



Staff Report to the Western Weber Planning Commission

Weber County Planning Division

Synopsis

Application Information

Application Request: To consider and take action on ZMA 2019-01, a request to to apply the solar overlay zone (SOZ) to approximately 370 acres of land at approximately 1700 South 7500 West

Agenda Date: Tuesday, February 12, 2019

Applicant: Strata Solar; Doug Larson as Agent

File Number: ZMA 2019-01

Property Information

Approximate Address: 1700 South 7500 West

Zoning: Currently zoned A-3

Existing Land Use: Agricultural

Proposed Land Use: Solar Farm

Township, Range, Section: T6N, R3W, Section 23 and 26

Adjacent Land Use

North: Agricultural/Rangeland	South: State of Utah (Ogden Bay)
East: Agricultural/Rangeland	West: Agricultural and Large Lot Residential

Staff Information

Report Presenter: Charles Ewert
cewert@webercountyutah.gov
801-399-8763

Report Reviewer: RG

Applicable Ordinances

§102-5: Rezoning Procedures
 § 104-30: Large Solar Energy System Overlay Zone

Summary

This application is a request to apply the newly created solar overlay zone (SOZ) to approximately 370 acres of land. The actual acreage is likely to be reduced to 200-250 acres prior to final county commission approval due to a forthcoming revised legal description of the requested overlay zone area, which will not consume 100% of all of the subject parcels, but until then this review assumes all 370 acres is the subject property.

The SOZ will enable the construction and operation of an unmanned utility-scale solar energy facility as a permitted use with a development agreement.

The subject parcels are located east of 7500 West at approximately 1700 South. They receive access from 7500 West. The parcels are wholly within the A-3 zone.

The SOZ allows utility scale solar energy collection with non-reflective collection devices for areas 100 acres or greater in the A-3 and M-3 zones. The SOZ requires a development agreement to provide site specific development conditions. This agreement will be negotiated between the County Commission and Strata Solar, however, the site specific development conditions should be vetted through the planning commission.

If favorable, after the commission adopts a development agreement and applies the SOZ to the property, a utility scale solar energy operation will be entitled to occur there with no additional approvals, provided it complies with the SOZ and development agreement.

A few community effects to consider when reviewing this application is the aesthetic effect, the transportation effect, the construction and disassembly effect, and the weed management effect.

Staff are recommending that the planning commission offer a positive recommendation to the county commission for the overlay zone with the specific requirements listed herein to be incorporated into a development agreement prior to final adoption.

Legislative Decisions

When the Planning Commission is acting as a recommending body to the County Commission, it is acting in a legislative capacity and has wide discretion. Examples of legislative actions are general plan, zoning map, and land use code amendments. Legislative actions require that the Planning Commission give a recommendation to the County Commission. For this circumstance, criteria for recommendations in a legislative matter require compatibility with the general plan and existing ordinances.

Policy Analysis

The subject property is comprised of the following four contiguous parcels: #10-044-0001, #10-044-0002, #10-044-0014, #10-044-0019, which combined, form approximately 370 acres. The parcels are currently owned by the Willson Family Trust. The Willson Family Trust will lease 200-250 acres to Strata Solar. The remainder of the land will continue to be used as agricultural property. Figure 1 shows the general area of the project. Figure 2 shows the specific parcels included in this application.

Figure 1: Vicinity and Boundaries of Project Parcels

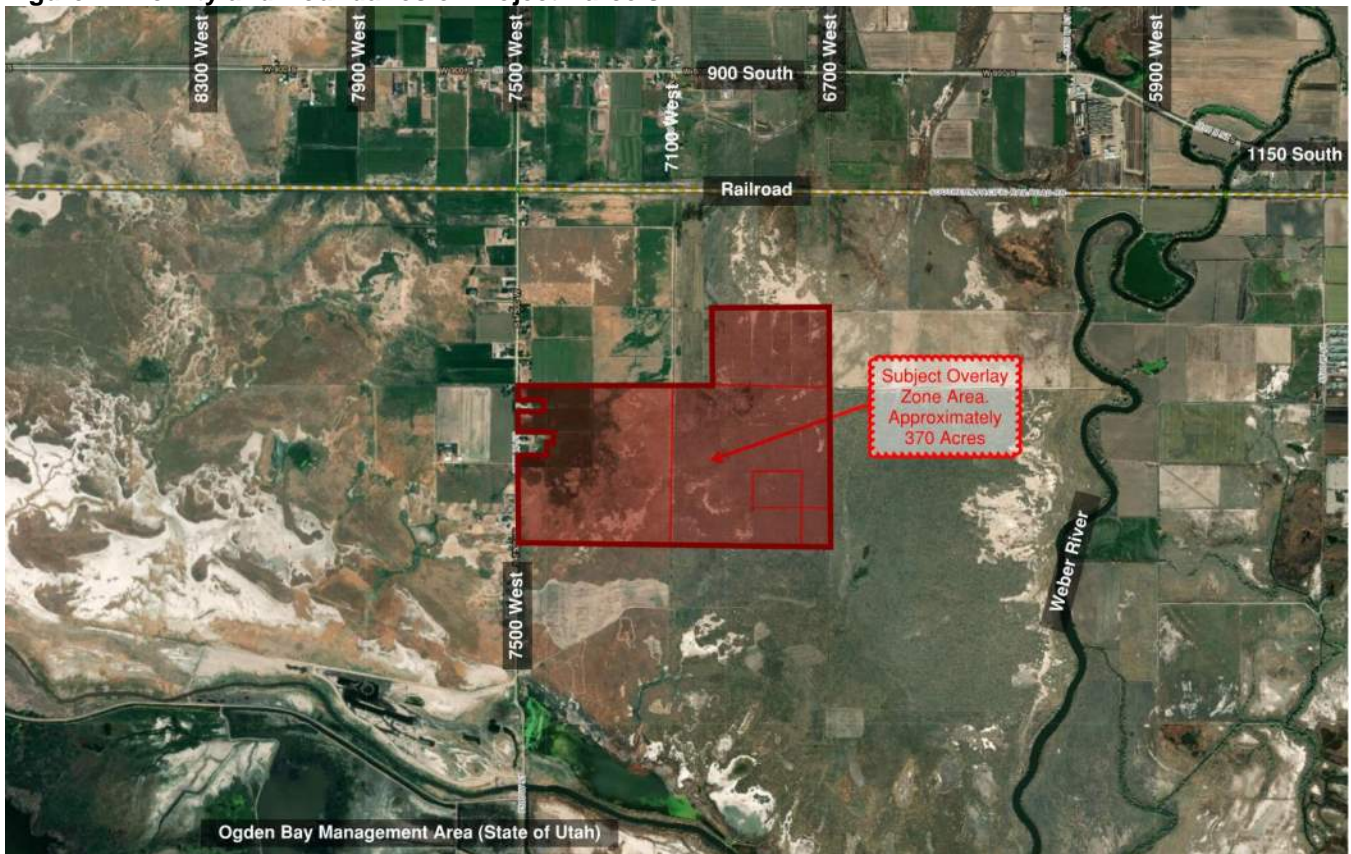
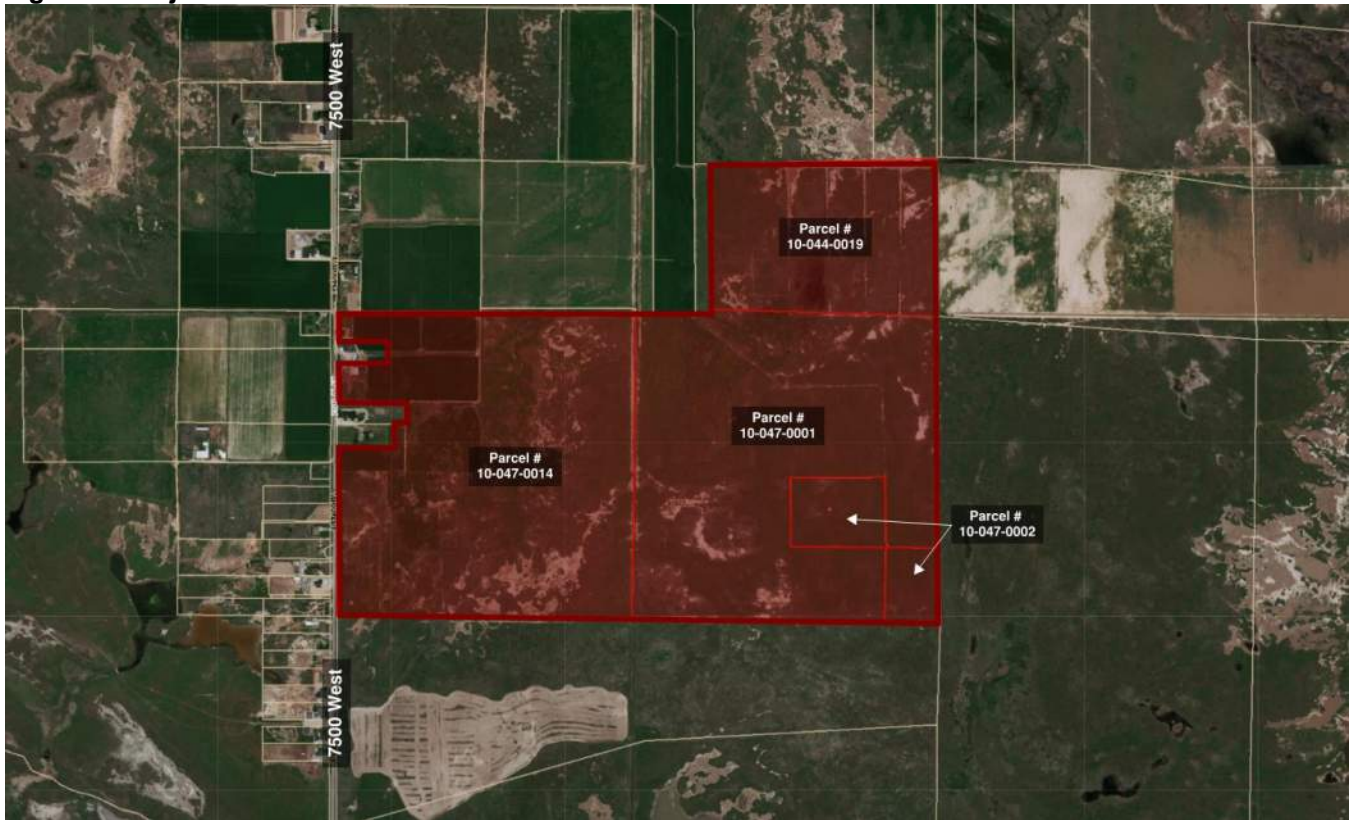


Figure 2: Project Parcels.



