



LYON COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT

BUILDING * DEVELOPMENT ENGINEERING * PLANNING
CODE ENFORCEMENT * ECONOMIC DEVELOPMENT

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BOARD OF COUNTY COMMISSIONERS

PLZ-2025-096

Proposed Action: Major Variance for a reduction in setbacks for an expansion to the existing Lux Solar Project approved in 2023, to construct and operate a photovoltaic (PV) solar energy facility use.

Meeting Date: March 5, 2026

Property Owner: Robin Susan Mason et al

Applicant Lux Solar Center, LLC

Community Mason Valley

Location 55 Butte Way

Parcel Number 014-091-20

Parcel Size 280-acre portion of a 1,593-acre parcel

Master Plan Agriculture

Zoning RR-5 (Fifth Residential District (20 Acres))

Flood Zone(s): Zone A (1% Annual Chance Flood Hazard) per FIRM 32019C0550E

Case Planner: Lisa Nash

REQUEST

The Applicant is requesting a Major Variance for the setbacks required for solar arrays. They are requesting a reduction in setbacks from the one-mile lake/intermittent stream setback and in the one-half mile setback from a parcel with an existing residential use. The Major Variance is requested for 280-acres within a 1,593-acre parcel in Mason Valley.

PROJECT SUMMARY

The Applicant's proposal is for a Major Variance from the one-mile (5,280') lake/intermittent stream setback and the one half-mile (2,640') setback from a parcel with an existing residential use, to allow installation of a low-profile photovoltaic (PV) solar array within limited portions of those setback areas on APN 014-091-20.

Approval of the Major Variance is required for the Conditional Use Permit (PLZ-2025-085) that is being heard concurrently with this application.

This property was the subject of a previous Conditional Use Permit (CUP) approved in 2019 (PLZ019-0054) and a time extension for the CUP approved in 2023 (PLZ-2022-210). The total project included the construction and operation of a commercial solar power generating facility over an approximately 1,140-acre area within a four-parcel site totaling 2,462 acres.

PLANNING COMMISSION

The Planning Commission heard the item on February 10, 2026. The Commission forwarded a recommendation of approval, voting 5-1 (5 Ayes; 1 Nays-Commissioner Baker; 0 Abstentions; 1 Absent-Commissioner Ceresola). The recommendation was based on the Findings and Conditions of Approvals listed in the staff report.

RECOMMENDED MOTION

If after review and public comment the Board of County Commissioners determines that they should approve the requested Major Variance application, then the Board should make a motion similar to the following:

The Board of County Commissioners finds that:

- A. By reason of exceptional narrowness, shallowness, or shape of the property in question, or by reason of exceptional topographic conditions or other extraordinary and exceptional situation or condition of the property in question, the strict application of the provisions of this title would result in peculiar and exceptional practical difficulties to, or exceptional and undue hardships upon, the applicant;
- B. The circumstances or conditions do not apply generally to other properties in the same land use district; and
- C. The granting of the variance will not result in material damage or prejudice to other properties in the vicinity, substantial impairment of natural resources or be detrimental to the public health, safety and general welfare.

Based on the aforementioned Findings and the following 8 Conditions of Approval, I move that the Board of County Commissioners approves the request from Lux Solar Center, LLC for a Major Variance application to allow for a reduction in setbacks for an expansion to the existing Lux Solar Project approved in 2023, to construct and operate a photovoltaic (PV) solar energy facility, on land subject to RR-20 (Rural Residential, 20 Acre Minimum) zoning located in the northern portion of the parcel at 55 Butte Way in Wabuska, Mason Valley on an approximately 280-acre portion of a 1,593-acre parcel (APN 014-091-20); PLZ-2025-096.

CONDITIONS OF APPROVAL

- 1. No change in the terms and conditions of the Major Variance, as approved, shall be undertaken without first submitting the changes to Lyon County Community Development and having them modified in conformance with Lyon County Code.
- 2. The applicant shall comply with all applicable Fire, building, zoning and improvement code requirements and obtain any necessary public inspections.
- 3. All construction documents and separate applications must be submitted to the Mason Valley Fire Protection District (MVFPD) and the Lyon County Building Department for review and approval to obtain a Site Improvement, Grading, or Building Permit.
- 4. The subject property is located within the flood zone A. In accordance with Lyon County Code Chapter 15.800.08(A), the Applicant shall obtain approval of a flood plain development permit prior to any development.
- 5. The proposed project shall conform to the site plans approved with this Major Variance and the concurrent application for a Conditional Use Permit (PLZ-2025-085).
- 6. The applicant shall comply with Lyon County's 2024 revised drainage guidelines to the satisfaction of the County Engineer prior to occupancy.

