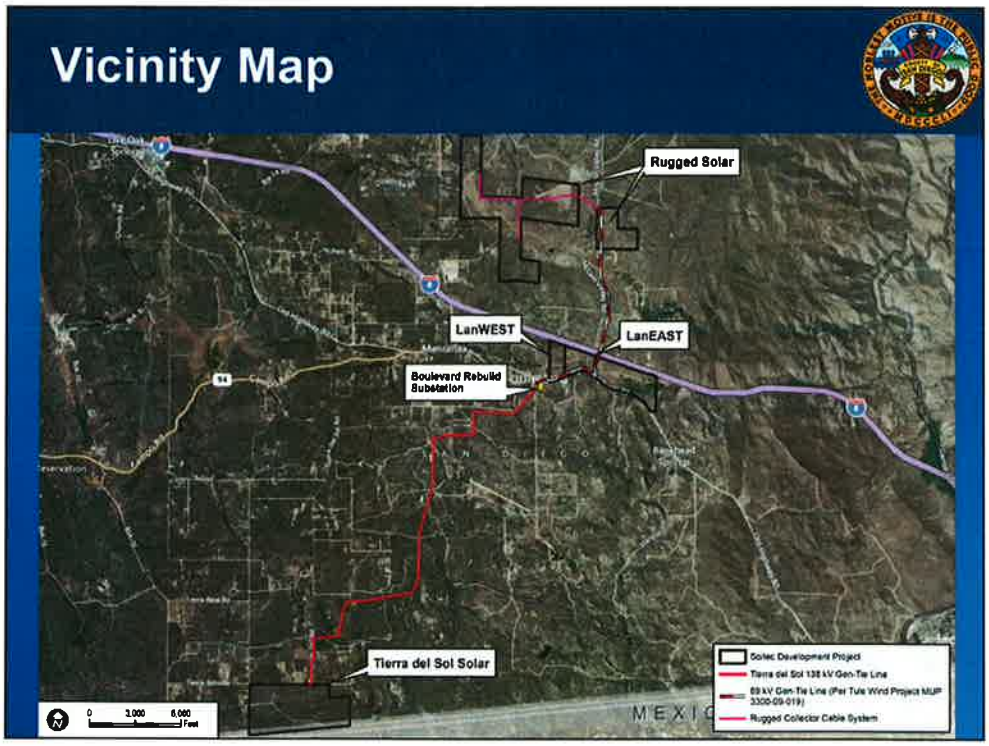
Good morning Chairman Norby and commissioners. My name is Ashley Gungle with Planning & Development Services. I will be presenting on item #1, which is the "Soitec Solar Development" project.

A Final Program Environmental Impact Report for the Soitec Solar Development project has been prepared which includes the analysis of four projects: Rugged Solar, Tierra Del Sol Solar, LanWest and LanEast. This is a request for the Planning Commission to evaluate the proposed project, and make recommendations to the Board of Supervisors on the certification of the EIR including adoption of overriding considerations, a Rezone, an Agricultural Preserve Disestablishment and two Major Use Permits for the Rugged Solar and Tierra Del Sol Solar projects.

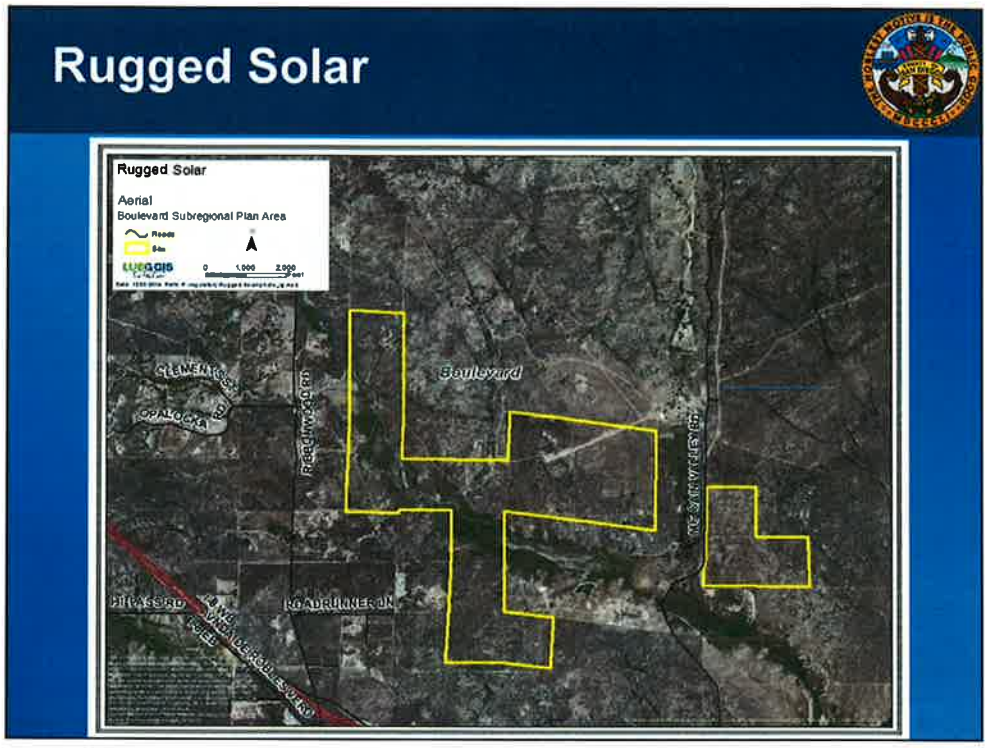
The project before you today is a product of negotiations and revisions that address various project issues involving numerous stakeholders. While we do not have full consensus with all stakeholders, all of the project issues have been addressed in conformance with Federal, State and County laws and policies…and the Department is before you today recommending approval of this project. Today's presentation is rather lengthy due to the need to understand each project in it's entirety and each project issue in depth. Similar to the staff report prepared for this project, the presentation will address each of the projects individually where necessary and collectively where appropriate.

