitigation through land conservation, payment of in-lieu fee, or other in accordance with CDFW (solar and wind energy development are not covered actions under the HCP/NCCP).

### **Proposed Energy Storage Systems Ordinance**

**Table 8-2.1105- Allowed Energy Storage System Uses and Permit Requirements:** Minor modification to increase the planning review for energy systems subject to Site Plan Review from 1 MW to 2 MW. No other significant changes have been made to the Energy Storage Systems Ordinance.

Staff prepared an Addendum to the 2011 Solar Ordinance's Negative Declaration for the amendments to the Solar Energy System and Energy Storage System Ordinances. The addendum will be included with the Negative Declaration as part of the Board's review or the proposed ordinances.

Staff respectfully requests that the Planning Commission approve the recommended action for the Board of Supervisor's consideration. The proposed changes support numerous General Plan policies that seek to reduce dependence on fossil fuels, incorporate green building standards into project design, and preserve the agricultural and natural landscape through integrative site design.

COLLABORATIONS

Staff consulted with Sol Smart, the Citizens Advisory Committees (CAC), the public (through a stakeholder distribution list of interested parties), Valley Clean Energy, and Estep Environmental Consulting. The CAC comments were included in the staff report for the September 8th Planning Commission workshop (Attachment E).

## APPEALS

N/A

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## Attachments

Att. A. Summary of Zoning Code Amendments

Att. B. CEQA Resolution

Att. C. Article 11 Ordinance

Att. D. Solar Energy Systems Ordinance (staff changes)

Att. E. PC workshop staff report

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## Form Review

Inbox	Reviewed By	Date
Eric May	Eric May	10/05/2022 12:05 PM
Eric May	Eric May	10/06/2022 11:52 AM
Leslie Lindbo	Leslie Lindbo	10/06/2022 05:11 PM
Taro Echiburu	Taro Echiburu	10/06/2022 05:42 PM
Form Started By: Stephanie Cormier		Started On: 09/21/2022 02:31 PM
Final Approval Date: 10/06/2022		



# County of Yolo

DEPARTMENT OF COMMUNITY SERVICES

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DIRECTOR

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**Regular 12.**

**Planning Commission**  
**Meeting Date:** 09/08/2022

## Information

### **SUBJECT**

**ZC 2022-02:** Public workshop on proposed amendments to the Zoning Regulations regarding wireless telecommunication facilities, solar energy systems, and energy storage systems (Article 11: Energy and Telecommunications Development Standards). Applicant: Yolo County Planning Division; Planner: SCormier

### **SUMMARY**

<b>FILE # ZC 2022-02:</b> Proposed Zoning Code Amendment to Article 11: Energy and Telecommunications Development Standards	
<b>APPLICANT:</b> Yolo County	<b>OWNER:</b> N/A
<b>LOCATION:</b> Countywide	<b>SOILS:</b> various
<b>GENERAL PLAN:</b> All land use designations	<b>WILLIAMSON ACT:</b> N/A
<b>ZONING:</b> All zones	<b>FLOOD ZONE:</b> N/A
<b>SUPERVISORIAL DISTRICT:</b> All	<b>FIRE SEVERITY ZONE:</b> N/A
<b>ENVIRONMENTAL DETERMINATION:</b> To be determined	

### **RECOMMENDED ACTION**

That the Planning Commission:

1. Hold a workshop and consider public comments on the proposed Zoning Code Amendment to certain sections of the Zoning Regulations in Article 11: Energy and Telecommunications Development Standards (Att. A);
2. Provide staff with further revisions to the Wireless Telecommunication Facilities Ordinance (Section 8-2.1102), Solar Energy Systems Ordinance (Section 8-2.1104), and Energy Storage Systems Ordinance (Section 8-2.1105); and
3. Direct staff to schedule a future public hearing with the Planning Commission to accept further public comment and consider a formal recommendation on the proposed Zoning Code Amendment to the Board of Supervisors.

## **REASONS FOR RECOMMENDED ACTIONS/BACKGROUND**

The Planning Division has prepared a set of proposed changes to certain sections of the Zoning Regulations in Article 11 (Energy and Telecommunications Development Standards) related to telecommunication facilities and solar energy systems, and is proposing to add a new section for energy storage systems. The primary purposes of the proposed zoning amendments are to update regulations to better accommodate the permitting process by reducing regulatory hurdles, clarify terminology, include state and federal statutes already in effect, and identify new uses. Each section has been modified to update and introduce new definitions and to include a zoning table of allowed and permitted uses for ease of reference.

The following attachments have been included to assist with the Planning Commission's review:

- Attachment A contains a 'redlined' version of each section with proposed changes to existing code.
- Attachment B contains a clean copy version of each section with recent staff edits in response to public outreach.
- Attachment C contains a table that highlights the changes between existing and proposed sections.
- Attachment D contains public comments received to date.

### **Summary of Proposed Changes**

**Section 8-2.1102: Wireless Telecommunication Facilities** has been modified to more readily provide for 'eligible facilities requests' that comply with the 2012 Spectrum Act which mandates that a local government approve certain wireless facilities siting requests for modifications and collocations that do not result in a substantial change to the physical dimensions of a previously permitted tower or base station in conformance with Title 47 Code of Federal Regulations Section 1.6100(b)(7). Attachment A includes a redlined version of proposed changes to Section 8-2.1102 and can be referenced for details regarding substantial changes in subsection (b), Definitions.

Other notable changes to Section 8-2.1102 include increasing the tower height for a small wireless telecommunication facility from 80 feet to 120 feet, which will streamline the permitting process for a small facility proposed in the rural areas. Increasing the tower height allows for greater collocation opportunities and is proposed to facilitate better coverage in underserved areas. Standards have also been updated to require a setback from property lines that is equidistant to the tower height rather than limiting the height of a tower based on parcel size.

**Sections 8-2.1104: Small and Medium Solar Energy Systems and 8-2.1105: Large and Very Large Solar Energy Systems** have been combined into one section (8-2.1104) and significantly modified to include provisions for onsite serving solar energy uses, particularly systems serving agricultural operations. Currently, the solar energy regulations require a use permit for any ground-mounted or roof-mounted system that occupies 2.5 or more acres of prime farmland, Williamson Act contracted land, or habitat. This, in turn, triggers the requirement for an extensive discretionary and environmental review process resulting in potentially significant costs and time associated with reviews and mitigation requirements, especially for renewable energy systems that will be ancillary to the primary use of a property. Staff has noted that a typical solar energy system serving an agricultural operation requires approximately 3.8 acres but can be as large as 10 acres or more.

To streamline the use of solar energy for agricultural operations, implement General Plan policies supporting the use of onsite renewable energy sources, and continue the protection of important County resources, staff is proposing to amend the solar energy regulations to allow up to 10 acres of onsite serving solar uses without requiring a discretionary review so long as the system meets required standards (reference Attachment A to review proposed standards).

Currently, an onsite ag-serving solar energy system that is greater than 2.5 acres can be considered an 'agricultural use' in the Agricultural Conservation and Mitigation Program Ordinance [County Code Section 8-2.404(b)] and would therefore be excluded from mitigation requirements. Thus, staff does not consider the proposed changes to Section 8-2.1104 to be in conflict with protections addressing

agricultural resources.

With respect to loss of habitat, some solar energy systems are managed with a vegetative substrate and are therefore considered 'habitat friendly'. The amended regulations would require that all 'accessory solar energy systems' include a planting plan for increasing or maintaining Swainson's Hawk foraging habitat resources. If a proposed accessory solar energy system would remove foraging habitat, mitigation would be required. Attachment A contains a redlined version of an updated Section 8-2.1104 where proposed performance standards can be referenced.

Section 8-2.1104 has also been modified to clarify that all small roof-mounted and ground-mounted accessory use solar energy systems are subject to permit streamlining under the Solar Rights Act and Assembly Bill 2188 (2014) which mandates a standardized and simplified procedure for permitting small systems. This proposed change increases permit streamlining to all small accessory use solar energy systems rather than limiting to small residential rooftop systems. The section has been amended to remove the small residential rooftop solar energy system review process [currently codified as subsection (g)] since the practice is already in effect and implemented under the Building Division's standardized procedures and protocols. The deleted subsections have no bearing on land use or zoning requirements nor do they eliminate the process for permit streamlining. They are simply not relevant to the Zoning Regulations.

The standards for a 'medium-sized solar energy system' have been updated to reflect the new accessory solar energy system category, and a medium-sized solar energy system is now defined as any onsite and/or off-site serving system that occupies over 10 acres but no more than 30 acres. Any medium-sized solar energy system designed to generate power that is fed directly to the electrical grid would be considered a 'utility' solar energy system. The standards regulating the large and very large solar energy systems are relatively similar in the amended version, except the 'very large' category has been removed. A large-scale system over 30 acres and up to 120 acres in size is proposed to be considered for approval by the Planning Commission (currently requires Board approval) while any system that occupies over 120 acres would still require Board of Supervisors approval.

The proposed changes to Sections 8-2.1104 and 8-2.1105 do not affect the updates that were approved in 2020 to limit ground-mounted solar energy systems in the open space and recreational zones, though some minor text amendments have been prepared.

Finally, staff is proposing to replace Section 8-2.1105 with a new ordinance for **Energy Storage Systems**. With preliminary input from Valley Clean Energy, staff drafted the ordinance to help foster potential future uses for additional renewable energy opportunities. It is more and more common for renewable energy projects to include battery storage as a component of the project. The proposed energy storage ordinance clarifies requirements for 'paired' renewable energy systems and provides for stand-alone battery energy storage systems.

### **Public Outreach**

Public review drafts of the proposed changes to Article 11 were posted on the Planning webpage at this link: [Current Projects | Yolo County](#) and circulated to all the Citizen Advisory Committees (CAC) and the CAC Interested Parties lists, as well as to a broader range of stakeholders, community and special interest groups, and local agencies on August 5, 2022. During the month of August, staff attended several CAC meetings to seek recommendations on the proposed Zoning Code Amendment, including the Esparto CAC on August 16th, the Dunnigan CAC on August 17th, and Clarksburg CAC on August 18th. The Capay Valley CAC met on August 31st. JD Trebec, Senior Planner, facilitated the CAC discussions, and a summary of comments is provided below.

The Esparto CAC had five members in attendance voting unanimously to recommend the Zoning Code Amendment with proposed changes as follows:

- Require a Minor Use Permit for all freestanding cell tower facilities, regardless of tower height.  
Note: *This recommendation exceeds current requirements which allow for towers 80 feet in height*

or less through Site Plan Review on agricultural parcels greater than 20 acres in size.

- Require a Minor Use Permit for all energy storage systems, regardless of size, and require noise levels to be measured from the nearest property whether or not an offsite residence is present.
- No proposed changes to the updated Solar Energy Systems Ordinance (Section 8-2.1104).

The Dunnigan CAC had five members in attendance and voted 4 to 1 to recommend the Zoning Code Amendment with proposed changes as follows:

- Increase the kilowatts (Kw) allowed for small accessory use ground-mounted solar energy systems and require no maximum Kw for small accessory use roof-mounted systems. Note: *The standards set for the small accessory use ground-mounted and roof-mounted solar energy systems comply with AB 2188 provisions for permit streamlining. Following the recommendation, staff made some minor changes to the permitting requirements for clarity. See Table 8-2.1104 in Attachments A (redlined version) and B (clean version w/ staff edits) for allowed and permitted requirements related to accessory ground-mounted and roof-mounted solar energy systems.*
- Require Major Use Permit for energy storage systems over 1 megawatt (MW).
- No proposed changes to the Wireless Telecommunication Facilities Ordinance (Section 8-2.1102).

The Clarksburg CAC had four members in attendance and voted 3 to 1 to recommend the Zoning Code Amendment with proposed changes as follows:

- Require agricultural mitigation for solar energy and energy storage projects on non-prime farmland, as well as development fees. Note: *Current standards require utility solar energy systems that are not considered agricultural uses to comply with the Agricultural Conservation and Mitigation Program; the proposed amendments would not change the requirement.*
- Remove the tower height setback requirement for telecommunication facilities to reduce impacts to agriculture and agricultural operations.
- Base the permitting requirements for energy storage systems on megawatt (MW) rather than acreage and require a use permit for battery storage systems greater than 1MW. Note: *Staff concurs with this recommendation and has made the relevant changes to the new Energy Storage Systems Ordinance (see Att. B).*

The Capay Valley CAC had four members in attendance but did not meet a quorum. However, the committee reviewed the draft amendments and provided the following feedback;

- Commented that the ordinances were too technical in nature to comment in depth.
- Supportive of 'streamlining' solar energy uses.
- Supported small cell tower height increase, but noted the potential for visual consequences. Note: *The proposed edits to Section 8-2.1102 provide for consideration of stealth design elements in designated scenic corridors.*
- Expressed concern about energy storage system height limits.

