



# Land Use

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**BOULDER COUNTY  
BOARD OF COUNTY COMMISSIONERS**

**Thursday, October 25, 2018, at 9:00 a.m.**

**Commissioners' Hearing Room, Third Floor  
Boulder County Courthouse, 1325 Pearl Street, Boulder, CO**

**Docket DC-18-0002: Proposed Amendments to the Boulder County Land Use Code related to Solar Energy Systems**

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Nicole Wobus, Long Range Planning Manager, Land Use Department

## **AGENDA**

1. Staff presentation
2. BOCC questions for staff
3. Public comment
4. BOCC discussion and recommendation

## **INTRODUCTION**

On May 10, 2018, the Board of County Commissioners (BOCC) authorized Land Use staff to pursue text amendments to the Boulder County Land Use Code (the Code) specific to Solar Energy Systems and related provisions. Staff had identified a need for updating the existing language and structure of the Code, and for increasing the opportunity for solar energy in the county. In summary, the proposed text amendments:

- Introduce new principal use categories that provide provisions specific to system type (e.g., building-mounted systems, ground-mounted systems, and parking canopy systems)
- Change Ground-Mounted Solar Energy System size categories from electrical capacity-based to area of disturbance-based
- Allow Medium and Large Solar in more zoning districts (Transitional (T), Business (B), Estate Residential (ER), and Rural Residential (RR) un-subdivided)
- Revise provisions for Forestry and Agricultural zones to increase solar development opportunities
- Reduce Land Use review requirements for certain types of solar projects
- Allow solar projects on Significant Agricultural Lands (SAL) subject to additional provisions

## **ACTION REQUESTED**

Staff requests that the Board of County Commissioners approve the proposed text amendments to solar energy-related provisions presented in Docket DC-18-0002, as shown in Attachment B.

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### I. OBJECTIVES OF LAND USE CODE UPDATE

The intent of the proposed Code amendments is to facilitate solar energy installation in appropriate locations, while balancing the county's sustainability-related goals and policies with the scenic, agricultural, and environmental values of the Boulder County Comprehensive Plan (BCCP). Land Use staff worked collaboratively with staff from the Parks and Open Space Department, Sustainability Office, and a consultant to identify potential locations for solar gardens in Boulder County. Through this work, staff identified a need to address the scarcity of sites meeting both technical needs of solar installation and the current Code criteria for Solar Energy Systems greater than 100kW. Given advancements in solar technology and improved installation practices, staff sought to evaluate the current Land Use Code related to solar energy and to propose amendments that would strike a more appropriate balance between the impacts associated with solar energy systems and the level of regulatory requirements. Additionally, staff identified opportunities to improve the clarity and content of the Code.

#### Objectives

- Improve Code organization.
- Facilitate Building-Mounted and Parking Canopy Solar Energy Systems through provisions specific to these uses.
- Increase appropriate locations and opportunities for community solar gardens.
- Update Code language to be consistent with current industry standards and bring clarity to definitions.
- Revise Ground-Mounted Solar Energy System size categories to be based on acreage of land disturbed rather than the electrical output of the array.

Staff proposes to update relevant content in Articles 3 (Processes), 4 (Zoning), and 18 (Definitions) of the Land Use Code, and make other revisions necessary to integrate the changes into the Code such that it is easier to navigate and utilize.

## II. BACKGROUND

Staff conducted extensive research to inform the proposed solar Land Use Code updates. Staff completed a literature review, reached out to industry professionals, conducted several interviews with local solar industry stakeholders, and researched example Code language from other jurisdictions. Staff interviewed local installers, the National Renewable Energy Laboratory, utility companies, renewable energy-focused non-profits, and experts in soil health and agriculture. Findings from this research, as well as information on the policy basis for pursuing the Code changes, are summarized in this section. Staff also conducted a study session with Planning Commission on July 23. A summary of the key discussion topics and feedback from that study session is provided in Section IV.

2018	Text Amendment Process
May 10	BOCC authorized Staff to pursue solar-related text amendments to the Land Use Code
February through July	Interviews with industry and stakeholders, research on agriculture and solar colocation and example codes, interdepartmental conversations
July 23	Planning Commission Study Session: discussion on highlighted topics and focus questions
August	Draft Code amendments and send external referrals, integrate public comment, finalize proposed amendments
September 17	Planning Commission Public Hearing on proposed Text Amendments in DC-18-0002
<b>October 25</b>	<b>BOCC Public Hearing for Text Amendment DC-18-0002</b>

Figure 1. Text Amendment Timeline for DC-18-0002

### County Sustainability Goals Call for More Renewable Energy Production in Boulder County

BOCC has a goal to reduce greenhouse gas (GHG) emissions by 45 percent below 2015 levels by 2030 and solar energy has been identified as a viable and efficient renewable energy source to help meet the County's sustainability goals and greenhouse gas reduction targets. Roof-mounted installations alone will likely not meet the county's sustainability goals. According to Project Sunroof and consultant analysis, it has been estimated that 68 percent of all rooftops throughout public, private, commercial and incorporated areas of Boulder County are viable for solar. However, this does not take into account the willingness of property owners to install solar on their homes or businesses, site-specific characteristics such as roof shading that create less than optimal conditions for solar, and other factors which would likely bring the amount closer to 50 percent of all rooftops being viable for solar. Therefore, the [Boulder County Sustainability Plan](#) supports a holistic approach to solar that includes rooftop solar, community solar gardens, utility-scale solar, and other opportunities.

Having reviewed and found significant limitations on the availability of viable sites for solar energy systems under the current Code, staff proposed this Code update work to revisit existing regulations and explore options to expand the areas in the county where solar is allowed. Staff sought to identify potential additional areas appropriate for solar and to develop use requirements and review criteria commensurate with the land use impacts of solar.

### Solar Development Impacts Have Decreased

Impacts such as land disturbance associated with installing community solar gardens and utility-scale ground-mounted solar arrays have decreased as a result of improved technology and current industry best practices. Instead of leveling entire parcels and disturbing large areas of land with heavy equipment, current solar energy system installation methods use pile driven anchors. This method of installation generally only requires foot traffic and a pick-up truck. Installation and operation of solar energy systems is a significantly less intensive land

use than other types of development which have continuous traffic, permanent soil compaction, and do not allow for continued use of the developed area.

### Market, Policy, and Technical Constraints Limit Potential Solar Development

Other factors external to the Land Use Code place limitations on potential solar development. Such limiting factors include the high cost of land and land leases in Boulder County needed for larger-scale solar installations; securing long-term power purchase agreements; the need to obtain necessary approvals and comply with policies and regulations of utility companies and the Colorado Public Utilities Commission; technical constraints involved with connecting to the electric grid; and the need to balance solar energy within the broader electric grid. These factors all fall outside the purview of the Land Use Code. As such, they will remain constraints on potential solar development in Boulder County even with the proposed revisions to the Code.

Grid-connected solar energy systems (i.e., those connected to the distribution system and larger than residential net metered systems) generally require Three-Phase power lines and a distribution substation within a mile. Additionally, the grid must be balanced for consumption and distribution, and an area must have the capacity to host new distribution of electricity. As an example, Xcel Energy, the electricity provider that serves the majority of Boulder County, recently posted an [illustrative map of the hosting capacities](#) of their network. The hosting capacity map in Figure 3 shows some of the technical limitations on solar energy development in the Xcel network. In addition to this basic representation of hosting capacity, engineering studies are required to determine whether a particular location within the electric grid can accommodate an installation. These same hurdles would exist with all electric providers. Changes to this map may require new distribution substations, which require a rigorous review and approval process (see Land Use Code Article 8, Activities of State Interest (1041).

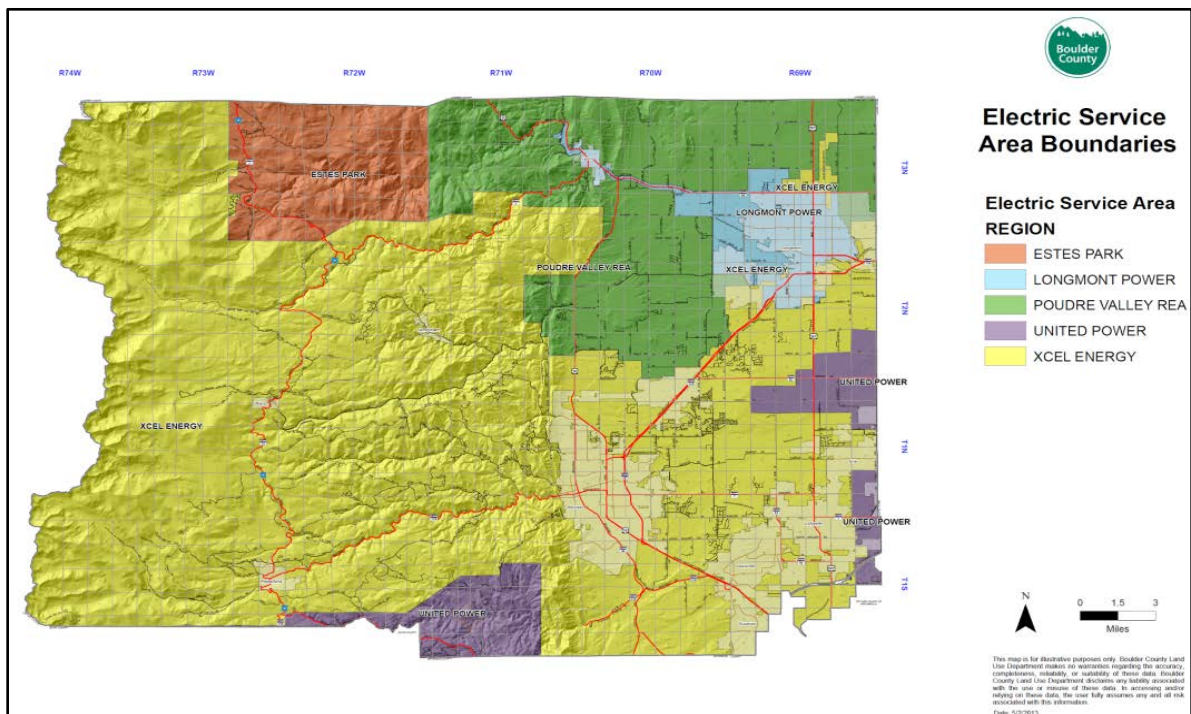
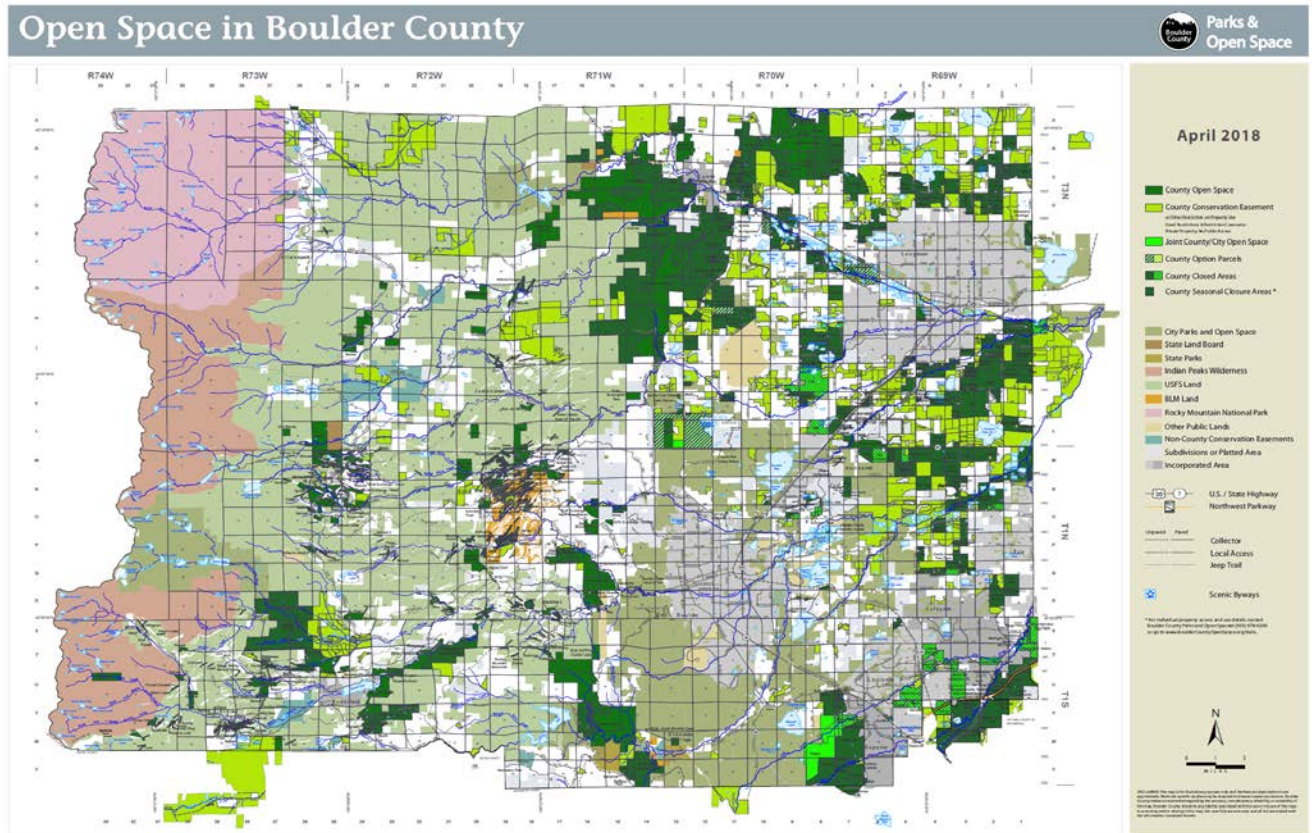


Figure 2. Boulder County Electric Service Area Boundaries Map



## Parks and Open Space Land and Conservation Easements to Remain Undeveloped

Currently, solar development is not permitted on either Boulder County Parks and Open Space properties or properties with conservation easements. Considering the important environmental value of these public lands and key conservation areas, staff determined it appropriate to continue to recognize these areas as unavailable for solar energy development. Therefore, no changes are proposed to existing Code provisions that restrict these areas from solar development (i.e., Solar Energy Systems over 100kW will not be permitted on BCCP designated Natural Landmark, Natural Areas and Critical Wildlife Habitat).



**Figure 3. Map of Open Spaces in Boulder County** Note: The pink and green areas to remain unavailable for Solar Energy Development. A full view can be found here: <https://assets.bouldercounty.org/wp-content/uploads/2017/03/open-space-map.pdf>

## BCCP Designated Significant Agricultural Lands

The Code currently prohibits Solar Energy Systems over 100kW (approximately 0.5 acres in area of disturbance) on any Boulder County Comprehensive Plan (BCCP) designated Significant Agricultural Lands (SAL). Land with SAL designations cover the majority of the unincorporated plains and are located across a variety of zoning districts. Significant Agricultural Lands are categorized as National, Statewide, or Local Importance. As explained herein, modern solar installations may, in appropriate locations and subject to specific review, be compatible with agricultural uses and the preservation of agricultural lands. Therefore, staff finds the current blanket restriction on solar development on designated SAL operates as an inappropriate constraint on solar development.

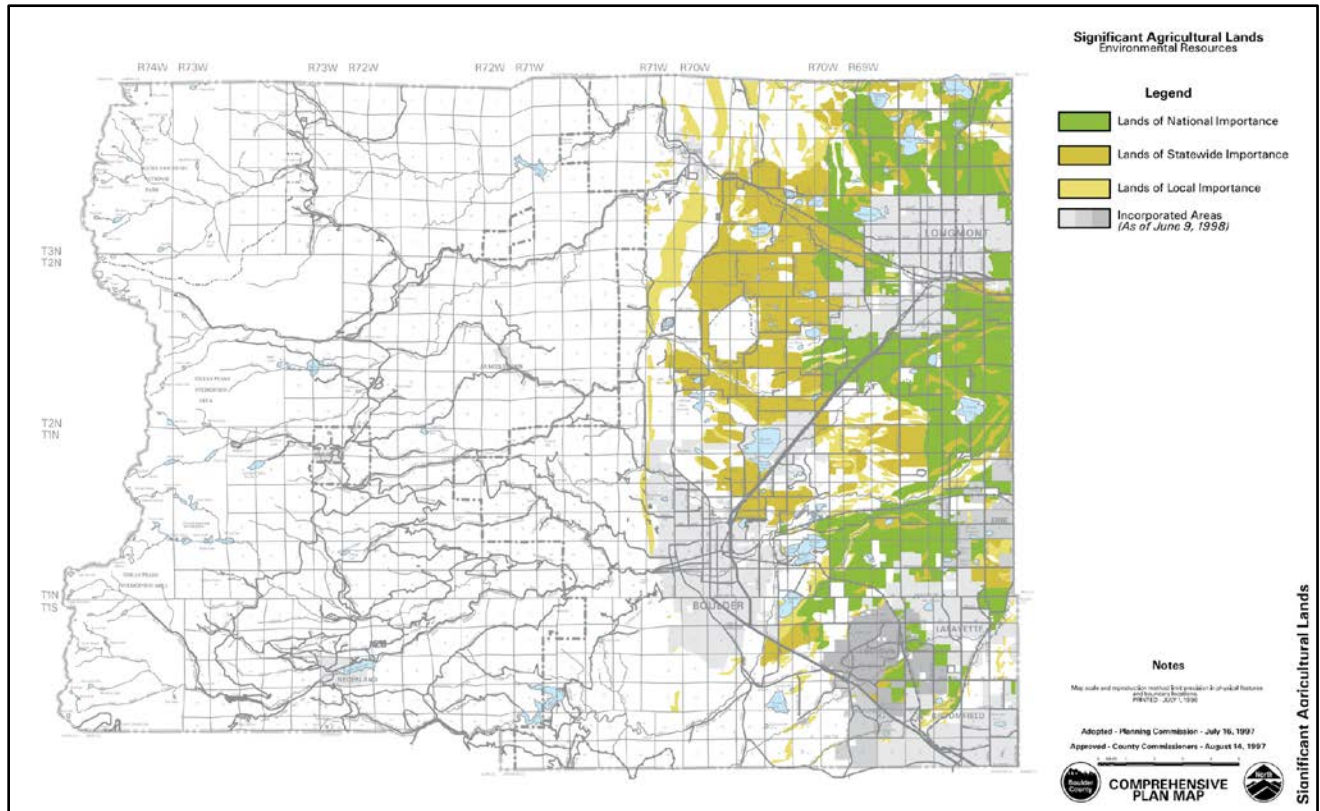


Figure 4. Map of Boulder County Comprehensive Plan Significant Agricultural Lands

The BCCP designates Significant Agricultural Lands based on a variety of criteria including water availability, soil type, and productivity. Agricultural Lands of National Importance are U.S. Department of Agriculture Prime Farm Lands based on criteria in Federal Public Law 95-87, including soil moisture, water availability and irrigation, mean soil temperature, salinity, permeability, erodibility, drainage, and slopes less than six percent. Agricultural Lands of State Importance were designated by the Colorado Division of Agriculture, Department of Natural Resources, and Soil Conservation Board following criteria similar to the Federal criteria, but these areas generally have less water availability or productivity. Agricultural Lands of Local Importance were designated by the local Soil Conservation Services and Boulder County Extension offices, and generally consist of grazing lands with limited water supply.