The Weber County Land Use Code has provisions that govern application-driven rezones. The following is a policy analysis of this requested rezone based on those provisions and relevant best-planning practices.

Zoning. The subject parcels are currently located in the A-3 zone. That is not being proposed to change. Rather, a solar overlay zone (SOZ) is being proposed to overlay the parcel's A-3 zoning. Figure 3 shows the current zoning of the parcels and the parcels' outer boundary. Figure 4 shows the parcels with the proposed SOZ.

The purpose and intent listed in the A-3 zone is:

*"...to designate farming areas where heavy agricultural pursuits can be permanently maintained."*¹

The preferred use of the A-3 zone is:

*Agriculture is the preferred use in Agriculture Zone A-3. All agricultural operations shall be permitted at any time, including the operation of farm machinery and no agriculture use shall be subject to restriction because it interferes with other uses permitted in the zone.*²

The purpose and intent of the SOZ is:

*The solar overlay zone (SOZ) is intended to allow a legislatively adopted overlay zone that permits a large solar energy system. This chapter also establishes minimum requirements and regulations for the placement, construction, and modification of large solar energy systems, as defined in Section 101-1-7, while promoting the safe, effective and efficient use of these energy systems.*³

¹ § 104-8-1 of the Weber County Code

² § 104-8-2 of the Weber County Code

³ § 104-30-1 of the Weber County Code

Figure 3: Current Zoning and Boundaries of Project Parcels.

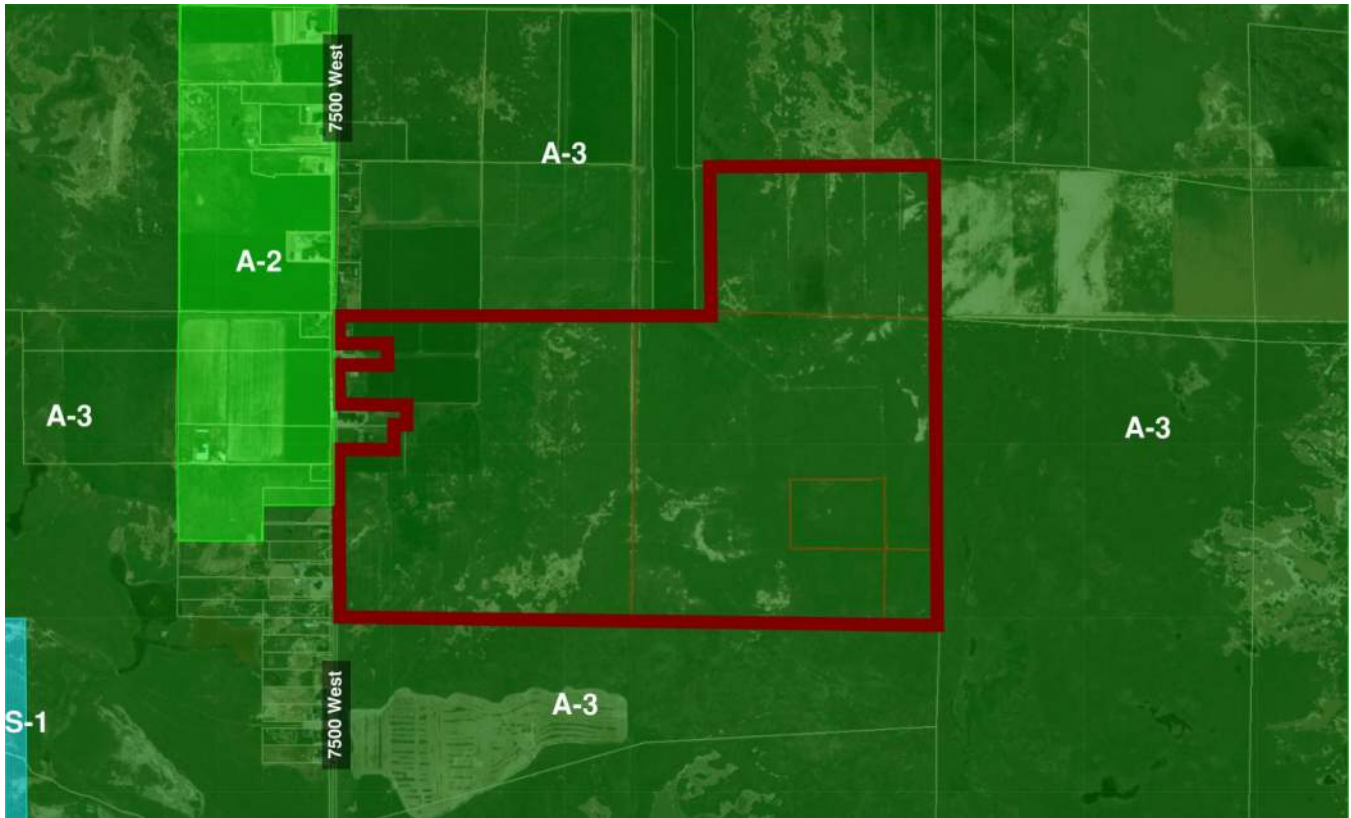


Figure 4: Proposed Zoning and Boundaries of Project Parcels.



The SOZ requires a solar project to encumber at least 100 acres with a development agreement that specifies, among other things, the development standards and performance of the solar farm. Those standards are as follows, with an evaluation of how they may be applied to this application.

- *Site plan.* Exhibit F, also seen, in part, in Figure 6, shows the proposed concept plan for the site.
 - The solar project will not consume the entire 370 acres of the site, but rather will consume between 200 and 250 acres on the eastern side of the site. The unused western side is proposed to continue to be used for agriculture.
 - The site will be fenced with a six foot chainlink fence with barbed wire on top. The fence will be setback 100 feet from the property boundary's northern, eastern, and southern boundary. The fence will be approximately 1,200 feet from the property's western boundary, 650 feet from the nearest parcel boundary containing a residence, and approximately 1,000 feet from any residence. This demonstrates compliance with the SOZ setback requirements.
 - There will be a proposed power substation onsite. No conditional use permit is required for this substation under the SOZ rules. The substation will be on the eastern edge of the site, nearly one mile from the nearest residence. It appears to comply with the county's public utility substation requirements.⁴
 - The site will be accessed from 7500 West. There is a proposed concrete approach from the project boundaries to 7500 West that will protect the edge of asphalt on that street. We recommend this be asphalt to seam better with the street's asphalt.
 - The site plan proposes a gravel driveway along the southern edge of the property. We recommend this be compacted road-base with dust treatment, sufficient to support a 75,000 lbs. fire truck.
 - Given the distance from the nearest residence, no screening has been proposed. The planning commission should determine whether this is satisfactory given site conditions and neighboring uses.
- *Vegetation plan.* No formal vegetation plan has been proposed. Where the project's perimeter is more than 1,000 feet from any residence and 1,200 feet from any street, it may be determined by the planning commission that the distance offers a satisfactory buffer in lieu of vegetation. We recommend requiring, at the very least, a viable weed mitigation plan for the entire site and an appropriate financial security, as approved by the County Attorney, Treasurer, and Planning Director, to ensure perpetual compliance.
- *Waterfowl and other wildlife mitigation.* It is our understanding that the solar panels are a photovoltaic panel with a surface treatment intended to capture as much sunlight as possible. They are intended to be nonreflective and will slowly move throughout the day to track the sun. The motion is slow enough to not create an unreasonable risk of harm to birds and other wildlife. The panels do not generate heat at dangerous levels. One element of concern, especially for this location, is the "lake effect" that a large solar system can create in which birds mistake the panels for water. Some waterfowl are unable to take flight if not on water. We recommend the panels be treated with special industry-standard patterns, or other reasonable mitigation strategies, to eliminate the "lake effect" from this site.
- *Performance measures.* As mentioned above, we recommend that the company maintain a financial security to ensure perpetual performance with development standards. The form of this security will need to be approved by the County Attorney and County Treasurer. This will likely result in the company maintaining a surety policy, naming the county as a beneficiary. A surety is similar to an insurance policy, but, in this case, is intended to ensure satisfactory compliance with requirements.
- *Height requirements.* Exhibit F, also seen, in part, in Figure 7, shows the proposed height of the solar structures, which is 10 feet. The SOZ limits this height to 15 feet.
- *Relevant conditional use requirements.*
 - *Fire.* The construction of the solar farm will be required to meet the requirements of the local fire authority.

⁴ See § 108-10 of the Weber County Code.