## **COLLABORATIONS**

Staff coordinated extensively with Sol Smart, a national organization dedicated to assisting cities, counties, and regional organizations to make solar energy affordable and easy to permit. Sol Smart offers technical assistance as well as a national designation program that recognizes local governments that have taken key steps to address local barriers for fostering solar energy growth. Sol Smart assisted staff with clarifying regulations and provided suggestions for simplifying the permitting process to ensure 'small accessory use' and 'accessory' solar energy system regulations were better defined.

Prior to conducting the Planning Commission workshop, staff reached out to the community for feedback. Public comments received to date include responses from Chad Roberts (see attached email in Attachment D), Office of Emergency Services (no issues), and the Delta Protection Commission (Att. D). Once staff receives direction from the Planning Commission as to further changes to Article 11, a final proposed draft will be prepared and considered for recommendation by the Planning Commission at a future duly noticed public hearing.

Staff will continue to work with County Counsel to address legal adequacy for all proposed zoning changes.

**APPEALS**

N/A

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**Attachments**

- Att. A. Article 11 Amendments (redlined review)
  - Att. B. Article 11 Amendments (clean w/ staff edits)
  - Att. C. Article 11 Amendment Exhibit
  - Att. D. Public Comments
- 

**Form Review**

<b>Inbox</b>	<b>Reviewed By</b>	<b>Date</b>
Eric May	Eric May	09/01/2022 12:38 PM
Leslie Lindbo	Leslie Lindbo	09/01/2022 03:44 PM
Taro Echiburu	Evelyn Tamayo-Arias	09/01/2022 03:53 PM
Form Started By: Stephanie Cormier		Started On: 08/23/2022 02:51 PM
Final Approval Date: 09/01/2022		

# Swainson's Hawk and Other Raptor Foraging Use of Solar Array Fields within an Agricultural Landscape in Sacramento County

October 2013



*Prepared for:*

**RECURRENT  
ENERGY**

*Prepared by:*



# **Swainson's Hawk and Other Raptor Foraging Use of Solar Array Fields within an Agricultural Landscape in Sacramento County**

Prepared for:

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October 2013

## Introduction

Recurrent Energy constructed four photovoltaic solar energy projects in south Sacramento County in 2012. All occur within an agricultural landscape used by foraging raptors, including the state-listed Swainson's hawk (*Buteo swainsoni*). Because of its dependence on agricultural foraging habitats in the Central Valley, loss of suitable agricultural lands to urban development may be considered a significant environmental impact on the Swainson's hawk pursuant to the California Environmental Quality Act (CEQA) (CDFG 1994). Loss of suitable agricultural land is typically mitigated through a compensatory process of acquisition, management, and preservation of replacement agricultural lands. To streamline its process for determining mitigation for losses of Swainson's hawk habitat, Sacramento County enacted a local ordinance that provides a mitigation option for habitat compensation using replacement ratios derived using a parcel size formula (Sacramento County 2006). However, during the environmental review process with the County, Recurrent Energy questioned whether the installation of a solar array would preclude Swainson's hawk foraging and therefore be considered a significant loss of foraging habitat similar to other types of development projects.

Swainson's hawks are highly active aerial hunters. Typical foraging behavior is a relatively low (less than 100 meters) circling flight above suitable foraging habitat. They avoid fields with tall or dense vegetation because this condition reduces visibility and access to prey (Bechard 1982, Estep 2009). However, some crops such as vineyards may provide some open accessible foraging space within the field (i.e., between the vineyard rows). The extent to which Swainson's hawks and other raptors would attempt to capture prey between rows of tall vegetation such as vineyards is uncertain, but is generally considered negligible, and thus vineyards and other similar cover types are considered unsuitable foraging habitat (CDFG 1994). Swolgaard et al. (2007) found some use of vineyards by foraging Swainson's hawks, but not to the extent of other crops and land cover types in the surrounding landscape. Still, the Swolgaard et al. (2007) study revealed that Swainson's hawks are not entirely averse to hunting in these conditions.

A typical solar array, however, has a greater separation between rows than do most vineyards. Recurrent also prepared a management plan for each of their solar projects that included establishing and maintaining a grass substrate that would promote sustainable rodent populations that are the primary source of prey for Swainson's hawks and other raptors. The solar trackers also provide perching opportunities for those species that typically hunt from perches, such as red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*). A report prepared for Recurrent Energy and presented to the County and the California Department of Fish and Wildlife (CDFW) (Estep 2011a) concluded that because at least 60 percent of the area within the solar arrays would remain potentially available for foraging and that entire area (including beneath the solar panels) would provide habitat for small rodent populations, Swainson's hawks and other raptors may continue to use solar array fields for foraging and that mitigation that addresses habitat compensation for solar projects could be scaled based on the extent of use. The report recommended conducting an observational study to evaluate

foraging use of solar fields, which could be used to determine mitigation options for future solar projects.

While the County and the CDFW determined that there was insufficient evidence that indicated solar fields would continue to provide value to foraging Swainson's hawks, both indicated that with additional evidence through the recommended observational studies, they were open to further discussions regarding the affect of solar fields within an agricultural landscape.

Once the projects were constructed and operating, and once grasses were firmly established on the sites, Recurrent Energy undertook a one-year research project to examine the extent of use of the solar projects by Swainson's hawks and other raptors. This report summarizes the results of that research project.

## **Location**

Due to their proximity to each other, three of the four solar projects (RE Bruceville LLC, RE Kammerer LLC, and RE McKenzie LLC, were used in this study. The study area is located at and in the vicinity of these three project sites in South Sacramento County. All are south of the City of Sacramento and east of Interstate 5 (Figure 1). The Kammerer and Bruceville project sites are immediately south of the City of Elk Grove between Interstate 5 and State Route 99. The McKenzie project site is just north of the City of Galt and just east of State Route 99 (Figure 1).

## **Description of the Solar Projects**

The three solar projects, ranging in size from 105 acres to approximately 200 acres, consist of an array of photovoltaic solar panels installed in east-west-facing rows. The panels are connected uniformly in rows along a solar tracker frame that maintains conformity and allows the panels to pivot along a single axis as they track the sun. The trackers are set into the ground using 4-inch galvanized steel poles set in 1-foot concrete pads spaced approximately 10 feet apart along the row. The 8-foot-long solar panels are installed onto the frame with a 2-foot minimum clearance from the ground to panel edge at a 45 degree angle, the maximum tilt angle. The total height of the structure reaches a maximum of approximately 10 feet at full 45 degree tilt. Panel rows are spaced 20 feet apart from pole to pole. With 8-foot-long panels, this leaves 12 feet of open space between each row at horizontal, and slightly larger open space as the trackers angle. The collection systems are underground with the exception of grid tie inverters, which are spaced uniformly throughout each project site. Power is delivered to an onsite solar substation. Each project also includes internal gravel access roads and an 8-foot-high chain link security fence around the perimeter.

A management plan prepared for each site includes the establishment of grasses throughout the project sites, including beneath and between the trackers and solar panels.

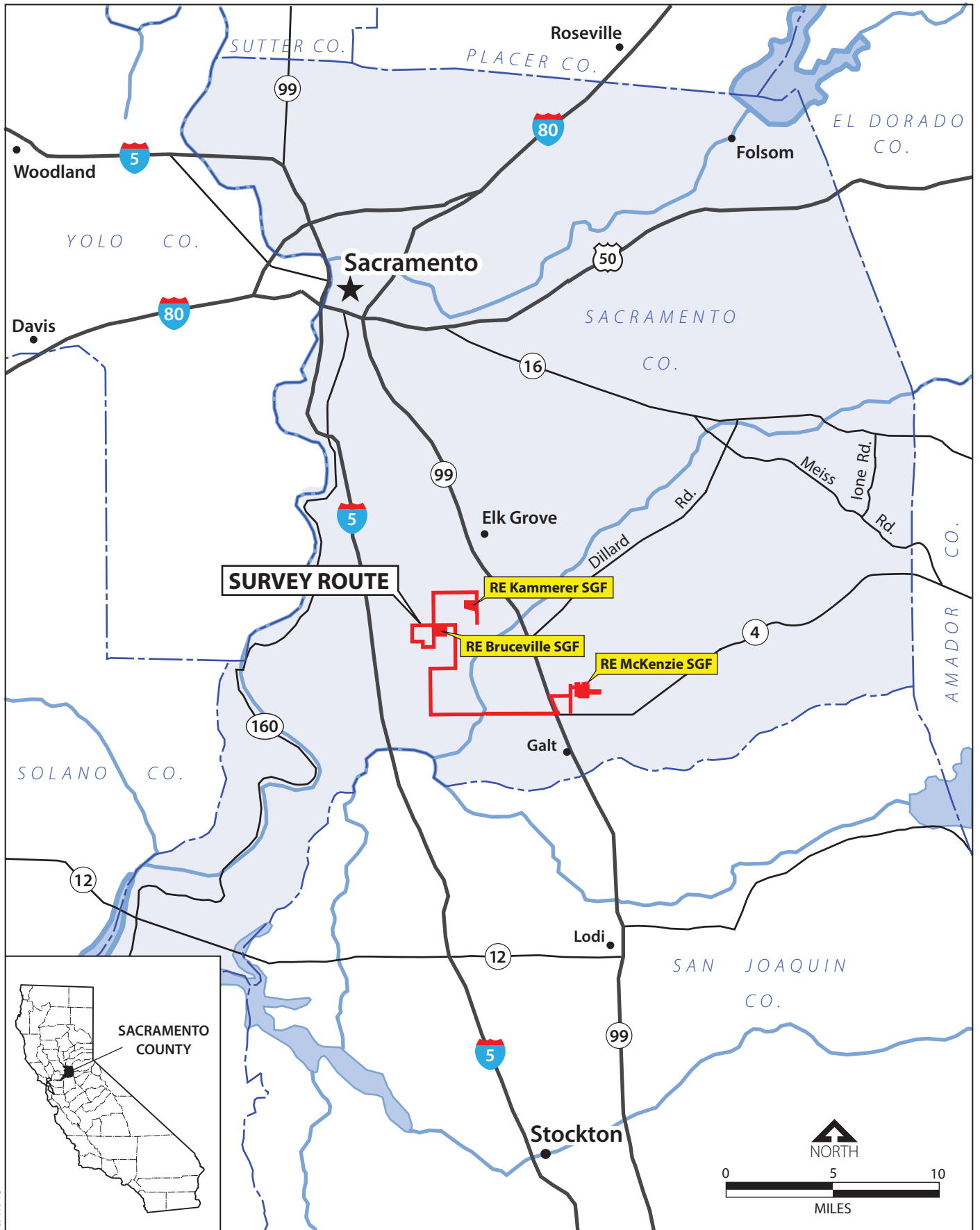


Figure 1  
Regional Location

10/17/13

The grasses are maintained at a low (4 to 12 inches) height through a sheep grazing program that periodically rotates between the sites as needed. The grass ground cover is designed to encourage the establishment of rodent populations to promote raptor use of the site as well as to provide for rodent refugia to aid in the reestablishment of rodent prey populations on adjacent farmlands following cultivation.