	Types	Distinguishing Factors and Crops Generally Grown Here	Source of Identification
<b>National</b>	Prime Farmland-based on criteria in Federal Public Law 95-87	Best physical and chemical characteristics: <ul style="list-style-type: none"> <li>• soil moisture</li> <li>• water availability/ irrigation</li> <li>• mean soil temperature</li> <li>• salinity</li> <li>• permeability</li> <li>• erodibility</li> <li>• drainage/deeper water table</li> <li>• slope less than 6%</li> </ul>	USDA
<b>Statewide</b>	Irrigated Lands (inadequate water) High Potential Dry Cropland	Hay meadows, dryland wheat, grain sorghum, forage sorghum, corn, fruit and vegetable growing and seed cultivation	CO Division of Agriculture, Dept. of Natural Resources and CO Soil Conservation Board
<b>Local</b>	Irrigated Crop Land Dry Crop Land Rangeland	<ul style="list-style-type: none"> <li>▪ Soil type- includes class III which is very limited</li> <li>▪ Existing land Use- using aerial photography and Land Use records</li> <li>▪ Carrying Capacity- based on soil type and moisture</li> <li>▪ Grasses, grass-like plants, forbs and shrubs, valuable for grazing</li> </ul>	Longmont office of SCS (Now NRCS) and Boulder County Extension Office

Figure 5. Boulder County Comprehensive Plan Significant Agricultural Lands Classifications

Research and pilot projects have demonstrated that solar can be compatible with agricultural uses. Case studies for co-location of agriculture and solar, as well as example land use codes from other jurisdictions explored for this amendment, were included in the [staff report to Planning Commission for the July Study Session](#). After extensive research and consideration, staff has found solar to be a minimally impactful land use, which has substantial benefits to reducing the county’s greenhouse gas emissions.

### III. OVERVIEW OF PROPOSED CODE CHANGES

This section presents an overview of proposed Code changes set forth in full in Attachment B, which:

- Introduce new principal use categories that provide provisions specific to system type (e.g., building-mounted systems, ground-mounted systems, and parking canopy systems)
- Change Ground-Mounted Solar Energy System size categories from electrical capacity-based to area of disturbance-based
- Allow Medium and Large Solar in more zoning districts (T, B, ER and RR un-subdivided)
- Revise provisions for Forestry and Agricultural zones to increase solar development opportunities
- Reduce Land Use review requirements for certain types of solar projects
- Allow solar projects on Significant Agricultural Lands subject to additional provisions in A, ER, RR zone districts

Attachment D provides comparison mapping to help visually depict those areas of Boulder County presently available for solar development under the current Code and the additional areas that will be made available for ground-mounted solar development under the proposed amendments. As reflected by the maps, the proposed Code would open up a modest amount of additional land for potential solar development; the majority of unincorporated land would remain unavailable to solar development.



## Improve Code Organization

The proposed amendments organize the Code so that all Solar Energy uses are easily located and so that Building-Mounted and Ground-Mounted Systems are clearly differentiated. Currently, the Solar Energy System uses are divided in separate sections of the Code as 4-514.M Small Solar Energy System, 4-514.H Medium Solar Energy System, 4-514.F Large Solar Energy System, and 4-516.K Accessory Solar Energy System. Section 4-500 of the Code is listed in alphabetical order, and thus these uses appear separately. There are some provisions related to roof-mounted systems within each of the current solar use categories, and in the sections of 4-100. The proposed changes will organize the solar uses into the following use categories:

- 4-514.K Solar Energy Building-Mounted System
- 4-514.L Solar Energy Ground-Mounted System
- 4-514.M Solar Energy Parking Canopy System
- 4-516.K Accessory Solar Energy System

All related provisions will be clearly listed under each use, instead of only in 4-100. The proposed organizational change will bring clarity to the differences of Land Use provisions for Building-, Parking Canopy-, and Ground-Mounted Solar Energy Systems. A parking canopy use is proposed to properly address health, safety, land use impacts and special provisions for parking lot solar installations. Adding Code language specific to solar parking canopies is also intended to help facilitate this type of Solar Energy System that leverages previously developed land for solar production.

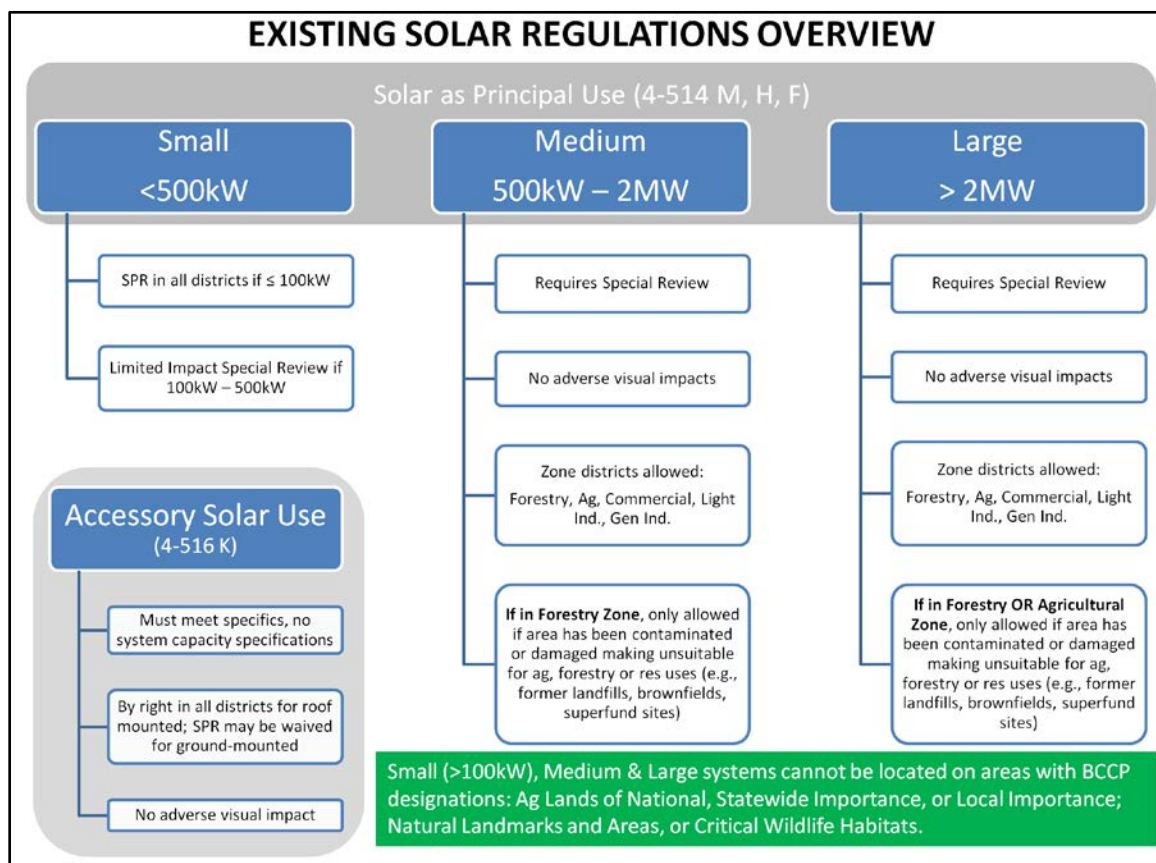


Figure 6. Summary of Existing Land Use Code

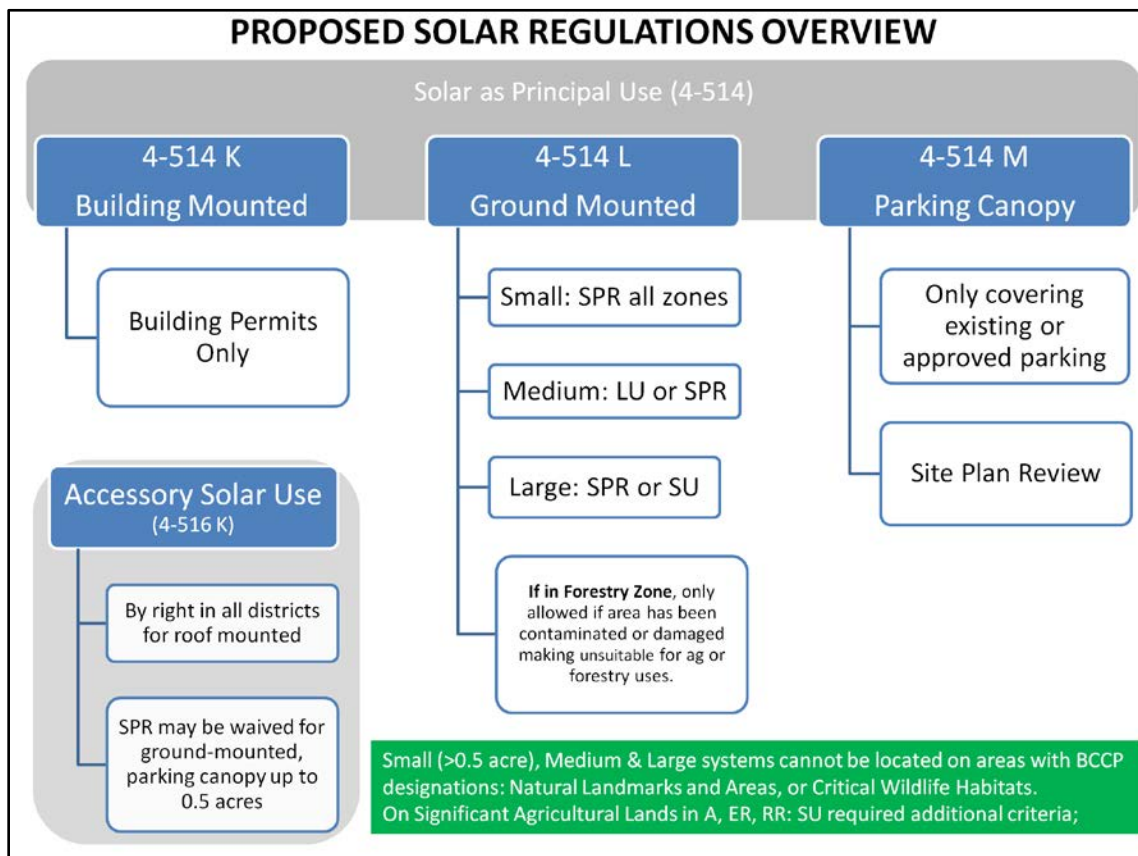


Figure 7. Summary of Proposed Land Use Code

### Size Categories for Ground-Mounted Systems

The proposed size categories for Ground-Mounted Solar Energy Systems are based on land coverage rather than electrical output. As technological advancements increase the efficiency of solar panels, the land consumed by an installation of a given electrical capacity will decrease. Basing categories on area of land disturbance also better aligns with the purpose of the Land Use Code (i.e., to regulate land use impacts). The area of disturbance of a Solar Energy System includes the area covered by solar panels, access roads, and equipment, both during construction and during the life of the system. The proposed size categories were developed by converting the current system size categories provided in the Land Use Code to an equivalent approximate area of disturbance. Those land area approximations are calculated based on the 2013 NREL report, “Land-Use Requirements for Solar Power Plants in the United States.”<sup>1</sup>

	Small	Medium	Large
<b>Current Code (Electrical Capacity)</b>	<b>0-500kW</b>	<b>500kW- 2MW</b>	<b>&gt;2MW</b>
<b>Proposed Code (Disturbance Area)</b>	<b>0 – 2.5 acres</b>	<b>2.5 acres – 10 acres</b>	<b>&gt; 10 acres</b>

Figure 8. Current and proposed Ground-Mounted Solar Energy System size categories

<sup>1</sup> NREL (2013) Land-Use Requirements for Solar Power Plants in the United States. Ong et. al.



## Allow for Medium and Large Solar in More Zoning Districts

The proposed Code amendments under consideration would allow for Medium and Large Ground-Mounted Solar Energy Systems in more zoning districts: Transitional (T), Business (B), unplatted Rural Residential (RR), and unplatted Estate Residential (ER). No changes would be proposed for Multi-Family (MF), Suburban Residential (SR), Mobile Home (MH), and Mountain Institutional (MI). Currently, the Code limits the zoning districts for Medium and Large Ground-Mounted Solar Energy Systems, only allowing those systems in Light Industrial (LI), General Industrial (GI), Commercial (C), Agricultural (A), and Forestry (F). Additional restrictions regarding the Forestry and Agricultural zoning districts are addressed in the next subsection.

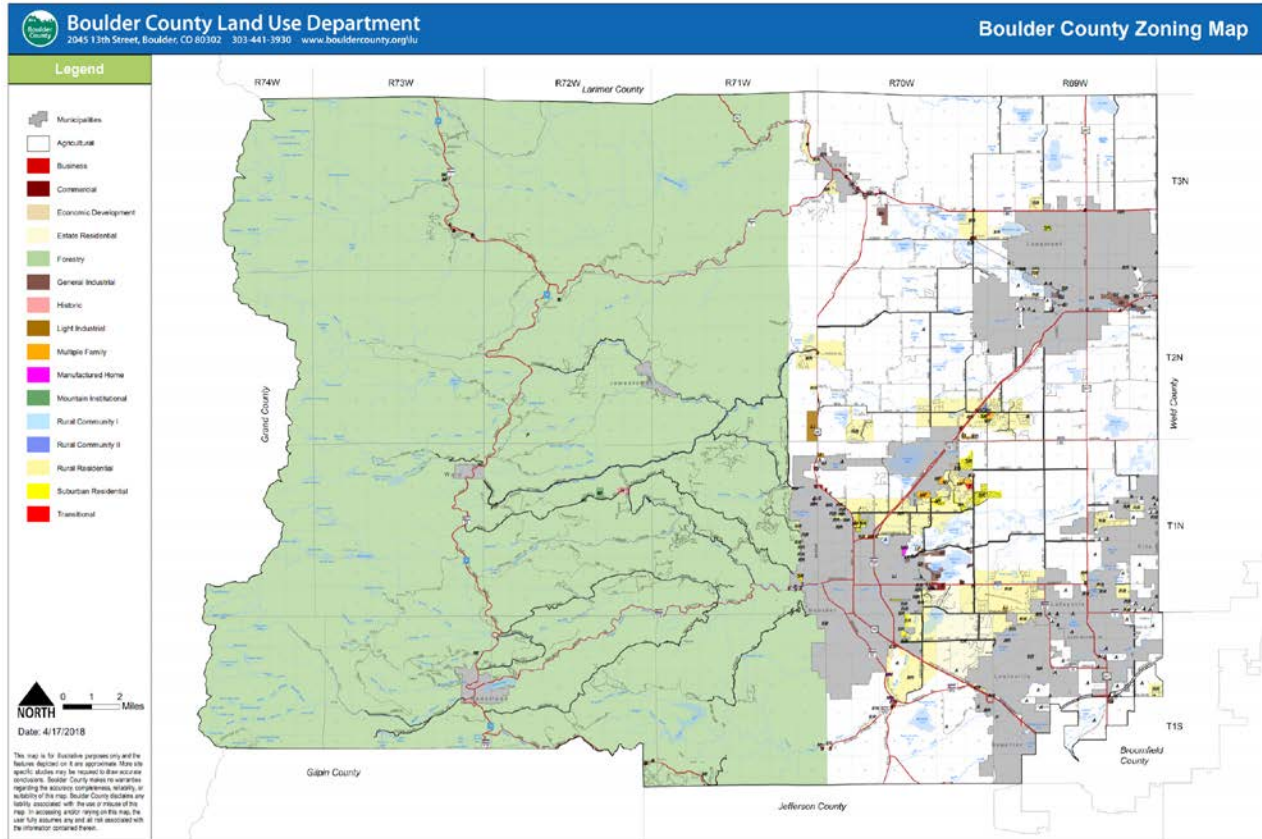


Figure 9. Boulder County Zoning Map

Staff identified zoning districts appropriate for Medium and Large Ground-Mounted Systems, and not currently available for this use. Figure 10, on the following page, displays the zoning districts and descriptions from Article 4-100 of the Code, and the characteristics of the subject zoning districts which staff identified as more appropriate for Medium and Large Ground-Mounted Systems. The proposed amendments prioritize solar where it is most aligned with the purpose and characteristics of the zoning district and the treatment of other uses in the Code.

Zone District	Purpose as Described in Article 4-100	Characteristics Supportive of Solar Energy Uses
Rural Residential (RR)	<i>Residential areas developed at a density and character compatible with agricultural uses.</i>	<p>The un-subdivided lands in the Rural Residential and Estate Residential zoning district tend to have larger parcel sizes.</p> <p>Treated similarly to the Agricultural zoning district in regards to allowed uses, with the exception of some Intensive Agricultural and Agribusiness uses such as feedlots.</p>
Estate Residential (ER)	<i>Low density urban residential areas.</i>	<p>These zoning districts have also been identified to generally coincide with the potential for solar development on Xcel’s Hosting Capacity Map.</p>
Agricultural (A)	<i>Rural areas where conservation of agricultural resources is of major value, and where residential development compatible with agricultural uses is allowed</i>	
Transitional (T)	<i>Areas containing both a variety of residential uses and a limited number of business uses which are compatible with residential development.</i>	<p>Treated similar to LI, GI, and C by other uses of the Code.</p> <p>Generally more developed areas, likely to have the hosting capacity and services required for grid-tied Solar Energy Systems</p>
Business District (B)	<i>Areas for the development of restricted retail and business uses which have minimal exterior impact on surrounding properties.</i>	<p>Allow other industrial uses, which have a higher structural development intensity and more lasting impacts than Solar Energy Systems</p>
Commercial District (C)	<i>Areas for the development of commercial, business, retail, and/or service uses.</i>	
Light Industrial (LI)	<i>Area for the development of research, light industrial, warehouse, and/or distribution centers.</i>	

Figure 10. Zoning districts - purpose (per Land Use Code Article 4-100) and characteristics which support solar

## Revise Provisions for Forestry and Agricultural Zones

Staff proposes amendments to the provisions for Medium and Large Solar Energy Systems in the Forestry zoning district and Large Solar Energy Systems in the Agricultural zoning district (See **Figure 10**). Currently, Medium Systems are only allowed in the Forestry zoning district on damaged and contaminated land such as landfills, Superfund sites, and brownfields. The same provisions apply to Large Systems in the Forestry and Agricultural zoning districts. The proposed amendments shown in Figure 10 make the

language less restrictive to allow for solar on previously intensely developed areas. Additionally, staff proposes to remove the provision from the Agricultural zoning district, as the most productive agricultural lands are protected by the provisions for BCCP designated Significant Agricultural Lands.