- *Law enforcement.* The difference in demand for services from the local law enforcement and local EMS may increase during the construction period, but are anticipated be reduced virtually back to existing levels once the site is constructed and the security fence is erected.
- *Local infrastructure.* Traffic in the area may be impacted during the construction and future reclamation of the site, but once completed, the impact will be fairly negligible. All construction staging should remain onsite. The proposed drive approach will mitigate street-shoulder damage caused by occasional maintenance vehicles coming to the site.
- *Water and septic.* It is not anticipated that the site will require permanent culinary water or sanitary sewer facilities, as the site is intended to be unmanned except during occasional maintenance. If the planning commission desires to apply any vegetation requirements for the site then secondary or irrigation water will be necessary.
- *Environmental concerns.*
 - *Site prep and earth movement.* The land is relatively flat and is not anticipated to need significant earth movement. In the event earth movement is required the applicant will be required to provide storm drainage mitigation.
 - *Wetlands.* As can be seen in Figure 5, the site has a large amount of delineated wetlands. It is often permissible to develop in wetland areas, provided any reduction to wetland is appropriately compensated with the creation of other wetland area. A wetland mitigation/management plan has not been submitted for our review. We recommend that the development agreement give reference to the Army Corps of Engineers and the need for their approval of the proposal.

Figure 5: National Wetland Inventory Map

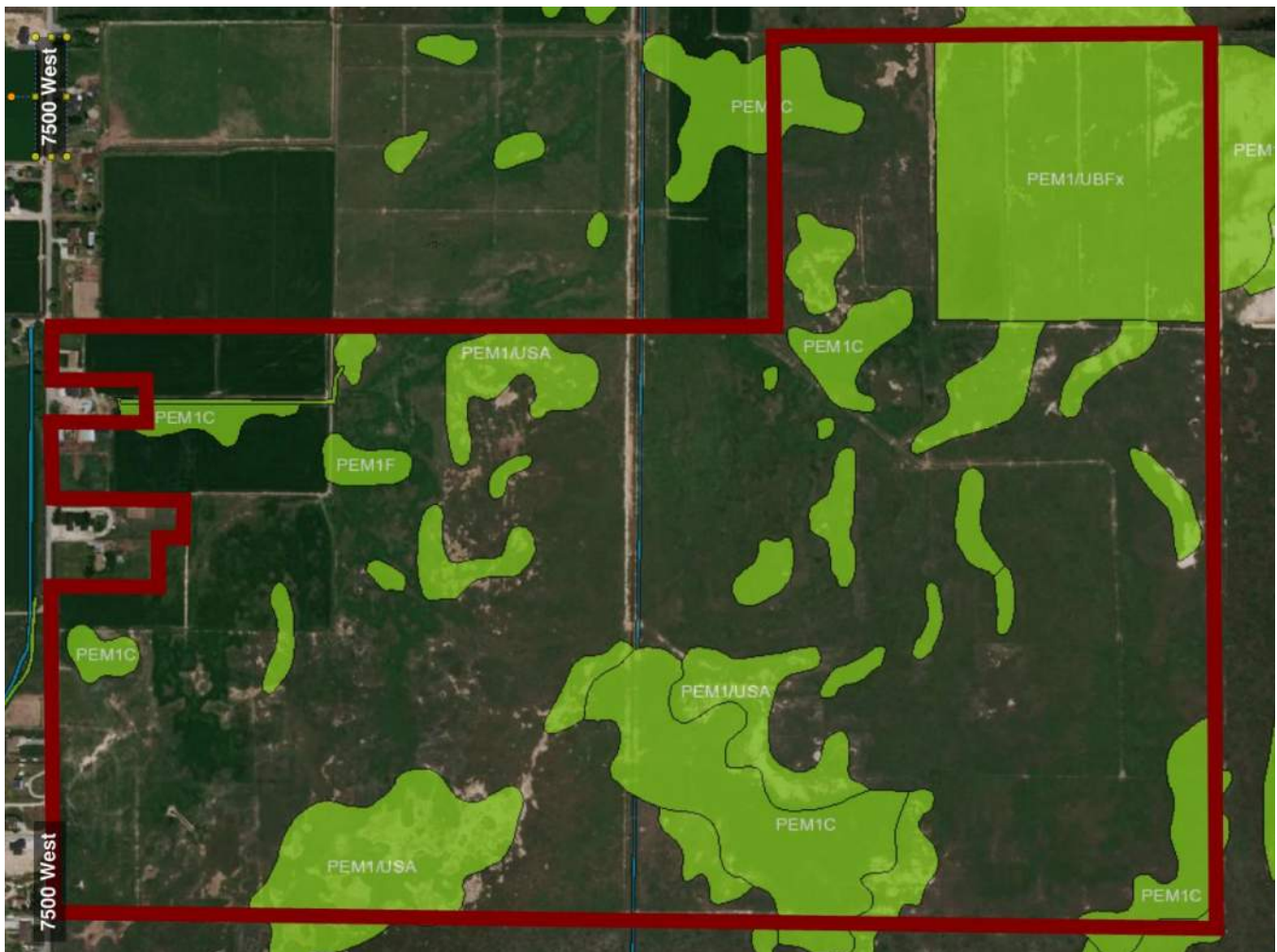
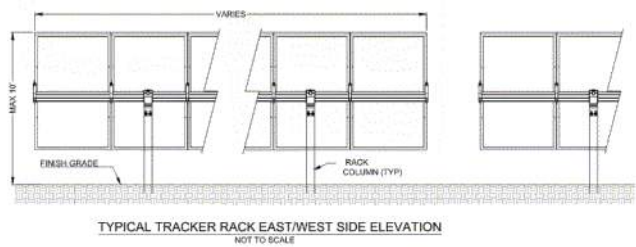


Figure 6: Concept Site Plan (excerpt)



Figure 7: Solar Panel Side Elevation View



General plan. The West Central Weber County General Plan does not offer any specific recommendations regarding energy generation, however, the Western Weber County Resource Management Plan does. It suggests that there may not be sufficient acreage for large-scale solar generation given the existing agricultural uses of the area.⁵ However, it does offer this recommendation:

Policy: Energy Resources Support the development of renewable energy resources, such as solar,

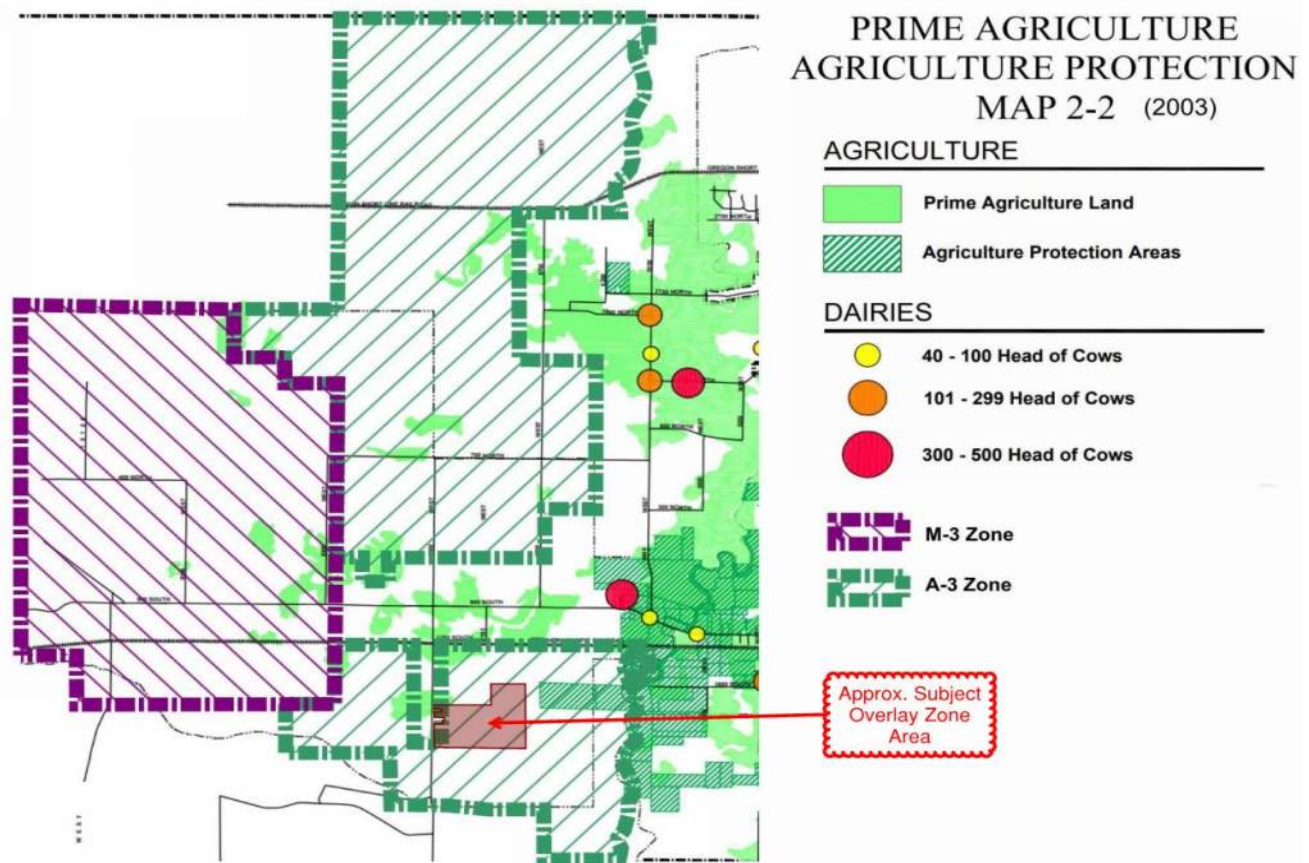
⁵ Western Weber County Resource Management Plan, p. 18.

wind power, and geothermal energy for private or small-scale commercial uses.⁶

The author's dismissal of larger solar farms is based on land-acreage as opposed to other community impact concerns. This could be interpreted to mean that allowing large-scale solar systems may be supportable if sufficient land is available that is not already better used by agricultural uses.