## **Physiography and Land use**

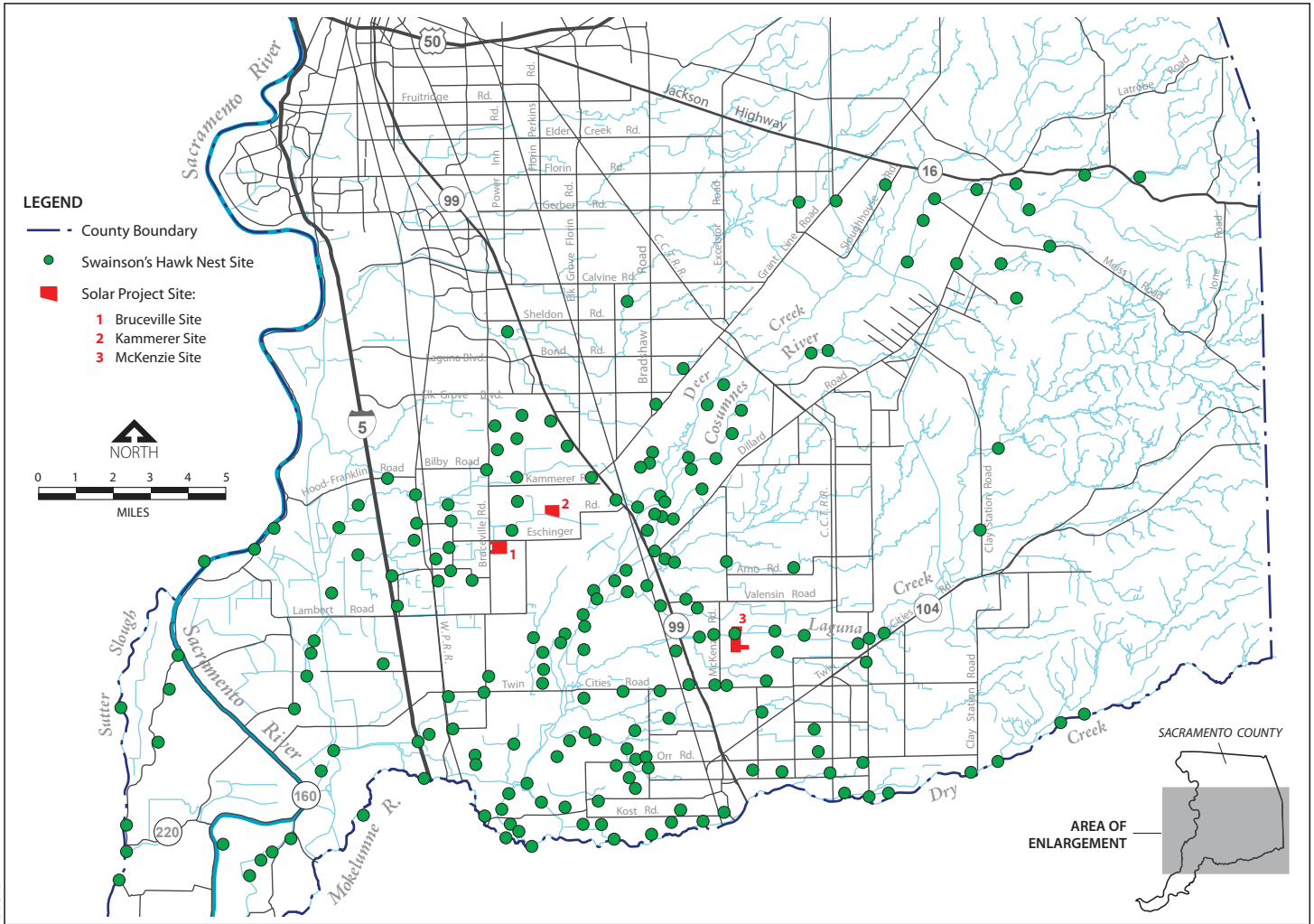
The surrounding land use is entirely agricultural, consisting of a combination of irrigated pasture, dry pasture, and irrigated cropland. Dominant crop types in the area include oat hay, alfalfa, corn, wheat, and vineyards. Rural urban areas also occur throughout the area including farm and ranch residences and related facilities and dairies. The landscape is flat with virtually no topographic relief other than seasonal and perennial drainages. Trees occur along riparian corridors, roadsides, and field borders, and around farm and ranch residences. These trees provide nesting habitat for several of the raptor species in the study area including Swainson's hawk, red-tailed hawk, red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), and American kestrel.

## **Distribution of Nesting Swainson's Hawks in South Sacramento County**

The Swainson's hawk occurs throughout the undeveloped portions of Sacramento County. Surveys have been conducted throughout Sacramento County for several decades resulting in a substantial number of breeding records (California Natural Diversity Data Base 2013, Estep 2007, 2009a, 2012). Surveys conducted in 2006 reported a total of 188 active breeding sites in Sacramento County south of Jackson Highway (State Route 16) (Estep 2007). More recent surveys (Estep 2009a, 2012) reported additional active breeding sites within and south of the City of Elk Grove. Figure 2 illustrates the locations of reported Swainson's hawk nests in South Sacramento County in the vicinity of the project sites. The highest nesting density was found in the interior of the county where the land use is predominantly irrigated cropland and irrigated pastureland.

## **Purpose**

This study was designed to meet the following objectives (1) examine how and the extent to which Swainson's hawks and other raptors forage on or otherwise use the solar facilities; and (2) evaluate the use of solar facilities and other available land uses/cover types relative to their availability on the landscape.



SOURCE: Estep 2007.

**Figure 2**  
Swainson's Hawk Distribution in the Vicinity of the Solar Project Sites

# Methods

## Strip Transect Road Surveys

The strip transect road survey method (Fuller and Mosher 1987) was used to evaluate relative foraging use of different land cover types, including the solar arrays. A 26-mile survey route was selected based on the following factors:

- Incorporating the three solar facilities into the design
- Road/vehicle accessibility
- Visibility
- Road safety
- Diversity of land cover types

The survey area extended 600 feet from each side of the road for a total width of 1,200 feet. Initially, all land cover types were mapped and classified along the survey route. To conduct the survey, the surveyor slowly drove at a consistent pace between 10 and 15 mph, stopping as needed to identify and record raptors and raptor behavior within the survey area. Recorded behaviors included the following:

- Circling below 100 meters
- Soaring below 200 meters
- Flying through the survey area below 200 meters
- Kiting/Hovering
- Perching (adjacent poles/trees/fences)
- Standing on ground
- Prey capture attempt
- Prey capture successful
- Prey capture unsuccessful
- Aerial foraging

The surveyor recorded data as raptors were observed within the 1,200-foot-wide transect survey area. Land cover type and status, including vegetation height, and farming activity were recorded for each occurrence. Start times were variable in order to account for differences in foraging use patterns. Using this method, a reliable statistical analysis can be performed that measures habitat use as a proportion of availability. In other words, it determines whether a habitat type is used more or less than expected relative to its availability. In this way we can evaluate the relative use of all cover types in the survey area, including the solar array fields.

A survey form along with an accompanying data code sheet and field maps with the route and land cover types illustrated were used to record observational and related data while in the field. Surveys were conducted during daylight hours and were not conducted during severe weather events such as heavy rainfall, winds greater than 20 mph or foggy

conditions. Surveys were conducted twice weekly by the same surveyor between March 28 and August 29, 2013 for a total of 42 surveys.

**Habitat Mapping.** Land cover types were mapped and characterized in the field along the survey route on 7.5 minute USGS quadrangle maps. Current 2013 land use was documented in the field according to the land cover type categories listed below.

- Oats
- Irrigated pasture
- Dry pasture
- Solar field
- Alfalfa
- Tilled
- Wheat
- Vineyard
- Corn
- Grass
- Miscellaneous row/truck crop
- Wetland/riparian
- Ruderal/Urban

Field boundaries were recorded, confirmed, or adjusted as needed on USGS base maps. Tilled was included separately because some fields were tilled and unplanted for approximately one-half of the survey period before being planted. Rural residences and their surrounding footprint (e.g., barns, out buildings, yards, and equipment storage areas), adjacent ruderal areas, and other agricultural facilities, mainly dairies, were combined into a single category – Ruderal/ Urban. Following the initial field mapping of habitat/land use categories, the data were then re-mapped using aerial photos to confirm field boundaries.

These maps were then converted to graphic maps using Adobe Illustrator. Habitat/land use cover type acreages were calculated from the graphic maps using a plug-in filter from Telegraphics Inc. While this process provided a reasonably accurate representation of land cover types along the survey route, it did not exclude interior farm roads and other edge features. As a result, the acreage totals may exceed the actual acreage for some types. However, this was considered to have a negligible effect on the total calculations or the relative abundance of the various types.

Several crop type rotations occurred during the survey including wheat, oats, and tilled fields rotating to corn, and some tilled fields planted to vineyards. These rotations or conversions occurred at approximately the mid-point of the survey. To account for these changes and to satisfy the assumption that habitat availability is constant throughout the study (Manly et al. 2002), we used the same approach as Swolgaard et al. (2008) by tallying the areas of all fields that changed crops midseason, dividing the values in half, and assigning those values to each habitat.

**Analysis.** Documented raptor occurrences and acreages of land cover types were compiled and proportions of land cover types and occurrences within each land cover type calculated. Of the six species documented during the survey, only Swainson's hawk, red-tailed hawk, and American kestrel had sufficient occurrences to be included in the statistical analysis. The null hypothesis stated that Swainson's hawks and other raptor species used each habitat for foraging in proportion to its availability in the survey area. Therefore, only behaviors that represented foraging were included in the analysis. For Swainson's hawk, only circling below 100 meters, the typical foraging behavior of Swainson's hawks, kiting/hovering, and prey capture attempts were included as foraging behaviors. Perching behavior was excluded because the species does not typically hunt from a perch. Perching was included as a foraging behavior for red-tailed hawk and American kestrel, species that often hunt from perches. Hypothesis testing for selection of foraging habitat consisted of a chi-square test for goodness of fit, followed by chi-square testing of individual types to determine if use was disproportionate to availability and whether it was positively or negatively correlated. While this approach may be regarded as very conservative compared with other more robust statistical tests used in habitat use/availability studies, it was considered appropriate to address the rather narrow objectives (use of solar array fields) of this one-year study.