7. The Major Variance shall run concurrently with the Conditional Use Permit (CUP) (PLZ-2025-085) and be subject to all conditions of the CUP.
8. The substantial failure to comply with the conditions imposed on the issuance of this Major Variance or the operation of the proposed use in a manner that endangers the health, safety or welfare of Lyon County or its residents or the violation of ordinances, regulations or laws in the proposed use may result in the institution of revocation proceedings. **The Major Variance shall run with the time established for the associated Conditional Use Permit (PLZ-2025-085).**

ALTERNATIVES TO RECOMMENDATION OF APPROVAL

Alternative Motion for Continuance

If the Board of County Commissioners determines that additional information, discussion and public review are necessary for a more thorough review of the proposed major variance; the Board should make appropriate findings and move to continue the Public Hearing with a specific time period for the applicant to provide additional specific information necessary for the analysis of the request. The Board may wish to consider a motion similar to the following:

The Board of County Commissioners finds that:

Additional information, discussion and public review are necessary for a more thorough review of the proposed Major Variance.

Based on the aforementioned Findings, and with the applicant's concurrence, the Board of County Commissioners continues the Major Variance request from Lux Solar Center, LLC for a Major Variance application to allow for a reduction in setbacks for an expansion to the existing Lux Solar Project approved in 2023, to construct and operate a photovoltaic (PV) solar energy facility, on land subject to RR-20 (Rural Residential, 20 Acre Minimum) zoning located in the northern portion of the parcel at 55 Butte Way in Wabuska, Mason Valley on an approximately 280-acre portion of a 1,593-acre parcel (APN 014-091-20); PLZ-2025-096 for ___ days.

Alternative Motion for Denial

If the Board of County Commissioners determines that they should deny the request for a Major Variance, then the Board needs to make findings supporting a recommendation of denial. The Board may wish to consider a motion similar to the following:

The Board of County Commissioners has considered:

15.203.06: FINDINGS FOR VARIANCES:

...

B. Major Variance Findings: The Board must not approve a major variance unless it finds that:

1. By reason of exceptional narrowness, shallowness, or shape of the property in question, or by reason of exceptional topographic conditions or other extraordinary and exceptional situation or condition of the property in question, the strict application of the provisions of this title would result in peculiar and exceptional practical difficulties to, or exceptional and undue hardships upon, the applicant;
2. The circumstances or conditions do not apply generally to other properties in the same land use district; and
3. The granting of the variance will not result in material damage or prejudice to other properties in the vicinity, substantial impairment of natural resources or be detrimental to the public health, safety and general welfare.

After consideration of the above-listed Findings, I move that the Board of County Commissioners has determined that the Major Variance would not be in conformance with the above-listed considerations and denies the request from Lux Solar Center, LLC to allow for a reduction in setbacks for an expansion to the existing Lux Solar Project approved in 2023, to construct and operate a photovoltaic (PV) solar energy facility, on land subject to RR-20 (Rural Residential, 20 Acre Minimum) zoning located in the northern portion of the parcel at 55 Butte Way in Wabuska, Mason Valley on an approximately 280-acre portion of a 1,593-acre parcel (APN 014-091-20); PLZ-2025-096.

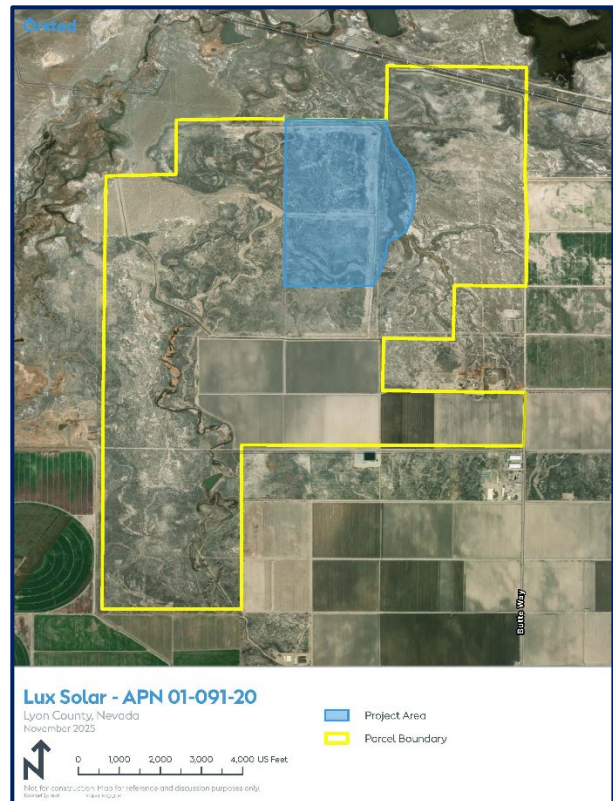
BACKGROUND INFORMATION

Location and Size

The subject property (APN 014-091-20) is generally located west of the intersection of US 95A and the Union Pacific railroad tracks in the northern portion of Mason Valley. The entire site encompasses APNs 014-091-02, -03, -20, and -021 (outlined in red below). The proposed expansion to the existing CUP is an approximately 280-acre portion of a 1,593-acre parcel (shaded in green below).