The West Central Weber County General Plan suggests that the A-3 zone has very little prime agricultural land. Figure 8 offers a map showing the A-3 boundaries and prime agricultural land (as of 2003). This map shows that other than a small portion on the western border of the subject parcels, an area where agricultural operations are intended to continue onsite, the majority of the subject property, and all of the area where the proposed solar panels will be constructed⁷, contains no prime agricultural land.

Figure 8: Prime Agricultural Land and A-3 and M-1 Zoning in Western Weber County.



Noticing Compliance

A hearing for this item before the Planning Commission has been posted for public notice in compliance with UCA §17-27a-205 and UCA §17-27a-502 in the following manners:

- Posted on the County's Official Website
- Posted on the Utah Public Notice Website
- Published in a local newspaper

Staff Recommendation

⁶ Western Weber County Resource Management Plan, p. 32.

⁷ See Exhibit F for the concept site plan.

Staff recommends the planning commission recommend approval to the county commission for file #ZMA 2019-01, a solar overlay zone for approximately 370 acres located at approximately 1700 S. 7500 W. This recommendation comes with the following recommended development agreement requirements:

1. A building permit is required for the solar structures.
2. Area for accessory structures anticipated to be needed in the future should be shown on the site plan and provisions for their permitting should be established such that it isn't necessary to amend the development agreement.
3. Keys or access codes to any security gate should be given to local law enforcement, fire, and EMS; or, at the request of one of those authorities, a special lock should be used that enables access during emergency situations.
4. Chainlink fencing should be vinyl or powder coated with an earth-toned color that blends well with the natural colors of the site area and eliminates the shine of untreated chainlink.
5. The drive approach to the property lines should be compacted and asphalted to the satisfaction of the County Engineer. At the owner's option, the approach may be completed after completion of construction of the site or within six months after commencement of construction of the site. A photo survey of the existing edge of asphalt on 7500 West at the site's entrance should document the current asphalt condition prior to commencement of construction. Any excess damage to the existing asphalt should be replaced at the time of asphaltting the drive approach. No final building inspection should be given until the approach is installed or a cash escrow has been offered to secure its construction.
6. A weed mitigation plan should be provided to the satisfaction of the Planning Director.
7. The owner and operator should be required to agree to provide reasonable treatment methods to mitigate the impact on waterfowl and other wildlife in the area. In doing so, all reasonable efforts should be made to accommodate and mitigate any concerns from the Utah Division of Wildlife Resources (UDWR), if required by the planning director. If not in conflict with the recommendations of UDWR, and if no other mitigation of "lake effect" is offered, recommended, or required, special patterns should be added to the panels to significantly reduce their appearance as a body of water to waterfowl. Performance measures should be implemented to determine whether additional mitigation treatments are necessary in the future, as may be recommended by the UDWR or Planning Director. The owner and operator should be required to allow county staff or UDWR staff to inspect the site at any reasonable time, with or without notice. If accessing without a company representative present, staff should be accompanied by law enforcement.
8. All power or other utility lines should be underground.
9. The wetlands impact and any necessary mitigation should be approved by the Army Corps of Engineers.
10. Construction staging should be restricted to the subject parcels.
11. An irrigation plan should be provided and a will-serve letter or feasibility letter should be provided from the relevant irrigation/water entity if vegetation is proposed or required for the site.
12. Upon discontinuance of the use, the site should be returned to its current condition, with all solar infrastructure onsite removed. A financial security should be provided to ensure this reclamation occurs.
13. Any outstanding review agency requirements should be appropriately applied in accordance with the law and to that review agency's satisfaction.

Exhibits

- Exhibit A: Application.
- Exhibit B: Vicinity Map.
- Exhibit C: Current parcel layout.
- Exhibit D: Current Zoning Map.
- Exhibit E: Proposed Zoning Map.
- Exhibit F: Concept Site Plan.
- Exhibit G: Prime Agriculture Map (2003 General Plan).
- Exhibit H: National Wetland Inventory Map.

Weber County Zoning Map | Rezone Application

Application submittals will be accepted by appointment only. (801) 399-8791. 2380 Washington Blvd. Suite 240, Ogden, UT 84401

Date Submitted:	Received By (Office Use)	Added to Map (Office Use)
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Property Owner Contact Information

Name of Property Owner(s) Wilson Family Trust		Mailing Address of Property Owner(s) 1700 South 7500 West Ogden, Utah 84404
Phone	Fax	
Email Address		Preferred Method of Correspondence <input type="checkbox"/> Email <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Mail

Authorized Representative Contact Information | APPLICANT

Name of Person Authorized to Represent Request Project Douglas Larsen Mathew Niesen (Strata Solar)		Mailing Address of Authorized Person Strata Solar Development LLC. 285 South 400 East Suite 216 Moab, Utah 84532
Phone 801.726.9048 435.260.0366	Fax	
Email Address Welev8@gmail.com mniesen@gmail.com		Preferred Method of Correspondence <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Mail

Property Information

Project Name Little Mtn. Solar Farm	Current Zoning A-3	Proposed Zoning A-3 Solar Zoning Overlay (SOZ)
Approximate Address 1700 South 7500 West	Land Serial Number(s) 10-044-0019 10-047-0001 10-047-0002 10-047-0014	
Total Acreage 250 (+/-)	Current Use Agricultural	Proposed Use Utility Scale Solar Farm

Project Narrative

Describing the project vision

Under the umbrella and direction of Weber County Land Use Ordinance: Chapter 30: Large Solar Energy System Overlay Zone (SOZ), Strata Solar (Developer) desires to develop a 48MW solar farm (large solar energy system) on approximately 250 acres of vacant land located in the western area of the unincorporated Weber County. (Conceptual Site Plan attached as Exhibit A).

The Solar farm system will be comprised of non-reflective solar photovoltaic panels (modules) set in an array mounted to the ground on steel or aluminum frames, a substation, inverters, monitoring systems and security fencing. Lower voltage clean energy generated from the solar farm system will be converted to high voltage energy and will then interconnect with the regional power grid (electricity distribution network) via existing transmission lines located north east of the development site. Access to the system will be from 7500 west. The system will be monitored remotely with maintenance crews attending the site on a monthly basis at minimum, and as needed.

Project Narrative (continued...)

How is the change in compliance with the General Plan?

Solar farm projects align well with certain components of the West Central Weber County Vision Statement:

Values and protects its rural character, lifestyle, and atmosphere: Development of solar farms protect large tracts of open acreage from other forms of development such as: residential, commercial, mixed use or industrial with very little impact on environmental and community assets. Once installed (planted) solar farms will not create increased traffic, utilize culinary or secondary water, create sewer waste and do not create any measurable demand on, or need for public safety services. Solar farms across the country exist harmoniously with their rural neighbors. In addition, at the end of a solar farm projects useful life, the ground at a subject site will be returned to the conditions that existed prior to development of the solar farm – open space, often farm ground.

Manages growth to strike a balance between preservation and development: Solar farms can be considered almost a perfect balance between preservation and development as they perpetuate both perspectives. Solar farms inhibit typical growth within a subject site for 25 to 35 years while at the same time allowing and supporting a development project that increases the tax base substantially with minimal use and impact on public services. Furthermore, allowing development of solar farms fosters the concept of enabling property rights opportunities that can provide a feasible pathway to sustaining open-space within communities.

Maintains a community that is safe from environmental hazard and criminal activity: Solar farms are a renewable energy producer. The system will generate “clean” electric power with very limited, if any impact on the surrounding and regional environment.

Why should the present zoning be changed to allow this proposal?

The development of the solar farm can, in a sense protect the integrity of open-space and will inhibit residential subdivision sprawl that is likely to occur over time in Western Weber County.

The harvesting of energy from the sun via ground mounted infrastructure is by all means a process very similar to other harvesting agricultural activity wherein the land is dedicated to the development of a crop. Such crops are dependent on the sun, in addition to water and often other nutrients as well as maintenance and care of the crops – crops are then harvested with the purpose of providing some form of value.

Accordingly, the solar panel and related infrastructure can be thought of as the crop, dependent *only* on the sun and maintenance of the components – ultimately producing a product, clean (renewable) energy that provides sustainable monetary and environmental value.

The solar farm will be a quiet neighbor and can certainly enable the desire of the West Weber community to maintain “...a sense of quiet, country living”.

As well, the Weber County Land Use Ordinance anticipates the potential development of solar farms within the A-3 zone under the direction of Chapter 30: Large Solar Energy System Overlay Zone (SOZ) and such direction provides significant protection the County and project neighbors as the approval is tied to a negotiated Development Agreement – (DRAFT attached as Exhibit B) that binds the development to certain site design and project retirement/termination standards.



Project Narrative (continued...)

How is the change in the public interest?

The development of commercial solar farms will have very minimal impact on public services and infrastructure. The table below represents the impact and public costs associated with a residential development consisting of 124 single family dwellings. (124 represents the quantity of homes needed at the current average assessed value in order to generate an amount of property tax revenue to public entities equal to that of a solar farm development at a significantly depreciated value of \$19M).

Public Service Public Asset	Public Cost Impact Est. of 124 Residential Dwellings	Impact Use of Public Services & Assets from Solar Farm
Education (Weber School District)		
Average Cost Per Student	\$ 6,500	None
Average Estimated Number of K-12 Students Per Household	1.50	
Yearly Cost to District from Residential Development	\$ 1,213,840	
Water (Utah Department of Natural Resources Data)		
Average Household Size	3.00	Relatively minimal use during construction only.
Average Gallons Per Person Per Day	256	
Average Yearly Household Water Use	280,320	
Yearly Water Use (gallons) from Residential Development	34,898,826	
Sewer (Central Weber Sewer Data)		
Average Gallons Per Household Per Day	450	Relatively minimal use during construction only.
Average Gallons Per Household Per Year	164,250	
Yearly Sewer Use (gallons) from Residential Development	20,448,531	
Public Safety (Weber County Sheriff Data)		
Total Subdivision Population Estimate	373	Minimal to None
Local Cost Basis:		
Unincorporated Weber County Cost per Resident - Public Safety	\$ 78.00	
Anticipated cost associated with residential development	\$ 29,094	
National Cost Basis:		
One officer per 1,000K people (373/100)	0.37	
Resource cost based on National Est. of \$125k per officer.	\$ 46,625	
Traffic Generation (2012 Utah Travel Study)		
Estimated number of vehicles per household	2	Construction traffic: 6 to 8 months. Post construction estimate @ 50 (+/-) trips annually
Estimated number of vehicles in subdivision	248	
Wasatch Front daily trip rates by households with 2 vehicles	13	
Estimated number of daily trips generated from subdivision	3,214	
Estimated number of weekday trips	16,070	
Estimated number of annual trips generated on weekdays	835,661	

Project Narrative (continued...)