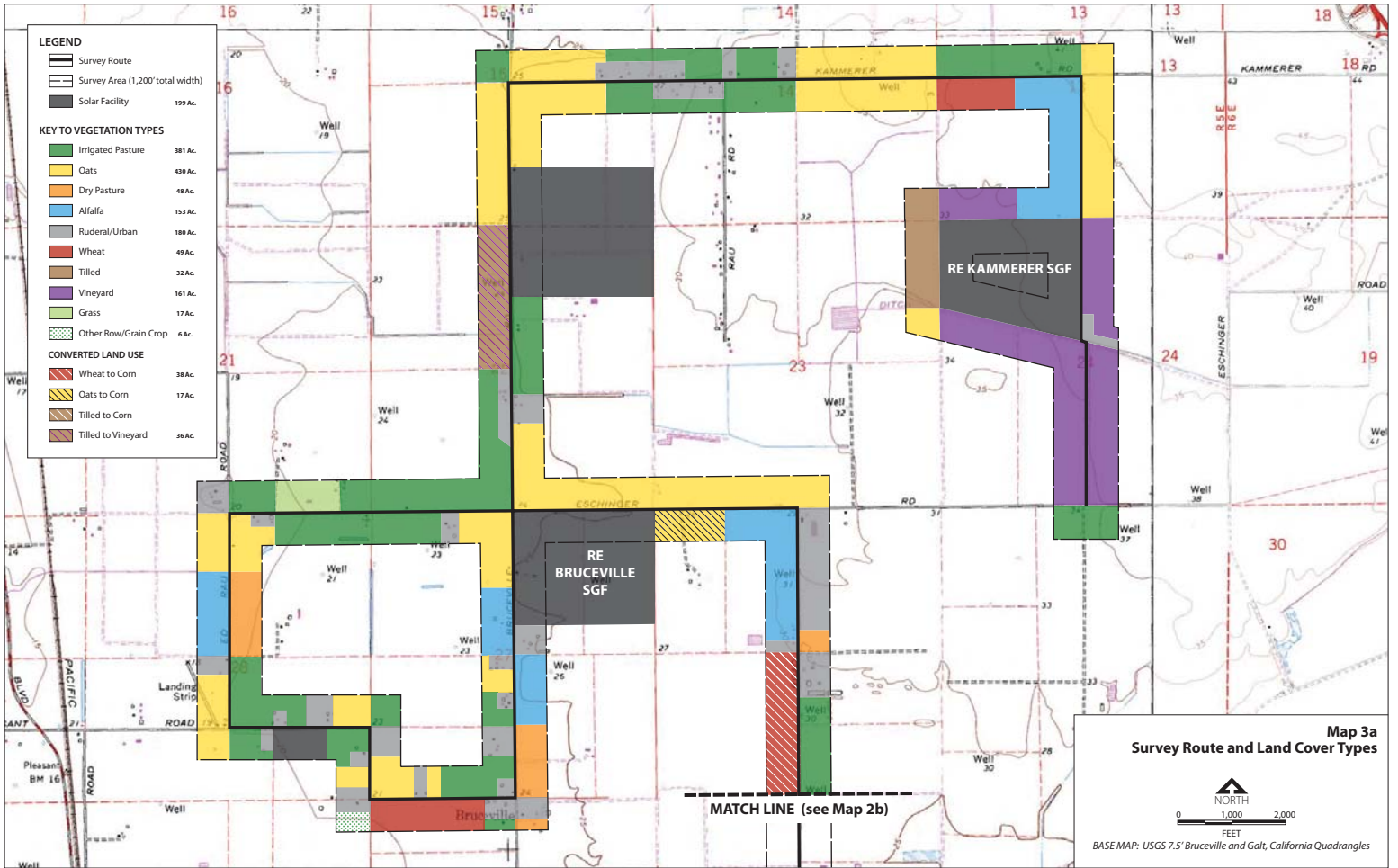
## **Stationary Observation Points**

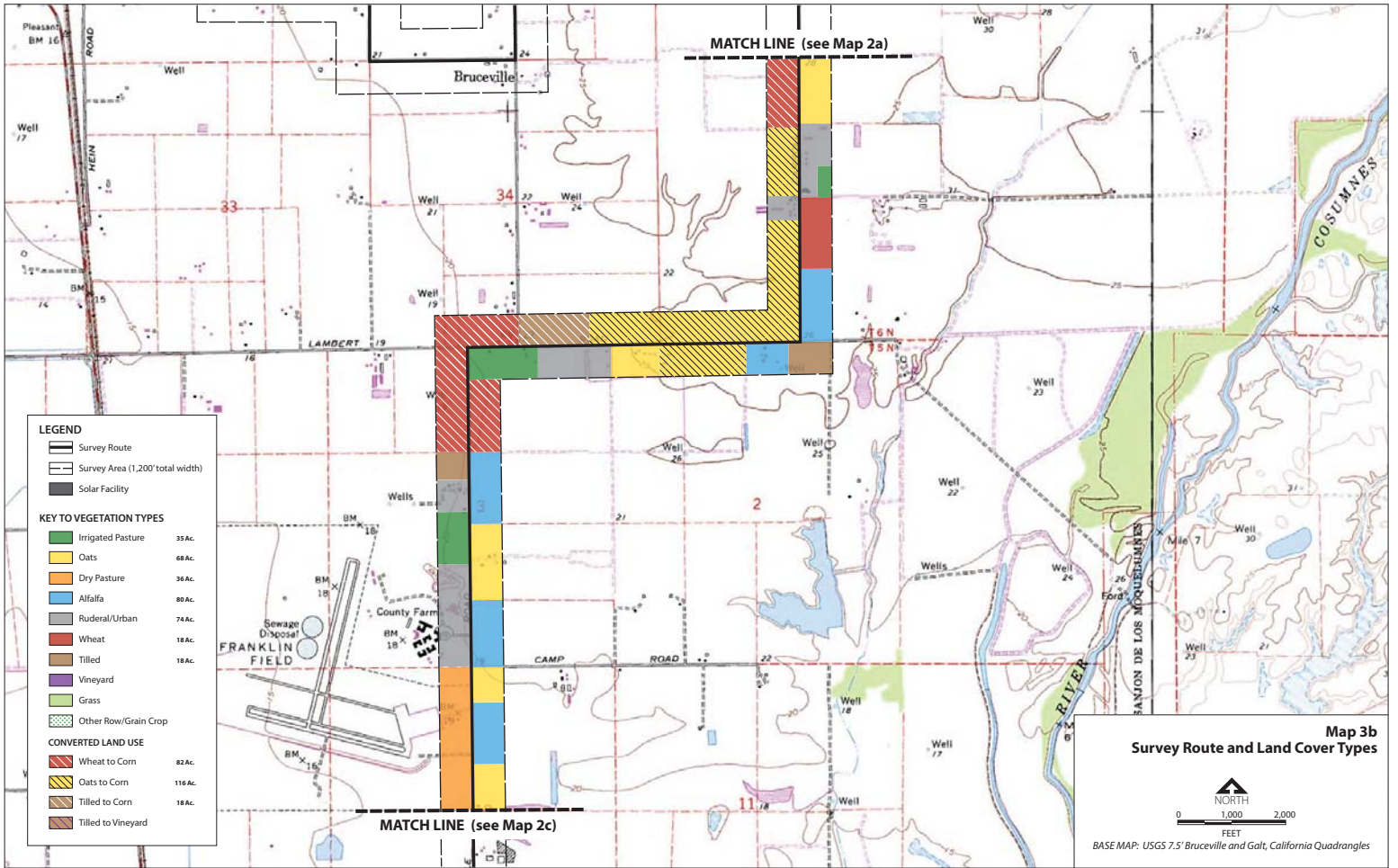
In addition to the road transect surveys, surveys were also conducted from stationary observation points around the perimeter of the three solar arrays. The purpose of these surveys was to document additional use of the solar fields by all raptor species and to increase the opportunity to record prey captures or prey capture attempts, which are generally less frequently observed during road transect surveys. Stationary observation point surveys were conducted at all three solar projects once per week in a rotational sequence between May 7 and August 28 for a total of 17 separate four-hour observation periods.

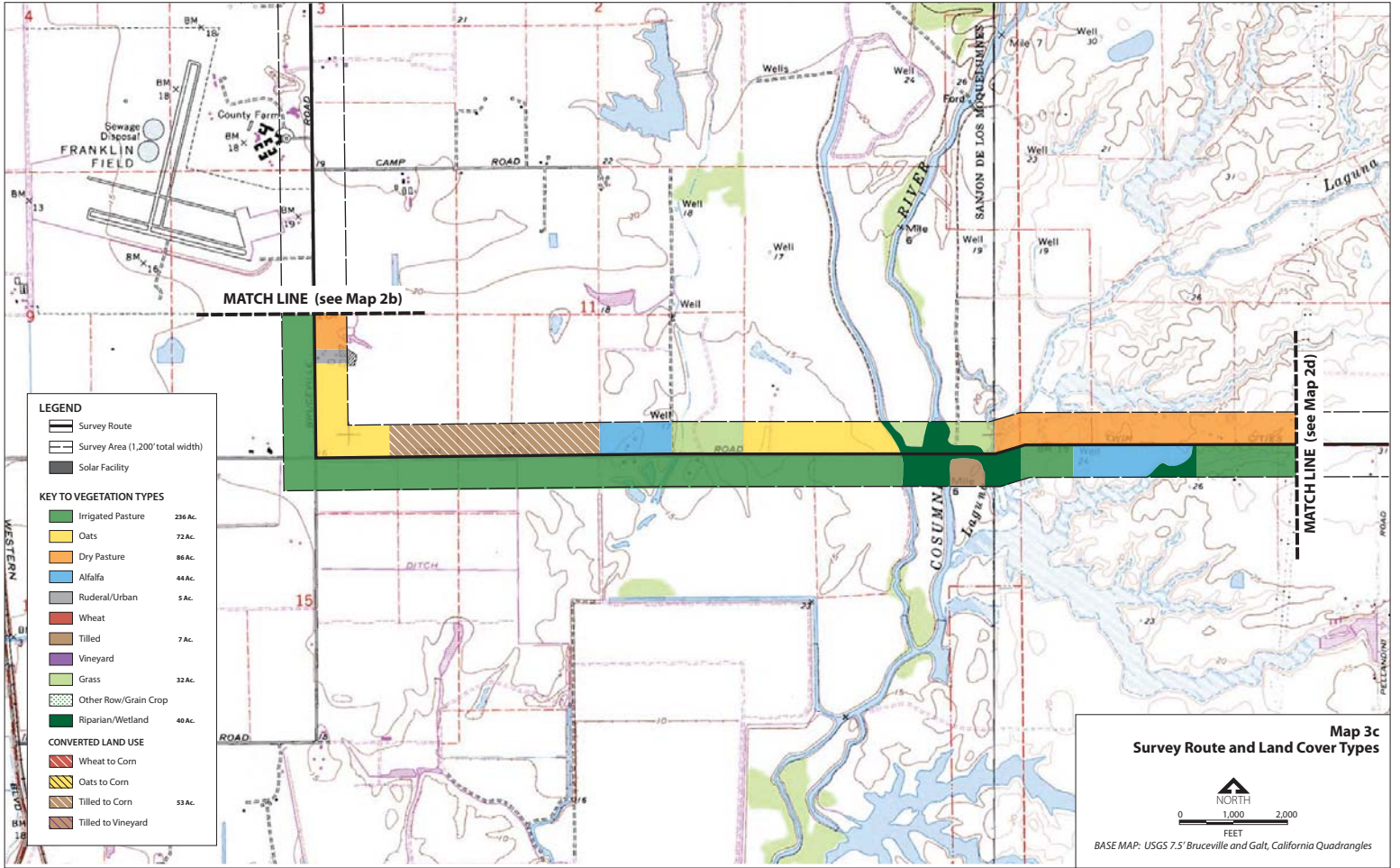
## **Results and Discussion**

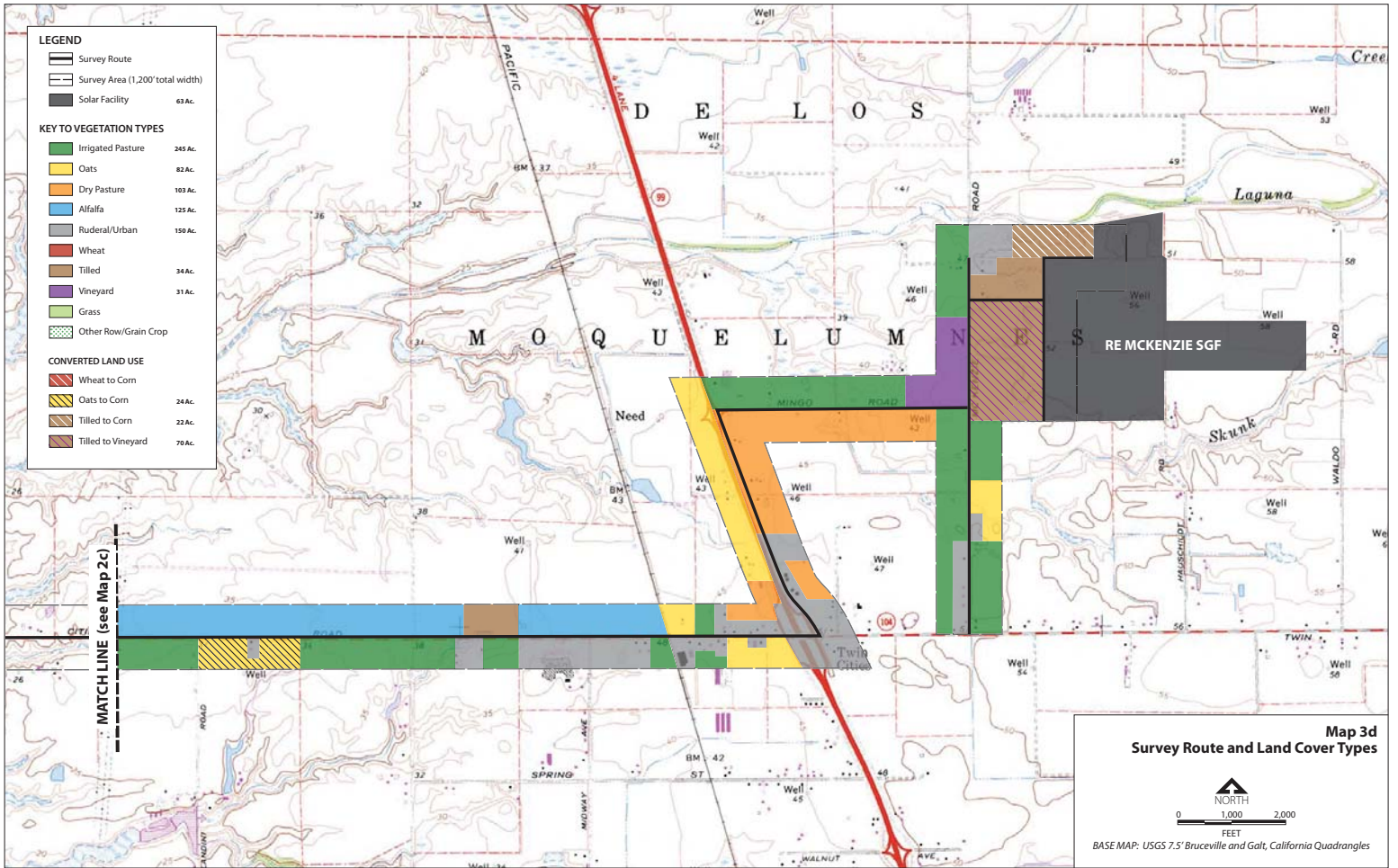
### **Habitats and Land Cover Types within the Survey Area**

Table 1 presents the types and corresponding acreages of land cover/habitat types within the survey area. Figures 3a,b, and c illustrate the distribution of these types along the survey route. The land use along the approximately 26-mile route and throughout much of the south Sacramento County area consists of a mixture of grazing lands in the form of both irrigated and non-irrigated pasturelands and cultivated lands. Of the 3,794 acres within the survey area, 80 percent are active agricultural types including irrigated and non-irrigated pasturelands (31 percent), seasonally or annually cultivated crops (32 percent), semi-perennial hays (10.6 percent), and perennial crops (6.5 percent). The remaining 20 percent of the land uses consist of urban/ruderal (10.8 percent),









uncultivated grassland (1.3 percent), riparian (1.1 percent), and solar array fields (6.9 percent).