Existing Language	Proposed Language
<p>This use is permitted in the Forestry zone districts only if the area used has been contaminated or damaged in the past, making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.</p>	<p>Ground-mounted systems with disturbed area greater than 2.5 acre are not permitted in the Forestry Zoning District unless the site has been previously contaminated or the soil otherwise damaged, making it unsuitable for agricultural or forestry uses. Qualifying areas may include properties that have previously undergone intensive development and where it is determined, through the review process, that installation of a ground-mounted system will not have additional</p>
<p>Applies to: Medium and Large in Forestry Zone Large in Agricultural Zone District</p>	<p>Applies to: Medium, and Large ground-mounted systems in Forestry Zone</p>

**Figure 11 Existing and proposed language under consideration for Medium and Large Ground-Mounted Solar Energy Systems in the Forestry zone district and Large Solar Energy Systems in the Agricultural zone district.**

## Reduce Review for Ground-Mounted Solar in Appropriate Locations

Considering the advancements in solar technology, and the reduced land use impacts associated with solar, the proposed text amendments reduce the intensity of review for Ground-Mounted Systems to be compatible with other uses of similar land use impacts. All Ground-Mounted Solar Energy Systems will still require a Land Use review. The intensity of review in the proposed text amendment is proportional to the projected land impacts of the Solar Energy System.<sup>2</sup> Reducing some of the review requirements from Special Use Review (SU) to a less rigorous review will reduce soft costs and time associated with the review, while maintaining an appropriate level of review. There will still be opportunity for public comment and a potential hearing before the Board of County Commissioners, as needed. Notably, all Land Use processes involve notification of neighbors and acceptance of public comments.

**Figure 12** displays the intensity of review required by the current Code for various sizes of Ground-Mounted Solar Energy Systems in each zoning district. **Figure 13** denotes the proposed text amendment changes in red. The proposed text amendments for small Ground-Mounted Solar Energy Systems, 0.5-2.5 acres, would reduce the review to Site Plan Review (SPR) in all zoning districts instead of Limited Impact Special Use Review (LU). The proposed amendments would reduce the review for Solar Energy Systems of any size in LI, GI, and C to SPR, instead of LU for Medium or SU for Large, as required in the current Code. Solar in the Transitional and Business zone districts is proposed as a Site Plan Review process, which is the same level of review as is required for solar in the LI, GI, and C districts.

The proposed amendments reduce the intensity of review for Medium Ground-Mounted Solar Energy Systems, from an SU to LU, and maintain that SU is required for Large Ground-Mounted Systems in A and F zoning districts. The same intensity of review, LU for Medium and SU for Large, shall be required in ER and RR on unsubdivided lands.

<sup>2</sup> For reference, the following is an overview of the review processes for Solar Energy Systems as a principal use. Site Plan Review (SPR): 6 week Administrative Review, with potential for call-up for BOCC hearing; Limited Impact Special Use Review (LU): approximately 3-4 month process, BOCC hearing; Special Review (SU): most intensive, with required PC and BOCC hearings.

Zoning District	Accessory (used onsite)	Small		Medium 500kW-2MW	Large >2MW
		<100k W	100-500kW		
MF, MH, MI, SR, H	SPRW	SPR	LU#	Not allowed	Not allowed
ER, RR	SPRW	SPR	LU#	Not allowed	Not allowed
F	SPRW	SPR	LU*	SU*	SU*
A	SPRW	SPR	LU#	SU#	SU#*
LI, GI, C	SPRW	SPR	LU#	SU	SPR
T, B	SPRW	SPR	LU#	Not allowed	Not allowed

\*Only if the land has been contaminated or damaged in the past making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.

#This use is not allowed on Significant Agricultural Lands as designated by the Comprehensive Plan.

Figure 12. Overview of current Code review processes required for Ground-Mounted Solar Energy Systems sizes by zoning district

Zoning District	Accessory (used onsite, up to 0.5 acre)	Small		Medium 2.5-10 acres	Large 10+ acres
		<0.5 acre	0.5-2.5 acre		
MF, MH, MI, SR, H	SPRW	SPR	LU	Not allowed	Not allowed
ER, RR	SPRW	SPR	SPR/ SU#	LU/ SU#	SU#
F	SPRW	SPR	SPR*	LU*	SU*
A	SPRW	SPR	SPR/ SU#	LU/ SU#	SU#
LI, GI, C	SPRW	SPR	SPR	SPR	LU
T, B	SPRW	SPR	SPR	SPR	LU

\*Only if the land has been contaminated or damaged in the past making it unsuitable for agricultural, forestry or residential uses.

#On Significant Agricultural Lands in A, ER, RR, this use requires a Special Review and additional provisions. Medium and Large systems are not permitted in platted subdivisions in ER and RR.

Figure 13. Overview of proposed changes to review processes required for Ground-Mounted Solar Energy Systems by zoning district (changes are denoted in red text)

### Allow Additional Solar on Significant Agricultural Lands, With Limitations

Staff proposes amendments to the Code that would allow for Solar Energy Systems over 0.5 acres (about 100 kW) on Significant Agricultural Lands. Ground-Mounted Systems over 0.5 acres on Significant Agricultural Lands and in the Agricultural, Estate Residential and Rural Residential zoning districts would be subject to a size limitation and Special Review process, and would be required to submit a management plan that demonstrates best practices for soil conservation and maintaining the agricultural integrity of the property. No Special Review or additional criteria is required for Ground-Mounted Systems on Significant Agricultural Lands in the LI, GI, C, T, and B zoning districts. Staff considered that other more intensive uses in these zoning districts do not have limitations related to the Significant Agricultural Lands designations. It is appropriate to require a level of review for solar to its impacts and to comparable uses with similar impacts. The intent of this change is to make more land available for community solar gardens in the most appropriate zone districts, and to promote agricultural activity to maintain or improve soil health.

	Proposed Code Ground-Mounted Solar on Significant Agricultural Lands	
Requirements	A, ER, RR Zone Districts	LI, GI, C, B, T Zone Districts
Review Process	Special Use (SU) Review	Medium: Site Plan Review (SPR) Large: Limited Impact (LU)
Solar Development Report	<ul style="list-style-type: none"> <li>• Installation Plan</li> <li>• Management Plan that addresses best management practices for soil health and preserving agricultural integrity</li> <li>• Weed Control Plan</li> </ul>	Not required, other conditions or requirements as determined through the review
Size Cap for Area of Disturbance	7 acres of disturbance for parcels up to 70 acres	None
	14 acres of disturbance for parcels more than 70 acres	None

**Figure 14. Proposed Code for Solar Energy Systems greater than 0.5 acres (100kw) on Significant Agricultural Lands** Note: Systems less than 0.5 acre disturbance area have no additional provisions in the current and proposed Codes.

Staff proposes requiring the application materials for the Special Use Review on Significant Agricultural Lands in A, ER, and RR include a Development Report that contains an installation plan and management plan. The management plan will demonstrate the proposed methods for maintaining the soil health and agricultural integrity of the land.

As an additional mitigation measure, staff suggests placing a cap on the area of disturbance of Solar Energy Systems on Significant Agricultural Lands. Proposed Code language describing the cap is as follows:

*The total disturbed area associated with the ground-mounted system cannot exceed 7 acres on parcels smaller than 70 acres in size, or 14 acres on parcels larger than 70 acres in size.*

Staff explored other options for limiting the size of solar allowed on SAL, including a percentage cap and a county wide limit. The acreage cap is proposed because it better addresses the wide variation in parcel sizes that may result in inappropriate outcomes under a percentage-based cap. A percentage-based cap is also not a favored method for addressing land use decisions in general.

The size cap of seven acres is proposed because it corresponds with the approximate disturbance area of the smallest solar garden-scale system staff understands could be financially viable to construct under the best case scenario: a 1 MW system, allowing additional area for adequate spacing to accommodate co-located agricultural



uses. Some industry professionals indicated that at least 2 MW, or about 10 acres is required for financial viability. However, in an effort to balance interests, the proposed cap is based on a disturbance area that relates to the best case scenario for financial viability staff has observed, plus some additional area to accommodate potential additional panel spacing needs. The reason for increasing the cap to 14 acres for lots 70 acres or larger is to avoid presenting an incentive to subdivide property (i.e., with a minimum lot size of 35 acres, and a cap of 7 acres, a 70 acre parcel could subdivide an increase its effective cap to 14 acres if the Code did not provide an alternative).<sup>3</sup>



#### IV. PLANNING COMMISSION STUDY SESSION

Staff presented initial concepts for Code amendments to Planning Commission on July 23, 2018. Background information was provided as a part of the [study session](#) staff packet and presentation, which are available on the [docket webpage](#) for reference. Following the study session, staff made further revisions to the draft Code to address feedback and circulated the draft for comment through a public referral process. Specifics of the responses received as part of the referral process are presented in Section VI. However, for purposes of efficiency, this section includes discussion of overall feedback and changes to the previous draft Code presented at the Planning Commission study session. The main topic addressed through study session discussion was allowing solar on Significant Agricultural Lands.

##### **Agricultural Lands of Local Importance**

Planning Commission members provided feedback on staff's proposal to allow solar on Agricultural lands of Local Importance with no additional measures beyond those required in the zoning district criteria. There were concerns that this could allow for very large installations on land with some level of designation of agricultural significance. Planning Commission also expressed concern there was not a clear basis for treating solar on lands of Local Importance differently from the State and National Significance designations. Staff expressed that local lands are primarily grazing lands, and this use could easily continue with the addition of a solar use on a property. Given that lands of Local Importance cover a relatively small portion of the county, and given the lack of a clear basis for treating this designation differently from the other SAL, Planning Commissioners appeared to conclude that the same size limitations and additional criteria should apply for all Significant Agricultural Lands. This change is reflected in the proposed Code language.

##### **Special Review for Significant Agricultural Lands of State and National Importance**

Planning Commission seemed to support the concept of requiring Special Use Review for Significant Agricultural Lands. One member considered that perhaps requiring Special Review for all Significant Agricultural Lands, including local, might be onerous and that the main concern was ensuring a size limitation and maintenance of agricultural integrity. Public comment suggested that water availability on agricultural lands has changed greatly since the BCCP designations in the nineties, and do not represent current land conditions. Additionally, a member of the public requested that Significant Agricultural Lands be treated the same as all other lands in regards to solar energy systems due to their limited impacts and the opportunities for co-location of agricultural uses.

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<sup>3</sup> Picture sources from left to right: Global Urban Commons <https://goo.gl/images/H6wdqN>; Lightsource <https://goo.gl/images/YprpVi>; US News <https://goo.gl/images/TyC2zf>

Staff considered Planning Commission’s feedback, as well as that of the public, and proposes to treat all Significant Agricultural Lands in A, ER, and RR with Special Review and additional criteria. Any properties in Transitional, Business, Light Industrial, General Industrial, and Commercial will not have additional review criteria or require Special Review process under the proposed changes.

### **Size Limit for Significant Agricultural Lands**

Planning Commission members supported the concept of a size limitation to Solar Energy Systems on Significant Agricultural Lands. Members suggested that the size cap should be placed on all Significant Agricultural Lands, not just those of State and National Importance. Staff requested feedback on an appropriate size limitation. It was recognized that a financially feasible installation may be greater than one Megawatt (MW), or about five acres, and that research finds that greater spacing of panels helps accommodate agricultural uses around the panels. Feedback from Planning Commission members indicated that a size limit between six and eight acres seemed appropriate. As a result of these discussions, staff proposes a 7 acre limitation for parcels smaller than 70 acres and a 14 acre cap for those parcels greater than 70 acres. Seven acres strikes a balance between allowing opportunity for economically-viable community solar-scale projects on SAL, while still accommodating agricultural uses on those properties, on other portions of the property and/or interspersed with the solar energy system.

### **Soil Testing and Co-located Agricultural Use or Pollinator Habitat**

During the study session, staff presented concepts for requiring soil testing and co-locating an agricultural use or pollinator habitat under and around Ground-Mounted Solar Energy Systems on Agricultural Lands of State and National Importance. The intent of including such a provision was to allow for further research of the effects of solar on SAL here in Boulder County to ensure that the soil quality and the agricultural integrity of these lands may be maintained. After further discussion, staff concluded that requiring an agricultural use in conjunction with the solar system is not an appropriate requirement for the Land Use Code, and that these requirements were onerous compared to the Code requirements for similar uses on Significant Agricultural Lands. Article 3 and other standards in the Code give staff the authority to require general soil conservation management plans for uses of similar intensity.

Staff considered the fact that technologies and research on the topic of soil health and solar co-located with agricultural uses is rapidly developing. The proposed Code language calls for requiring a management plan that outlines how best practices will be applied in maintaining soil health and agricultural integrity of the land.

### **Decommissioning Plan**

Original concepts for the Code amendments included requiring a decommissioning plan at the time of application. Planning Commission members provided feedback that this decommissioning should also require proper disposal or recycling. Staff revisited the decommissioning plan requirements and concluded that deconstruction, disposal, and recycling requirements are covered in the Building Code, and that this should not be required in the Land Use Code.

## **V. PLANNING COMMISSION HEARING**

On September 17, staff presented the proposed Land Use Code amendments pertaining to solar energy systems, the reasons for the amendments, referral comments, and changes since the study session. The Planning Commissioners discussed the proposed amendments and particularly the treatment of solar on BCCP-designated Significant Agricultural Lands, identifying a desire to balance opening additional appropriate land areas in the county for solar development with preservation of existing agricultural character and values. Some Planning Commission members expressed that the size cap for solar energy systems on Significant Agricultural Land might not be necessary given the other factors limiting solar development, including grid interconnection and limited opportunity from utility companies. Comparatively, there were other concerns regarding the location and size of solar development and associated impacts on agricultural lands, as well as questions around future

decommissioning of retired systems on Significant Agricultural Lands. It was established that these items could be considered by Planning Commission through the Special Use Review criteria in 4-602, as would be required for each individual project under the proposed amendments.

Staff and Planning Commission agreed that solar should not be considered on par with an industrial use as described in the Boulder County Comprehensive Plan and Land Use Code, because the infrastructure and traffic impacts related to solar are significantly less than traditional industrial uses. Additionally, it was acknowledged that some agricultural uses are increasingly found to be compatible and able to continue under and around solar development. The point was raised that “rural character” refers to healthy and productive land. Uses of rural land may evolve over time and ultimately differ from traditional rural uses. For instance, solar energy systems may be viewed as consistent with innovative character type of the “American Farmer” to come up with a clever use of agricultural space in the face of changing needs and society. There were additional concerns expressed for the potential extent of solar development in the County and the request to revisit these regulations in a year or two to determine the effectiveness of the regulations in achieving their intent to balance solar development with Significant Agricultural Land preservation. The Planning Commission voted unanimously to recommend to the Board of County Commissioners, approval of the proposed amendments in docket DC-18-0002.

## VI. REFERRALS AND PUBLIC COMMENT

The public has been notified of the proposed Land Use Code text amendments through the county webpage and communications, as well as a formal referral to applicable agencies and interested members of the public. Staff received the following referral comments after distributing the draft Code language to our referral agencies, industry professionals, and interested members of the public. A complete record of these comments may be found in Attachment C.

- **Xcel Energy-** No conflict
- **Longmont and Boulder Valley Conservation District-** No conflict
- **City of Boulder Planning-** The city provided applicable core values and policies from the Boulder Valley Comprehensive Plan, a guiding document for the Intergovernmental Agreement between the City of Boulder and Boulder County.
- **Public Comment-** Three individuals wrote in support of the proposed amendments. Another commenter provided feedback requesting that the Code treat solar on Significant Agricultural Land just as it would any other agricultural land located in the county. This commenter also requested additional specificity regarding application requirements and standards of review to ensure that the application and approval process is as clear and transparent as possible.

## VII. RECOMMENDATION

The County approaches permitting additional development very cautiously in the rural areas and has taken successful measures in limiting and managing development to protect environmental and cultural resources. The proposed Land Use Code amendments for solar energy systems reflect an effort to promote the sustainability goals and the environmental benefits that may be realized through better accommodating solar energy projects in the county, while also recognizing and appropriately mitigating the impacts of this increased development.

Amendments to the Land Use Code require approval by the Board of County Commissioners, upon recommendation of the Planning Commission. Planning Commission recommended that the Board of County Commissioners approve the proposed text amendments.

### Text Amendment Criteria

Article 16-100.B. contains the criteria for amending the text of the Land Use Code. Staff finds that the proposed amendments in this Docket meet the following criteria:

1. the existing text is in need of the amendment;

2. the amendment is not contrary to the intent and purpose of this Code; and
3. the amendment is in accordance with the Boulder County Comprehensive Plan

### **Action Requested**

Staff requests that the Board of County Commissioners approve the proposed Land Use Code text amendments to solar-related provisions in docket DC-18-0002 as presented in Attachment B of this staff report.

# Existing Solar-related Land Use Code Text

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## Article 4:

### **4-101 Forestry, 4-102 Agricultural, 4-110 Commercial, 4-111 Light Industrial, 4-112 General Industrial**

#### **(F) Additional Provisions**

5. Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens, Medium Solar Energy Systems or Solar Gardens, and Large Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

### **4-103 Rural Residential, 4-104 Estate Residential, 4-105 Suburban Residential, 4-106 Multi-family, 4-107 Manufactured Home Park, 4-108 Transitional, 4-109 Business, and 4-117 Mountain Institutional**

#### **(F) Additional Provisions**

Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

## **4-514 Utility and Public Service Uses**

### **F . Large Solar Energy System**

1. Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy, and which may be used for one or more users .
2. Districts Permitted: By Special Review in GI, LI, C, A, F if the system has a rated capacity greater than 2 MW but does not meet the Land Use Code definition of Power Plant
3. Parking Requirements: To be determined through the review
4. Loading Requirements: None
5. Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
  - c. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
  - d. This use is permitted in the Agricultural or Forestry zone districts will be permitted only if the area used has been contaminated or damaged making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.



## Existing Solar-related Land Use Code Text

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- e. This use cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
- f. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).
- g. Applications shall be reviewed with special consideration given to lands identified as Open Corridor, Roadside in the Boulder County Comprehensive Plan.

### **H . Medium Solar Energy System or Solar Garden**

- 1 . Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy, and which may be used for one or more users.
- 2 . Districts Permitted: By Special Review in GI, LI, C, A, F if the rated capacity of the system will be at least 500 kW but not more than 2 MW
- 3 . Parking Requirements: To be determined through the review
- 4 . Loading Requirements: None
- 5 . Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
  - c. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
  - d. Medium solar energy systems in the Forestry zone district will be permitted only if the area used has been contaminated or damaged in the past making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.
  - e. Medium solar energy systems cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats .
  - f. Applications shall be reviewed with special consideration given to lands identified as Open Corridor, Roadside in the Boulder County Comprehensive Plan.
  - g. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof in order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).

### **M . Small Solar Energy System or Solar Garden**

- 1 . Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy.

## Existing Solar-related Land Use Code Text

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- 2 . Districts Permitted: By Site Plan Review in all districts if the system will have a rated capacity of 100 kW or less .  
By Limited Impact Special Review in all districts if the system will have a rated capacity greater than 100 kW but less than 500 kW.
- 3 . Parking Requirements: To be determined through the review
- 4 . Loading Requirements: None
- 5 . Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. If necessary for the system's effectiveness, ground-mounted solar energy collectors may be located within the minimum lot line setbacks for the subject property zoning district and within any applicable major road supplemental setback without the need for a variance, provided that the solar energy collector is located no less than five feet from lot lines and no less than 15 feet from road rights-of-way.
  - c. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
  - d. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
  - e. Applications shall be reviewed with special consideration given to lands identified as Environmental Resources and Open Corridor, Roadside in the Boulder County Comprehensive Plan.
  - f. If larger than 100 kW, this use cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
  - g. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof in order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).