The environmental analysis for the Soitec Solar Development Project includes the analysis of four projects all of which are located…



..... in the Community of Boulevard. The Rugged Solar project is located north of Interstate 8, east of Ribbonwood Road and is bisected by McCain Valley Road. The Tierra Del Sol Solar or TDS project is located south of Tierra Del Sol Road and adjacent to the United States-Mexico border. The LanWest and LanEast projects are located immediately south of Interstate-8 and north of Old Highway 80.

The project before you for a recommendation to the Board of Supervisors includes only the Rugged Solar and Tierra Del Sol Solar projects.

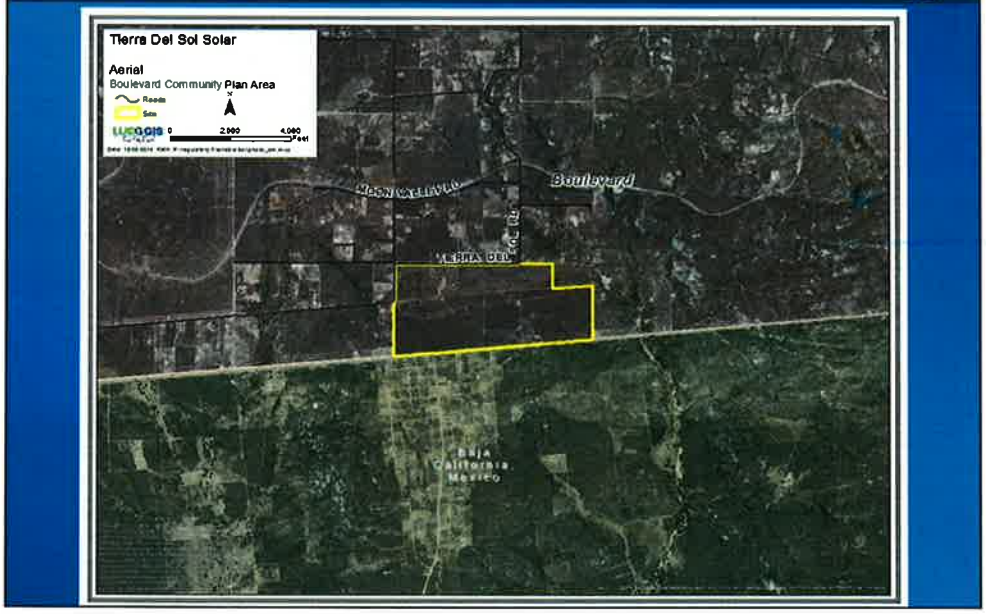


The Rugged Solar project site includes approximately 765 acres consisting of relatively flat to gently sloping land including a diverse assemblage of vegetation communities. The project site is traversed by Tule Creek which runs from the northwest portion of the project site toward the southeast portion of the project site eventually passing McCain Valley Road.

Surrounding land uses to the east, west and south of the project site primarily consist of large rural lots supporting residential structures and undeveloped lands. The McCain Valley Conservation Camp, a rural prison facility, is located southeast of the project boundary between the Rugged Solar site and McCain Valley Road. Undeveloped lands of a slightly higher elevation which support chaparral vegetation and an informal network of dirt trails lie north of the site. Right-of-way and transmission structures associated with the Sunrise Powerlink are located in the eastern portion of the project site near McCain Valley Road.

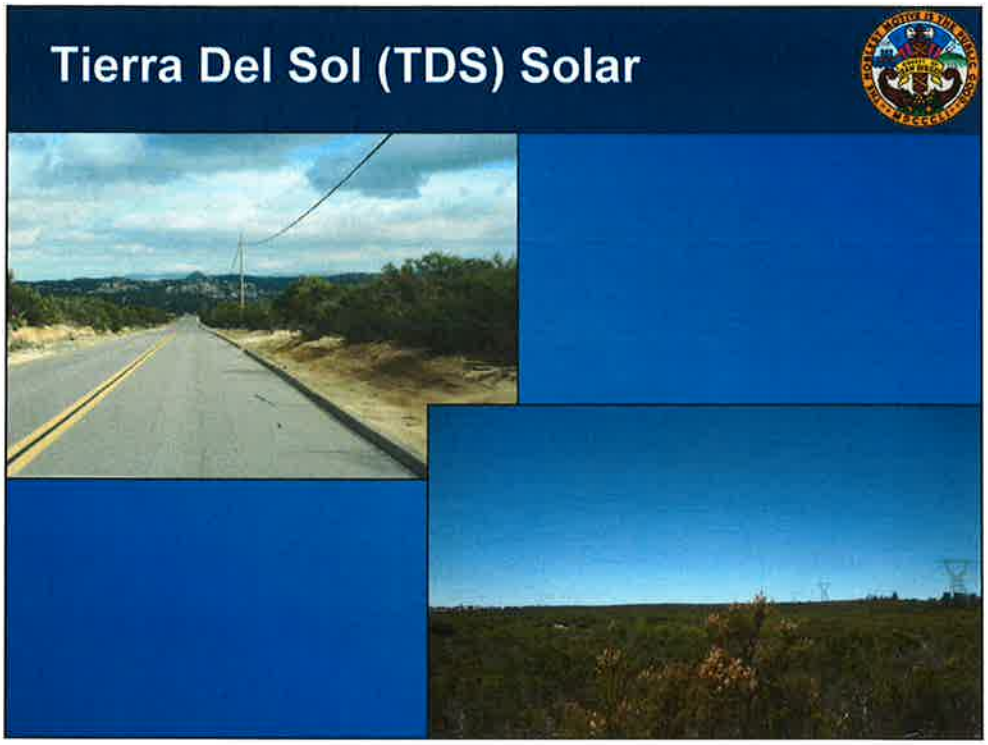
The following photos are representative of the Rugged Solar site. These photos show the Rugged Solar site looking in an easterly direction from Ribbonwood Road.

Tierra Del Sol (TDS) Solar



The TDS project site incudes approximately 420 acres which slopes from east to west from a central north–south trending ridge and contains chaparral, flat-topped buckwheat and big sagebrush scrub habitats.