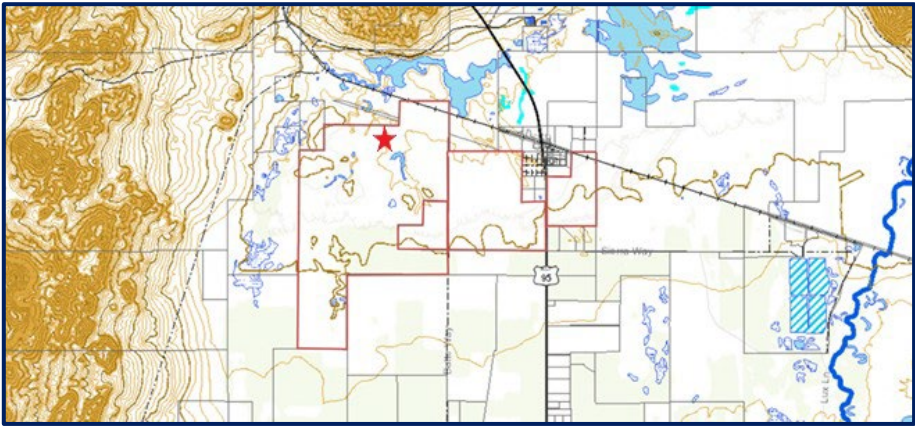
Vicinity Map



Project Area Map

Topography

The subject site lies on the floor of Mason Valley. There are no significant topographic features such as steep slopes, ridges, or intrusive dikes that would limit or restrict the proposed development/use of the subject site as shown on the following page (red star delineates approximate expansion site location).



Topo Map

Site Photos

The three images below and on the following page were provided by the Applicant.



Photo from southern boundary of the project area facing north



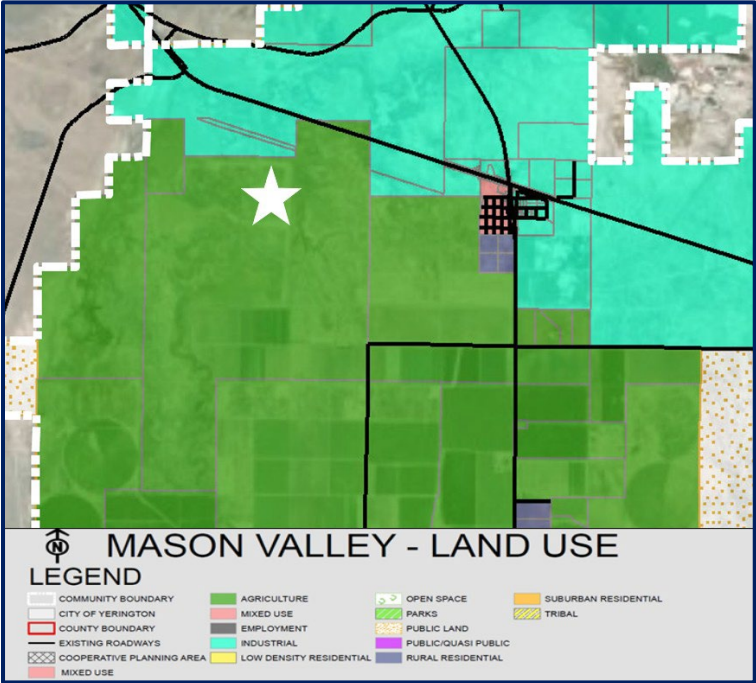
Photo from center of the project area facing east