### **4-516 Accessory uses**

#### K . Accessory Solar Energy System

- 1 . Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the distribution of transformed energy, which may be attached to a residence or other structure.
- 2 . Districts Permitted: By right in all districts for roof-mounted systems. By Site Plan Review Waiver for ground-mounted systems.
3. Parking Requirements: None
4. Loading Requirements: None
5. Additional Provisions:
  - a. Ground-mounted systems are considered structures and must meet applicable setbacks for the zone district except as provided in 5 .d . below .
  - b. Ground-mounted systems shall not have a significant adverse visual impact on neighboring private and public property.

## Existing Solar-related Land Use Code Text

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- c. Roof-mounted solar energy systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).
- d. If necessary for the system's effectiveness, ground-mounted solar energy collectors may be located within the minimum lot line setbacks for the subject property zoning district and within any applicable major road supplemental setback without the need for a variance, provided that the solar energy collector is located no less than five feet from lot lines and no less than 15 feet from road rights-of-way.
- e. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements.

### **4-802 Applicability and Scope of Site Plan Review Process for Development**

A. Site Plan Review shall be required for (unless not required or waived pursuant to sections B and C below):

- 13. A small solar energy system as a principal use

C. Site Plan Review may be waived for the following circumstances if the Land Use Director determines that there is no potential for any significant conflict with the criteria listed in Article 4-806 of this Code:

- 7. Any ground-mounted accessory solar energy system.

### **4-1003 Non-conforming uses- solar energy device**

(C) Enlargement or Alteration of a Nonconforming Use

2. An impermissible enlargement or alteration shall not include the following:

- d) the addition of a solar energy device to a structure containing a nonconforming use; or

## **Article 18 - Definitions:**

### **18-136A Disturbed Area (as used in Article 7-904)**

That area of the land's surface disturbed or in any way changed construction activity.

### **18-162 Floor Area**

The area of a building or structure, existing or new, including basements and attached garages calculated without deduction for corridors, stairways, closets, the thickness of interior walls, columns, or other features as measured from the exterior face of the exterior walls. Floor area does not include the area of any covered porch. (For Residential Structures, see also Article 18-189D.)

### **18-185 Power Plant**

An electrical energy generating facility with generating capacity of more than 50 megawatts and any appurtenant facilities.

## Existing Solar-related Land Use Code Text

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### **18-189D Residential Floor Area**

For the purposes of Site Plan Review and the presumptive size thresholds associated with the Expanded Transfer of Development Rights Program, Residential Floor Area includes all attached and detached floor area (as defined in 18- 162) on a parcel including principal and accessory structures used or customarily used for residential purposes, such as garages, studios, pool houses, storage sheds, home offices, and workshops. (Exemptions: Gazebos, carports, detached greenhouses and hoop houses up to a total combined size of 400 square feet.

### **18-198 Solar Access**

The ability to receive sunlight across real property for any solar energy device.

### **18-199 Solar Energy Device**

A device which converts the sun's radiant energy into thermal, chemical, mechanical, or electric energy.

# DC-18-0002: Proposed Solar-related Land Use Code Text

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## 3-203 Standards for Submittal Requirements

### I. Solar Energy System Development Report

1. A solar energy system development report is required for an application for a ground mounted solar energy system with disturbed area greater than 0.5 acre on lands designated as Significant Agricultural Lands under the Boulder County Comprehensive Plan. The solar energy development report must include:
  - a. An installation plan describing the installation method for the solar energy system, including a site plan showing the proposed disturbed area (as defined in Article 18) and the applicable items listed in Article 3-203(E)(2). The installation plan must include a proposal to minimize soil disturbance and compaction through best management practices.
  - b. A management plan which includes best practices for maintaining or improving the existing soil quality and agricultural integrity of the land.

## Article 4:

**4-101 Forestry, 4-102 Agricultural, 4-110 Commercial, 4-111 Light Industrial, 4-112 General Industrial, 4-103 Rural Residential, 4-104 Estate Residential, 4-105 Suburban Residential, 4-106 Multi-family, 4-107 Manufactured Home Park, 4-108 Transitional, 4-109 Business, and 4-117 Mountain Institutional**

### F. Additional Provisions

5. or 6. *[The following topic is currently addressed as sub-section 5. or 6. Depending on the zoning district in question. Adopted text amendments will be applied accordingly, to amend the applicable section containing this content.]*

Small Wind-Powered Energy Collectors Systems and Solar Energy Systems may be approved without Special Review approval on parcels with existing principal uses; however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

## 4-514 Utility and Public Service Uses

### K. Solar Energy – Building-Mounted System

1. Definition: A solar energy system mounted on or integrated into the construction of a structure, such as, but not limited to, a roof-mounted solar energy system.
2. Districts Permitted: By right in all districts
3. Parking Requirements: None
4. Loading Requirements: None
5. Additional Provisions:
  - a. Building-mounted systems may be mounted on an existing or new legal structure, subject to review through the building permit process.
  - b. Building-mounted systems are allowed without Special Review approval as a secondary principal use on parcels with existing principal uses.



- c. A building-mounted solar energy system added to a non-conforming structure, or a structure containing a non-conforming use, will not be considered an enlargement, repair, or alteration of a nonconforming structure or use that increases the degree of nonconformity under Article 4-1002 or that is impermissible under 4-1003.
  - i. Building-mounted solar energy systems on a structure that is non-conforming because it does not meet or is currently at the minimum setback may project into the setback up to an additional one foot.
  - ii. Additional restrictions or requirements in Article 4-400 may apply to nonconforming structures and uses in the floodplain.
- d. Roof-mounted systems must be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the height of the roofline and, consequently, the maximum height permitted in the zoning district by no more than five feet.

**L. Solar Energy – Ground-Mounted System**

- 1. Definition: A solar energy system mounted on a rack or poles that rests on or is attached to the ground, not including a solar energy system mounted on parking canopies.
- 2. Districts Permitted:

Zoning District	Small < 2.5 acres disturbed area	Medium 2.5 to 10 acres disturbed area	Large 10+ acres disturbed area
MF, MH, MI, SR, H	SPR	Not allowed	Not allowed
A, ER, RR, F	SPR/SU*	LU/ SU*	SU*
LI, GI, C, B, T	SPR	SPR	LU

\*Note: Special Review is required for Significant Agricultural Lands in A, RR, ER, as listed in the additional provisions, below. Medium and Large systems are not permitted in platted subdivisions in ER and RR.

- 3. Parking Requirements: To be determined through review
- 4. Loading Requirements: None
- 5. Additional Provisions:
  - a. This use is required to be located on a building lot, or an outlot platted for this purpose.
  - b. The use may be allowed on right-of-way, as permitted by the right-of-way owner and if compatible with the use of the right-of-way. For right-of-way systems, further requirements may be stipulated by the Boulder County Transportation Department or the Colorado Department of Transportation to ensure compatibility with transportation-related uses of the right-of-way.
  - c. The appropriateness of a site, the specific location on the site, and the extent of site disturbance will be determined through the applicable review process.
  - d. Ground-mounted systems with disturbed area greater than 0.5 acre cannot be located on areas designated by the Boulder County Comprehensive Plan as Natural Landmarks, Natural Areas, Critical Wildlife Habitats, or Wildlife Migration Corridors.
  - e. Ground-mounted systems cannot be located on lands encumbered by a conservation easement, except as may be expressly allowed in the conservation easement and permitted by the conservation easement holder.

- f. Ground-mounted systems are allowed as a second principal use on parcels subject to the review process applicable for the proposed new ground-mounted system.
- g. Ground-mounted systems shall not exceed 15 feet in height, except to accommodate site specific needs and as approved through review. Systems exceeding 15 feet in height require an increased setback of 75 feet from all property lines, unless it is demonstrated that a lesser setback or topographical or vegetative screening adequately mitigates visual impacts. In no case shall a system exceed 25 feet in height.
- h. Ground-mounted systems with disturbed area greater than 2.5 acre are not permitted in the Forestry Zoning District unless the site has been previously contaminated or the soil otherwise damaged, making it unsuitable for agricultural or forestry uses. Qualifying areas may include properties that have previously undergone intensive development and where it is determined, through the review process, that installation of a ground-mounted system will not have additional significant impacts.
- i. Ground-mounted systems with a disturbed area greater than 0.5 acre on lands designated as Significant Agricultural Lands under the Boulder County Comprehensive Plan, and located in the Agricultural, Estate Residential, or Rural Residential zone districts, require Special Review and are subject to the following additional requirements intended to preserve and maintain soil and agricultural integrity:
  - i. The total disturbed area associated with the ground-mounted system cannot exceed 7 acres on parcels smaller than 70 acres in size, or 14 acres on parcels larger than 70 acres in size.
  - ii. Application for the ground-mounted system must contain a solar energy system development report as set forth in Article 3-203.

**M. Solar Energy - Parking Canopy System**

- 1. Definition: A solar energy system mounted on or integrated into the construction of a vehicle parking shade structure which covers vehicle or other multimodal parking areas.
- 2. Districts Permitted: By Site Plan Review in all districts
- 3. Parking Requirements: To be determined through the review
- 4. Loading Requirements: None
- 5. Additional Provisions:
  - a. This use is not required to be located on a building lot.
  - b. This use is required to be located on an existing or approved parking area and the vehicle shade structure for this use must meet building code requirements.
  - c. Unobstructed separation of not less than 16 feet, between canopy structures, must be maintained over dedicated parking aisles. Parking space striping and other applicable requirements as described in the Multimodal Transportation Standards must be met.
  - d. A parking canopy system and all of its component parts must not obstruct or encroach into a fire lane.
  - e. Where possible, parking canopy systems should be designed to minimize the increase in overall massing on the site, for example, by having larger systems consist of multiple smaller canopy structures.
  - f. Parking canopy system design must minimize drainage impacts.
  - g. Parking canopy solar energy systems must not exceed a maximum height of 30 feet, unless otherwise approved through Site Plan Review to accommodate site specific needs.

- h. This use cannot be located on lands encumbered by a conservation easement, except as may be expressly allowed in the conservation easement and permitted by the conservation easement holder.

## **4-516 Accessory uses**

### **K. Accessory Solar Energy System**

- 1. Definition: Building-mounted, ground-mounted, and parking canopy solar energy systems designed primarily for serving on-site needs of a principal use.
- 2. Districts Permitted: By right in all districts for building-mounted systems. By Site Plan Review for ground mounted and parking canopy systems. Site Plan Review may be waived by the Director for systems with a disturbed area less than 0.5 acres, per 4-802.
- 3. Parking Requirements: None
- 4. Loading Requirements: None
- 5. Additional Provisions:
  - a. Ground-mounted systems are structures that must meet applicable setbacks for the zone district except as provided in section 5.b. below .
  - b. If necessary for the effectiveness of the system, accessory ground-mounted systems may be located within minimum lot line setbacks and within any applicable major road supplemental setback without the need for a variance, provided that the solar energy system is located not less than 5 feet from lot lines and not less than 15 feet from all roads.
  - c. Accessory ground-mounted systems may not exceed 15 feet in height, except to accommodate site specific needs and as approved through review. In no case shall a system exceed 25 feet in height.
  - d. Accessory solar energy systems must also meet all applicable Additional Provisions for solar energy including building-mounted, ground-mounted, or parking canopy systems contained in Article 4-514.

## **4-802 Applicability and Scope of Site Plan Review Process for Development**

- A. Site Plan Review shall be required for (unless not required or waived pursuant to sections B and C below):
  - 13. A ground-mounted or parking canopy solar energy system as a principal use or accessory use, as specified in Articles 4-514 and 4-516.
- C. Site Plan Review may be waived for the following circumstances if the Land Use Director determines that there is no potential for any significant conflict with the criteria listed in Article 4-806 of this Code:
  - 7. A principal or accessory ground-mounted solar energy system less than 0.5 acre.
  - 8. A parking canopy solar energy system less than 0.5 acre.

## **4-1002 Nonconforming Structures**

- C. A nonconforming structure may not be altered, repaired, or enlarged in any way which would increase the degree of nonconformity with respect to the setback or height regulations of this Code,

4. Installation of a flush roof-mounted or building integrated accessory solar energy systems shall not be considered an increase in the degree of nonconformity, provided it meets the specifications in section 4-514 or 4-516.

#### **4-1003 Nonconforming uses**

- C. Enlargement or Alteration of a Nonconforming Use
  2. An impermissible enlargement or alteration shall not include the following:
    - d. the addition of a solar energy system to a structure containing a nonconforming use provided it meets the specifications in Articles 4-514 or 4-516; or

#### **Article 18 - Definitions:**

##### **18-136A Disturbed Area (as used in Article 7-904, or in Article 4-514, 4-516 or 4-802, pertaining to solar energy systems)**

That area of the land's surface disturbed or in any way changed as a result of construction activity, including but not limited to new structures, access and areas used for access or parking during and following the construction process.

##### **18-162 Floor Area**

The area of a building or structure, existing or new, including basements and attached garages calculated without deduction for corridors, stairways, closets, the thickness of interior walls, columns, or other features as measured from the exterior face of the exterior walls. Floor area does not include the area of any covered porch or solar energy ground-mounted system, or a solar energy parking canopy system except as specified for Residential Floor Area. (For Residential Structures, see also Article 18-189D.)

##### **18-185 Power Plant**

An electrical energy generating facility with generating capacity of more than 50 megawatts and any appurtenant facilities.

##### **18-189D Residential Floor Area**

For the purposes of Site Plan Review and the presumptive size thresholds associated with the Expanded Transfer of Development Rights Program, Residential Floor Area includes all attached and detached floor area (as defined in 18-162) on a parcel including principal and accessory structures used or customarily used for residential purposes, such as garages, studios, pool houses, storage sheds, home offices, and workshops. (Exemptions: Gazebos, carports, solar parking canopies, detached greenhouses, renewable energy storage facilities, and hoop houses up to a total combined size of 400 square feet.)

##### **18-198 Solar Access**

The ability to receive sunlight across real property for any solar energy device.

##### **18-199 Solar Energy System**

A system composed of panels, arrays, or devices which convert the sun's radiant energy into thermal, chemical, mechanical, or electric energy, which may include an energy storage facility, and components for the transmission and distribution of transformed energy.

# Land Use

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856  
**Mailing Address:** P.O. Box 471 • Boulder, Colorado 80306 • [www.bouldercounty.org](http://www.bouldercounty.org)

## Docket DC-18-0002: Amendments to the Boulder County Land Use Code for Solar-related Uses and Regulations

Request: Review of draft Land Use Code Text amendments regarding Solar Energy System uses and related provisions. (Staff planner: Sinead O’Dwyer)

Dear Stakeholder/Interested Party,

On May 10, 2018, the Board of County Commissioners authorized Land Use staff to pursue text amendments to the Boulder County Land Use Code specific to solar-related uses and regulations.

**Why:** Staff identified a need for updating the existing language and structure of the code, increasing the opportunity for community solar gardens in the county, and better facilitating solar development on buildings and parking areas.

### Summary of Proposed Text Amendments:

- Change principal use categories for improved organization
- Change ground-mounted size categories from an electrical capacity basis to an acreage basis
- Allow Medium and Large Solar in more zoning districts (T, B, ER and RR un-subdivided)
- Revise provisions for Forestry and Agricultural zones
- Reduce review requirements where appropriate
- Allow solar on Significant Agricultural Lands given additional provisions

### Attachments

	Description
<b>Attachment A</b>	<b>Existing Solar-Related Land Use Code text</b>
<b>Attachment B</b>	<b>Proposed Solar-related Land Use Code text</b>
<b>Attachment C</b>	<b>Relevant Maps</b> Zoning Districts, BCCP Significant Agricultural Lands, Critical Wildlife Habitat, Natural Landmark and Natural Areas
<b>Attachment D</b>	<b>Summary Table of Agricultural Lands of Significance</b>

This is the initial referral draft of the proposed regulations to garner feedback and make necessary changes to the draft before it is recommended for adoption through the public hearing process. The existing text and a draft of the proposed text amendments is attached to this letter for your review. You may also view the proposed draft text amendments and future revisions in our office or online at: <https://www.bouldercounty.org/property-and-land/land-use/planning/land-use-code-update/dc-18-0002/>

The docket review process for the proposed amendments will include a public hearing before the Boulder County Planning Commission and the Boulder County Board of County Commissioners. Public comments will be taken at both hearings. Confirmation of hearing dates and times will be published online at the link above and in local newspapers.

The Land Use staff and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter or email with your comments. All



comments will be made part of the public record. If you have any questions regarding this docket, please contact us at (303) 441-3930 or sodwyer@bouldercounty.org.

Please return responses by August 20, 2018. Late responses will be reviewed as the process permits.

\_\_\_\_\_ We have reviewed the proposal and have no conflicts.

\_\_\_\_\_ Letter is enclosed.

Signed \_\_\_\_\_ PRINTED Name \_\_\_\_\_

Agency or Address \_\_\_\_\_

## **Article 4:**

### **4-101 Forestry, 4-102 Agricultural, 4-110 Commercial, 4-111 Light Industrial, 4-112 General Industrial**

#### **(F) Additional Provisions**

5. Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens, Medium Solar Energy Systems or Solar Gardens, and Large Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

### **4-103 Rural Residential, 4-104 Estate Residential, 4-105 Suburban Residential, 4-106 Multi-family, 4-107 Manufactured Home Park, 4-108 Transitional, 4-109 Business, and 4-117 Mountain Institutional**

#### **(F) Additional Provisions**

5. Small Wind-Powered Energy Collectors Systems, and Small Solar Energy Collectors Systems or Solar Gardens can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

## **4-514 Utility and Public Service Uses**

### **F . Large Solar Energy System**

1. Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy, and which may be used for one or more users .
2. Districts Permitted: By Special Review in GI, LI, C, A, F if the system has a rated capacity greater than 2 MW but does not meet the Land Use Code definition of Power Plant
3. Parking Requirements: To be determined through the review
4. Loading Requirements: None
5. Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
  - c. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
  - d. This use is permitted in the Agricultural or Forestry zone districts will be permitted only if the area used has been contaminated or damaged making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.

- e. This use cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
- f. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive) .
- g. Applications shall be reviewed with special consideration given to lands identified as Open Corridor, Roadside in the Boulder County Comprehensive Plan.

#### **H . Medium Solar Energy System or Solar Garden**

- 1 . Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy, and which may be used for one or more users.
- 2 . Districts Permitted: By Special Review in GI, LI, C, A, F if the rated capacity of the system will be at least 500 kW but not more than 2 MW
- 3 . Parking Requirements: To be determined through the review
- 4 . Loading Requirements: None
- 5 . Additional Provisions:
  - a. This use is required to be located on a building lot or an outlot platted for this purpose.
  - b. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
  - c. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
  - d. Medium solar energy systems in the Forestry zone district will be permitted only if the area used has been contaminated or damaged in the past making it unsuitable for agricultural, forestry, or residential uses. These areas may include former landfills, brownfields, Superfund sites, and the like.
  - e. Medium solar energy systems cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats .
  - f. Applications shall be reviewed with special consideration given to lands identified as Open Corridor, Roadside in the Boulder County Comprehensive Plan.
  - g. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof in order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).