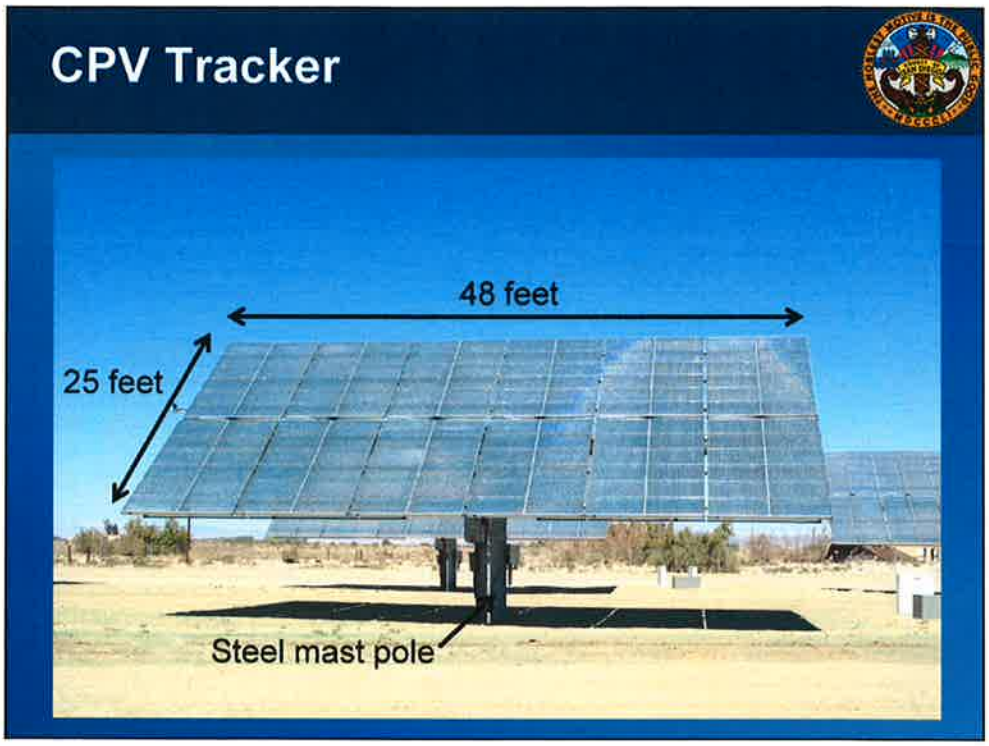
Surrounding land uses primarily consist of single-family homes, ranch lands and tribal lands. Development on lands surrounding the project site consists of scattered rural residences situated on large lots bisected by narrow dirt roadways. Lands located east of the project site are crossed by parallel dirt roads providing access to existing electrical transmission structures and nearby residences. Land uses north of Tierra del Sol Road are primarily large lot rural residential uses featuring residential structures, access roads, fencing and natural lands. Tierra del Sol Road runs adjacent to the northern boundary of the project site and separates scattered rural residential development from the western boundary of the site. Lands located to the south include the United States-Mexico border and residences.



The following photos are representative of the TDS site. The photo on the left is looking east along Tierra del Sol Road with the project site being located to the south in the right hand side of the photo. The photo on the right is looking west across the southern portion of the TDS site. The border fence can be seen in left hand side of photo and Southwest Powerlink in the right hand side of the photo.

The Rugged and TDS projects would utilize similar solar generation technologies, include similar common project components, and would have similar construction, operation, and decommissioning activities which will be discussed further in this presentation.

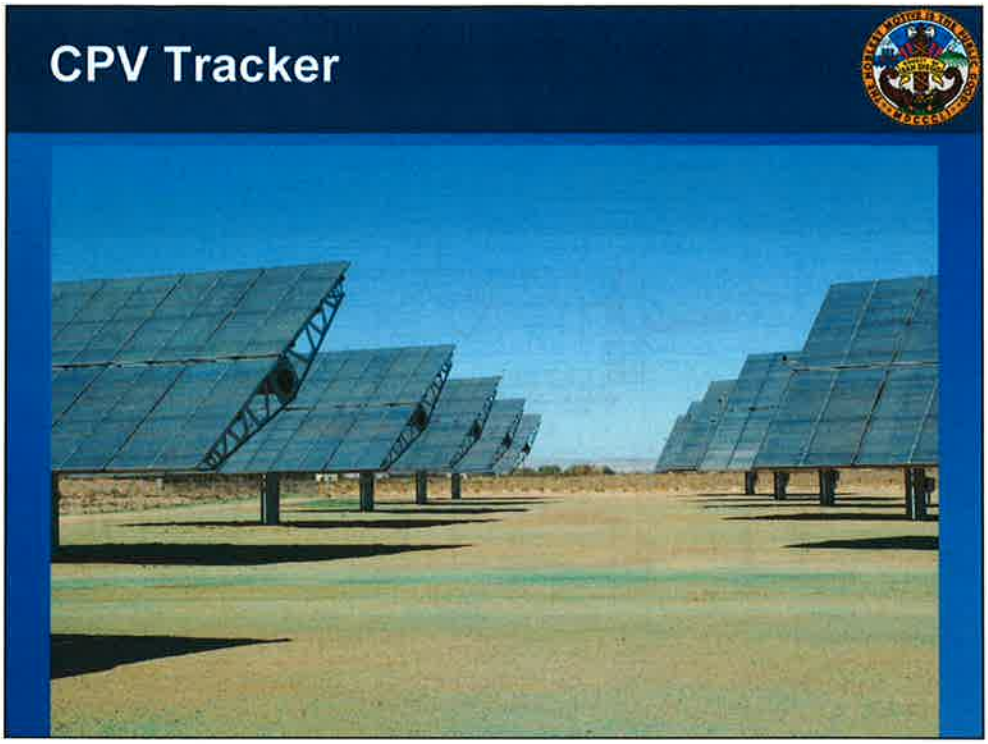
A Final Program EIR for the Soitec Solar Development Project has been prepared which includes the analysis of four projects. The Rugged and TDS projects were reviewed at a project level while the LanWest and LanEast projects were evaluated at a program level of analysis. Following public review of the EIR, changes were made to the Rugged and TDS projects to address concerns of various stakeholders. These changes are reflected in the EIR with the addition of Alternative 2A, also known as the "Tailored Proposed Project and No LanEast and LanWest Alternative". This alternative reduced the Rugged and TDS projects and entirely removed the LanEast and LanWest projects.