What conditions and circumstances have taken place in the general area since the General Plan was adopted to warrant such a change?

Weber County, like other healthy economies in Utah has and will continue to experience measurable growth. Population estimates are projected to double along the Wasatch Front by 2050. Accordingly, western Weber County is a target area for growth and residential sprawl. Development can often strain community resources such as water, sewer and transportation systems. The “general area” of the proposed development site has experienced a notable increase in residential subdivision development over the last 10 to 15 years. The development of the large-scale solar farm will inhibit residential development on the sites 250(+) acres of farm ground for a period of 25 to 35 years. As such, the strain on resources that is currently occurring within the region, and will likely occur as articulated within the table above should positively warrant approval of the change.

How does this proposal promote the health, safety and welfare of the inhabitants of Weber County?

According to the U.S. Department of Energy’s National Renewable Energy Lab – While the impacts of a solar farm on neighboring property values have not been studied in-depth, numerous studies have found the impact of wind energy generation on neighboring property values to be negligible. As solar farms do not have the same impacts as wind farms (i.e., PV facilities do not cast a shadow on neighboring properties, cause light flicker, or have the same visual impact as wind farms), *the impacts on property values caused by solar farms are anticipated to be very minimal.*

Additionally, photovoltaic (PV) solar panels are coated with non-reflective materials designed to maximize light absorption and, as a result, minimize glare. According to a 2014 study, solar panels produce less glare and reflection than standard window glass. Regarding noise, a study conducted by Tech Environmental, Inc., for the Massachusetts Clean Energy Center, that investigated two utility-scale solar projects concludes: any sound from the PV array and equipment was inaudible at set back distances of 50 to 150 feet from the (project) boundary. In fact, solar is a quiet and, typically, visually appealing neighbor that can *block the path of undesirable development for decades to come.* The same study also concludes that the electrical and magnetic fields generated by solar panels and their inverters are lower than background electrical and magnetic fields created by other devices that surround our daily lives, such as computers and cell phones, and emit fields that are several hundred times less than recommended exposure limits.

Photovoltaic solar farms produce no air emissions, do not release toxic materials, and emit no radiation. Photovoltaic technology does not produce excessive heat. In fact, solar farms are frequently home to nesting birds, and with the right plant and grass mix, can attract bees, butterflies and other species.

Compared with reserves of fossil fuel, which are essentially finite, solar energy productions is a renewable resource of almost unlimited capacity and scale. As the International Energy Agency noted in a 2011 report, “Solar energy is the largest energy resource on Earth -- and is inexhaustible.” The amount of solar energy received by Earth in a year exceeds the energy that has been developed from oil, natural gas, coal, and nuclear sources in the history of humankind. The amount received by the planet in an hour is greater than the earths entire yearly energy consumption. Additionally, the volatile price fluctuations typical of fossil fuels -- stemming from political tension, strife and other regional factors -- solar offers the potential for more stable energy costs, which benefits consumers as well as utilities.

From an economic development perspective, renewable energy is quickly becoming a requirement for corporate expansion and relocation decisions, particularly by tech and new generation business. Since 2010, renewable energy power purchase agreements generated over 18,000 mega-watts of clean power from wind and solar operations – tech companies alone have purchased 47% of the 18,000mw’s with government and universities in second place at only 13%. Beyond environmental and sustainability objectives, the long-term fixed utility rate from renewables feeds the health of a positive bottom-line. Communities supportive of renewables will have increased opportunities for tactical commercial growth that takes place in the urban centers while inhibiting such in the rural environments where the renewable systems may be located.

Finally, solar farm systems generate increases in local property tax revenue to fund public service entities: The County, Weber School District, Park Districts and other special service property taxing districts within western Weber County with little to no demand on assets and services of such entities.

Source(s):

Strata Solar at <https://www.stratasolar.com/g>

Bloomberg Opinion, Tech Investments are Powering Up Clean Energy at <https://www.bloomberg.com/opinion/articles/2018-09-29/tech-companies-are-big-spenders-on-renewable-energy>

National Renewable Energy Laboratory, TOP FIVE LARGE-SCALE SOLAR MYTHS (Feb. 3, 2016), at <https://www.nrel.gov/technical-assistance/blog/posts/top-five-large-scale-solar-myths.html>.

Tech Environmental, Inc., STUDY OF ACOUSTIC AND EMF LEVELS FROM SOLAR PHOTOVOLTAIC PROJECTS (Dec. 2012), at <http://files.masscec.com/research/StudyAcousticEMFLevelsSolarPhotovoltaicProjects.pdf>

Sciencing, Positive Effects of Solar Energy (April 2017), at <https://sciencing.com/positive-effects-solar-energy-6192992.html>

Authorized Representative(s):



Douglas S. Larsen


L E V8 Consulting (dba of Apple Eye LC) on behalf of Strata Solar Development LLC

State of Utah

Weber County

This instrument was acknowledged before me on:

Date: 1/28/19 By: Douglas Larsen


Notary Signature





Weber County Corporation

Weber County
2380 Washington Blvd
Ogden UT 84401

Customer Receipt

Receipt Number **98452**

Receipt Date
01/29/19

Received From:

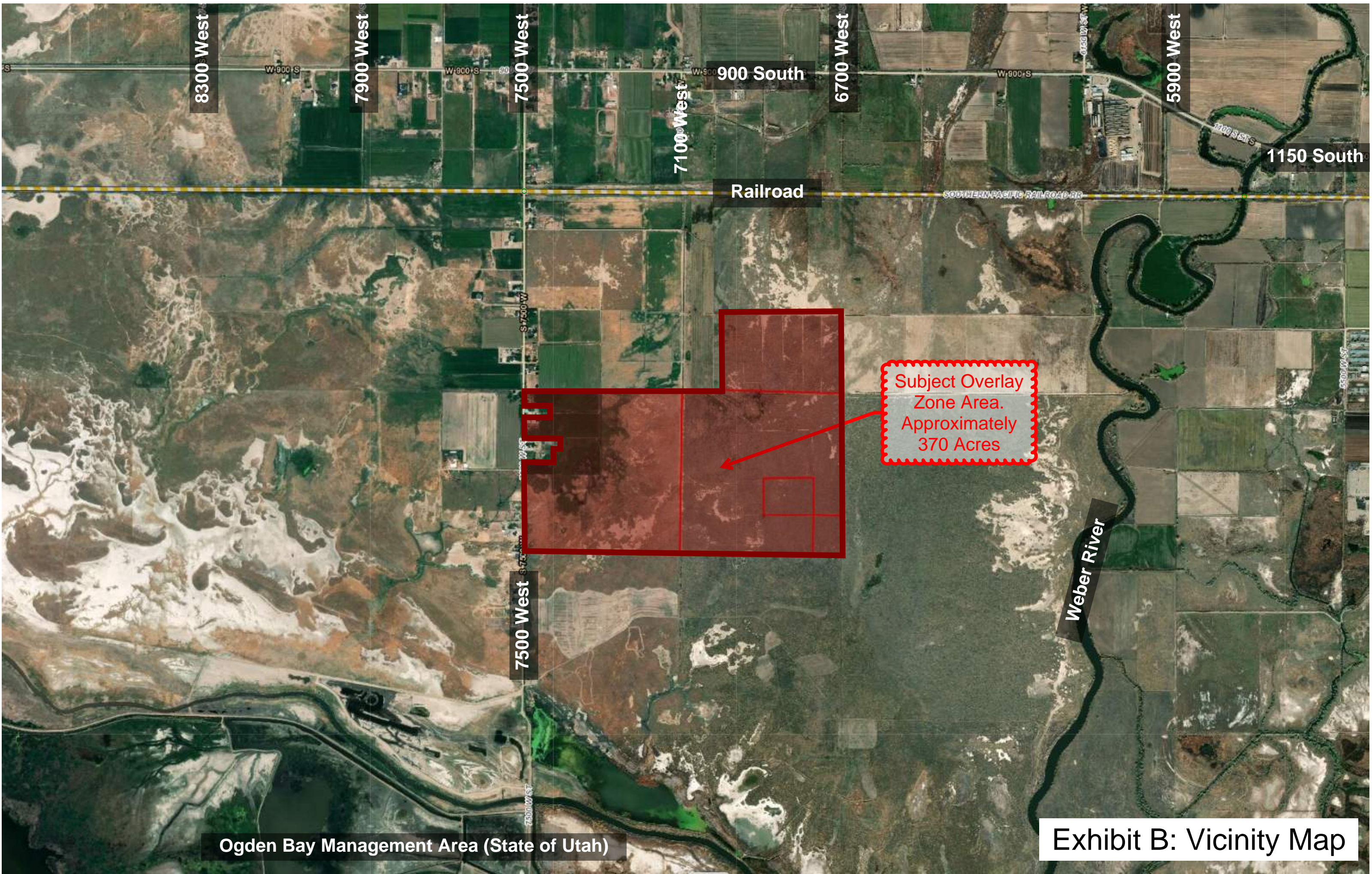
Doug Larsen

Time: 10:10
Clerk: amorby

Description	Comment	Amount
ZONING FEES		\$2,900.00

Payment Type	Quantity	Ref	Amount
CREDIT CARD		138016	

AMT TENDERED: \$2,900.00
 AMT APPLIED: \$2,900.00
 CHANGE: \$0.00



8300 West

7900 West

7500 West

7100 West

6700 West

5900 West

900 South

1150 South

Railroad

Subject Overlay
Zone Area.
Approximately
370 Acres

Weber River

Ogden Bay Management Area (State of Utah)