#### **M . Small Solar Energy System or Solar Garden**

- 1 . Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the transmission and distribution of transformed energy.

2 . Districts Permitted: By Site Plan Review in all districts if the system will have a rated capacity of 100 kW or less .  
By Limited Impact Special Review in all districts if the system will have a rated capacity greater than 100 kW but less than 500 kW.

3 . Parking Requirements: To be determined through the review

4 . Loading Requirements: None

5 . Additional Provisions:

- a. This use is required to be located on a building lot or an outlot platted for this purpose.
- b. If necessary for the system's effectiveness, ground-mounted solar energy collectors may be located within the minimum lot line setbacks for the subject property zoning district and within any applicable major road supplemental setback without the need for a variance, provided that the solar energy collector is located no less than five feet from lot lines and no less than 15 feet from road rights-of-way.
- c. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements unless authorized in writing by the easement holder.
- d. This use shall not have a significant adverse visual impact on the natural features or neighborhood character of the surrounding area and shall be located to minimize glare on adjacent properties and roadways.
- e. Applications shall be reviewed with special consideration given to lands identified as Environmental Resources and Open Corridor, Roadside in the Boulder County Comprehensive Plan.
- f. If larger than 100 kW, this use cannot be located on areas with the following Boulder County Comprehensive Plan designations: Agricultural Lands of National Importance, Agricultural Lands of Statewide Importance, Agricultural Lands of Local Importance, Natural Landmarks and Areas, or Critical Wildlife Habitats.
- g. Roof-mounted systems proposed as a principal use may be mounted on any legal structure, subject to review through the building permit process. Roof-mounted systems shall be mounted as flush as possible to the roof in order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).

## **4-516 Accessory uses**

K . Accessory Solar Energy System

1 . Definition: A system composed of a solar energy collector which may include an energy storage facility, and components for the distribution of transformed energy, which may be attached to a residence or other structure.

2 . Districts Permitted: By right in all districts for roof-mounted systems. By Site Plan Review Waiver for ground-mounted systems.

3. Parking Requirements: None

4. Loading Requirements: None

5. Additional Provisions:

- a. Ground-mounted systems are considered structures and must meet applicable setbacks for the zone district except as provided in 5 .d . below .
- b. Ground-mounted systems shall not have a significant adverse visual impact on neighboring private and public property.

- c. Roof-mounted solar energy systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet or the maximum height of the zone district by up to five feet (whichever is more restrictive).
- d. If necessary for the system's effectiveness, ground-mounted solar energy collectors may be located within the minimum lot line setbacks for the subject property zoning district and within any applicable major road supplemental setback without the need for a variance, provided that the solar energy collector is located no less than five feet from lot lines and no less than 15 feet from road rights-of-way.
- e. Ground-mounted solar energy collectors may not be located within utility easements or ditch easements.

## **4-802 Applicability and Scope of Site Plan Review Process for Development**

A. Site Plan Review shall be required for (unless not required or waived pursuant to sections B and C below):

- 13. A small solar energy system as a principal use

C. Site Plan Review may be waived for the following circumstances if the Land Use Director determines that there is no potential for any significant conflict with the criteria listed in Article 4-806 of this Code:

- 7. Any ground-mounted accessory solar energy system.

## **4-1003 Non-conforming uses- solar energy device**

(C) Enlargement or Alteration of a Nonconforming Use

2. An impermissible enlargement or alteration shall not include the following:

- d) the addition of a solar energy device to a structure containing a nonconforming use; or

## **Article 18 - Definitions:**

### **18-198 Solar Access**

The ability to receive sunlight across real property for any solar energy device.

### **18-199 Solar Energy Device**

A device which converts the sun's radiant energy into thermal, chemical, mechanical, or electric energy.

### **18-185 Power Plant**

An electrical energy generating facility with generating capacity of more than 50 megawatts and any appurtenant facilities.



### **3-203 Standards for Submittal Requirements**

#### **I. Solar Energy System Development Report**

1. A solar energy system development report is required for an application for a ground mounted solar energy system with an area of disturbance greater than one-half (0.5) acre on lands designated as Significant Agricultural Lands under the Boulder County Comprehensive Plan. The solar energy development report must include:
  - a. An installation plan describing the installation method for the solar energy system, including a site plan showing the proposed area of disturbance (as defined in Article 18) and the applicable items listed in Article 3-203(E)(2). The installation plan must include a proposal to minimize soil disturbance and compaction through best management practices.
  - b. A management plan including:
    - (i) A baseline soil test
    - (ii) A soil and vegetation management plan demonstrating proposed methods of maintaining or improving the existing soil quality and agricultural integrity of the land.
    - (iii) A description of how the location and configuration of the solar installation on the property will facilitate and permit agricultural uses either co-located with the solar energy system, or on other areas of the property including but not limited to crops, grazing, and pollinator habitat.
    - (iv) A weed control plan.
  - c. A reclamation plan describing revegetation for the area of disturbance. Abandoned systems must be removed from the site in compliance with any deconstruction regulations in place at that time.

#### **Article 4:**

### **4-101 Forestry, 4-102 Agricultural, 4-110 Commercial, 4-111 Light Industrial, 4-112 General Industrial, 4-103 Rural Residential, 4-104 Estate Residential, 4-105 Suburban Residential, 4-106 Multi-family, 4-107 Manufactured Home Park, 4-108 Transitional, 4-109 Business, and 4-117 Mountain Institutional**

#### **(F) Additional Provisions**

5. Small Wind-Powered Energy Collectors Systems and Solar Energy Systems can be approved on parcels with existing principal uses without Special Review approval, however, these uses shall be reviewed using the process and standards described in the Utility and Public Service Uses classification in this Code.

### **4-514 Utility and Public Service Uses**

#### **K. Solar Energy System- Building Mounted**

1. Definition: A solar energy system mounted on or integrated into the construction of a structure, such as, but not limited to, a roof-mounted solar energy system.
2. Districts Permitted: By right in all districts
3. Parking Requirements: None

4. Loading Requirements: None
5. Additional Provisions:
  - a. Building-mounted systems may be mounted on an existing or new legal structure, subject to review through the building permit process.
  - b. Building-mounted systems are allowed as a secondary principal use on parcels with existing principal uses, without Special Review approval.
  - c. A building mounted solar energy system proposed on a non-conforming structure, or a structure containing a non-conforming use, will not be considered enlargement or alteration of a nonconforming structure or use under sections 4-1002 and 4-1003. Note that improvements to nonconforming structures in the floodplain may have additional restrictions or requirements.
  - d. Roof-mounted systems shall be mounted as flush as possible to the roof. In order to achieve proper solar orientation, panels may exceed the roofline by up to five feet, or the maximum height of the zone district by up to five feet, whichever is more restrictive.
  - e. Building mounted solar energy systems on a structure that is non-conforming because it does not meet or is currently at the minimum setback may not project from the building more than one foot further into the setback.

**L . Solar Energy System- Ground Mounted**

1 . Definition: A solar energy system mounted on a rack or poles that rests on or is attached to the ground, but not including a solar energy system mounted on parking canopies.

2 . Districts Permitted:

Zoning District	Small < 2.5 acres	Medium 2.5 to 10 acres	Large 10+ acres
MF, MH, MI, SR, H	SPR	Not allowed	Not allowed
A, ER, RR, F	SPR/SU*	LU/ SU*	SU*
LI, GI, C, B, T	SPR	SPR	LU

\*Note: Special Review is required for Significant Agricultural Lands, as listed in additional provisions. Medium and Large systems are not permitted in platted subdivisions in ER and RR.

- 3 . Parking Requirements: To be determined through the review
- 4 . Loading Requirements: None
- 5 . Additional Provisions:
  - a. This use is required to be located on a building lot, an outlot platted for this purpose, or Right-of-way as found appropriate.
  - b. Solar energy systems with an area of disturbance greater than one-half-acre cannot be located on areas designated by the Boulder County Comprehensive Plan as Natural Landmarks and Natural Areas, or Critical Wildlife Habitats and Migration Corridors.
  - c. Ground-mounted solar energy systems cannot be located on lands encumbered by a conservation easement, except as may be expressly allowed in the conservation easement and permitted by the conservation easement holder.
  - d. Ground-mounted solar energy systems are allowed as a secondary principal use on parcels with existing principal uses, subject to the applicable review process for the proposed size and zone district required under this use.
  - e. Ground-mounted solar energy systems must not exceed fifteen feet in height, except as needed to accommodate site specific needs and as approved through review. Applications requesting to exceed 15

feet shall adequately increase the setback from property lines or demonstrate topographical screening to mitigate visual impacts.

- f. Ground-mounted solar energy systems must meet applicable setbacks for the zoning district.
- g. Ground-mounted systems with an area of disturbance greater than one-half acre are not permitted in the Forestry Zoning District unless the site has been previously contaminated or damaged making it unsuitable for agricultural, forestry, or residential uses. Qualifying areas may include properties that formerly served as landfills, brownfields, Superfund sites, and properties that have undergone intensive development; for example commercial, industrial, parking, or materials storage areas, or other areas where it is determined through the review process that installation of a ground mounted solar energy system will not have additional significant impacts.
- h. Ground-mounted systems with an area of disturbance greater than one-half acre on lands designated as Significant Agricultural Lands under the Boulder County Comprehensive Plan require special review and are subject to the following additional requirements with the intention to preserve and maintain soil and agricultural integrity:
  - i. The total area of disturbance associated with the ground mounted solar energy system cannot exceed seven (7) acres of land on parcels smaller than seventy (70) acres in size, and cannot exceed fourteen (14) acres of land on parcels larger than seventy (70) acres in size. A proposed ground mounted solar energy system may be limited to a smaller area of disturbance as determined necessary by the Director or Board of County Commissioners based on the land use impacts of the proposed system or to comply with other provisions of the Code.
  - ii. Application for the ground mounted solar energy system must contain a solar energy system development report set forth in section 3-203, including management plan for maintaining soil health and quality, which may describe co-located vegetation or agricultural uses.
  - iii. To mitigate impacts to the scenic value of agricultural lands, mitigation measures including additional setbacks from property lines, vegetative screening, and more restrictive height limitations may be required.

**M . Solar Energy System- Parking Canopy**

- 1. Definition: A solar energy system mounted on or integrated into the construction of a vehicle parking shade structure which exclusively covers vehicle or other multi-modal parking spaces.
- 2. Districts Permitted: By Site Plan Review in all districts
- 3. Parking Requirements: To be determined through the review
- 4. Loading Requirements: None
- 5. Additional Provisions:
  - a. This use is required to be located on an existing or approved parking lot.
  - b. Unobstructed separation of not less than 16 feet, between canopy structures, must be maintained over dedicated parking aisles. Parking space striping and other applicable requirements as described in the Multi-modal Transportation Standards must be met.
  - c. A parking canopy solar energy system and all of its component parts must not obstruct or encroach into a fire lane.
  - d. Parking canopy solar energy systems must not exceed a maximum height of 30 feet, unless otherwise approved through Site Plan Review.

- e. This use cannot be located on lands encumbered by a conservation easement, except as may be expressly allowed in the conservation easement and permitted by the conservation easement holder.

## **4-516 Accessory uses**

### **K . Accessory Solar Energy System**

- 1 . Definition: Building-mounted, ground-mounted, and parking canopy solar energy systems providing for up to 120 percent of the on-site energy use or one-half (0.5 acres), are permitted as an accessory use.
- 2 . Districts Permitted: By right in all districts for building-mounted systems. By Site Plan Review for ground-mounted and parking canopy systems, unless waived by the Director.
3. Parking Requirements: None
4. Loading Requirements: None
5. Additional Provisions:
  - a. Ground-mounted systems are considered structures and must meet applicable setbacks for the zone district except as provided in 5 .b. below .
  - b. If necessary for the system’s effectiveness, accessory ground-mounted solar energy systems may be located within the minimum lot line setbacks for the subject property zoning district and within any applicable major road supplemental setback without the need for a variance, provided that the solar energy system is located not less than five (5) feet from lot lines and no less than fifteen (15) feet from all roads.
  - c. Accessory ground-mounted solar energy systems may not exceed 15 feet in height, except to accommodate site specific needs and as approved through review. Applications requesting to exceed 15 feet shall adequately increase the setback from property lines or demonstrate topographical screening to mitigate visual impacts.
  - d. Accessory solar energy systems must meet all other applicable provisions of section 4-514 for building-mounted, ground-mounted, or parking canopy solar energy systems as principal uses.

## **4-802 Applicability and Scope of Site Plan Review Process for Development**

- A. Site Plan Review shall be required for (unless not required or waived pursuant to sections B and C below):
13. A ground mounted or parking canopy solar energy system as a principal use or accessory use, as described in 4-514 and 4-516.

C. Site Plan Review may be waived for the following circumstances if the Land Use Director determines that there is no potential for any significant conflict with the criteria listed in Article 4-806 of this Code:

7. Any ground-mounted accessory solar energy system.
8. Ground mounted or parking canopy solar energy systems less than 2.5 acres

## **4-1002 Nonconforming Structures**

C. 1.a Installation of a flush roof-mounted or building integrated accessory solar energy systems shall not be considered an increase in the degree of non-conformity, provided it meets the specifications in 4-516.

## **4-1003 Non-conforming uses**

(C) Enlargement or Alteration of a Nonconforming Use

2. An impermissible enlargement or alteration shall not include the following:

- d) the addition of a solar energy system to a structure containing a nonconforming use; or

## **Article 18 - Definitions:**

### **18-100B Area of Disturbance**

The area of disturbance for a solar energy system project shall include new structures, access and areas used for access or parking, including during the construction process.

### **18-162 Floor Area**

The area of a building or structure, existing or new, including basements and attached garages calculated without deduction for corridors, stairways, closets, the thickness of interior walls, columns, or other features as measured from the exterior face of the exterior walls. Floor area does not include the area of any covered porch, ground-mounted solar energy systems. Solar parking canopies are exempt from floor area on parcels other than for single-family residential use (For Residential Structures, see also Article 18-189D.)

### **18-185 Power Plant**

An electrical energy generating facility with generating capacity of more than 50 megawatts and any appurtenant facilities.

### **18-189D Residential Floor Area**

For the purposes of Site Plan Review and the presumptive size thresholds associated with the Expanded Transfer of Development Rights Program, Residential Floor Area includes all attached and detached floor area (as defined in 18-162) on a parcel including principal and accessory structures used or customarily used for residential purposes, such as garages, studios, pool houses, storage sheds, home offices, and workshops. (Exemptions: Gazebos, carports, solar parking canopies, detached greenhouses, renewable energy storage facilities, and hoop houses up to a total combined size of 400 square feet.)

### **18-198 Solar Access**



















The ability to receive sunlight across real property for any solar energy device.

### **18-199 Solar Energy System**

A system composed of panels, arrays, or devices which convert the sun's radiant energy into thermal, chemical, mechanical, or electric energy, which may include an energy storage facility, and components for the transmission and distribution of transformed energy.