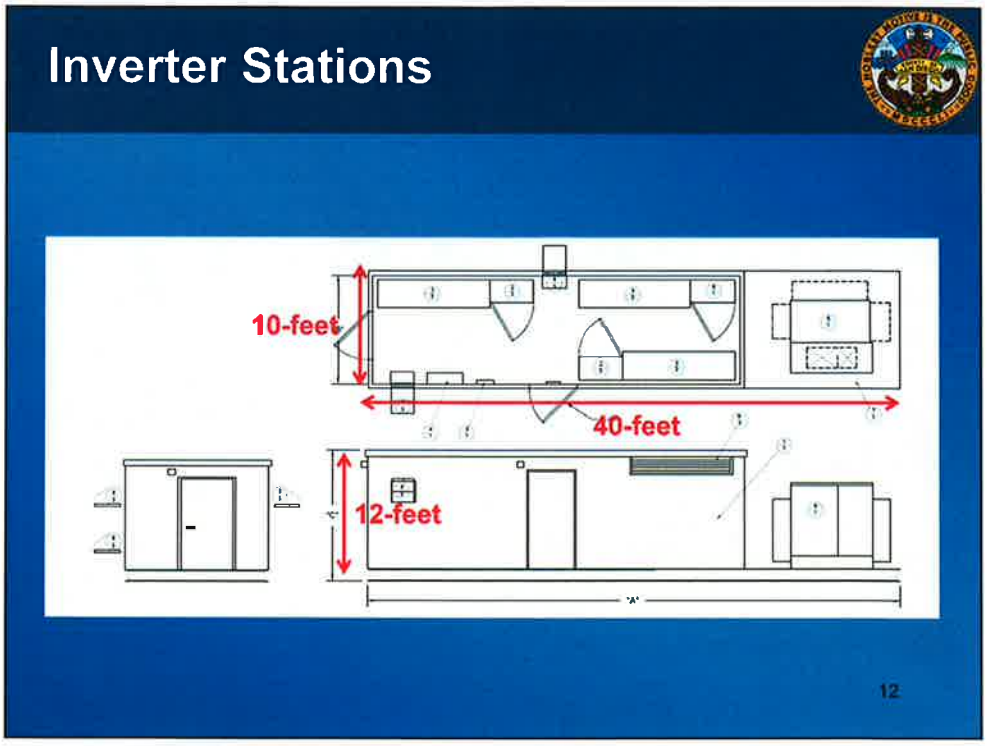
As shown here, the solar generation technology for these projects includes concentrated photovoltaic or CPV which utilize a dual-axis tracking system, also referred to as "trackers". The entire tracker assembly measures approximately 48 feet (CLICK) across by 25 feet (CLICK) tall and is mounted on a 28 inch diameter (CLICK) steel mast pole. In their most horizontal position, the trackers would have a maximum height of 13 feet, six inches and in their most vertical position, the trackers would not exceed 30 feet in height.

Within each project , these individual trackers are spaced approximately 69 feet apart on center in a north-south direction and approximately 82 feet apart on center in an east-west direction.

This photo gives you an idea of the scale with people standing under a tracker. This photo was taken at an existing Soitec facility outside the County of San Diego jurisdiction but is representative of the type and size tracker proposed for this project.



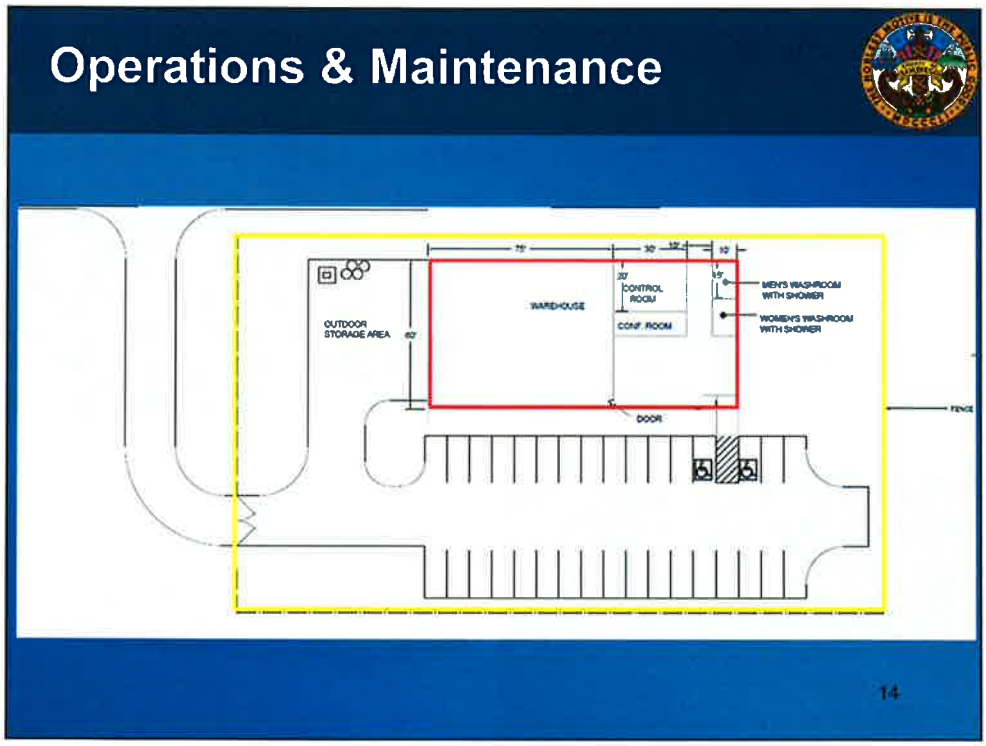
An array of several trackers is shown here. This photo was also taken at an existing Soitec facility outside the County of San Diego jurisdiction but is representative of the tracker layout proposed for this project.