**Table 1. Land cover/habitat types and corresponding acreages within the survey area.**

Land Use Type	Acres	Percent of Total
Irrigated Pasture	897	23.6
Oats	730	19.2
Ruderal/Urban	409	10.8
Alfalfa	402	10.6
Dry Pasture	273	7.2
Solar Array Field	262	6.9
Vineyard	245	6.5
Tilled	180	4.7
Corn	174	4.6
Wheat	127	3.3
Grass	49	1.3
Riparian	40	1.1
Other Row/Grain Crop	6	0.2
Total	3,794	100

**Irrigated and Non-irrigated Pasturelands.** Irrigated pasture is the most common land use type in the survey area comprising nearly one-quarter of the survey area. These pastures are planted with grasses (e.g., bromes, ryegrass), irrigated, and grazed by livestock. They may be periodically cultivated and replanted. Non-irrigated, or dry pastures are uncultivated natural grasslands that are grazed by livestock. Both types are used by Swainson’s hawks and other foraging raptors but are considered to have only moderate value due to low rodent prey populations compared to some cultivated lands (Estep 1989, 2009).

**Seasonally or Annually Cultivated Crops.** Within the survey area, these include oat hay, corn, and wheat crops, much of which is grown as silage to support local dairy operations. Tilled lands are cultivated lands that are between plantings and were included as a separate type because most of these areas were in a tilled condition for approximately one-half of the survey period before being planted to corn, which is often planted later in the season. These crops have variable suitability as foraging habitat depending on vegetation height and density, which influences prey accessibility (Bechard 1982, Estep 2009). Of the types found in the survey area, oat hay likely provides the highest value due to large rodent prey populations and relatively early harvest, which increases prey accessibility. After cutting, oat fields may continue to provide foraging value if the field is not disked and prepared for the following planting.

**Semi-Perennial Hays.** These are alfalfa hay fields that remain uncultivated for at least 3 consecutive years. During the spring and summer months, alfalfa fields are mowed approximately once per month and may be irrigated as frequently as once per week. This

is considered a high value foraging crop type for Swainson's hawk and other raptors because of the lack of seasonal or annual cultivation and because the regular mowing and irrigation operations increase prey accessibility (Estep 2009).

**Perennial Crops.** The only perennial crop type in the survey area is vineyards. While some use by Swainson's hawks has been documented (Swolgaard et al 2008), vineyards are generally considered to have very low foraging value because as they mature, the vegetation becomes tall and dense and largely precludes foraging access (Estep 1989).

**Urban/Ruderal.** Rural farm and ranch residences and associated out-buildings, dairy facilities, and other farming and ranching facilities occur along the survey route. Ruderal weedy or grassy patches also occur within or adjacent to some of the developed areas. While these areas provide relatively little foraging value, they may receive raptor activity in the form of perching, and where suitable trees or utility poles occur around their perimeter.

**Uncultivated Grassland and Riparian.** The survey route crosses the flood plain of the Cosumnes River where a small amount of riparian and associated uncultivated grassland were documented. The riparian forest in this area supports high value nesting habitat but would not typically be used for foraging by raptor species documented during the survey with the exception of the red-shouldered hawk. The small patches of grasslands may be used by foraging raptors, but usually do not support the prey abundance and accessibility compared with open, cultivated lands.

**Solar Array Fields.** A description of the three Recurrent solar fields is provided in the Introduction section. In addition to the Bruceville, Kammerer, and McKenzie solar projects, two other solar energy projects occur along the survey route and were incorporated into the survey area (Figure 3)

## **Strip Transect Road Surveys**

A total of 975 raptor occurrences were documented within the survey area. Three of the seven documented species, Swainson's hawk, red-tailed hawk, and American kestrel comprised 91 percent of the total occurrences. Swainson's hawk comprised nearly 40 percent of the total occurrences (Table 2).

Table 3 indicates the number of occurrences by species within each habitat or land cover type. Five of the 14 habitat/land cover types, oats, alfalfa, solar field, tilled, and irrigated pasture, comprised 73.2 percent of all occurrences. Over 14 percent of all documented occurrences and 13 percent of all Swainson's hawk occurrences were in solar fields. Thirty percent of all American kestrel occurrences were in solar fields.

**Table 2. Species occurrences documented within the survey area.**

Species	Number of Occurrences	Percent of Total
Swainson's hawk	375	38.5
Red-tailed hawk	304	31.2
American kestrel	207	21.2
Northern harrier	38	3.9
White-tailed kite	30	3.1
Red-shouldered hawk	17	1.7
Osprey	4	0.4
Total	975	100

**Table 3. Species occurrences documented within each habitat/land cover type.**

	SWHA	RTHA	AMKE	NOHA	WTKI	RSHA	OSPR	Total	% of Total
Oats	86	40	21	6	11	1	0	165	16.9
Alfalfa	73	40	33	9	1	0	0	156	16.0
Solar field	49	17	61	12	0	0	1	140	14.4
Tilled	48	53	37	0	0	2	1	130	13.3
Irr. pasture	50	57	8	1	1	5	1	123	12.6
Dry pasture	6	40	3	0	4	2	1	56	5.7
Rural/Urban	17	13	16	4	8	2	0	56	5.7
Field edge*	11	6	9	0	3	4	0	33	3.4
Vineyard	12	14	10	5	0	0	0	41	3.2
Corn	7	21	7	1	1	0	0	37	3.8
Wheat	5	2	2	0	0	1	0	10	1.0
Grass	6	1	0	0	1	0	0	8	0.8
Riparian	5	0	0	0	0	0	0	5	0.5
Misc. row crop	0	0	0	0	0	0	0	0	0
Total	375	304	207	38	30	17	4	975	100

SWHA = Swainson's hawk; RTHA = red-tailed hawk; AMKE = American kestrel; NOHA = northern harrier; WTKI = white-tailed kite; RSHA = red-shouldered hawk; OSPR = osprey.

\*Field or road edge was not a mapped habitat type, so these data are not included in the statistical analysis.

Tables 4, 5, and 6 show the behaviors associated with each occurrence in each habitat/land cover type for the Swainson's hawk, red-tailed hawk, and American kestrel, respectively. Swainson's hawks (Table 4) generally spend less time perching, particularly while foraging, than do red-tailed hawks and American kestrels, species that often hunt from perches. Typical hunting behavior of Swainson's hawk is a circling flight at an altitude less than 100 meters. The largest proportion of Swainson's hawk occurrences (48 percent) were of circling flights below 100 meters. In contrast, the largest proportion of Red-tailed hawk and American kestrel occurrences (75 percent and 64 percent, respectively) were of perching individuals (Tables 5 and 6).

**Table 4. Swainson's hawk behaviors – all occurrences**

	Behaviors									total
	P	S	C	F	CA	CS	CU	G	K	
Oats	13	11	43	2	1	1	2	10	3	86
Irrigated pasture	10	9	26	2				1	1	49
Solar field	8	9	29	2					1	49
Alfalfa	17	8	27		1	3	3	14		73
Tilled	10	1	21	1		4	1	9	1	48
Wheat	1	1	2	0				1		5
Vineyard	1		10	1						12
Corn	3		4							7
Field edge	7	1	4							12
Grass	3		2					1		6
Ruderal/Urban	6		8	1	1				1	17
Dry pasture	2		3	1						6
Riparian	3		2							5
Misc. row crops										0
<b>Total</b>	<b>84</b>	<b>40</b>	<b>181</b>	<b>10</b>	<b>3</b>	<b>8</b>	<b>6</b>	<b>36</b>	<b>7</b>	<b>375</b>

P = perching; S = soaring below 200 m; C = circling below 100 meters; F = Flying below 200 meters; CA = prey capture attempt; CS = prey capture successful; CU = prey capture unsuccessful; G = standing on the ground; K = kiting/hovering.

**Table 5. Red-tailed hawk behaviors – all occurrences**

	Behaviors									total
	P	S	C	F	CA	CS	CU	G	K	
Oats	31		6					3		40
Irrigated pasture	51		5							56
Solar field	3	3	10		1					17
Alfalfa	25	1	7	4	1			3		41
Tilled	40		9	1	1			2		53
Wheat	1		1							2
Vineyard	9	1	4							14
Corn	16		4				1			21
Field edge	4			1				1		6
Grass	1									1
Ruderal/Urban	11		2							13
Dry pasture	36		3				1			40
Riparian										0
Misc. row crops										0
<b>Total</b>	<b>228</b>	<b>5</b>	<b>51</b>	<b>6</b>	<b>3</b>		<b>2</b>	<b>9</b>		<b>304</b>

P = perching; S = soaring below 200 m; C = circling below 100 meters; F = Flying below 200 meters; CA = prey capture attempt; CS = prey capture successful; CU = prey capture unsuccessful; G = standing on the ground; K = kiting/hovering.

**Table 6. American kestrel behaviors – all occurrences**

	Behaviors									total
	P	S	C	F	CA	CS	CU	G	K	
Oats	11		2	1	1	2	1		2	20
Irrigated pasture	6						2			8
Solar field	36	1	13	6	3		1		2	62
Alfalfa	19		2	2	2	3	1	1	3	33
Tilled	26		1	2	1		1		5	36
Wheat	2									2
Vineyard	10									10
Corn	7			1						8
Field edge	5		3	1						9
Grass										0
Ruderal/Urban	9		2	2			1		2	16
Dry pasture	2			1						3
Riparian										0
Misc. row crops										0
<b>Total</b>	<b>133</b>	<b>1</b>	<b>23</b>	<b>16</b>	<b>7</b>	<b>5</b>	<b>7</b>	<b>1</b>	<b>14</b>	<b>207</b>

P = perching; S = soaring below 200 m; C = circling below 100 meters; F = Flying below 200 meters; CA = prey capture attempt; CS = prey capture successful; CU = prey capture unsuccessful; G = standing on the ground; K = kiting/hovering.

To examine the extent of foraging within solar fields and to evaluate the foraging use of solar fields and other habitats/land use types relative to their availability within the survey area, those behaviors that were considered foraging behaviors were isolated from the total occurrences and used in the statistical analysis. For the Swainson’s hawk this included the following behaviors:

- Circling below 100 meters
- Kiting/Hovering
- Standing on ground
- Prey capture (attempt, successful, unsuccessful)

For the red-tailed hawk and American kestrel, perching was also included as a foraging behavior. Note that with the exception of prey capture types and kiting/hoving, the remaining behaviors could be attributed to activities other than foraging. However, these are the primary foraging techniques of these species, and including them provides a reasonable estimation of foraging use for purposes of a comparative analysis.

### **Swainson’s Hawk**

Table 7 shows the relationship between foraging occurrences and habitat/land use type acreages for Swainson’s hawk. Seventy-four percent of the foraging occurrences were in oat, alfalfa, tilled, and solar fields. A total of 12.8 percent of the foraging occurrences were in solar fields, which included only seven percent of the available habitat within the survey area.

**Table 7. Swainson’s hawk foraging occurrences within each habitat/land use type.**

Land Use Type	Acres	Percent of Total	SWHA Foraging Observations	Percent of Total
Solar Array Field	262	7.0	30	12.8
Irrigated Pasture	897	23.9	28	11.9
Oats	730	19.5	60	25.5
Dry Pasture	273	7.3	3	1.3
Alfalfa	402	10.7	48	20.4
Ruderal/Urban	409	10.9	10	4.3
Corn	174	4.6	4	1.7
Wheat	127	3.4	3	1.3
Tilled	180	4.8	36	15.3
Vineyard	245	6.5	10	4.3
Grass	49	1.3	3	1.3
Other Crops	6	0.2	0	0
	3,754	100	235	100

The first chi-square test determines whether or not foraging use was in proportion to the availability of the habitats/land cover types in the survey area. As expected, the pattern of use indicated a high degree of habitat selectivity and thus the null hypothesis was rejected ( $\chi^2_{11,d.f.} = 24.72$   $P < 0.01$ ) (Table 8). In other words, Swainson’s hawks are selecting or avoiding specific crop or land cover types for foraging. Next, the contribution of the individual types are evaluated with regard to their significant contribution (positive or negative) to the chi-square determination (yellow highlighting). Those with an observed use that exceeds the expected use, have a significant positive contribution (orange highlighting) and those with an expected use that exceeds the observed use have a significant negative contribution (blue highlighting) ( $\chi^2_{1,d.f.} = 3.84$   $P < 0.05$ ). In other words, Table 8 indicates that Swainson’s hawks appear to be using solar array fields, oats, alfalfa, and tilled fields at a significantly greater frequency than would be expected relative to their availability in the survey area.