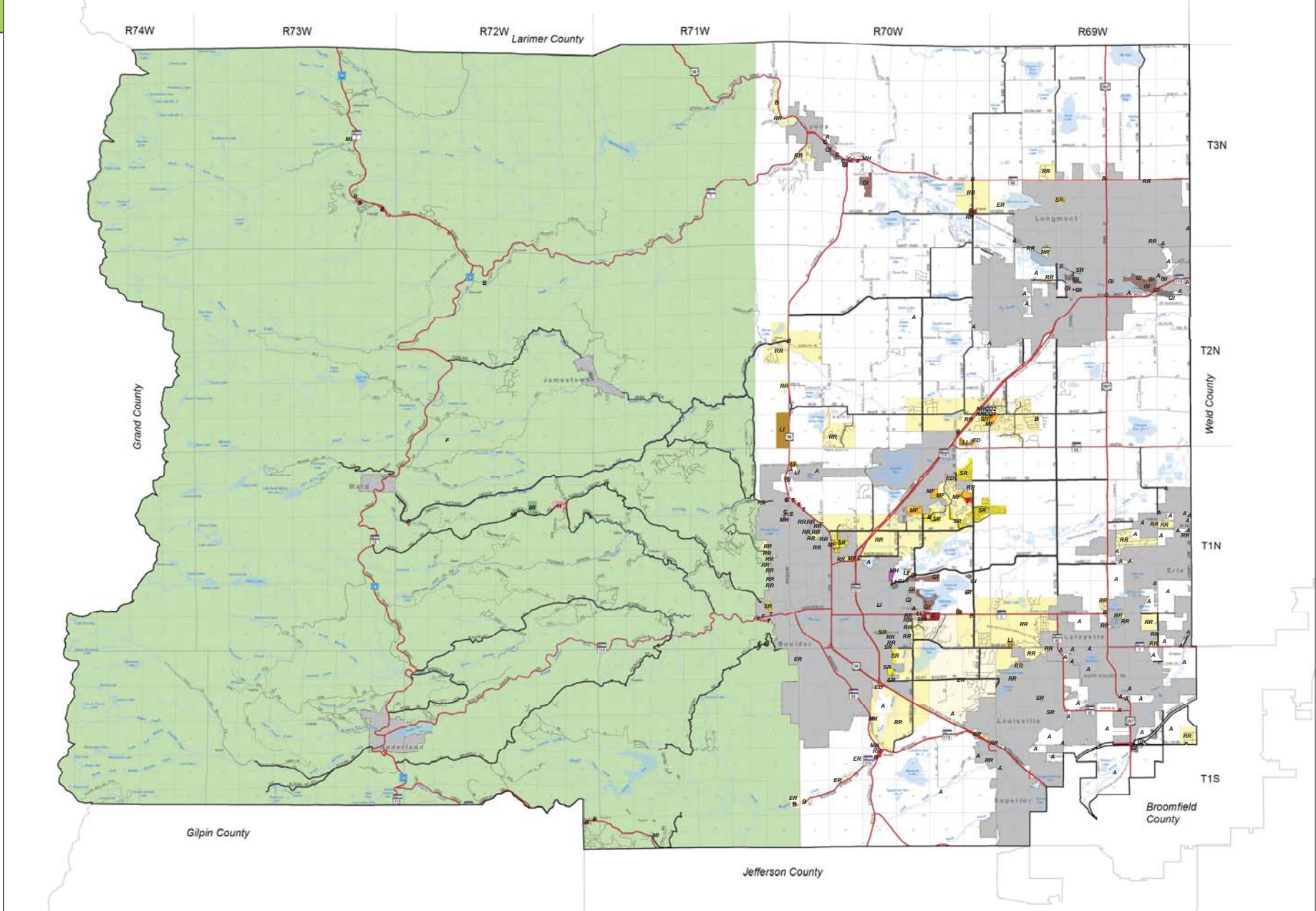
**Legend**

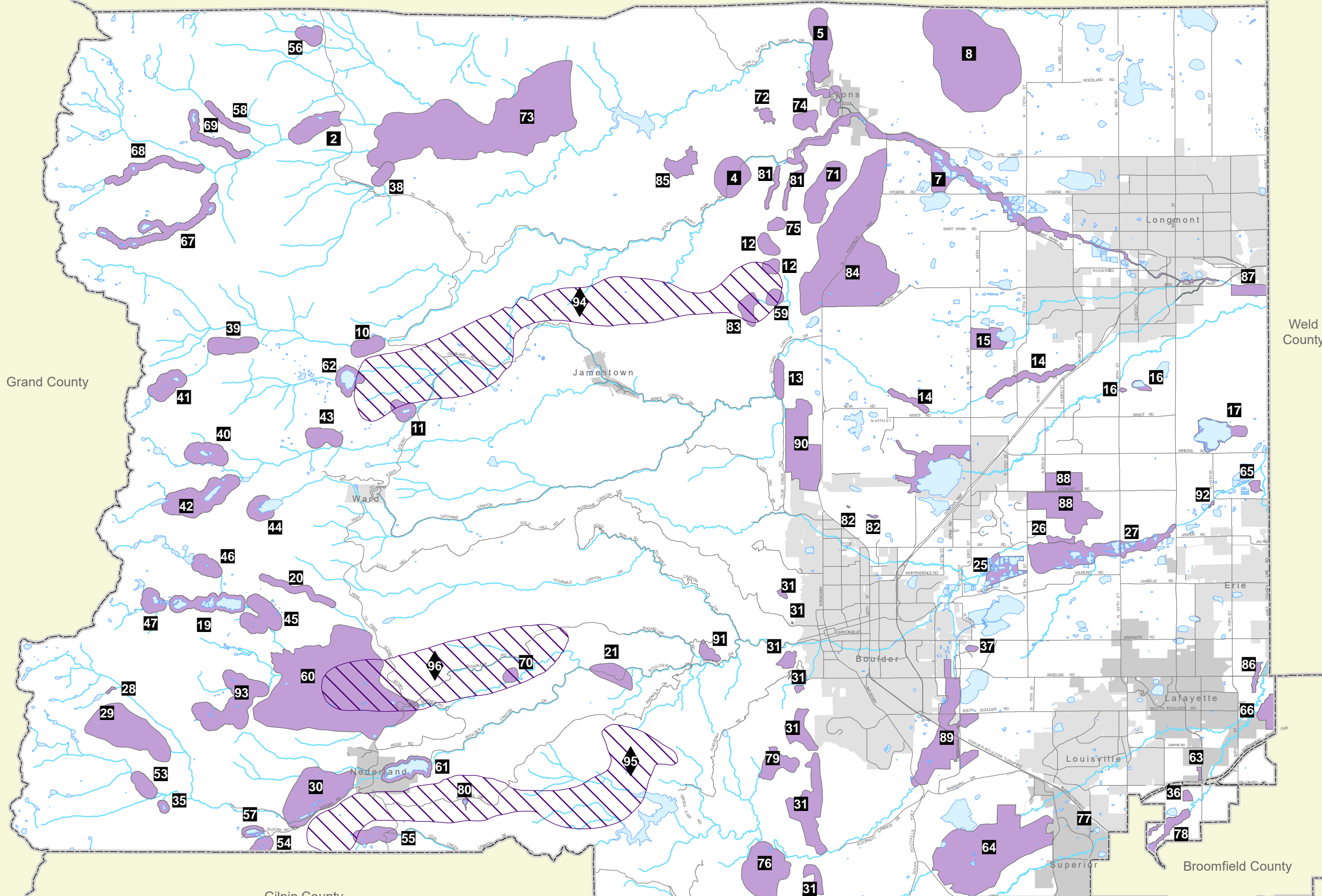
-  Municipalities
-  Agricultural
-  Business
-  Commercial
-  Economic Development
-  Estate Residential
-  Forestry
-  General Industrial
-  Historic
-  Light Industrial
-  Multiple Family
-  Manufactured Home
-  Mountain Institutional
-  Rural Community I
-  Rural Community II
-  Rural Residential
-  Suburban Residential
-  Transitional

 0 1 2 Miles

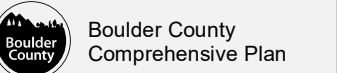
Date: 2/15/2017

This map is for illustrative purposes only and the features depicted on it are approximate. More site specific studies may be required to draw accurate conclusions. Boulder County makes no warranties regarding the accuracy, completeness, reliability, or suitability of this map. Boulder County disclaims any liability associated with the use or misuse of this map. In accessing and/or relying on this map, the user fully assumes any and all risk associated with the information contained therein.







# Critical Wildlife Habitat and Migration Corridors



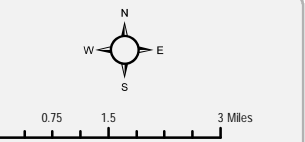
## Critical Wildlife Habitats

**1**  An area of unique habitat which has a crucial role in sustaining populations of native wildlife and in perpetuating and encouraging a diversity of native species in the county. The area may be significantly productive habitat or particularly vital to the life requirements of species that are critically imperiled or vulnerable to extirpation.

## Wildlife Migration Corridors

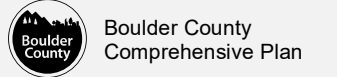
**1**  A specific, delineated area of known elk migration movement for a major elk herd in Boulder County.

Adopted October 15, 2014  
Planning Commission





# Natural Landmarks and Natural Areas



## Natural Landmarks



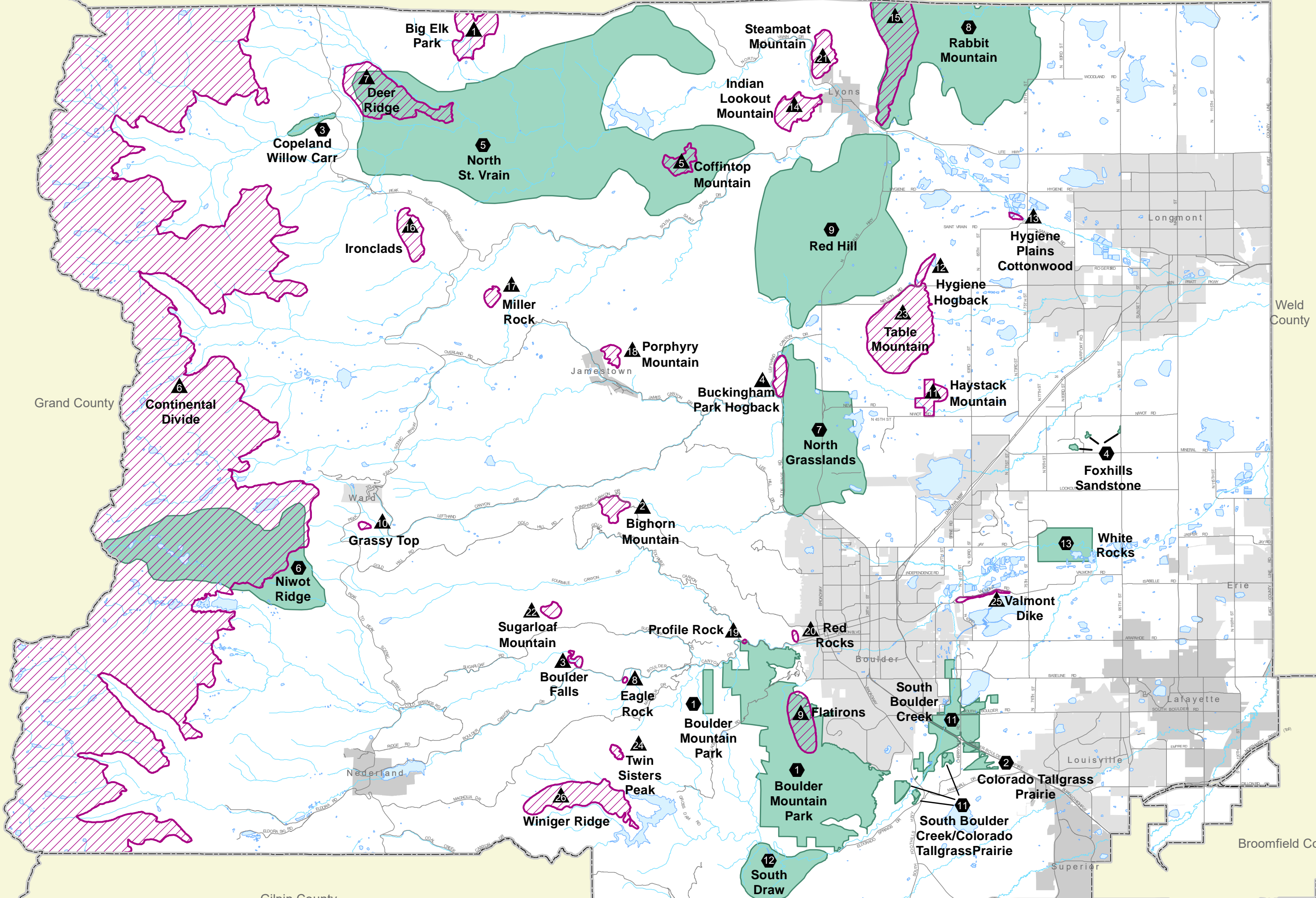
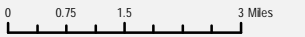
A landscape feature designated solely for its visual and scenic prominence that distinguishes a specific locality in Boulder County.

## Natural Areas

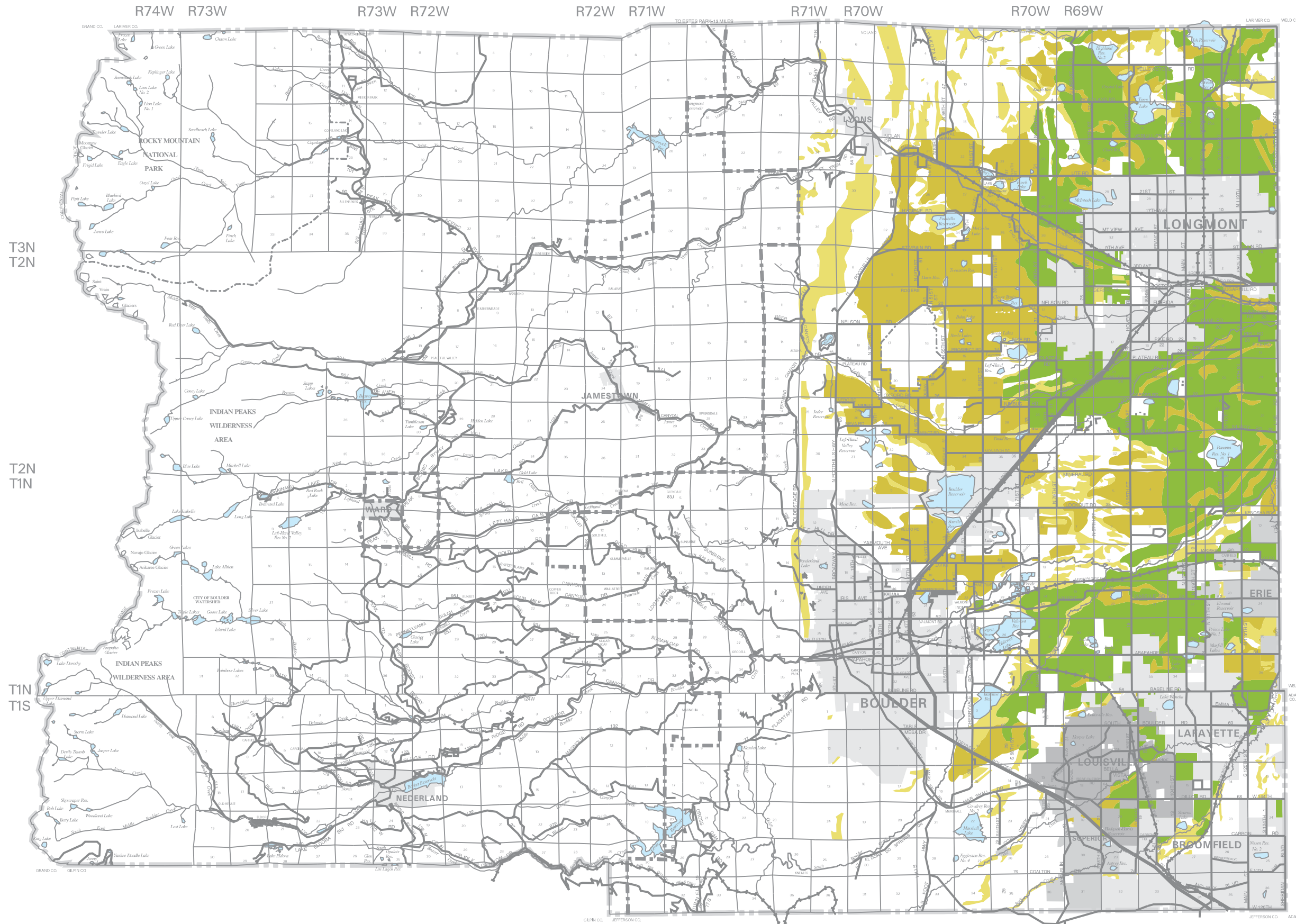


An area especially unique and important to the natural heritage of the county that typifies native vegetation and associated biological and geological features and provides habitat for rare or endangered animal or plant species; or includes geologic or other natural features of scientific or educational value.

Adopted October 15, 2014  
Planning Commission



### Significant Agricultural Lands Environmental Resources



#### Legend

- Lands of National Importance
- Lands of Statewide Importance
- Lands of Local Importance
- Incorporated Areas  
(As of June 9, 1998)

#### Notes

Map scale and reproduction method limit precision in physical features and boundary locations.  
PRINTED - JULY 1, 1998

Adopted - Planning Commission - July 16, 1997  
Approved - County Commissioners - August 14, 1997



**COMPREHENSIVE  
PLAN MAP**



Significant Agricultural Lands



## BCCP Significant Agricultural Lands

	Types	Distinguishing Factors and Crops Generally Grown Here	Source of Identification
<b>National</b>	Prime Farmland- based on criteria in Federal Public Law 95-87	Best physical and chemical characteristics: <ul style="list-style-type: none"> <li>• Soil moisture</li> <li>• water availability/ irrigation</li> <li>• mean soil temperature</li> <li>• salinity</li> <li>• permeability</li> <li>• erodibility</li> <li>• drainage/deeper water table</li> <li>• slope less than 6%</li> </ul>	USDA
<b>Statewide</b>	Irrigated Lands (inadequate water) High Potential Dry Cropland	Hay meadows, Dryland wheat, grain sorghum, forage sorghum, corn, fruit and vegetable growing and seed cultivation	CO Division of Agriculture, Dept of Natural Resources and CO Soil Conservation Board
<b>Local</b>	Irrigated Crop Land Dry Crop Land Rangeland	<ul style="list-style-type: none"> <li>▪ Soil type- includes class III which is very limited</li> <li>▪ Existing land Use—using aerial photography and Land Use records</li> <li>▪ Carrying Capacity – based on soil type and moisture</li> <li>▪ Grasses, grass-like plants, forbs and shrubs, valuable for grazing</li> </ul>	Longmont office of SCS and Boulder County Extension Office



**CITY OF BOULDER**  
**Planning, Housing & Sustainability**

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phone 303-441-1880 • email [planning@bouldercolorado.gov](mailto:planning@bouldercolorado.gov)

**Referral Docket DC-18-002**  
**Amendments to the Boulder County Land Use Code**  
**for Solar-related Uses and Regulations**  
**August 20, 2018**

Thank you for the opportunity to comment on this proposed Land Use Code amendment. These comments pertain to the Planning Area for the [Boulder Valley Comprehensive Plan](#) (BVCP), a jointly adopted plan by the City and County. The BVCP supports increasing the opportunities for community solar gardens in the county. A core value of the BVCP is environmental stewardship and climate action, and several policies appear to further the stated purpose of this proposed code amendment, including:

**4.01 Climate Action: Reduce Greenhouse Gas**

Emissions To mitigate climate change, the city and county will continue to take action to reduce the burning of fossil fuels for energy and encourage such change throughout the Boulder Valley. The city and county will identify and implement innovative as well as cost-effective actions to dramatically reduce the entire community's (e.g., government, private business, individual residents) and visitor's contributions to total global GHG emissions and power a vibrant future. The city's goals are to reduce its energy-related emissions 80 percent or more below 2005 levels by 2050 through a rapid transition to a renewable energy-based economy and achieve 100 percent renewable electricity by 2030. The county has strategies in place aimed at reducing emissions 40 percent below 2005 levels by the year 2020 and is working to achieve carbon neutrality and become more resilient to the effects of climate change.

**4.04 Local Energy Generation Opportunities**

The city and county support programs and opportunities for individuals, businesses and organizations to develop, use and share local energy generation. The city will review and consider revisions to regulations to support onsite energy generation, including solar and wind.

**4.04 Local Energy Generation Opportunities**

The city and county support programs and opportunities for individuals, businesses and organizations to develop, use and share local energy generation. The city will review and consider revisions to regulations to support onsite energy generation, including solar and wind.

Thank you for the referral and opportunity to comment on this potential Land Use Code amendment. Please feel free to contact us with any questions or comments.

Respectively,

Phil Kleisler  
Planner II, Comprehensive Planning  
(303) 441-4497  
[kleislerp@bouldercolorado.gov](mailto:kleislerp@bouldercolorado.gov)



**Right of Way & Permits**

1123 West 3<sup>rd</sup> Avenue  
Denver, Colorado 80223  
Telephone: **303.571.3306**  
Facsimile: 303. 571. 3284  
donna.l.george@xcelenergy.com

August 17, 2018

Boulder County Land Use  
PO Box 471  
Boulder, CO 80306

Attn: Sinead O'Dwyer

**Re: Amendment to Boulder County Land Use Code for Solar Energy Systems, Case # DC-18-0002**

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the plans for the above captioned project and has no objection to this proposal, contingent upon PSCo's ability to maintain all existing rights and this amendment should not hinder our ability for future expansion, including all present and any future accommodations for natural gas transmission and electric transmission related facilities.

If there are any questions with this referral response, please contact me at 303-571-3306.

Donna George  
Right of Way and Permits  
Public Service Company of Colorado



**O'Dwyer, Sinead**

---

**From:** Kate Keiser <kate@packarddierking.com>  
**Sent:** Monday, August 20, 2018 12:04 PM  
**To:** O'Dwyer, Sinead  
**Cc:** Byron Kominek; kurt kominek; egkominek@aol.com  
**Subject:** DC-18-0002  
**Attachments:** Ltr Comments to Land Use Code Proposed Amendments (00326362xA14B2).PDF

Hi Sinead,

Please find attached comments relating to DC-18-0002 on behalf of Byron Kominek, Kurt Kominek, and Eloise Kominek. I look forward to discussing our comments with you shortly! Please let me know if you have any questions or difficulty with the attachment.