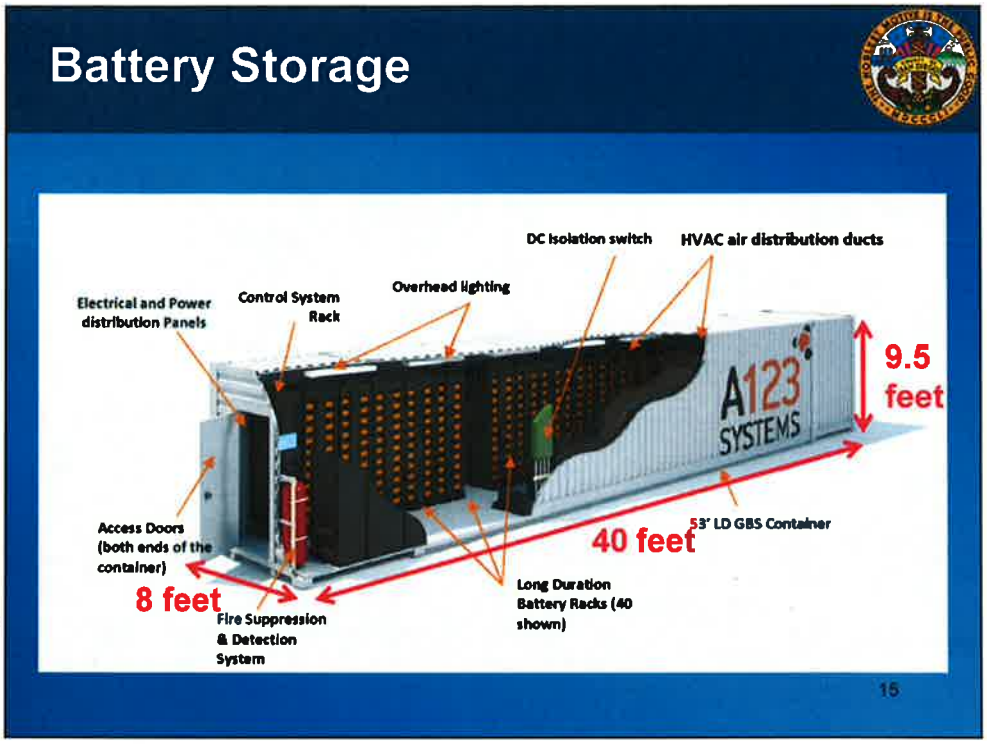
The projects also include inverter stations which convert direct current or DC power to alternating current or AC power which is compatible with the SDG&E system and is the type of power that is sold to residential and commercial customers. The inverter stations would be a maximum of 10-feet wide (CLICK) by 40-feet long (CLICK) and would not exceed 12-feet in height (CLICK).

These illustrations depict inverter stations similar to those that would be used for the proposed projects.

Power from the trackers would be delivered through a 1,000 volt DC underground collection system to the inverters in the inverter station. In addition to the inverters, each inverter station would be equipped with a step-up transformer to convert the power output from the inverters to 34.5 kV. All invertor pads would accommodate up to three invertors and one transformer. The underground 34.5 kV collection system would run parallel to each row of trackers and each 34.5 kV underground branch circuit would connect to an overhead trunk line for delivery to the on-site substation.

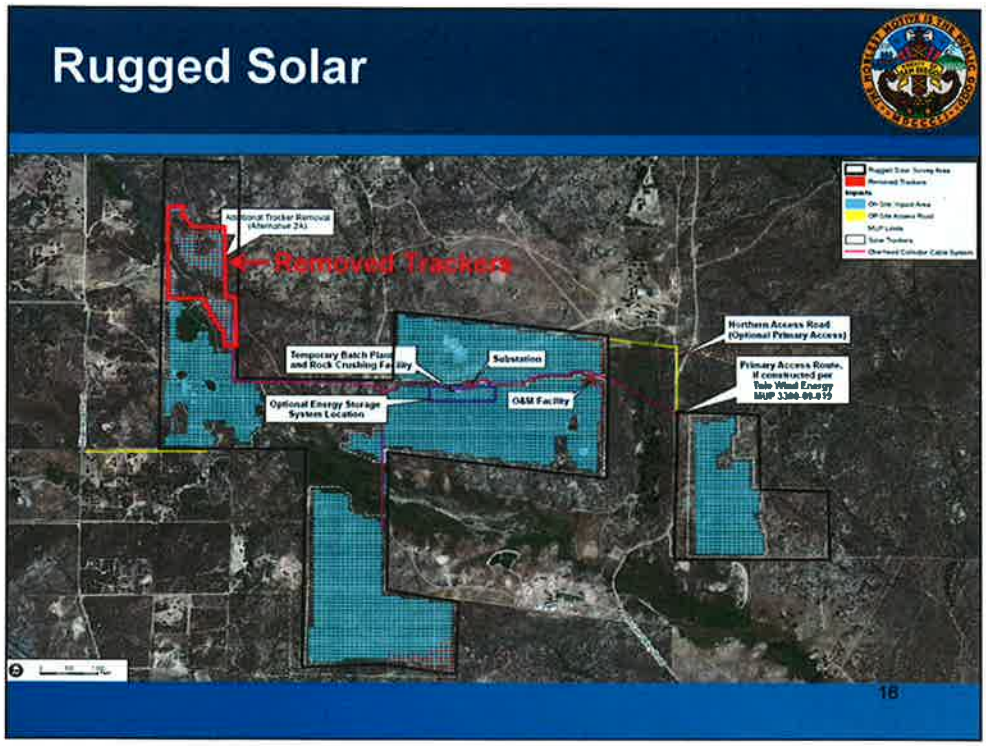


Each project would also include a fenced four acre operations and maintenance or O&M area (CLICK) that would be located adjacent to the on-site substation as shown here in yellow. The O&M building would be 7,500 square feet (CLICK) as shown in red and would include administrative and operational offices, warehouse storage area for material and equipment, and lavatory facilities served by a private on-site septic system and groundwater well. The O&M area would be used for storage, employee operations, and maintenance of equipment.