Photo from northwest corner of the project area facing southeast

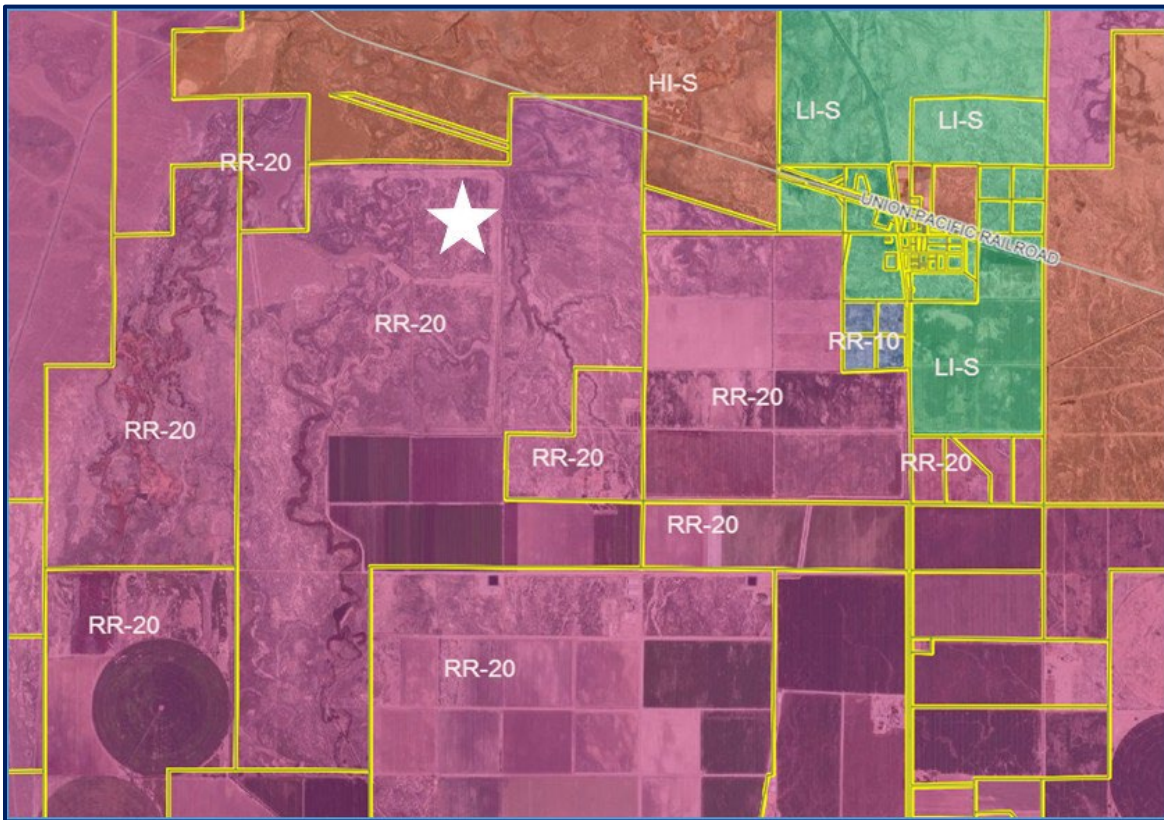
Master Plan and Zoning

The Master Plan designation for the site is Agriculture as shown in the Mason Valley Land Use Plan below. The parcel is located in the Mason Valley Rural Character District.



Mason Valley Land Use Plan

The zoning is Fifth Rural Residential, 20 acre minimum (RR-5), under the County’s expired Development Code, Title 10. Per the Zoning Consistency Matrix, adopted in 2018 with Title 15, the corresponding district in Title 15 is Rural Residential – 20 acre minimum (RR-20). The zoning map for the project area is shown on the following page.



Zoning Plan

Flood Zone Designation

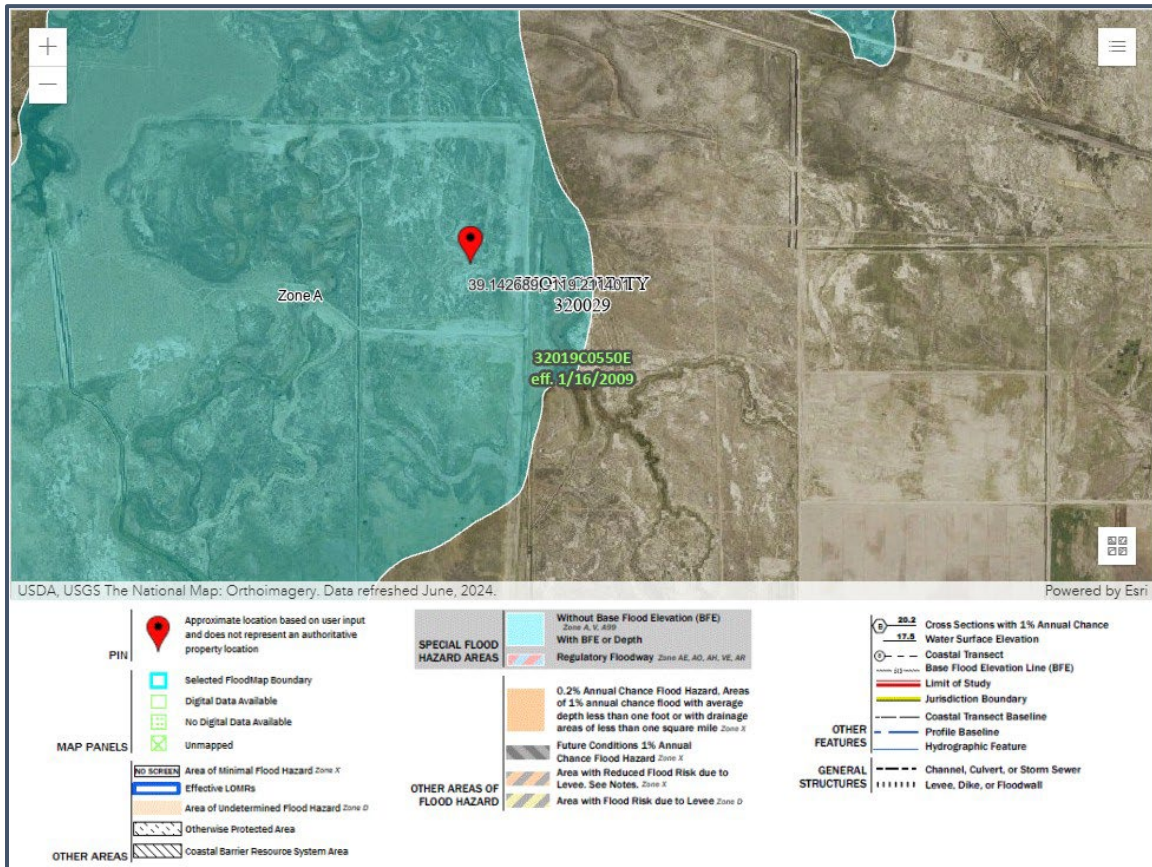
The subject site is located within the FEMA Flood Insurance Rate Map (FIRM) 32019C0550E (effective date: 1/16/2009): Zone A (1% Annual Chance Flood Hazard). See the FEMA Flood Map image below.