Best regards,

Kate



[Kate@PackardDierking.com](mailto:Kate@PackardDierking.com) | [Website](#) | [vCard](#)

**Kathryn D. Keiser**

Attorney

2595 Canyon Blvd., Suite 200 Boulder, CO 80302

Phone: 303.447.0450 Fax: 303.447.0451

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KATHRYN D. KEISER  
kate@packarddierking.com

August 20, 2018

**VIA E-MAIL**

Boulder County Land Use Department  
Courthouse Annex  
2045 13<sup>th</sup> Street  
Boulder, CO 80302  
[sodwyer@bouldercounty.org](mailto:sodwyer@bouldercounty.org)

Re: DC-18-0002: Amendments to the Boulder County Land Use Code for Solar-related Uses and Regulations

Greetings:

This letter of comment to the proposed revisions to Boulder County's Land Use Code for solar-related uses is submitted to the Boulder County Land Use staff, Boulder County Planning Commission, and Boulder County Board of Commissioners (collectively, the "County") on behalf of Kurt Kominek, Eloise Kominek, and Byron Kominek (the "Komineks").

**Background Information**

The Komineks (through their limited liability company, Colorado Family Farm LLC) own a nearly 24-acre parcel of land in unincorporated Boulder County, located at 8102 N 95<sup>th</sup> Street (the "Property"). The Property has been designated as Agricultural Land of National Importance ("ALNI") by the United States Department of Agriculture ("USDA"). This designation was made circa 1996, and, to the best of the Komineks' actual knowledge, has not been reevaluated since that date. Since that designation was made, a number of events and changing circumstances have occurred, which may have altered the Property's eligibility for such a designation. For example, flooding and farming operations may have altered the quality of the topsoil. Additionally, the availability of water for irrigation purposes has also changed (as has the price of additional water). ALNI-designated land throughout the County cannot be assumed to be in the same condition as it was in 1996. Per our investigation with the Longmont Conservation District in which the Property is located, the USDA is not expected to reevaluate the land in the near future, and there is no process to compel the USDA to revisit its designation.

Farming operations on the Property are fairly minimal, due to the lack of adequate water for irrigation. Accordingly, the current agricultural use of the Property is not financially sustainable. The Komineks hope that the installation of a 5-acre solar energy system (generating roughly 1MW of electricity) on a portion of their ~24-acre property will allow for more effective and lucrative farming of the remaining acreage, provide additional revenue to sustain such continued agricultural use, and allow them to branch into other beneficial agricultural uses, such as the creation of a pollinator community. This desired solar use is precluded by the current Land Use Code (the “Code”) due to the Property’s designation as ALNI.

### **Comments to Proposed Solar-related Land Use Code and Request for Further Revision**

The Komineks applaud the County for reviewing and revising the solar-related provisions of the Land Use Code (the “Code”) to encourage and simplify access to solar uses. These thoughtful updates better align the County’s policies and guidelines with current solar technology and practices. However, we respectfully request that the County consider further revision to provide greater clarity and guidance to County residents seeking to develop solar uses as provided by the proposed Code amendments, as further discussed below. The references to the proposed Code amendments below refer to the Code as set forth on Attachment B to DC-18-0002.

#### **Article 3-203.I.1(a)**

This provision requires that every application for ground-mounted solar energy systems on Significant Agricultural Lands include a solar energy system development report. Such report must contain an installation plan for the solar energy system. This installation plan must include “a proposal to minimize soil disturbance and compaction through best management practices.” It is unclear from this provision what such a proposal might include. In general, there would not be an ongoing disturbance or additional compaction to soils below a solar energy system, unless such disturbance or compaction was due to a concurrent or ancillary use (such as would occur with a parking canopy). For ground-mounted solar energy systems, the minimal soil disturbance and compaction would occur at installation and eventual removal of the solar improvements; it is difficult to foresee a circumstance where any particular management practice would improve or mitigate any ongoing negative effects to the soil. While the County’s concern for and desire to protect Significant Agricultural Lands (which includes land designated as ALNI) is certainly appropriate, it is difficult to imagine a scenario where soils are more disturbed or compacted through solar uses than they would be if farmed with heavy machinery.

Further, it is unclear how the County would determine whether negative effects to the soils were in fact minimized. For example, would the County require a soil porosity measurement before and after installation? If so, what would be an acceptable difference? Does this refer to soil disturbance located only within the “area of disturbance” as defined by Article 18-100.B, or is there a buffer area that should also be included? Additional specificity would be helpful with respect to this provision. Similarly, specificity would make the requirements of the management plan in subparagraph (b) more meaningful, particularly with respect to the baseline soil test and soil and vegetation management plan required by (b)(i) and (b)(ii).

Article 3-203.I.1(c)

This provision requires the solar energy system development report also include a reclamation plan describing revegetation for the area of disturbance. The life of a solar energy system is generally 20-30 years (and possibly longer); shorter-term uses are unlikely to net sufficient return on the initial investment to justify their implementation. In the past two decades, there has been tremendous advancement in solar technology, and there is every reason to expect that solar technology will continue to evolve. The proposed amendment seems to contemplate this, as it states that removal and deconstruction of the site must comply with the regulations in effect at the time of removal. However, it is not clear that the reclamation plan requires only a plan for revegetation, as opposed to also requiring a plan for eventual disposal.

Article 4-514.L.5(h)

As stated above, the Kominiks’ property is designated as Significant Agricultural Land (“SAL”) under the Boulder County Comprehensive Plan. Per this provision, any ground-mounted system with an area of disturbance of greater than one-half acre is subject to Special Use Review and a number of additional requirements (as discussed below).

The Kominiks suggest that this heightened level of review may not be appropriate for all SAL-designated areas, such as ALNI. The ALNI designation is intended to identify, for purposes of preservation, prime farmland. However, ground-mounted solar uses, regardless of size, have minimal to non-existent permanent impacts to soil quality. In fact, the presence of a ground-mounted solar array may be more effective at preserving the character and quality of prime topsoil than many agricultural operations. Solar arrays have been demonstrated to beneficially increase the moisture content of the soil, making it more amenable to agricultural uses. The arrays trap humidity and reduce surface wind and sunlight, reducing

evapotranspiration. This increased moisture content may be shared by neighboring soils, and will preserve (if not further improve) the arability of the land beneath the array after the solar energy system is removed.

The most significant impact of a solar use of ALNI-designated land is the fact that the surface area beneath the solar array is no longer available for active farming. In the case of the Kominek's property, which is surely not unique, farming operations are minimal, and the success of such operations is significantly limited by the availability and affordability of water for irrigation. The presence of a solar energy system will not impede the Kominek's farming operations, but will instead improve them, by: (1) allowing the limited water available to be concentrated on fewer acres, producing better yields; and (2) making farming more financially feasible and rewarding.

The additional scrutiny and requirements imposed upon SAL/ALNI-designated land does not seem appropriate for solar uses. The impacts of solar uses to the agricultural character of SAL/ALNI-designated land is so minimal that it does not justify subjecting these lands to a higher level of scrutiny than any other agriculturally-zoned land.

Further, the Special Use Review ("SU") process, which includes public hearings before the Planning Commission and the Board of County Commissioners, has the potential to politicize solar uses due to the increased opportunity for public comment. Again, the nature of the use and impact to the land do not justify treating SAL/ALNI-designated areas so differently from other agricultural land.

The Komineks are not aware of any federal or administrative law or regulation requiring or prescribing a particular level of scrutiny for ALNI. Instead, the United States Department of Agriculture, through a number of different Acts and programs, "encourages" state and local governments to create and implement their own policies to respect and preserve the character of such land.<sup>1</sup> In addition, Colorado law permits counties to exercise their discretion over various land uses to advance local and state interests. See, for example, C.R.S. § 29-20-101 *et seq.* and § 24-65.1-101 *et seq.* Accordingly, it does not appear that there are any federal or state restrictions that preclude the County from disregarding the ALNI or SAL designations for purposes of review under this section of the Code or from differentiating ALNI designations

<sup>1</sup> See e.g. Part 523, Subpart A, § 523.01(A), Farmland Protection Policy Act: <https://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=17119>, and USDA overview of LESA System Design and Uses: <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/nri/?cid=stelprdb1043786> (both strongly suggesting that local governments are the proper decisionmakers with respect to land preservation efforts).

from other SAL designations. Indeed, neighboring counties take very different approaches to regulating uses on ALNI.

While the Komineks propose that the additional requirements placed upon SAL/ALNI-designated land be removed, if the County nevertheless feels it is important to place a higher level of review on such applicants, they further suggest that the requirements be clarified as set forth below:

- Article 4-514.L.5(h)(i) states that “a proposed ground-mounted solar energy system may be limited to a smaller area of disturbance as determined necessary by the Director or Board of County Commissioners based on the land use impacts of the proposed system or to comply with other provisions of the Code.” Understandably, it would be challenging to provide a great deal of additional specificity here, but it would certainly be useful to applicants to know what other Code provisions might preclude their desired use – especially before they invest the time and resources required to prepare and submit an application. It is also difficult to determine what land use impacts might cause the County to further limit the area of disturbance.
- Article 4-514.L.5(h)(ii) requires a management plan for maintaining soil health and quality. The above comments to Article 3-203 are applicable to this requirement as well.
- Article 4-514.L.5(h)(iii) would also be more useful if it were more specific. This provision states that additional mitigation measures to preserve scenic value “may be required,” but does not state under what circumstances they might be imposed. The mitigation measures are also left undefined. For example, is there an additional minimum setback that should apply to Agricultural/SAL/ALNI lands for solar uses? Is there a known limitation to what the County will require (e.g., “additional setbacks of up to fifty feet from property lines”)?

Per C.R.S. § 29-20-203(2), local governments must ensure that discretionary conditions to a land-use approval are based upon sufficiently specific standards to ensure that the condition is imposed in a rational and consistent manner. Additional clarity regarding the above requirements would help ensure their consistent application to solar uses on SAL/ALNI and would guide applicants in submitting comprehensive applications for such uses.

August 20, 2018

Page 6

**Request to the County**

The Kominiks offer these comments in the collaborative spirit of developing a comprehensive, clear, and thoughtful solar use review and approval policy. It is their hope that the County will revise the proposed Code amendments to:

- 1) treat SAL/ALNI-designated land just as it would any other agricultural land located in the County; and
- 2) add additional specificity regarding application requirements and standards of review to ensure that the application and approval process is as clear and transparent as possible.

Thank you for your consideration. Please do not hesitate to contact me with any questions regarding the foregoing.

Very truly yours,



Kathryn D. Keiser

KDK/hd

cc: Kurt and Eloise Kominik (*via email*)  
Byron Kominik (*via email*)



**O'Dwyer, Sinead**

---

**From:** Molly May <mollyamay@gmail.com>  
**Sent:** Tuesday, August 14, 2018 12:57 PM  
**To:** O'Dwyer, Sinead  
**Subject:** Support for Updated Land Use Code

Hello Sinead,

I am a long time Boulder resident and wanted to thank you and the other County employees for all of your hard work on the Land Use Code. I especially appreciate the new avenues for bringing renewable energy to our county. This is so important for keeping Boulder on the forefront of the energy transition.

Thank you!

Best,  
Molly May  
935 37th Street  
Boulder, CO 80303

**O'Dwyer, Sinead**

---

**From:** Jeff Schroeder <jeff@neobox.net>  
**Sent:** Tuesday, August 14, 2018 12:34 PM  
**To:** O'Dwyer, Sinead  
**Subject:** DC-18-0002 comments

Hi Sinead:

I've reviewed the proposed changes to the Boulder County solar energy systems policy, and wanted to let you know that I'm fully in support of the changes. Thanks for coordinating this effort for the county.

Jeff Schroeder  
(Longmont CO)

**O'Dwyer, Sinead**

---

**From:** Conor May <conor.may@cleanenergyaction.org>  
**Sent:** Tuesday, August 14, 2018 6:48 PM  
**To:** O'Dwyer, Sinead  
**Subject:** Re: Draft Amendments to the Boulder County Land Use Code related to Solar Energy Systems

Hey Sinead,

This looks like a great step forward, I really appreciate the work you have done to help facilitate more solar. Thank you, and let me know if there's anything else I can do to be of assistance-

-CJM

On Tue, Aug 7, 2018 at 4:24 PM, O'Dwyer, Sinead <[sodwyer@bouldercounty.org](mailto:sodwyer@bouldercounty.org)> wrote:

Dear Stakeholder/Interested Party,

On May 10, 2018, the Board of County Commissioners authorized Land Use staff to pursue text amendments to the Boulder County Land Use Code specific to solar-related uses and regulations. Staff identified a need for updating the existing language and structure of the code, increasing the opportunity for community solar gardens in the county, and better facilitating solar development on buildings and parking areas.

This is the initial referral draft of the proposed regulations to garner feedback and make necessary changes to the draft before it is recommended for adoption through the public hearing process. The existing text and a draft of the proposed text amendments is attached to this letter for your review.

You may also view the Planning Commission Study Session documents, proposed draft text amendments, and future revisions in our office or online at: <https://www.bouldercounty.org/property-and-land/land-use/planning/land-use-code-update/dc-18-0002/>

The docket review process for the proposed amendments will include a public hearing before the Boulder County Planning Commission and the Boulder County Board of County Commissioners. Public comments will be taken at both hearings. Confirmation of hearing dates and times will be published online at the link above and in local newspapers.

The Land Use staff and County Commissioners value comments from individuals and referral agencies. Please read through the attached and send a letter or email with your comments. All comments will be made part of the public record. If you have any questions regarding this docket, please contact me at (303) 441-4597 or [sodwyer@bouldercounty.org](mailto:sodwyer@bouldercounty.org).

Sincerely,

Planner I

**Boulder County** | Land Use Department  
303.441.4597 | 2045 13<sup>th</sup> St. | Boulder, CO 80302

[sodwyer@bouldercounty.org](mailto:sodwyer@bouldercounty.org)

--  
Conor J. May  
Operations Director  
Clean Energy Action  
[conor.may@cleanenergyaction.org](mailto:conor.may@cleanenergyaction.org)  
(970)-426-1196

## **O'Dwyer, Sinead**

---

**From:** Nick Campion <nick.campion@gmail.com>  
**Sent:** Tuesday, August 14, 2018 3:52 PM  
**To:** O'Dwyer, Sinead  
**Subject:** Re: Draft Amendments to the Boulder County Land Use Code related to Solar Energy Systems

Sinead O'Dwyer,

I would like to express my interest in Docket DC-18-0002. I live in Boulder and I'm a supporter for solar development. I am glad to see the county opening up new areas, such as lands of agricultural significance, for solar development. Solar arrays add value to the landscape and don't detract from it. More solar energy in Boulder county will lead to a brighter future for the area. Lets be leaders and show the rest of the state, country, and the world how effective solar development can be. Thanks for your time.

Nick Campion  
773.677.6425  
[LinkedIn](#) [Email](#)












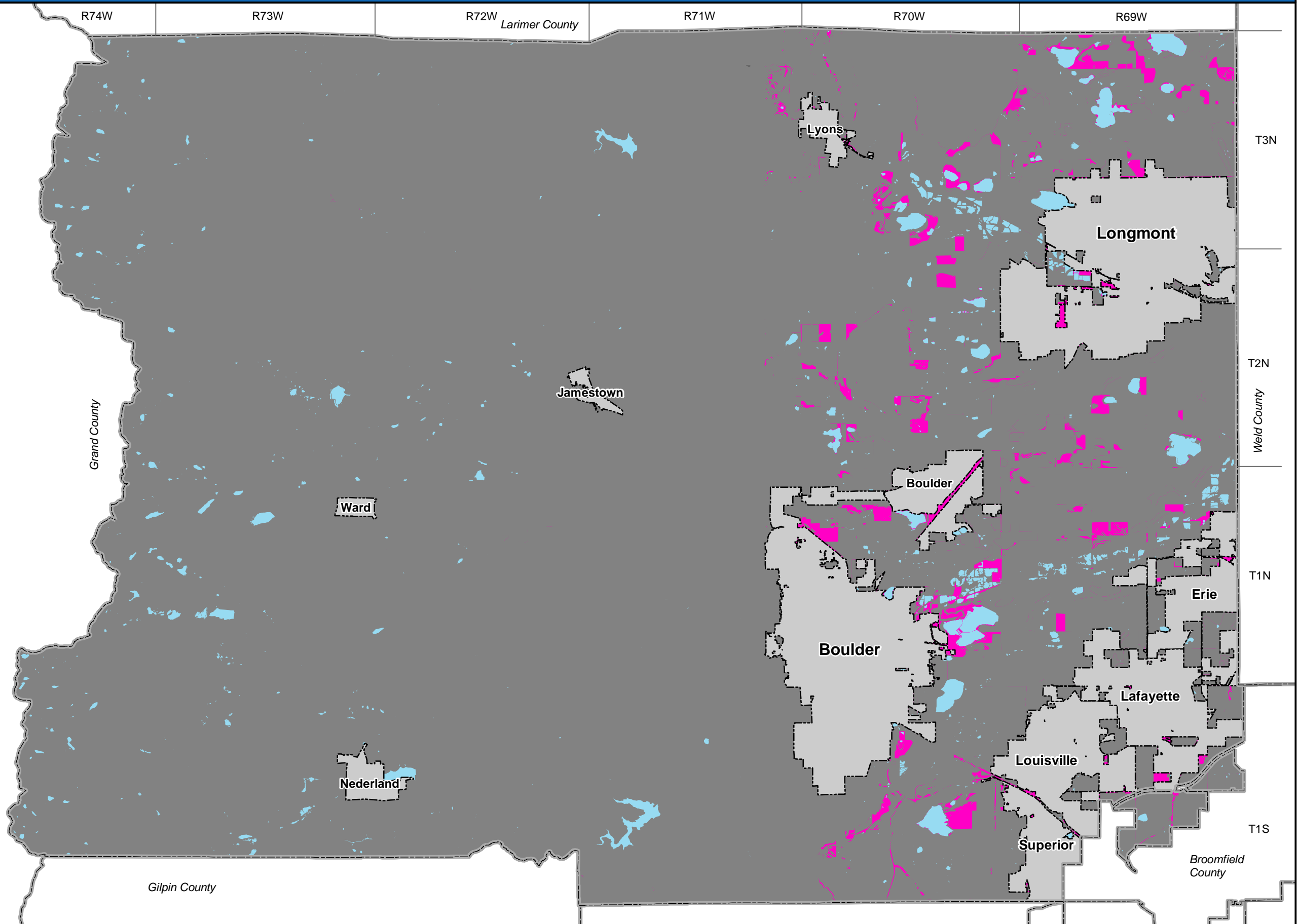
# Boulder County Land Use Department

2045 13th Street, Boulder, CO 80302 303-441-3930 www.bouldercounty.org/lu

## Current Code Over 500kW

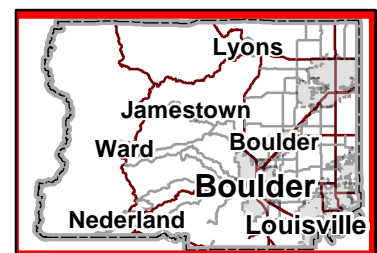
### Legend

-  Potential Sites For Solar
-  All Zoning Except A, C, GI, LI
-  Slope Greater Than 5%
-  Public Lands
-  Critical Wildlife Habitats
-  Natural Landmarks Natural Areas
-  Significant Agricultural Lands
-  Municipalities
-  Lakes