The Rugged project would also include an optional battery storage system that would provide 160 Megawatt hours of lithium ion battery storage in the form of 160, one Megawatt hour containers similar to those shown here. Each battery storage system measures approximately (CLICK) 40 feet in length, (CLICK) 8.5 feet in width and (CLICK) 9.5 feet in height.

The storage system would be located on approximately 7 acres in the center of the Rugged Solar project. Each container would have an integrated heating, ventilation, and air conditioning unit located on the roof of the container. An inverter with a battery management system and container control system would be installed externally on a concrete pad next to each container. A step-up transformer would be associated with a set of two containers and would be installed alongside the container on a separate concrete pad. Every rack's battery monitoring system would continually monitor for unsafe voltage, current, and temperature, and has control of an automated switch to disconnect the rack from the system if necessary.



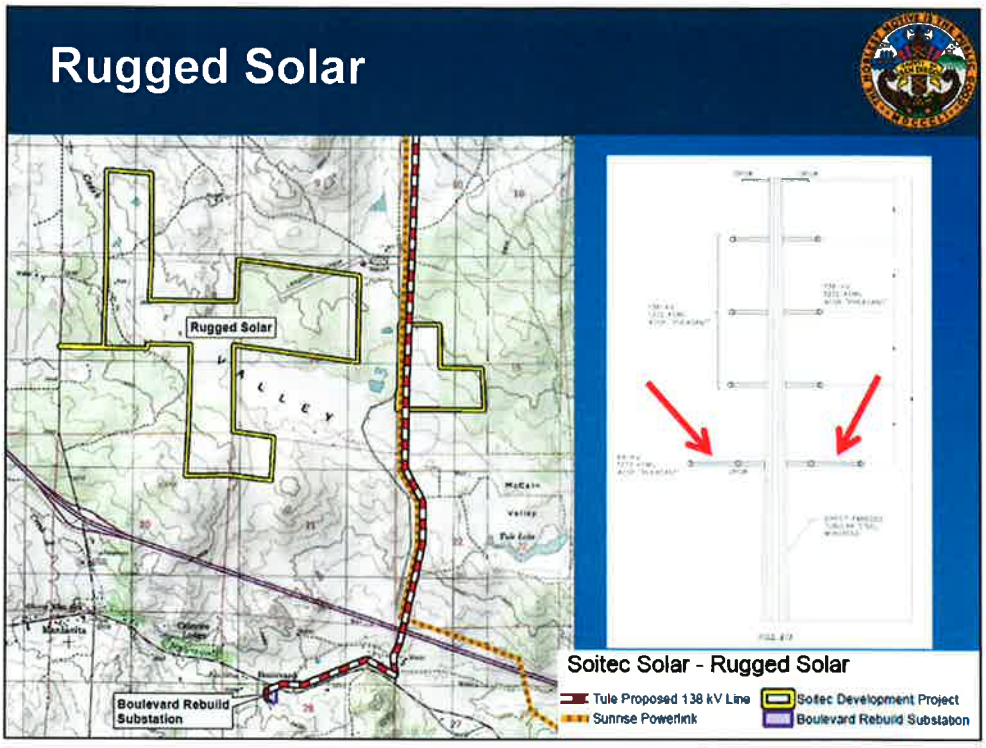
The Rugged Solar project includes a Major Use Permit for an approximately 80 megawatt facility which would include approximately 3,291 trackers and would produce energy to supply up to 26,000 homes. As a result of the incorporation of changes associated with Alternative 2A, 177 trackers were removed along the Tule Creek corridor as shown (CLICK) here in this image.

Preparation of the project site would include approximately 28,410 cubic yards of balanced grading. During preparation of the site, access roads would be constructed as well as a series of internal 20-foot wide fire access roads, 12-foot wide north-south driveways and service roads.

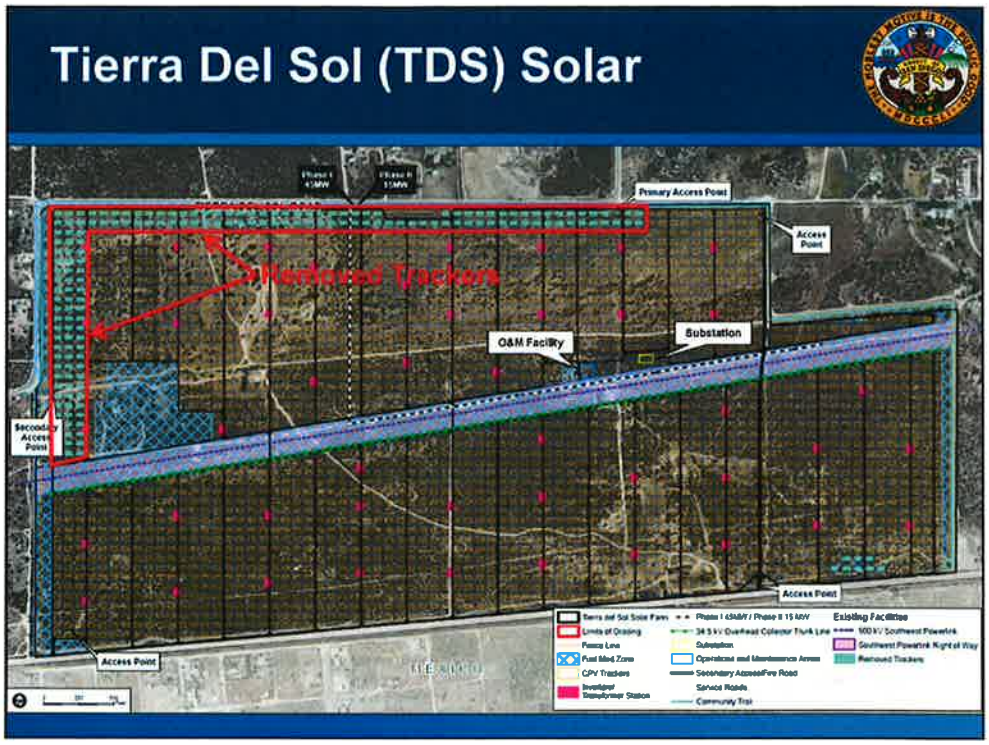
The project would also include a four acre operations and maintenance area, on-site substation and optional energy storage system. In order to provide construction materials for the proposed solar facilities, a temporary batch plant and rock crushing facility would be constructed on the Rugged Solar project site. The facility would be used for preparing and mixing the concrete used for the foundations for the trackers, inverter stations, transformers at the substations, and the O&M buildings and would be decommissioned following installation of all project facilities.