Exhibit B: Vicinity Map

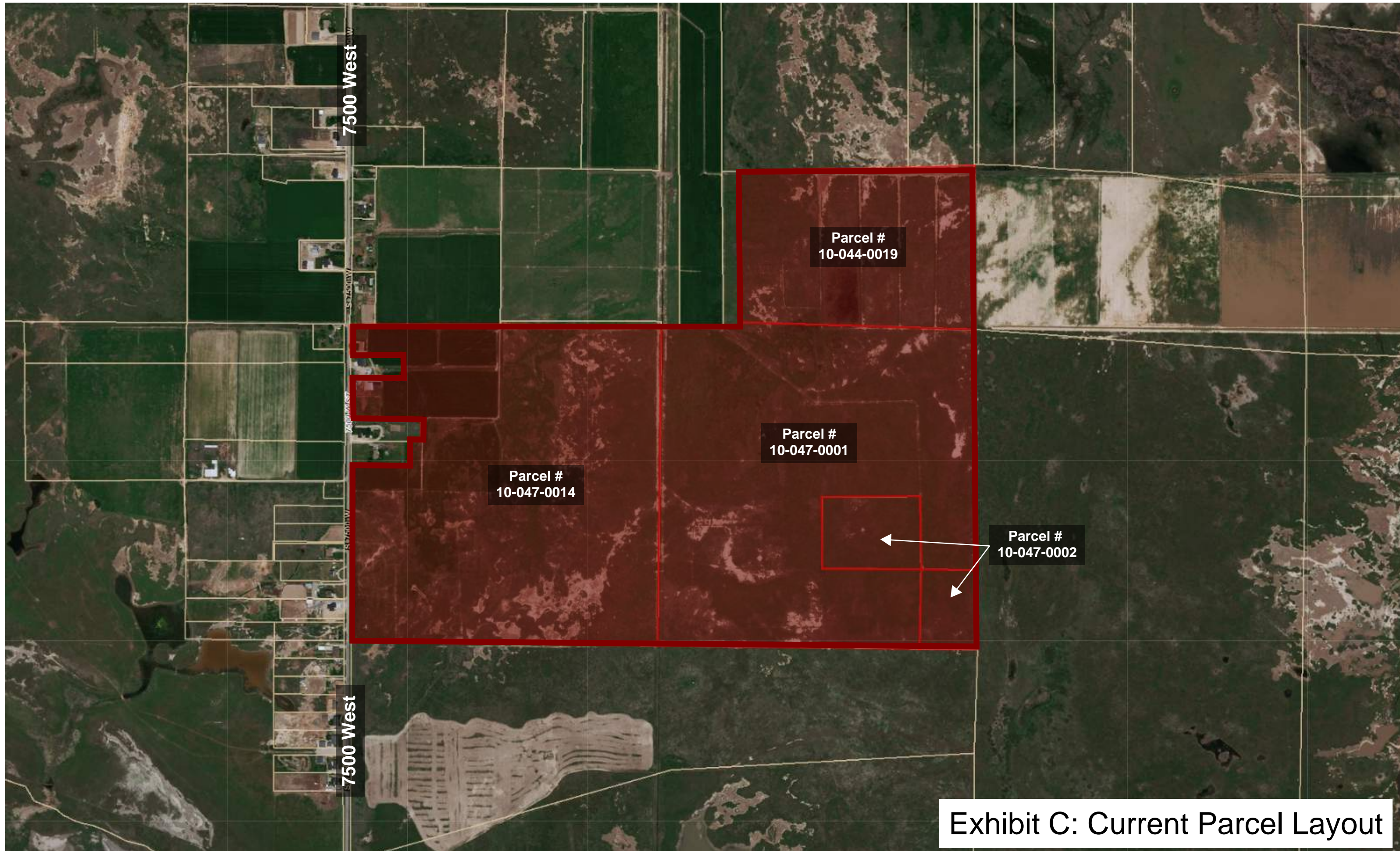


Exhibit C: Current Parcel Layout

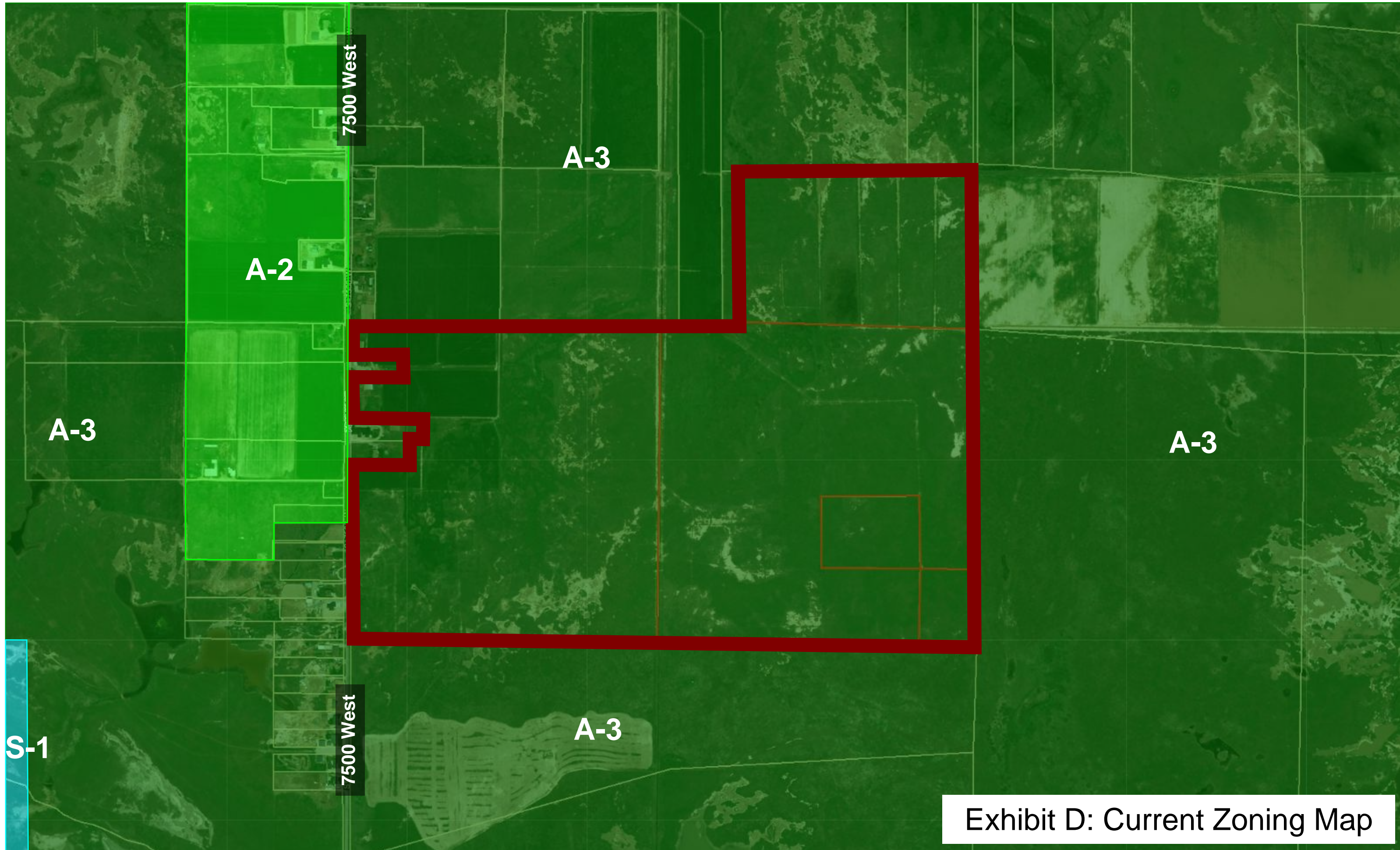


Exhibit D: Current Zoning Map

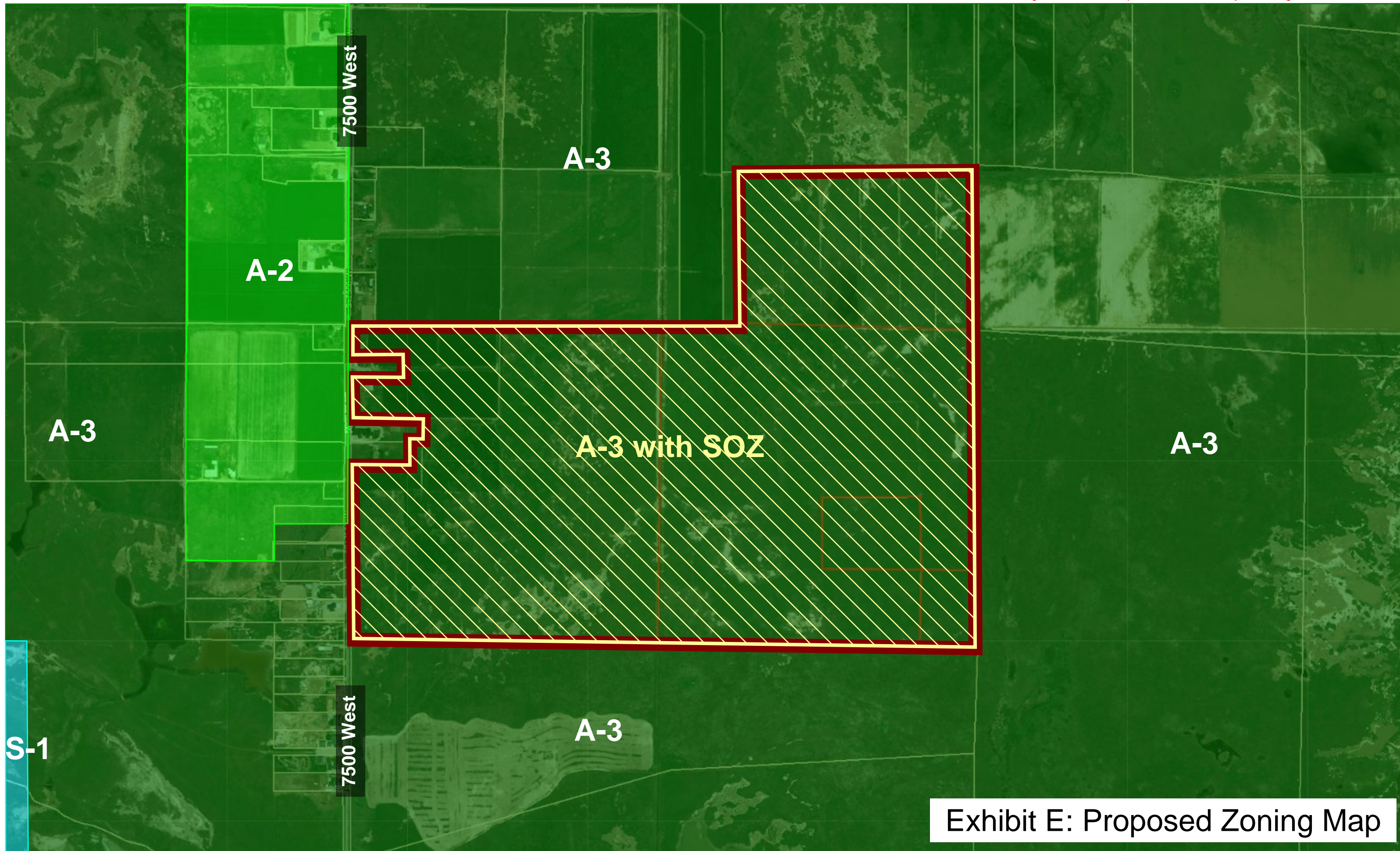
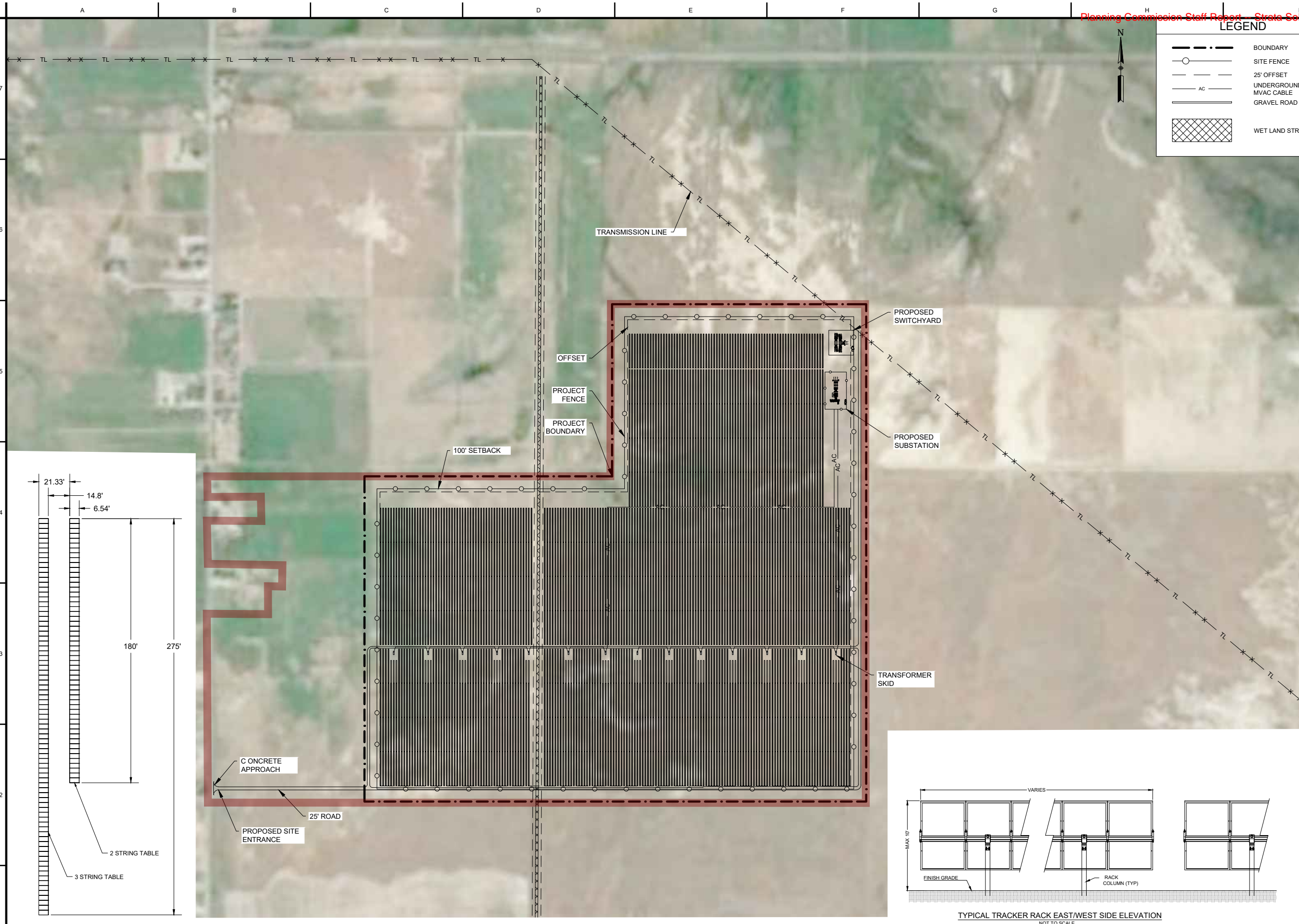


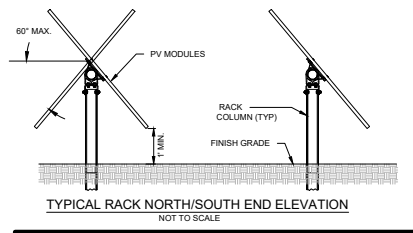
Exhibit E: Proposed Zoning Map



LEGEND	
	BOUNDARY
	SITE FENCE
	25' OFFSET
	UNDERGROUND MVAC CABLE
	GRAVEL ROAD
	WET LAND STREAM

ARRAY SUMMARY	
SYSTEM SIZE GROSS (kW AC):	38,125
SYSTEM SIZE NET (kW AC): *	34,985
OVER BUILD %:	8.9%
SYSTEM SIZE (kW DC):	45,540
SYSTEM VOLTAGE:	1500
DC/AC RATIO:	1.30
INVERTER SPEC #:	SUNGROW GS125HV
INVERTER TOTAL QUANTITY:	305
MODULE TYPE:	CRYSTALLINE
MODULE SPEC:	HANWHA Q-CELL
MODULE WATTAGE (w)	395
MODULE TOTAL QUANTITY:	115,290
MODULES PER STRING:	27
TOTAL # OF STRINGS:	4,270