Some caution is needed when interpreting these results. While the results indicate that habitat/land cover types overall are not used in proportion to their availability and that certain types have a significant contribution to this result, it does not necessarily indicate that those that do not have a significant contribution or that have a significant negative association have less overall value. For example, irrigated pasture accounted for the fifth highest number of Swainson’s hawk foraging occurrences, but because irrigated pasture was particularly common within the survey area, the expected use exceeded the observed use. So while it does not appear to have been selected over other land cover types or used in proportion to its availability, 12 percent of all documented Swainson’s hawk foraging occurred in irrigated pastures, and therefore this type, regardless of its availability or use, clearly has foraging value to this species.

**Table 8. Chi-square values for Swainson’s hawk.**

Land Use Type	Available Habitat (%)	Observed Use of Habitat (Frequency)	Expected Use of Habitat (Frequency)	Chi-square Contribution
Solar Array Field	7.0	30	16.45	11.16
Irrigated Pasture	23.9	28	56.17	14.13
Oats	19.5	60	45.83	4.38
Dry Pasture	7.3	3	17.12	11.65
Alfalfa	10.7	48	25.15	20.76
Ruderal/Urban	10.9	10	25.62	9.52
Corn	4.6	4	10.81	4.29
Wheat	3.4	3	7.99	3.12
Tilled	4.8	36	11.28	54.17
Vineyard	6.5	10	15.28	1.82
Grass	1.3	3	3.06	0.001
Other Crops	0.2	0	0.47	0.47
	100	235	235	135.47*

\*135.47 represents the sample statistic in the chi-square analysis. To be considered significant, this value must exceed the Critical Value (24.72, P<0.01).

### Red-tailed Hawk

Table 9 shows the relationship between foraging occurrences and habitat/land use type acreages for red-tailed hawk. Five types made up 77.2 percent of the foraging occurrences, irrigated pasture, tilled fields, dry pasture, alfalfa, and oats. Only 14 (5 percent) of red-tailed hawk occurrences were in solar fields.

**Table 9. Red-tailed hawk foraging occurrences within each habitat/land use type.**

Land Use Type	Acres	Percent of Total	RTHA Foraging Observations	Percent of Total
Solar Array Field	262	7.0	14	5.0
Irrigated Pasture	897	23.9	56	20.0
Oats	731	19.5	37	13.2
Dry Pasture	273	7.3	40	14.3
Alfalfa	402	10.7	36	12.9
Ruderal/Urban	409	10.9	13	4.6
Corn	174	4.6	21	7.5
Wheat	127	3.4	2	0.7
Tilled	180	4.8	47	16.8
Vineyard	245	6.5	13	4.6
Grass	49	1.3	1	0.4
Other Crops	6	0.2	0	0
	3,755	100	280	100

As expected, the pattern of use for red-tailed hawk also indicated a high degree of habitat selectivity and thus the null hypothesis was rejected ( $\chi^2_{11,d.f.}=24.72$   $P<0.01$ ) (Table 10). The contribution of the individual types indicated that dry pasture, corn fields, and tilled fields were used significantly more than their relative availability and oats, ruderal/urban, and wheat were used significantly less than their relative availability ( $\chi^2_{1,d.f.}=3.84$   $P<0.05$ ).

As noted above, lack of a significant contribution or a significant negative contribution does not necessarily indicate lack of value. For example, over 13 percent of red-tailed hawk foraging occurrences were in oat fields, but because oat fields were particularly common within the survey area, the expected use exceeded the observed use. But despite the significant negative contribution to the sample statistic (Table 10) oat fields clearly have foraging value to this species. Similarly for alfalfa, while the extent of foraging occurrences did not significantly contribute to rejecting the null hypothesis, 13 percent of the foraging occurrences were in alfalfa, suggesting that regardless of its use relative to its availability, alfalfa fields also have foraging value to this species.

**Table 10. Chi-square values for red-tailed hawk.**

Land Use Type	Available Habitat (%)	Observed Use of Habitat (Frequency)	Expected Use of Habitat (Frequency)	Chi-square Contribution
Solar Array Field	7.0	14	19.6	1.6
Irrigated Pasture	23.9	56	66.9	1.9
Oats	19.5	37	54.6	5.7
Dry Pasture	7.3	40	20.4	18.8
Alfalfa	10.7	36	30.0	1.2
Ruderal/Urban	10.9	13	30.5	10.0
Corn	4.6	21	9.6	13.5
Wheat	3.4	2	9.5	5.9
Tilled	4.8	47	13.4	84.3
Vineyard	6.5	13	18.7	1.7
Grass	1.3	1	3.6	1.9
Other Crops	0.2	0	0.5	0.5
	100	280	280	147

\*147 represents the sample statistic in the chi-square analysis. To be considered significant, this value must exceed the Critical Value (24.72,  $P<0.01$ ).

## American Kestrel

Table 11 shows the relationship between foraging occurrences and habitat/land use type acreages for American kestrel. Three types made up 62.2 percent of the foraging occurrences, solar array fields, alfalfa, and tilled fields. Nearly 17 percent of all foraging occurrences were in solar fields.

**Table 11. American kestrel foraging occurrences within each habitat/land use type.**

Land Use Type	Acres	Percent of Total	AMKE Foraging Observations	Percent of Total
Solar Array Field	262	7.0	55	30.7
Irrigated Pasture	897	23.9	8	4.5
Oats	731	19.5	19	10.6
Dry Pasture	273	7.3	2	1.1
Alfalfa	402	10.7	31	17.3
Ruderal/Urban	409	10.9	16	8.9
Corn	174	4.6	7	3.9
Wheat	127	3.4	2	1.1
Tilled	180	4.8	29	16.2
Vineyard	245	6.5	10	5.6
Grass	49	1.3	0	0
Other Crops	6	0.2	0	0
	3,755	100	179	100

The pattern of use for American kestrel also indicated a high degree of habitat selectivity and thus the null hypothesis was rejected ( $\chi^2_{11,d.f.} = 24.72$   $P < 0.01$ ) (Table 12). The contribution of the individual types indicated that solar fields, alfalfa, and tilled fields were used significantly more than their relative availability, and irrigated pasture, oats, and dry pasture were used significantly less than their relative availability ( $\chi^2_{1,d.f.} = 3.84$   $P < 0.05$ ).

Foraging use of solar fields by American kestrels was particularly high due mainly to the high proportion of perching occurrences (58 percent) (Table 6). The solar panels and the perimeter fence provided excellent perching habitat for kestrels.

**Table 12. Chi-square values for American kestrel.**

Land Use Type	Available Habitat (%)	Observed Use of Habitat (Frequency)	Expected Use of Habitat (Frequency)	Chi-square Contribution
Solar Array Field	7.0	55	12.5	144.5
Irrigated Pasture	23.9	8	42.8	28.3
Oats	19.5	19	34.9	7.2
Dry Pasture	7.3	2	13.1	9.4
Alfalfa	10.7	31	19.2	7.3
Ruderal/Urban	10.9	16	19.5	0.6
Corn	4.6	7	8.2	0.2
Wheat	3.4	2	6.1	2.8
Tilled	4.8	29	8.6	48.4
Vineyard	6.5	10	11.6	0.2
Grass	1.3	0	2.3	2.3
Other Crops	0.2	0	0.4	0.4
	100	179	179	251.6

\*251.6 represents the sample statistic in the chi-square analysis. To be considered significant, this value must exceed the Critical Value (24.72, P<0.01).

## Stationary Observation Points

Using the same definition for foraging behavior as was used during the driving transect surveys, Table 13 indicates that the majority of occurrences in solar fields during the stationary observation surveys were of foraging birds (74 percent). A total of 148 foraging occurrences were documented during the 68 hours of observation. Sixty-nine of these (47 percent) were of Swainson’s hawks, 64 percent of which were foraging observations.

Table 14 shows the different behaviors of each species within the solar fields. Nearly 10 percent of the total foraging occurrences and over 7 percent of the Swainson’s hawk foraging occurrences were prey captures or prey capture attempts.

**Table 13. Total number of occurrences and the proportion of foraging occurrences in solar fields for all species observed.**

Species	Total occurrences	Foraging occurrences	Percent Foraging occurrences
Swainson’s hawk	108	69	63.9
Red-tailed hawk	23	23	100
American kestrel	58	48	82.8
Northern harrier	10	8	80
Total	199	148	74.4

**Table 14. Behaviors in solar fields (all species). Foraging behaviors are highlighted.**

	Behaviors								
	P	S	C	K	F	G	CA	CS	CU
SWHA		38	62	2	1		3	1	1
RTHA	2		19		1		1		
AMKE	32		5	2	10	2	2	2	3
NOHA	2				7		1		
<b>Total</b>	<b>36</b>	<b>38</b>	<b>86</b>	<b>4</b>	<b>19</b>	<b>2</b>	<b>7</b>	<b>3</b>	<b>4</b>

P = perching; S = soaring below 200 m; C = circling below 100 meters; F = Flying below 200 meters; CA = prey capture attempt; CS = prey capture successful; CU = prey capture unsuccessful; G = standing on the ground; K = kiting/hovering. SWHA = Swainson’s hawk; RTHA = red-tailed hawk; AMKE = American kestrel; NOHA = northern harrier.

## Conclusions

**1. Swainson’s hawks use and forage within managed solar array fields.** The results of the driving transect surveys and the stationary observation point surveys indicate foraging use of the solar array fields by Swainson’s hawks and other raptors. While it is difficult to observe the precise locations of prey capture attempts in solar array fields due to their height, the rows of solar trackers may not preclude foraging in the open grasslands between them. However, foraging hawks may also be focused primarily on the wider spaces between the sub-areas within the projects and around the perimeter of the projects. Of key importance is the management of a grassland substrate to promote rodent populations and maintaining this substrate at a height that promotes visibility and access to prey. Unlike most crop types, this condition is available in solar fields throughout the spring and summer breeding season, and thus provides a consistent and available source of prey. Many crop types, while important in the overall agricultural matrix, may be available for a relatively short period of time during the breeding season due to the planting, growth, and harvesting regime.

**2. Swainson’s hawk foraging use of solar array fields exceeds what would be expected based on their availability.** This suggests that not only were the solar array fields being used by foraging Swainson’s hawks, but that they were being selectively used at greater frequency than some of the other habitats/land cover types in the survey area.

**3. Within the diverse agricultural landscape of the study area, the presence of the managed solar array fields (i.e., managed grassland substrate) did not appear to negatively affect the Swainson’s hawk and other raptors.** The solar array fields were used for foraging similarly to other moderate to high value agricultural cover types and their presence did not appear to affect the overall use of the landscape by Swainson’s hawks or other raptors. As one element of an otherwise diverse agricultural matrix, the solar array fields provided a consistent and an apparently reasonably accessible source of prey, particularly for Swainson’s hawks and American kestrels. However, this outcome should be viewed with some caution in that while this study indicated a positive

relationship, only 7 percent of the survey area was solar array field. How raptors might respond if this proportion was greater is unknown. Despite the generally positive relationship found in this study, there is likely a threshold that would begin to indicate a more negative outcome as the increase of solar array fields, like that of any single land cover type, affects the diversity of the agricultural landscape.

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# ATTACHMENT F

**From:** [Chad Roberts](#)  
**To:** [Stephanie Cormier](#)  
**Cc:** [Taro Echiburu](#); [Jim Provenza](#); [Don Saylor](#); [Bob Schneider](#); [Alan Pryor](#); [John Hopkins](#); [Steve Greco](#); "Charlie Tschudin"; [Lucas Frerichs](#); [Eric May](#)  
**Subject:** RE: Proposed Zoning Code Amendments/Public Review  
**Date:** Monday, August 8, 2022 2:01:24 PM

---

Hello Stephanie,

Generally these proposed changes are good ideas. However, I have a specific concern about uses that could be approved for POS and P-R designated open-space and parklands, based on the County's prior experiences at Grasslands Park, when a relatively large solar array was approved for installation without an adequate review of the project's environmental consequences. I understand that solar facilities are not proposed to be allowed in the POS and P-R zones other than to support existing caretaker facilities and other existing structures, which is a good approach. I also understand that new telecommunications facilities would not be authorized in POS and P-R zones, and only expansions of existing telecommunications facilities in these zone would be approvable.