Power from the trackers would be delivered through an underground collection system to the inverters which convert DC power to AC power. In addition to the underground collection system, the project would require an on-site overhead collector system, shown in pink. These trunk lines would consist of steel poles approximately 50 to 75 feet in height and spaced approximately 300 to 500 feet apart. The trunk line would deliver power to an approximately 6,000 square foot private on-site collector substation which would increase the voltage from 34.5 kilovolt or kV to 69

kV.



Once the voltage is increased to 69 kV, the power would be conveyed through a single 35-foot-high dead-end structure that connects the on-site substation with the 138 kV Tule gen-tie shown in this image as a red and white dashed line. Power from the Rugged Solar on-site substation would be delivered to the existing SDG&E Rebuilt Boulevard Substation via the Tule gen-tie. The 138 kV gen-tie for the Tule Wind Energy project includes a 69 kV undersling line (CLICK) as illustrated here, which will be used to service the Rugged project. The Tule gen-tie was approved by a previous Board of Supervisors action on August 8, 2012 but has not yet been constructed. When constructed, the Tule gen-tie will run south along the east side of McCain Valley Road and SDG&E's Sunrise Powerlink and across Interstate 8, after which it will cross McCain Valley Road and run parallel to Old Highway 80 along the north side until it crosses Old Highway 80 at the Rebuilt Boulevard Substation.

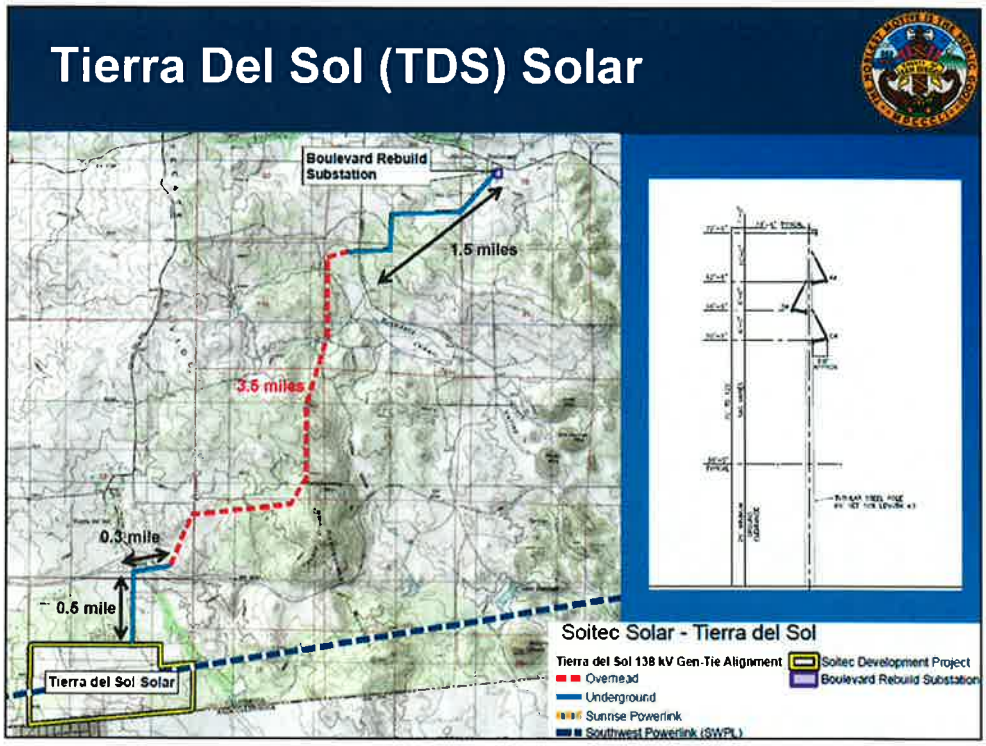


The Tierra Del Sol, or TDS project would include a Major Use Permit for an approximately 60 MW facility which would contain approximately 2,499 trackers and would produce energy to supply up to 20,000 homes. As a result of the incorporation of changes associated with Alternative 2A, two rows of trackers were removed along the northern project boundary and three rows of trackers were removed along the western project boundary (CLICK) as shown here in this image.

Preparation of the project site would include approximately 9,429 cubic yards of balanced grading. During preparation of the site, access roads would be constructed including access driveways off Tierra Del Sol Road as well as a series of internal 20-foot wide fire access roads, 12-foot wide north-south driveways and service roads.

The project would also include a four acre operations and maintenance area and on-site substation. The TDS project does not include a battery storage system.