Section 15.800.08(A) of the Lyon County Code states that a floodplain development permit must be approved before construction or development is allowed to begin within any area of special flood hazard established in subsection 15.800.07(A).

The floodplain development permit is required for all structures as well as for all development including fill and other activities as defined in 15.1200. "Development Activity" is defined within section 15.1200.05 as:

"An improvement that is allowed and permitted and completed on a lot, parcel, or tract of land by a developer or property owner. The term "development activity" shall include zoning, subdivision, planned unit development, building permit issuance, construction, alterations, land grading, excavating, and clearing. As used in chapter 800 of this title, development means any manmade change to improved or unimproved real estate including, but not limited to, buildings or other structures, mining, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials located within the area of special flood hazard."

In accordance with 15.800.08(A) and as a Condition of Approval for the proposed project, the Applicant shall obtain approval of a flood plain development permit prior to any development on the property.



FEMA Firm Map

Concurrent and Future Permitting

The applicant has submitted two applications concurrently: this application for a Major Variance (PLZ-2025-096) and a Conditional Use Permit (PLZ-2025-085). These items will be heard by the Planning Commission on February 10, 2026. Both applications are scheduled to proceed to the Board of County Commissioners for consideration on March 5, 2026, for a final decision.

PROJECT DESCRIPTION

The Applicant’s proposal is for a Major Variance to allow for reduction in setbacks from the one-mile (5,280’) lake setback and the one half-mile (2,640’) setback from a parcel with an existing residential use, to allow installation of a low-profile photovoltaic (PV) solar array within limited portions of those setback areas on APN 014-091-20.

Based upon comprehensive review and analysis of available data, the subject watercourse is appropriately designated as an intermittent stream not a lake. This determination is supported by field observations, hydrologic assessment, and data obtained from the Walker River Irrigation District, the Nevada Department of Environmental Protection (NDEP) Geographic Information System (GIS) database, and well records from the Nevada Division of Water Resources (NDWR).

The channel exhibits non-perennial characteristics, with surface water present only during limited seasonal periods that coincide with precipitation events and controlled discharges from nearby agricultural wells. According to NDWR records, two authorized agricultural wells supply a combined total of approximately 230 acre-feet of water per year for beneficial agricultural use, contributing to temporary flow conditions within the drainage feature as the site requires the well be pumped to demonstrate beneficial use.

The NDEP does not classify this water body as a lake or river under its current regulatory framework. This aligns with the observed hydrologic behavior and supports the characterization of the channel as intermittent. The

drainage course traverses the natural corridor of Churchill Canyon, which periodically conveys flow toward the Carson River during times of sufficient discharge or seasonal runoff.

This designation does not alter or affect the applicant's pending request for deviation associated with the Major Variance application. The information provided herein is intended solely to accurately identify and document the categorical representation of the water body for purposes of hydrologic classification and regulatory consistency.

Section 15.339.09 (E.2) of the Lyon County Code states that, "...commercial SECS array must be set a minimum of one half mile (2,640 Feet) from a trail easement, highway and/or adjacent properties with an existing residential use. Setback increases to one mile (5,280 Feet) from an airport, river, perennial or intermittent stream, and/or lake. An SECS may be placed closer than 2,640 Feet from a property with an existing residential use, trail easement, or highway if it is separated by a geologic feature or building of a height sufficient to completely obstruct views of the commercial SECS from a point sixteen (16) vertical feet above the boundary of any Residential Zoning District."

Per the applicant, the proposed project is described as follows:

Specifically, we are requesting approval of a Major Variance to allow limited installation of photovoltaic (PV) arrays and associated equipment within portions of (i) the one-mile lake setback and (ii) the one half-mile setback measured from the boundary of a parcel with an existing residential use. This variance request is necessary to modestly shift and expand the previously permitted project footprint to replace buildable acreage lost due to NV Energy's GreenLink West transmission corridor realignment.

Prior CUP approvals for Lux Solar Center (originally approved in 2019 under PLZ-19-0054 and renewed and extended in 2023 under PLZ-2022-210) are included as supporting documentation to this variance application. As a supplement to an existing CUP application for the variance area, the variance does not seek to change the permitted uses approved and requested; rather, it seeks relief from specific setback requirements to shift facility infrastructure to new acreage made necessary by the GreenLink West expansion.