RACKING TYPE:	SAT-ATI
AZIMUTH (deg):	180
ROW SPACING (ft/m):	21.32/6.5
RACKING ROTATION (deg):	+/- 52
GROUND COVER RATIO:	30.2%
SITE ACCESS GATES:	1
ACREAGE (FENCE):	304
MV CABLE LENGTH (ft)	9,912
* = .95PF, 3% AC LOSS. PLANT CONTROLLER LIMIT 35 MW	

- GENERAL NOTES:
1. PROPOSED ROAD SHALL BE 20' WIDE WITH ENGINEERING APPROVED AGGREGATE
 2. PROPOSED FENCE SHALL BE 6' TALL WITH 1" OF 3 STRAND BARBED WIRE
 3. PROPOSED SITE CONSTRUCTION ENTRANCE SHALL BE 30' WIDE WITH PEDESTRIAN ENTRANCE



REV	DESCRIPTION	DATE
A	UPDATED MODULES TO 395	09/04/2018
B		
C		
D		
E		
F		
G		
H		
I		

FastGrid

PROJECT NAME:
LITTLE MOUNTAIN PV SOLAR POWER PLANT

PROJECT ADDRESS:
**S 7500 W ST
WEBER COUNTY
UTAH**

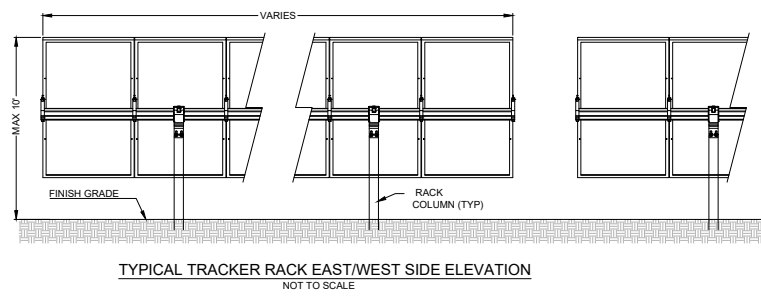
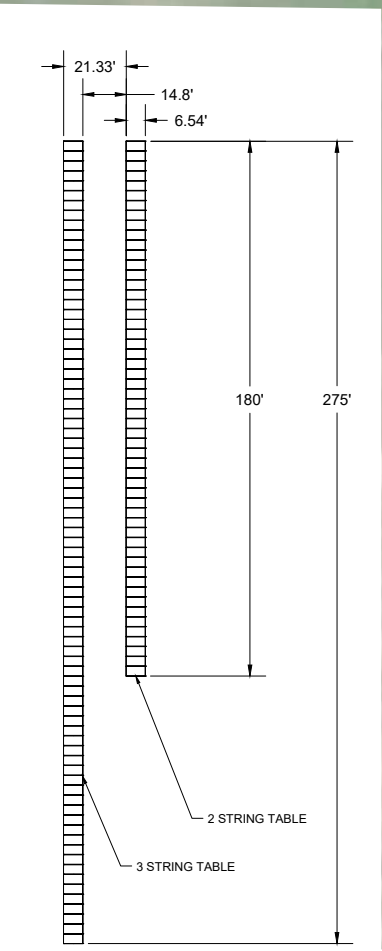
SEAL: _____ DATE: **01/14/2019**