What I don't see is a requirement that potential effects on natural environmental values in these public open space and recreational lands would be fully evaluated as part of the County's review process, including a functional equivalent of the biological and other resources assessment elements in the County's CEQA review process. The proposed ordinance changes require consideration of sensitive species covered by the HCP/NCCP, but I do not see any consideration of factors identified in the County-approved Resource Conservation Investment Strategy/Local Conservation Plan (RCIS/LCP), including effects on landscape connectivity, riparian resources, and other broad-scale conservation objectives in the RCIS/LCP, which were intentionally omitted by the Yolo Habitat Conservancy when the HCP/NCCP was prepared. These elements are directly addressed by elements in the County's adopted General Plan, and their consideration would seem to be mandatory for any County approval, but I'm concerned that the proposed ordinance revisions will not trigger their consideration.

Large-scale solar arrays, which I think I read the proposal to mean anything with a ground footprint larger than a hectare (2.5 acres), are frequently not compatible with a variety of conservation concerns that are sensitive to changes in larger landscape settings than individual parcels. Some consideration of the environmental consequences involved in approving these uses may be associated with significant impacts on one or more conservation values identified in the RCIS/LCP. I suggesting using the elements in the RCIS/LCP as a screen to identify unanticipated conservation impacts before authorizing uses proposed pursuant to the revised ordinances.

Best,

Chad

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Chad Roberts, Ph.D., Conservation Ecologist  
Professional Wetland Scientist (*emeritus*), Society of Wetland Scientists  
Senior Ecologist (*emeritus*), Ecological Society of America

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"There is no equilibrial 'new normal' for the foreseeable future, but rather accelerating rates of change in multiple drivers are causing ecological changes to be hastened overall and punctuated by episodes of abrupt change."

Turner et al (2020). *Phil Trans R Soc B* 375: 20190105

---

**From:** Stephanie Cormier <Stephanie.Cormier@yolocounty.org>

**Sent:** Monday, August 8, 2022 11:54 AM

**To:** Humberto Izquierdo <Humberto.Izquierdo@yolocounty.org>; David Guerrero <David.Guerrero@yolocounty.org>; George Galang <George.Galang@yolocounty.org>; Scott Doolittle <Scott.Doolittle@yolocounty.org>; Nicholas Burton <Nicholas.Burton@yolocounty.org>; Eric May <Eric.May@yolocounty.org>; OES <OES@yolocounty.org>; Juan Ceja <Juan.Ceja@yolocounty.org>; Charlie Tschudin <charlie@yolohabitatconservancy.org>; CapayValley <capayvalley@yahoo.com>; Craig Hamblin <chfire@msn.com>; psandholdt@cityofdavis.org; Station@DunniganFire.com; dgarrison@dunniganfire.com; Rich Yeung <turrwet@aol.com>; Curtis <curtis@espartofire.org>; klfpd2021@gmail.com; ycstation17@att.net; GFredericksen@yochadehe-nsn.gov; wpl30@wpfd.net; sbravo@wpfd.net; willowoakfire@afes.com; alt@cityofwestsacramento.org; Wifd.records@wintersfire.org; Matthew.Schechla@wintersfire.org; risk-reduction@cityofwoodland.org; dntafoya@yahoo.com; Yoloofd800@yahoo.com; richardc@wcnx.org; jvnolan@yololaw.com; gm@ecsd-ca.org; chavarriagirl@sbcglobal.net; lrefmcsdist@yahoo.com; YoloCSA <YoloCSA@yolocounty.org>; jreed@ycfcwcd.org; Kristin Sicke <ksicke@ycfcwcd.org>; ocarrillo@yochadehe-nsn.gov; Gayle Totton <GTotton@yochadehe-nsn.gov>; Paul Hensleigh <PHensleigh@ysaqmd.org>

**Subject:** Proposed Zoning Code Amendments/Public Review

Hello,

The Yolo County Department of Community Services' Planning Division is proposing changes to the County's Zoning Regulations related to wireless telecommunication facilities, solar energy systems, and energy storage systems and invites public review and comment. Please refer to the attached Memorandum and Zoning Ordinance documents.

We are hoping to review the proposed amendments at the September 8, 2022, Planning Commission meeting so early comments are welcome! However, comments can also be submitted at the Planning Commission meeting and up until final action is taken by the Board of Supervisors.

The Memo and Zoning Ordinance documents can also be accessed at the following webpage:

[Current Projects | Yolo County](#).

Thank you for your participation in the public process!

Sincerely,  
Stephanie

*Stephanie Cormier*  
Principal Planner  
Yolo County Department of Community Services  
292 W. Beamer Street  
Woodland, CA 95695  
(530) 666-8041  
[www.yolocounty.org](http://www.yolocounty.org)

[THIS EMAIL ORIGINATED FROM OUTSIDE YOLO COUNTY. PLEASE USE CAUTION AND VALIDATE THE AUTHENTICITY OF THE EMAIL PRIOR TO CLICKING ANY LINKS OR PROVIDING ANY INFORMATION. IF YOU ARE UNSURE, PLEASE CONTACT THE HELPDESK (x5000) FOR ASSISTANCE]

**DELTA PROTECTION COMMISSION**

2101 Stone Blvd., Suite 240  
West Sacramento, CA 95691  
(916) 375-4800  
[www.delta.ca.gov](http://www.delta.ca.gov)



August 30, 2022

Stephanie Cormier  
Yolo County Department of Community Services  
292 West Beamer Street  
Woodland, CA 95695

Re: Proposed Amendments to Zoning Regulations, Article 11: Energy and  
Telecommunications Development Standards

Dear Ms. Cormier:

Thank you for providing the Delta Protection Commission (Commission) the opportunity to review the proposed amendments to the Yolo County (County) Zoning Regulations (Project). The Project entails amending Article 11: Energy and Telecommunications Development Standards, particularly Sections 8-2.1102 (Wireless Telecommunication Facilities), 8-2.1104 (Small and Medium Solar Energy Systems), and 8-2.1105 (Large and Very Large Solar Energy Systems). County staff are proposing to combine the Solar Energy Systems ordinances into one Section (8-2.1104) and add a new Section 8-2.1105 for Energy Storage Systems.

The Commission is a state agency charged with ensuring orderly, balanced conservation and development of Delta land resources and improved flood protection. Proposed local government-approved projects within the primary zone of the Legal Delta must be consistent with the Commission's Land Use and Resource Management Plan (LURMP) (California Public Resources Code Sections 29700-29780). The proposed amendments to the zoning regulations affect agricultural lands within the Commission's jurisdiction over "development" in the primary zone, as well as lands in the secondary zone that may impact primary zone resources. Our comments are directed towards these agricultural lands and not lands in the unincorporated area outside the Legal Delta.

The Commission encourages County staff to review the Project for consistency with LURMP policies, particularly the following:

Land Use Policy 2. Local government general plans, as defined in Government Code Section 65300 et seq., and zoning codes shall continue to promote and facilitate agriculture and agriculturally supporting commercial and industrial uses as the primary land uses in the Primary Zone; recreation and natural resources land uses shall be supported in appropriate locations and where conflicts with agricultural land uses or other beneficial uses can be minimized.

**Don Nottoli, Chair**  
Sacramento County Board of  
Supervisors

**Chuck Winn, Vice Chair**  
San Joaquin County Board of  
Supervisors

**Oscar Villegas**  
Yolo County Board of  
Supervisors

**Diane Burgis**  
Contra Costa County Board of  
Supervisors

**John Vasquez**  
Solano County Board of  
Supervisors

**Ron Kott**  
Cities of Contra Costa and  
Solano Counties

**Paul Steele**  
Cities of Sacramento and  
Yolo Counties

**Alan Nakanishi**  
Cities of San Joaquin County

**Jim Paroli**  
Central Delta Reclamation  
Districts

**Tom Slater**  
North Delta Reclamation  
Districts

**Nick Mussi**  
South Delta Reclamation  
Districts

**Toks Omishakin**  
CA State Transportation  
Agency

**Karen Ross**  
CA Department of Food and  
Agriculture

**Wade Crowfoot**  
CA Natural Resources Agency

**Brian Bugsch**  
CA State Lands Commission

Ex Officio Members

**Honorable Susan Eggman**  
California State Senate

**Honorable Carlos Villapudua**  
California State Assembly

Land Use Policy 3. New non-agriculturally oriented residential, recreational, commercial, habitat, restoration, or industrial development shall ensure that appropriate buffer areas are provided by those proposing new development to prevent conflicts between any proposed use and existing adjacent agricultural parcels.

Agriculture Policy 2. Conversion of land to non-agriculturally-oriented uses should occur first where productivity and agricultural values are lowest.

We are concerned about the effect the Project may have on agricultural land in the primary zone. Telecommunication facilities, solar energy systems (SES), and energy storage facilities should be permitted in a manner that avoids or minimizes conversion of agricultural land. Where conversion of agricultural land is unavoidable, loss of agricultural land should be mitigated to the fullest extent feasible. Our specific comments on the proposed zoning amendments are provided below.

Comments on Section 8-2.1102 (Wireless Telecommunication Facilities)

The Commission supports projects that provide permanent, affordable high speed wireless access within the rural areas of the Delta. Wireless communication facilities can offer multiple benefits for residents, agricultural operations, visitors, and emergency personnel when both upload and download speeds consistently meet or exceed minimum state and federal standards. The Clarksburg Community Action Plan (November 2016) identifies improved internet access as a community goal: “Action 2a. Promote internet access through new or enhance broadband and Wi-Fi locations.” The Connecting the Delta: Broadband Action Plan (August 2019) states that legacy communities in the Delta, including Clarksburg, subscribe to the internet at a far lower rate than is seen throughout the state due to challenges with access, quality, reliability, and cost.

As wireless communication facilities are installed in the Delta, we want to ensure that the Delta’s cultural landscape values are not negatively impacted. When permitting wireless telecommunication facilities, we encourage the County to consider how the facilities may impact the visual character of the surrounding landscape and work with the project applicants to minimize the aesthetics impacts to the extent feasible. We are supportive of development standards that are protective of the unique, rural landscape in the primary zone.

The Project proposes to increase the maximum height of small wireless communication facilities from 80 feet to 120 feet. While this can increase potential viewshed impacts, we are generally not opposed to this change, because we recognize the difficulty in achieving line-of-sight with shorter facilities due to tree coverage in the Clarksburg area. For any sized facility, the County should ensure that the facility is properly marked to provide clear visibility to crop dusters and other low-flying aircrafts.

### Comments on Section 8-2.1104 (Solar Energy Systems)

The Commission is supportive of the proposed zoning regulation amendments to differentiate between accessory and utility SES. We recognize that SES, particularly accessory systems, can have many uses in agricultural operations.

We are also supportive of the proposed new development standard to encourage SES to “locate on predominantly non-prime farmland and non-Williamson Act contract land, as feasible.” However, we believe this standard is not adequate to ensure protection and are concerned about the potential for SES projects to result in agricultural land conversion in the primary zone. Pursuant to LURMP Agriculture Policy 2, small- and medium-scale ground mounted SES in the primary zone should be sited in locations where productivity and agricultural values are lowest. Large-scale SES that would permanently convert agricultural land in the primary zone are not consistent with the LURMP and are not an acceptable land use in the primary zone. In addition, the amendments should require utility SES adjacent to agricultural parcels to include buffers to ensure that the systems do not negatively impact agricultural operations.

Where SES would cause a permanent loss of farmland, mitigation should be required. As proposed, the zoning amendments would require utility SES to mitigate for permanent loss of agricultural land in accordance with County Code Section 8-2.404 (the Agricultural Conservation and Mitigation Program). Medium-sized SES located on prime farmland or land with a William Act contract would also be subject to the County’s mitigation requirements. However, medium-sized SES approved by Site Plan Review and located on non-prime farmland or land without a Williamson Act contract would be exempt from these requirements.

The mitigation requirements for medium-sized SES should be expanded to require mitigation for unique farmland and farmland of statewide importance. Currently, the mitigation requirement for medium-sized SES is only protective of prime farmland or land with Williamson Act contracts.

### Comments on Section 8-2.1105 (Energy Storage Facilities)

At the Clarksburg Citizens Advisory Committee meeting held on August 18, County staff and Committee members recommended revising the permitting requirements for energy storage facilities. The Project currently proposes permitting energy storage facilities based on the acreage the facility would occupy. Energy storage facilities up to 2.5 acres would be allowed in most zones with a Site Plan Review. County staff and Committee members recommended revising this requirement to issue permits based on the capacity of the facility instead.