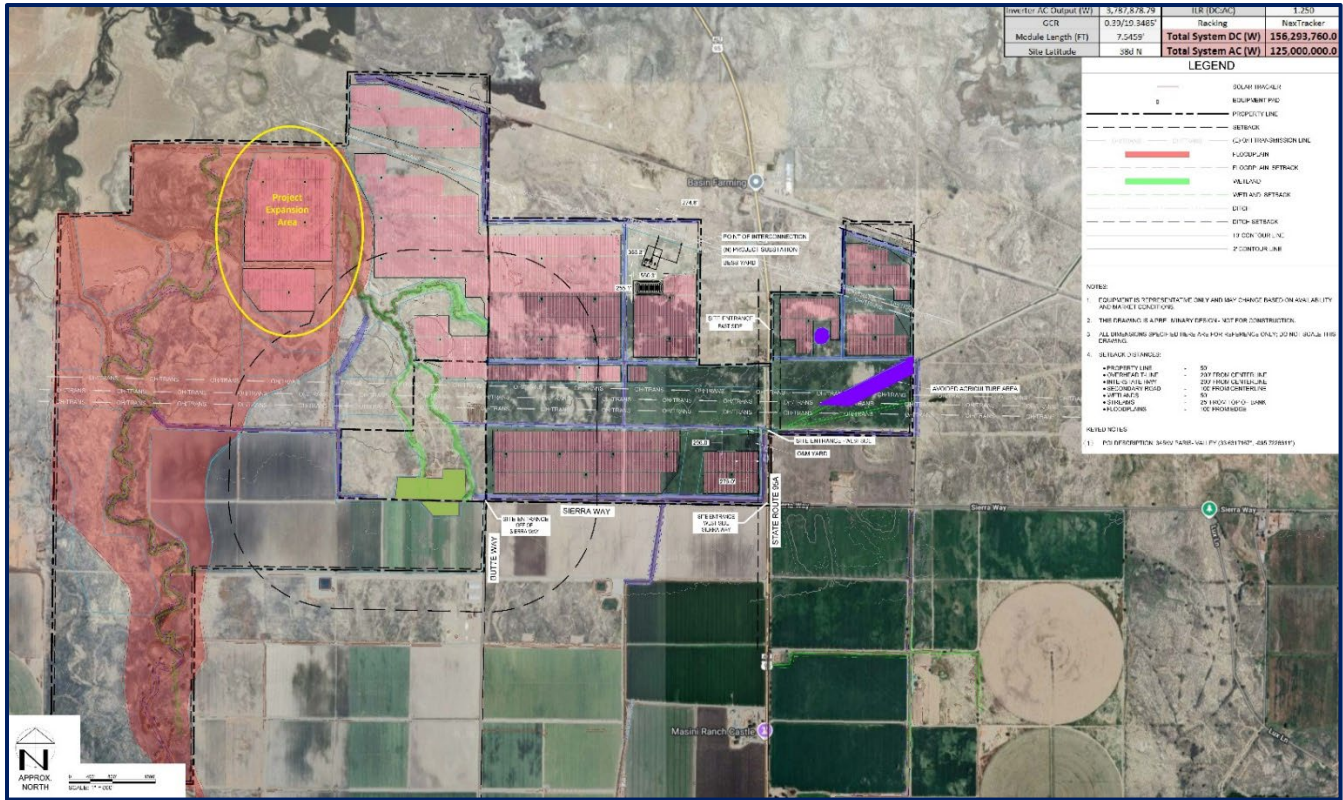
Due to circumstances unforeseen at the time of prior applications, the planned GreenLink West transmission corridor now bisects the originally permitted project area, eliminating previously permitted buildable acreage. To maintain project viability while minimizing new impacts, the project boundary must be adjusted to include roughly 280 additional acres, entirely within parcels previously permitted under PLZ-2022-210. The requested variance acreage is the minimum necessary to afford relief.

This request focuses on authorizing limited PV arrays and associated equipment within portions of the one-mile lake setback and one half-mile residential-parcel setback to replace buildable acreage lost to the GreenLink West corridor alignment. The revised footprint and array layout within the variance area are designed to minimize new impacts and maintain separation from sensitive receptors relative to the previously permitted project, with array consolidated behind the legacy PV corridor that forms a physical and visual buffer from the lake and residential parcel.

In conclusion, the adoption of the one-mile lake setback and the 2,640-foot residential-parcel setback after CUP PLZ-2022-210 created exceptional, legacy conditions on this 1,593-acre tract. Strict application would impose peculiar and exceptional practical difficulties by fragmenting feasible, contiguous PV development, stranding interconnection efficiencies, and forcing unnecessary new disturbance. The requested variance is narrowly tailored to additional acreage located farther from the lake and separated by PV infrastructure under the previously permitted project, shares access roads with no additional roads required, and maintains substantial separation from the residence (approximately 3,700 feet), despite being near or within the one half-mile setback—greater than distances associated with infrastructure under the previously permitted project, both on the residential parcel and on a separate neighboring parcel. With the robust protections and mitigations described, the request meets the conditions of the Lyon County Code § 15.203.06 and supports approval of a major variance, and we respectfully seek approval.