PROJECT #:
180012.25

DRAWN BY:
LL

CHECKED BY:
EH

SHEET NAME:



PROPOSED TRACKER LAYOUT
Scale: 1:30

PV SITE LAYOUT - PLAN VIEW
SCALE: 1"=350'

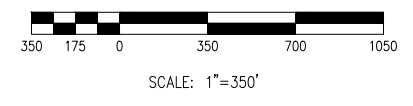
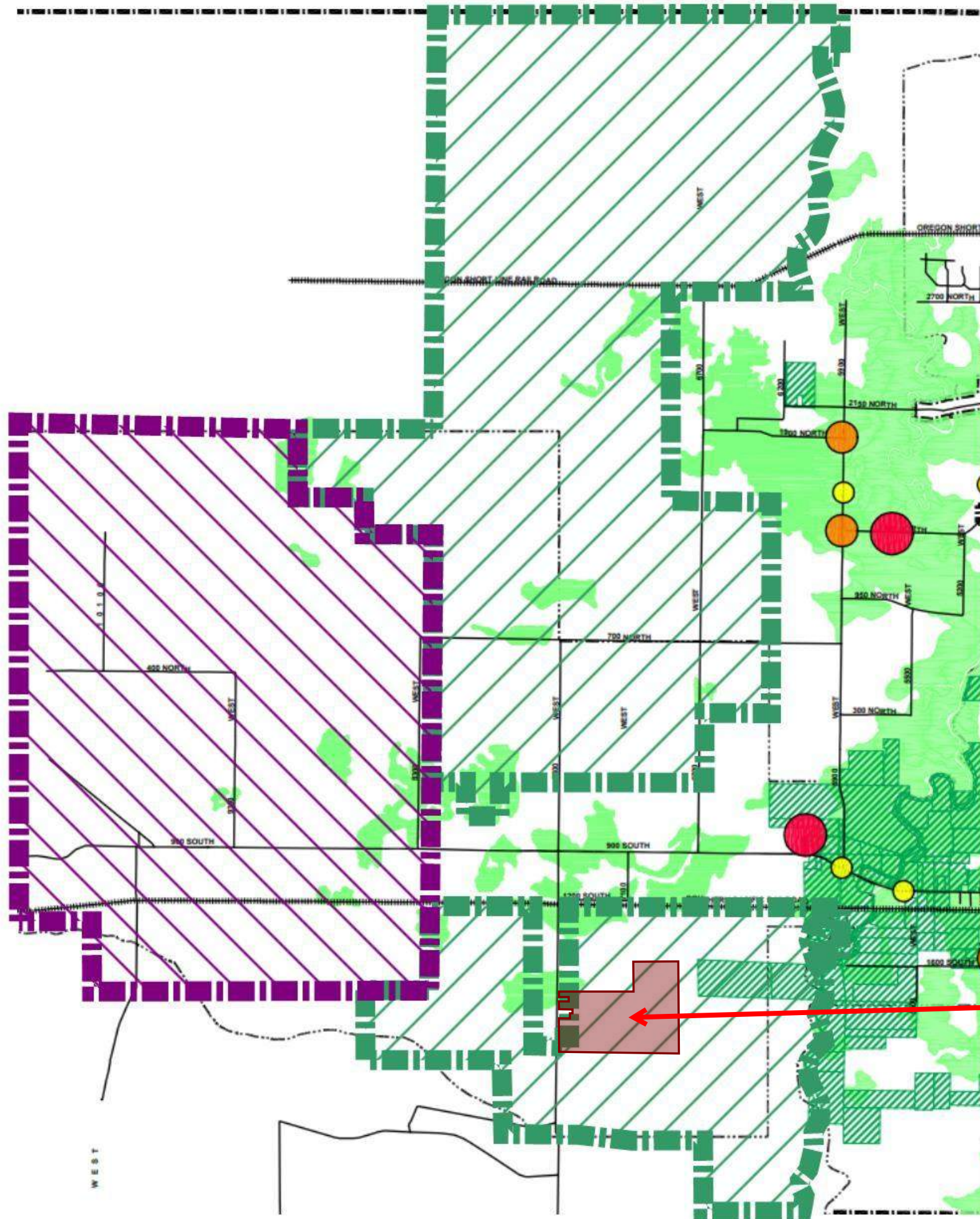


Exhibit F: Concept Site Plan.

VARY - NOT FOR CONSTRUCTION

PLOT DATE: Monday, January 14, 2019
LOCATION: S:\08_PROJECTS\17012.25-STRATA-LITTLE MOUNTAIN\05_ENGINEERING\DWG\100-3-OVERALL SITE PLAN

PRIME AGRICULTURE AGRICULTURE PROTECTION MAP 2-2 (2003)



AGRICULTURE

- Prime Agriculture Land
- Agriculture Protection Areas

DAIRIES

- 40 - 100 Head of Cows
- 101 - 299 Head of Cows
- 300 - 500 Head of Cows
- M-3 Zone
- A-3 Zone

Approx. Subject
Overlay Zone
Area

Exhibit G: Prime Agriculture Map

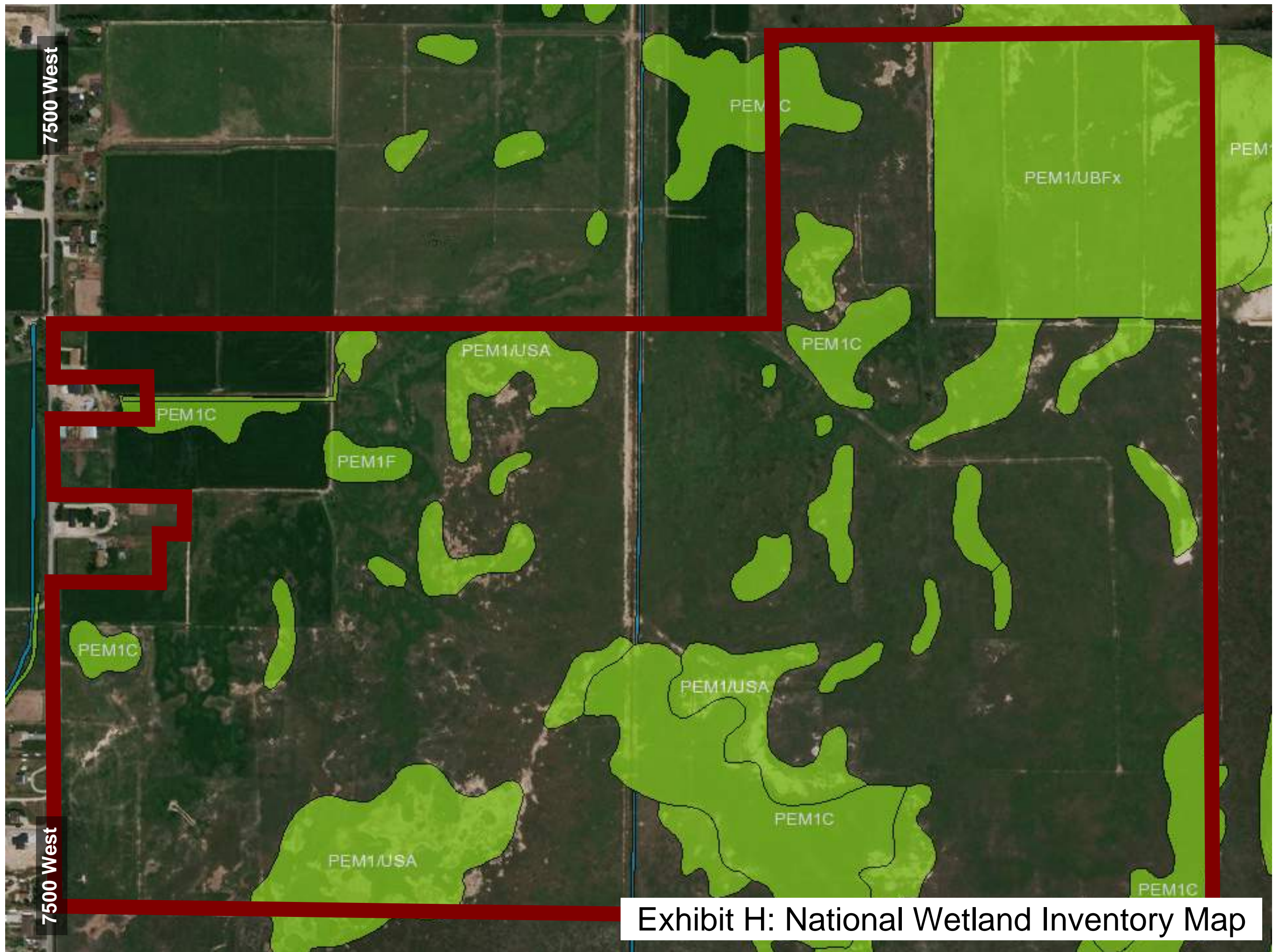


Exhibit H: National Wetland Inventory Map