The Commission supports this revision. Residential energy storage facilities are a reasonable allowed use for agricultural zoned land in the primary zone. Commercial energy storage facilities should require a Major Use Permit that should be issued based on the capacity of the facility and whether it is located on prime farmland, unique farmland, or farmland of statewide importance.

Page 4 of 4

Thank you for the opportunity to provide input. Please contact Kirsten Pringle, Senior Environmental Planner, at (530) 650-6327 for any questions regarding the comments provided.

Sincerely,

A handwritten signature in black ink that reads "Bruce Blodgett". The signature is written in a cursive, slightly slanted style.

Bruce Blodgett  
Executive Director

cc: Oscar Villegas, Yolo County Supervisor and Commission member

# **ARTICLE 11 ZONING CODE AMENDMENT**

Energy and Telecommunications  
Development Standards

## **AMENDMENTS PROPOSED TO:**

- **Streamline solar energy system requirements for onsite systems serving agricultural uses**
- **Identify standards for utility solar energy systems**
- **Comply with 'eligible facilities requests' for permitted telecommunication facilities**
- **Set standards for energy storage systems**

## **SECTION 8-2.1104: SOLAR ENERGY SYSTEMS AMENDMENT**

**CONSOLIDATES SOLAR  
ENERGY SYSTEMS (SES)  
ORDINANCES**

**DIFFERENTIATES BETWEEN  
'ACCESSORY' AND 'UTILITY'  
SOLAR ENERGY SYSTEMS**

- Introduces four new or updated solar use types:
  - **Small accessory use ground-mounted and roof-mounted SES** (up to 10kW) – *replaces small residential roof-mounted SES; expands opportunities for expedited reviews under Solar Rights Act*
  - **Accessory SES** (>10kW up to 7.5 acres) – *replaces small SES; projects over 2.5 acres require vegetative substrate and buffers from riparian corridors to offset habitat loss*
  - **Medium-sized SES** (>7.5 acres up to 30 acres) – *redefines medium-sized SES; can be onsite ('accessory') and/or offsite ('utility') serving*
  - **Large-scale SES** (> 30 acres) – *replaces large and very large SES with one use type; prohibited in riparian corridors and encouraged to integrate with agricultural landscape*

## **USE PERMIT REQUIRED**

- Medium-sized SES require a Minor Use Permit if located on prime farmland or Williamson Act land.
- SES over 2.5 acres that remove Swainson's hawk foraging habitat require a Use Permit.
- Large-scale SES (over 30 acres) require a Major Use Permit. SES less than 120 acres would require PC approval; SES greater than 120 acres still require BOS approval.

# **SOLAR ENERGY SYSTEMS MITIGATION REQUIREMENTS**



- Utility SES are subject to requirements under the County's Agricultural Conservation and Mitigation Program.
- Utility SES standards encourage habitat friendly solar uses
- SES that remove Swainson's hawk foraging habitat must mitigate for the loss in accordance with CDFW.

**Table 8-2.1104  
Allowed Solar Uses and Permit Requirements**

A = Allowed use, subject to zoning clearance SP = Site Plan Review UP (m) = Minor Use Permit UP (M) = Major Use Permit N = Use Not Allowed	Land Use Permit Required by Zone							Specific Use Requirements or Performance Standards
	A-N, A-X, A-I	A-C, A-R	RR-5, RR-2, R-L, R-M, R-H	C-L, DMX, C-G, C-H	I-L, I-H, OPRD	PQP	POS, P-R	

Solar Energy System								
Small accessory use roof-mounted solar energy system (up to 10kW)	A	A	A	A	A	A	A	Sec. 8-2.1104(f)
Small accessory use ground-mounted solar energy system (up to 10kW)	A	A	A	A	A	A	SP	
Accessory solar energy system (>10kW, < 2.5 ac)	A	A	A	A	A	A	A/SP <sup>(a)</sup>	Sec. 8-2.1104(g)
Accessory solar energy system (2.5 to 7.5 ac)	SP	SP	SP	SP	SP	SP	SP/UP(m)	
Medium-sized solar energy system (7.5 to 30 ac)	SP/UP(m)	N	N	SP/UP(m)	SP/UP(m)	SP/UP(m)	N	Sec. 8-2.1104(h)(i)
Large-scale solar energy system (> 30 ac)	UP(M)	N	N	N	UP(M)	UP(M)	N	

(a) Site Plan Review required for ground-mounted systems

**SECTION 8-2.1102:  
WIRELESS  
TELECOMMUNICATION  
SYSTEMS  
AMENDMENTS**

- Minor change to existing height requirement for small towers – up to 80 feet vs less than 80 feet
- Parcel size requirements remain the same
- Includes provisions for FCC eligible facilities requests for non-substantial improvements to existing permitted towers and base stations

**Table 8-2.1102**

**Allowed Wireless Telecommunications Facility Uses and Permit Requirements**

A = Allowed use, subject to zoning clearance SP = Site Plan Review UP (m) = Minor Use Permit UP (M) = Major Use Permit N = Use Not Allowed	Land Use Permit Required by Zone					Specific Use Requirements or Performance Standards
	A-N, A-X, A-I A-C, A-R	RR-5, RR-2, R-L, R-M, R-H	C-L, C-G, DMX, C-H	I-L, I-H, OPRD	PQP POS, P-R	

Wireless Telecommunication Facility						
Small telecommunication facility (up to 80 ft on min parcel sizes) <sup>(a)</sup>	SP	UP(m)	UP(m)	UP(m)	UP(m)	20-ac minimum in agricultural zones 2-ac minimum in all other zones See Sec. 8-2.1102(e)
Small telecommunication facility (up to 80 ft if min parcel size cannot be met) <sup>(b)</sup>	UP(m)	UP(M)	UP(M)	UP(M)	UP(M)	See Sec. 8-2.1102(e)
Large telecommunication facility (>80 ft on 40 ac or more)	UP(m)	N	N	UP(m)	UP(m)	See Sec. 8-2.1102(e)
Large telecommunication facility (>80 ft <40ac)	UP(M)	N	N	UP(M)	UP(M)	
Attached telecommunication facility (up to 80 ft)	A	UP(m)	SP	A	SP	
Eligible facilities request	A	A	A	A	A	See definition in Sec. 8-2.1102(b) and Sec. 8-2.1102(f)

(a) Must meet parcel size requirements: 20 acres or more in agricultural zones, 2 acres or more in all other zones

(b) Minor Use Permit required in the agricultural zones on parcels less than 20 acres, Major Use Permit required in all other zones on parcels less than 2 acres

## **SECTION 8-2.1105: ENERGY STORAGE FACILITIES**



- Facilities greater than 2 MW would require a Use Permit
- Standards included for structures, setbacks, lighting, noise, height, and screening.

**Table 8-2.1105  
Allowed Energy Storage System Uses and Permit Requirements**

<b>A = Allowed use, subject to zoning clearance*</b> <b>SP = Site Plan Review</b> <b>UP (m) = Minor Use Permit</b> <b>UP (M) = Major Use Permit</b> <b>N = Use Not Allowed</b>	Land Use Permit Required by Zone							Specific Use Requirements or Performance Standards
	A-N, A-X, A-I	A-C, A-R	RR-5, RR-2, R-L, R-M, R-H	C-L, DMX, C-G, C-H	I-L, I-H, OPRD	PQP	POS, P-R	

Energy Storage System								
Small energy storage (≤600Kw)	A	A	A	A	A	A	A	
Energy storage (up to 2MW)	SP	SP	N	SP	SP	SP	N	See Sec. 8-2.1105(e)
Energy storage (>2MW)	UP(m)	N	N	UP(m)	UP(m)	UP(m)	N	



# COUNTY OF YOLO

## Board of Supervisors

District 1, **Oscar Villegas**  
District 2, **Don Saylor**  
District 3, **Gary Sandy**  
District 4, **Jim Provenza**  
District 5, **Angel Barajas**

625 Court Street, Room 204 ▪ Woodland, CA 95695  
(530) 666-8195 ▪ FAX (530) 666-8193  
[www.yolocounty.org](http://www.yolocounty.org)

County Administrator, **Gerardo Pinedo**  
Sr. Deputy Clerk of the Board, **Julie Dachtler**

### PUBLIC NOTICE

#### ADOPTED ZONING ORDINANCE NO. 681.236

NOTICE is hereby given that at its regularly scheduled meeting of November 22, 2022 the Yolo County Board of Supervisors adopted Zoning Ordinance No. 681.236. This ordinance includes numerous text changes to Chapter 2 in Title 8 of the Yolo County Code of Ordinances to update provisions for permitting and processing development applications for wireless telecommunication facilities, solar energy systems, and energy storage systems. The amendments include changes to certain sections of Article 11 (Energy and Telecommunication Development Standards), involving an update to Section 8-2.1102 (Wireless Telecommunication Facilities) and complete revisions to Sections 8-2.1104 (Small and Medium Solar Energy Systems) and 8-2.1105 (Large and Very Large Solar Energy Systems) to enact the proposed Solar Energy Systems and Energy Storage Systems Ordinances. The updates to Section 8-2.1102 are exempt from the California Environmental Quality Act and an Addendum to the 2011 Solar Energy Facilities Negative Declaration for the revised Sections 8-2.1104 (Solar Energy Systems) and 8-2.1105 (Energy Storage Systems) has been prepared.

The Ordinance was adopted by the following vote:

AYES: Villegas, Saylor, Sandy, Provenza, Barajas.

NOES: None.

ABSENT: None.

ABSTAIN: None.

Copies of the full text of the Ordinance are available at [www.yolocounty.org/agendas](http://www.yolocounty.org/agendas) or at the Clerk of the Board of Supervisors Office, 625 Court Street, Room 204, Woodland, CA 95695.

Dated: December 2, 2022

Julie Dachtler, Senior Deputy Clerk  
Yolo County Board of Supervisors

THE DAVIS  
**enterprise**

PROOF OF PUBLICATION  
(2015.5 C.C.P.)

Yolo County Board of Supervisors  
Attn: Julie Dachtler  
625 Court Street, Room 204  
Woodland, CA 95695

STATE OF CALIFORNIA  
County of Yolo

I am a citizen of the United States and a resident of the County aforesaid; I'm over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am principal clerk of the printer at the Davis Enterprise, 315 G Street, a newspaper of general circulation, printed and published Monday, Wednesday, and Friday, in the City of Davis, County of Yolo, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court to the County of Yolo, State of California, under the date of July 14, 1952, Case Number 12680; that the notice, of which the annexed is a printed copy (set in type no smaller than non-pareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

**December 2**

All in the year **2022**.

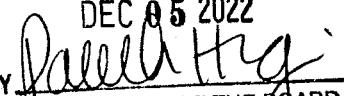
I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Davis, California, this **2nd day of December 2022**.



Shawn Collins  
Legal Advertising Clerk

**FILED**

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BY   
DEPUTY CLERK OF THE BOARD

Proof of Publication  
PUBLIC NOTICE  
#2099

**PUBLIC NOTICE  
ADOPTED ZONING ORDINANCE NO. 681.236**

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The Ordinance was adopted by the following vote:

AYES: Villegas, Saylor, Sandy, Provenza, Barajas.  
NOES: None.  
ABSENT: None.  
ABSTAIN: None.

Copies of the full text of the Ordinance are available at [www.yolocounty.org/agendas](http://www.yolocounty.org/agendas) or at the Clerk of the Board of Supervisors Office, 625 Court Street, Room 204, Woodland, CA 95695.

Dated: December 2, 2022  
Julie Dachtler, Senior Deputy Clerk  
Yolo County Board of Supervisors

#2099



P O Box 1556, Woodland CA 95776  
530.662.6316 O \* 530.662.8611 F  
www.yolofarmbureau.org

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1<sup>ST</sup> VICE PRESIDENT  
Robert Falconer  
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SECRETARY & TREASURER  
Denise Sagara

November 18, 2022

Yolo County Board of Supervisors  
625 Court Street  
Woodland, CA 95695

RE: Zoning Code Amendment Related to Solar Energy Systems and Energy Storage Systems Ordinances

Dear Supervisors,

Thank you for the opportunity to provide comments on the above proposed resolution to adopt an Addendum to the 2011 Negative Declaration for Solar Facilities.

The Farm Bureau supports placing solar-facilities on ag lands to be used to provide alternate energy for the ag operations. The current 2.5 acre is increasingly found to be too small for many of the agricultural operations to adequately source solar energy. Thus, we support staff's proposal to amend the zoning ordinance to increase the acreage limit to 7.5 acres which will accommodate sizing of onsite (accessory) solar systems that intended to support agricultural operations.

Sincerely,

A handwritten signature in black ink that reads 'Garrett W. Driver'.

Garrett Driver  
President