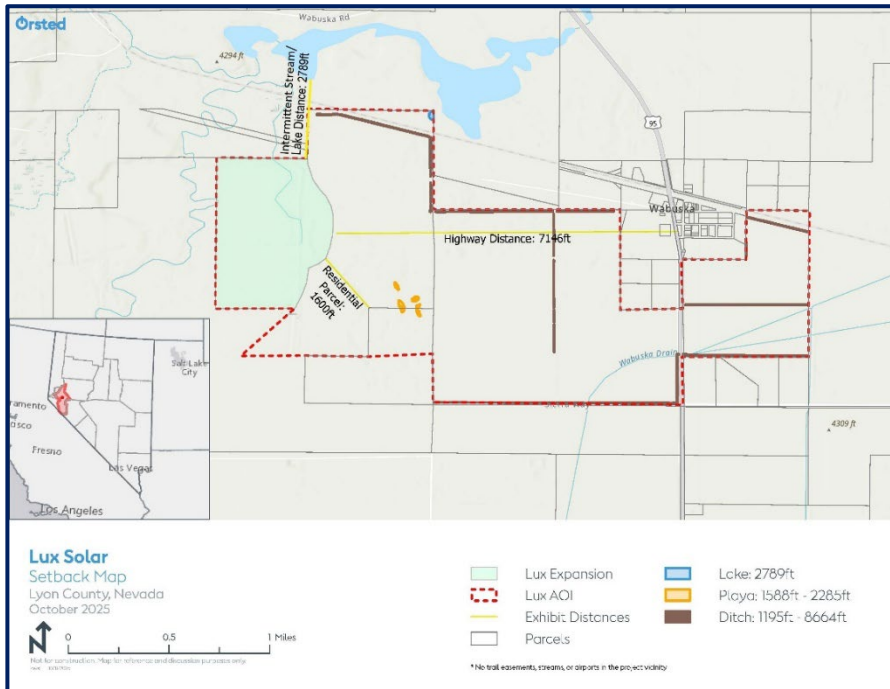
Conceptual Site Plans

The conceptual site plan (with staff additions) shows the overall project with the expansion area circled in yellow and the proposed entrances to the site shown.



Conceptual Site Plan

The images that follow were included in the applicant’s submittal. The Setbacks Map (with staff additions) below shows the setback variances the applicant is requesting.



Setbacks Map

MAJOR VARIANCE REQUEST

Per Section 15.203.02, a Major Variance, as opposed to a Minor Variance, is required for setback variances greater than ten percent (10%). Major Variances require approval by the Board of County Commissioners. The following table shows the requested variances and details.

Variance Requested	Proposed Setback (feet)	Statutory Setback (feet)	Variance (%)	Notes
Intermittent Stream Setback	2,789	5,280	47	
Residential Setback	1,600	2,640	39	Actual distance to residence is ~3700 ft (same property owner)

Per Section 15.203.02, a Major Variance, as opposed to a Minor Variance, is required for setback variances greater than ten percent (10%). When considering applications for a Major Variance, the Board must not approve a Major Variance unless it finds that by reason of exceptional topographic or other extraordinary conditions with the property in question, the strict application of the provisions of Lyon County Title 15 would result in peculiar and exceptional practical difficulties to, or exceptional and undue hardships upon, the applicant. As stated in the Applicant’s Findings later in this report, the justification for the proposed expansion location of the additional 280 acres of solar fields are based on fragmentation and duplication, necessitating new linear infrastructure and roads in uplands (otherwise avoided by reusing existing roads), increasing disturbance to surrounding areas, with expanded grading and additional infrastructure. Additionally, pushing facilities entirely outside both setbacks would expand visual spread and require additional clearing/earthwork, resulting in more edge effects than consolidating development behind the existing PV buffer.

STAFF REVIEW AND COMMENTS

The proposed major variance request is reviewed by staff and the Planning Commission, which forward recommendations to the Board of Commissioners, for final action.

FINDINGS FOR REVIEWING A MAJOR VARIANCE REQUEST

Chapter 15.203.06 (B) of Lyon County Code states that when considering approval of a major variance, three Findings must be considered and supported by a statement of evidence, facts and conclusions. Staff has included those three Findings in **bold type** below. Each Finding is listed with the applicant’s response in *italics* and then staff’s comments.

Finding 1: By reason of exceptional narrowness, shallowness, or shape of the property in question, or by reason of exceptional topographic conditions or other extraordinary and exceptional situation or condition of the property in question, the strict application of the provisions of this title would result in peculiar and exceptional practical difficulties to, or exceptional and undue hardships upon, the applicant;

Applicant’s Response

- *Extraordinary and exceptional situation/condition:*
 - *Legacy approvals vs. later-adopted setbacks: CUP PLZ-2022-210 (4/28/2023) lawfully entitles PV up to the boundary line of the neighboring lake parcel. The subsequent adoption of the one-mile lake setback and the one half-mile residential-parcel setback for SECS overlays areas that are functionally organized around the legacy PV corridor and interconnection infrastructure.*
 - *GreenLink West bisecting corridor: The updated GreenLink West transmission corridor path now bisects the original project area, eliminating buildable acreage under the previously permitted project and fragmenting the original, contiguous layout. This infrastructure change is external to and not controlled by the applicant.*

- *Practical difficulties/undue hardship from strict application:*
 - *Fragmentation and duplication: Strict adherence to setbacks considering the GreenLink West bisecting corridor would prevent contiguous expansion behind the established corridor, necessitating new linear infrastructure and roads in uplands (otherwise avoided by reusing existing roads), increasing disturbance, grading, and cost.*
 - *But-for condition: But for the updated GreenLink West corridor path, the original project boundary under PLZ-2022-210 would have been sufficient to meet project needs without variance acreage, demonstrating that the hardship is directly caused by an external infrastructure realignment.*
 - *Greater impacts compared to consolidated siting: Pushing facilities entirely outside both setbacks would expand visual spread and require additional clearing/earthwork, resulting in more edge effects than consolidating development behind the existing PV buffer.*
- *Minimum variance necessary to afford relief and alternatives:*
 - *The variance areas are narrowly tailored to the smallest practicable footprints within the setbacks, located farther from the lake than previously permitted PV and sited to maximize distance (approximately 3,700 feet) to the residence structure.*
 - *No new access roads are required; the project shares existing roads with PLZ-2022-210 to avoid new disturbance.*
 - *Alternatives considered (relocating entirely outside the setbacks, dispersing to distant uplands, downsizing array blocks) would either be infeasible from interconnection and access perspectives or would cause greater land disturbance and infrastructure redundancy than the proposed, consolidated approach.*