0 1 2 Miles  NORTH

Area of Detail Date: 8/28/2018



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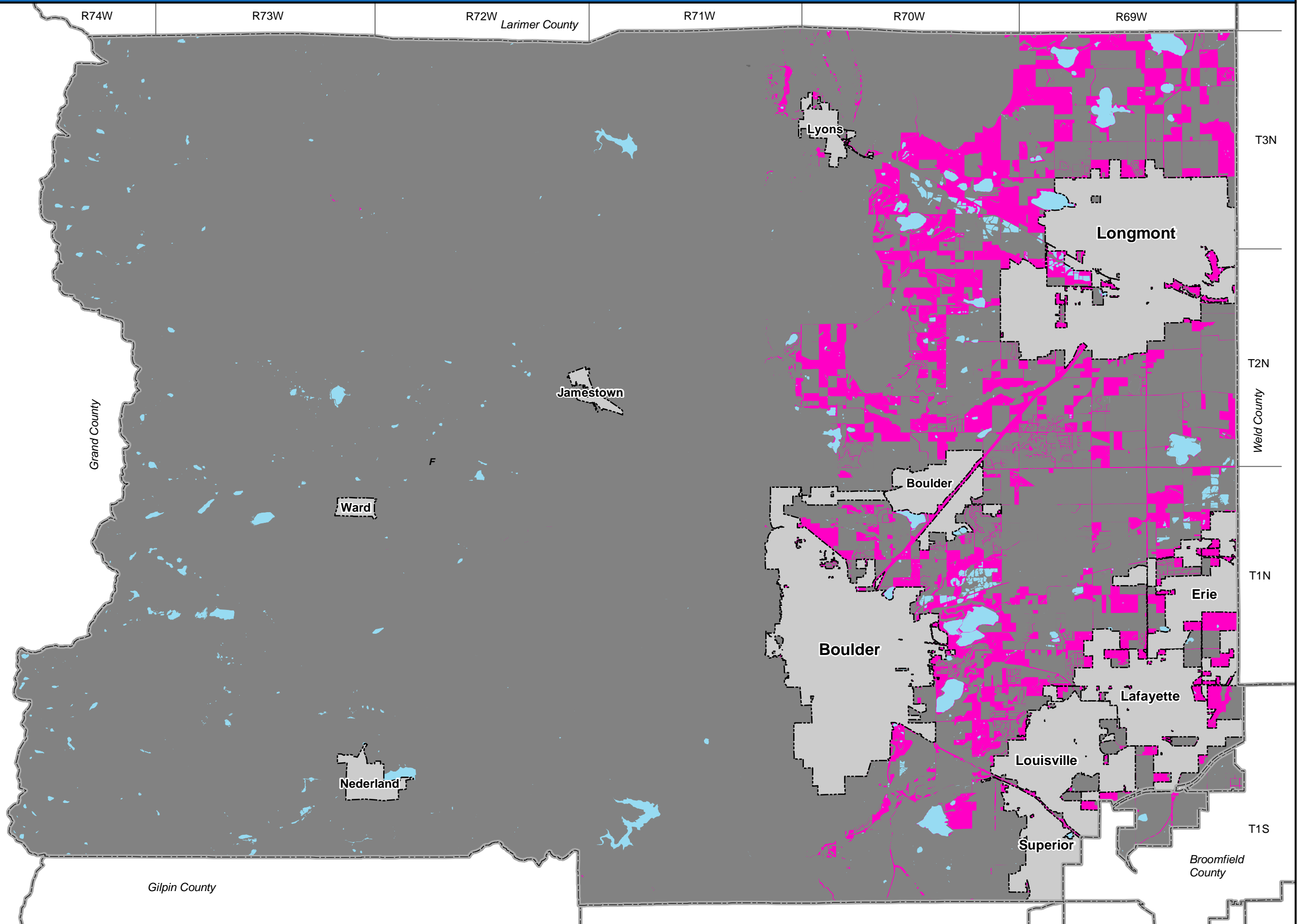
# Boulder County Land Use Department


2045 13th Street, Boulder, CO 80302 303-441-3930 www.bouldercounty.org/lu

## Proposed Code Over 500kW

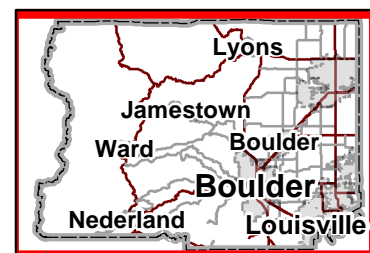
### Legend

-  Potential Sites For Solar
-  Zoning Districts - H, MF, MH, MI, SR
-  Slope Greater Than 5%
-  Forestry Zoning
-  Public Lands
-  Critical Wildlife Habitats
-  Natural Landmarks Natural Areas
-  Subdivisions
-  Municipalities
-  Lakes



0 1 2 Miles 

**Area of Detail** Date: 8/28/2018



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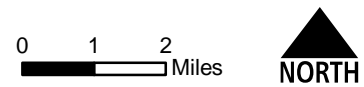
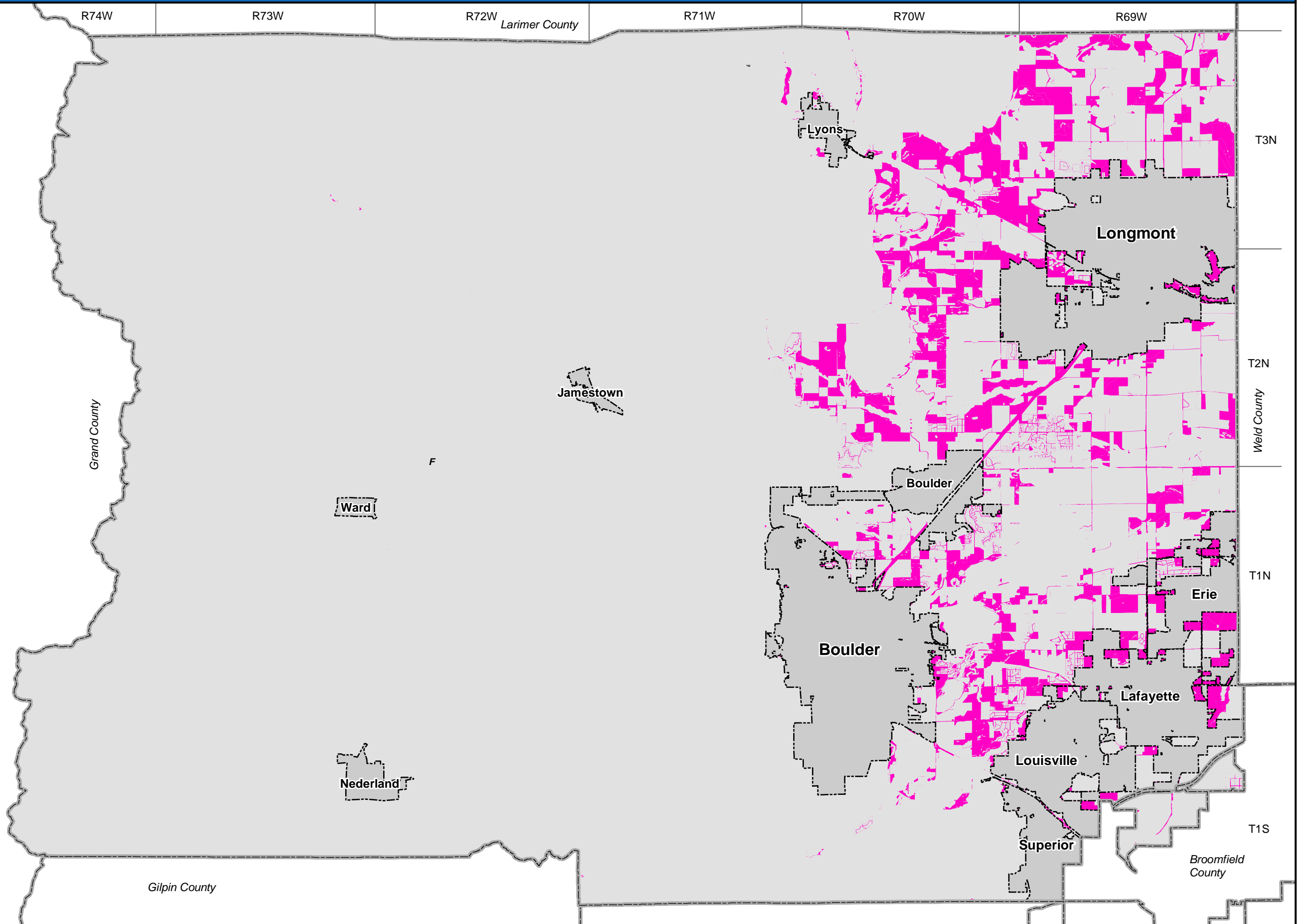
# Boulder County Land Use Department

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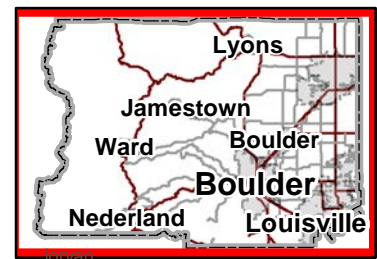
# Proposed Change for Solar Over 500kW

## Legend

-  Zoning - B, ER, RR, T
-  Significant Agricultural Lands
-  Municipalities



Area of Detail Date: 8/28/2018



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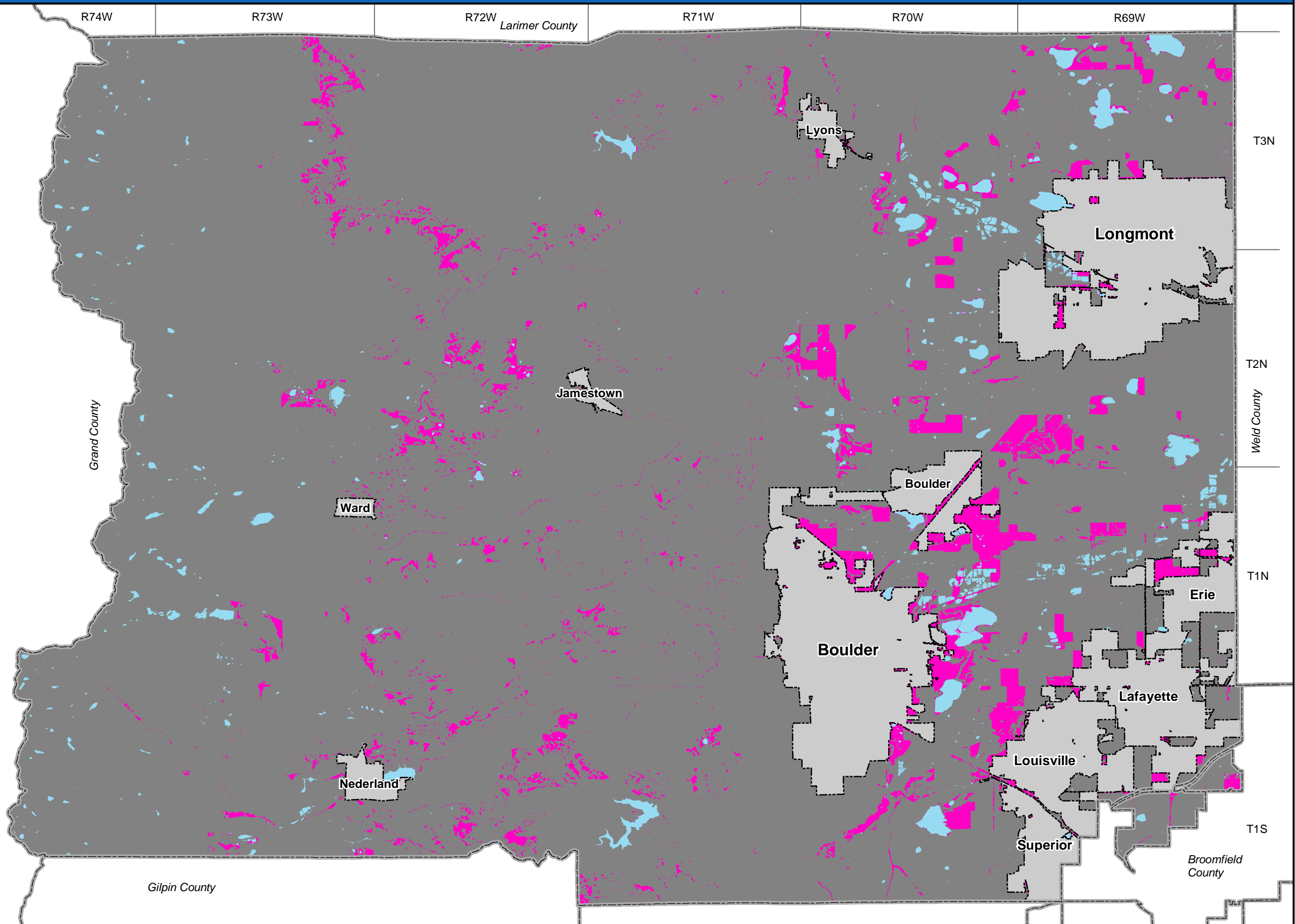
# Boulder County Land Use Department


2045 13th Street, Boulder, CO 80302 303-441-3930 www.bouldercounty.org/lu

## Current Code 100kW - 500 kW

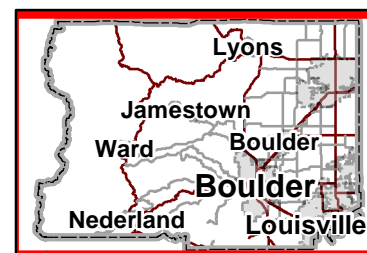
### Legend

-  Potential Sites For Solar
-  Slope Greater Than 5%
-  Public Lands
-  Critical Wildlife Habitats
-  Natural Landmarks
-  Natural Areas
-  Significant Agricultural Lands
-  Municipalities
-  Lakes



0 1 2 Miles 

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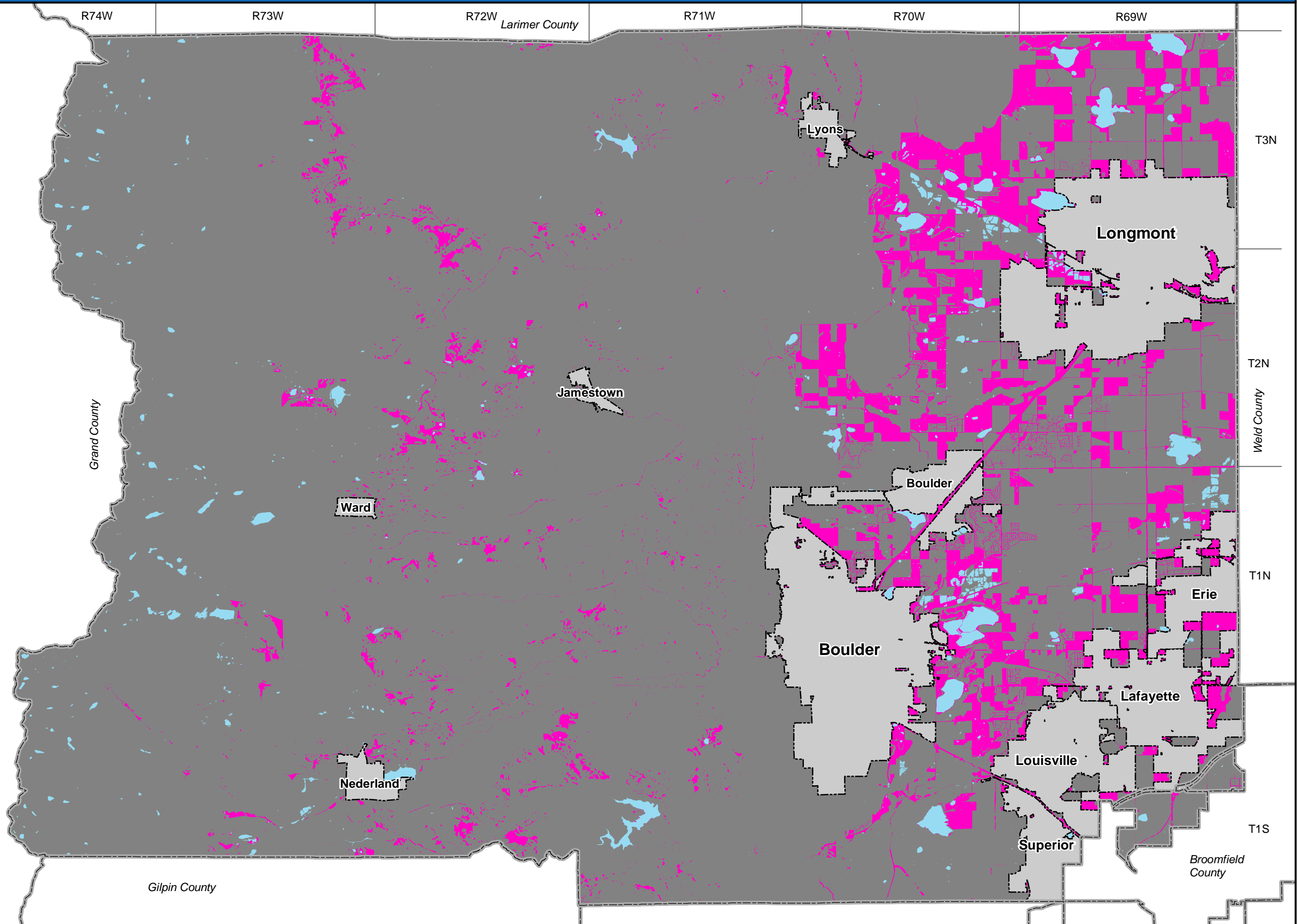
# Boulder County Land Use Department


2045 13th Street, Boulder, CO 80302 303-441-3930 www.bouldercounty.org/lu

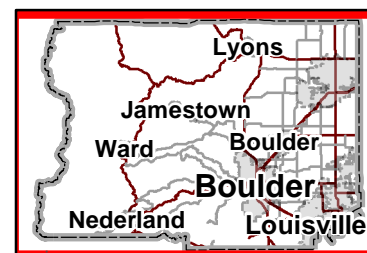
## Proposed Code 100 - 500kW Subdivisions and Slope

### Legend

-  Potential Sites For Solar
-  Slope Greater Than 5%
-  Public Lands
-  Critical Wildlife Habitats
-  Natural Landmarks Natural Areas
-  Subdivisions
-  Municipalities
-  Lakes



0 1 2 Miles  NORTH  
 Area of Detail Date: 8/28/2018



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# Boulder County Land Use Department

2045 13th Street, Boulder, CO 80302 303-441-3930 www.bouldercounty.org/lu

# Proposed Change for Solar 100 - 500kW

## Proposed Code

### Legend

Municipalities

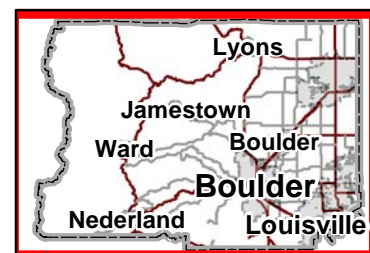
### Significant Agricultural Lands

-  Local Importance
-  Statewide Importance\*\*
-  National Importance\*\*

\*\*Additional Criteria Thorough Special Review

0 1 2 Miles 

**Area of Detail** Date: 7/23/2018



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