Staff Comment

The subject parcel’s location provides challenges due to the location of the previously approved project and the need to stay within a distance to utilize shared infrastructure (roads and grading). The expansion area is located directly to the west of the existing CUP areas and is thus not adding an additional visual impact that would likely result if the site were pushed further out to meet all setbacks. Requiring the setbacks would result in practical difficulties to the project. This Finding is met.

Finding 2. The circumstances or conditions do not apply generally to other properties in the same land use district; and

Applicant’s Response

- *Unique, combined conditions not general to the district:*
 - *A large (1,593-acre) lake-adjacent parcel with a previously permitted project authorizing PV to the boundary of the parcel containing the lake (PLZ-2022-210);*
 - *Overlap of the later-adopted one-mile lake setback with the one half-mile residential-parcel setback;*
 - *Co-applicant ownership of the adjacent residential parcel, which itself allows legacy PV under the previously permitted project, resulting in an existing PV corridor that both buffers the lake and lies between the residence and portions of the proposed variance area.*
- *Most properties do not share this legacy-overlay combination nor rely on an existing PV/interconnection corridor established pre-setback. These unique constraints materially differentiate the subject parcel from others.*

Staff Comment

When compared with other properties in the Rural Residential district, the subject parcel is uniquely shaped and located with respect to the existing intermittent stream and prior CUP approvals. The subject property and the adjacent residential property have the same land owner and the setback to the existing residence is 2,650 feet. This Finding is met.

Finding 3. The granting of the variance will not result in material damage or prejudice to other properties in the vicinity, substantial impairment of natural resources or be detrimental to the public health, safety and general welfare.

Applicant's Response

- *Lake and natural resources protection:*
 - *The variance area lies farther from the lake than the legacy PV corridor under the previously permitted project and is separated from the shoreline by that existing infrastructure. Construction BMPs and a SWPPP will control erosion and sedimentation; no refueling or staging will occur near the shoreline.*
 - *PV panels over vegetated groundcover retain infiltration; stormwater will be managed to avoid increases in peak flows or pollutant loading. Grading is minimized and confined to essential areas.*
 - *Wildlife-friendly fencing, retained vegetative corridors, and native plantings enhance habitat connectivity and reduce edge effects.*
- *Residential compatibility and welfare (one half-mile setback area):*
 - *While the distance from the proposed variance area and the residential parcel is roughly 1,600 feet, substantial separation will exist between the PV array and the residence itself: The proposed variance area maintains approximately 3,700 feet of separation from the residence—significantly larger than both the one half-mile setback radius and distances from infrastructure under the previously permitted project: ~2,100 feet (on the residential parcel) and less than 1,500 feet (on a separate neighbor parcel).*
 - *Screening and line-of-sight: Arrays are positioned behind existing PV corridor; supplemental native planting may be installed where views are open to further visibility.*
 - *Equipment siting, noise, and glare: The design meets or exceeds County standards. Operations will not produce discernible ground vibration beyond the property line, nor odors, dust, smoke, excessive noise, or liquid or airborne pollutants.*
 - *Lighting and operations: No continuous nighttime lighting; any necessary lighting is full cutoff, shielded, and motion-activated. Construction will adhere to daytime hours with dust control and traffic management; operations traffic is limited to periodic maintenance.*
- *Traffic and access: No new access roads are required; access roads established under the previously permitted project will be shared, minimizing disturbance, dust, and traffic generation. Additionally, Ørsted commissioned a traffic study for the project. The results of the study include recommendations for several improvements to nearby roads during the construction phase to address impacts to public roadways. Additional detail is provided in the study.*
- *No material damage or prejudice: The variance adjusts the facility location within a permitted use context; it does not increase allowable intensity. With separation provided by the legacy PV corridor, adherence to buffers, reuse of existing infrastructure, and the mitigation measures described, there will be no material damage to neighboring properties (including the commonly owned residential parcel), no substantial impairment of natural resources, and no detriment to public health, safety, or general welfare.*

Staff Comment

While the proposed expansion area would not be located the full one-mile from the intermittent stream and the one-half mile from the property with an existing residential use as required, the setback from the intermittent stream would be 2,789 feet and the setback from the residential property would be approximately 1,600 feet. These separations, along with the existing approvals for the solar arrays that are closer to the residence and the intermittent stream, would help to ensure that the proposed project would be compatible with the existing character of the area. The proposed use would not result in material damage or prejudice to other properties in the vicinity nor substantial impairment of natural resources nor would it be detrimental to the public health, safety and general welfare. This Finding is met.