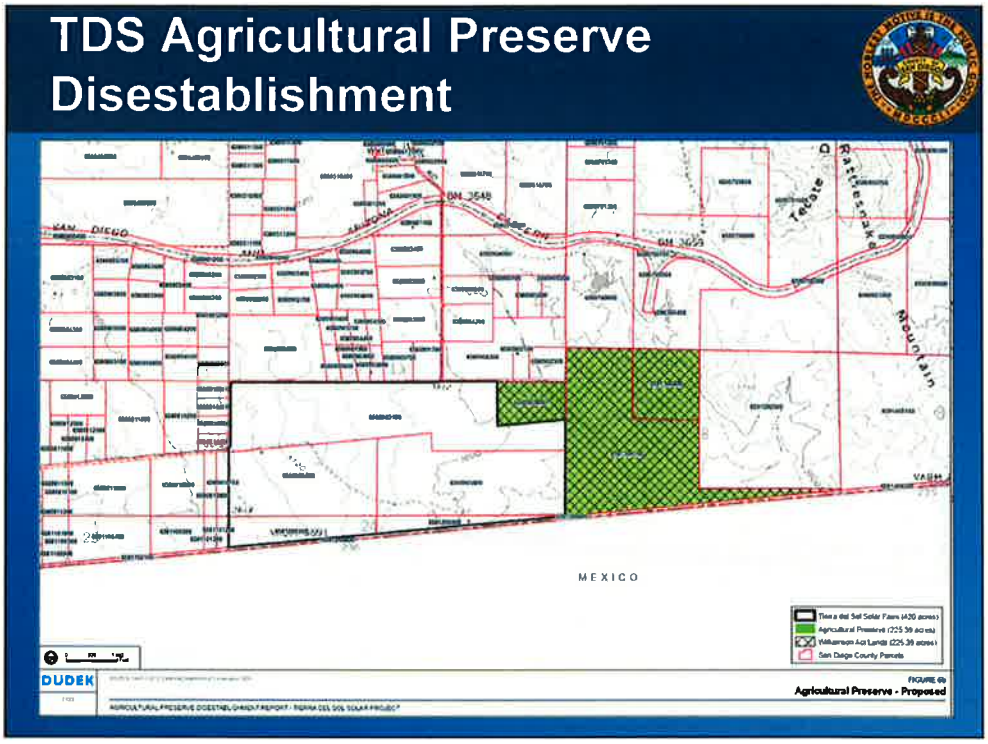
Power from the trackers would be delivered through an on-site underground collection system to the inverters which convert DC power to AC power. In addition to the underground collection system, the project would require two on-site overhead conductor trunk lines, shown in green, which would run adjacent to the south side of the Southwest Powerlink right-of-way which bisects the project site. The trunk lines would consist of steel poles approximately 50 to 75 feet in height and spaced approximately 300 to 500 feet apart. The underground and overhead collection systems would deliver power to an approximately 7,500 square foot private on-site collector substation.



Power from the on-site substation would be delivered to SDG&E's Rebuilt Boulevard Substation via a new approximately six mile dual circuit 138 kV gen-tie line with sections of the line occurring both overhead and underground.

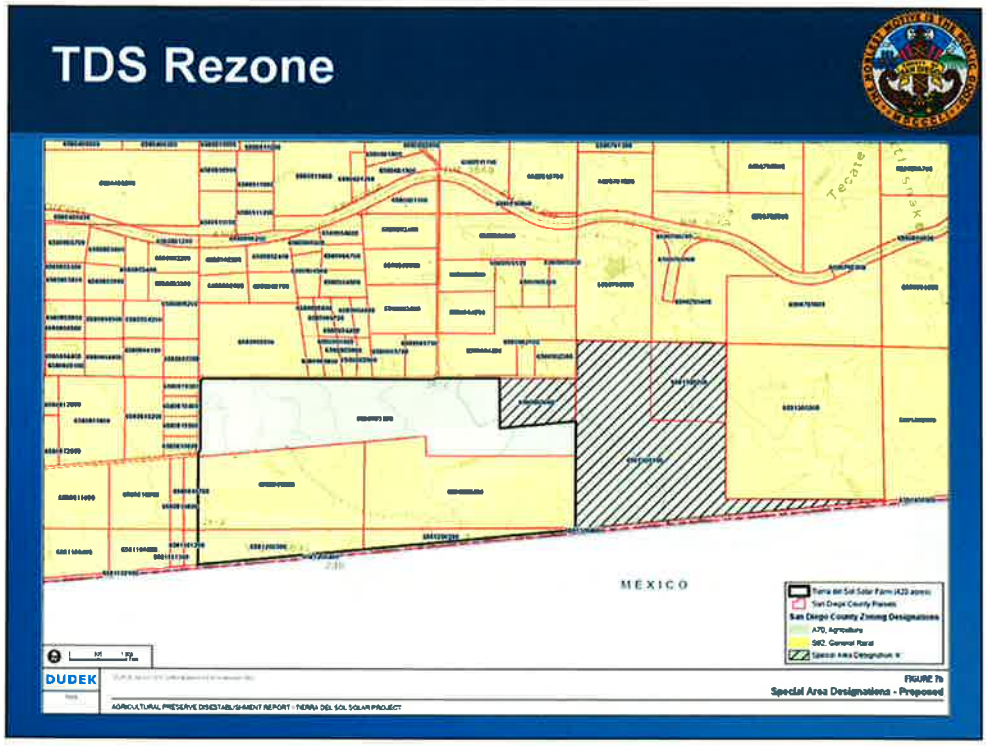
The gen-tie would occur within a 125-foot private right-of-way when aboveground and a 60-foot easement when underground. The underground alignment of the gen-tie, as shown in blue, would start at the onsite substation and head northward to Tierra Del Sol Road where it would be on the east side of the road and in the County right-of-way for approximately one half mile (CLICK), then it would turn directly east for approximately one-third of a mile (CLICK). A transition pole would be constructed at this point, where the gen-tie would transition from an underground line to an overhead line. The overhead alignment, shown as a dashed red line, would extend approximately 3.5-miles, before returning underground for the final 1.5-miles (CLICK) to the Rebuilt Boulevard Substation, as shown in blue.

The project applicant will enter into a Franchise Agreement with the County to use the Tierra Del Sol Road right-of-way for the purposes of constructing, operating, and maintaining a quarter-mile underground segment of the gen-tie. The aboveground portion of the gen-tie would consist of the placement of up to 40 poles ranging in height from 75 to 125 feet (CLICK) as shown here.



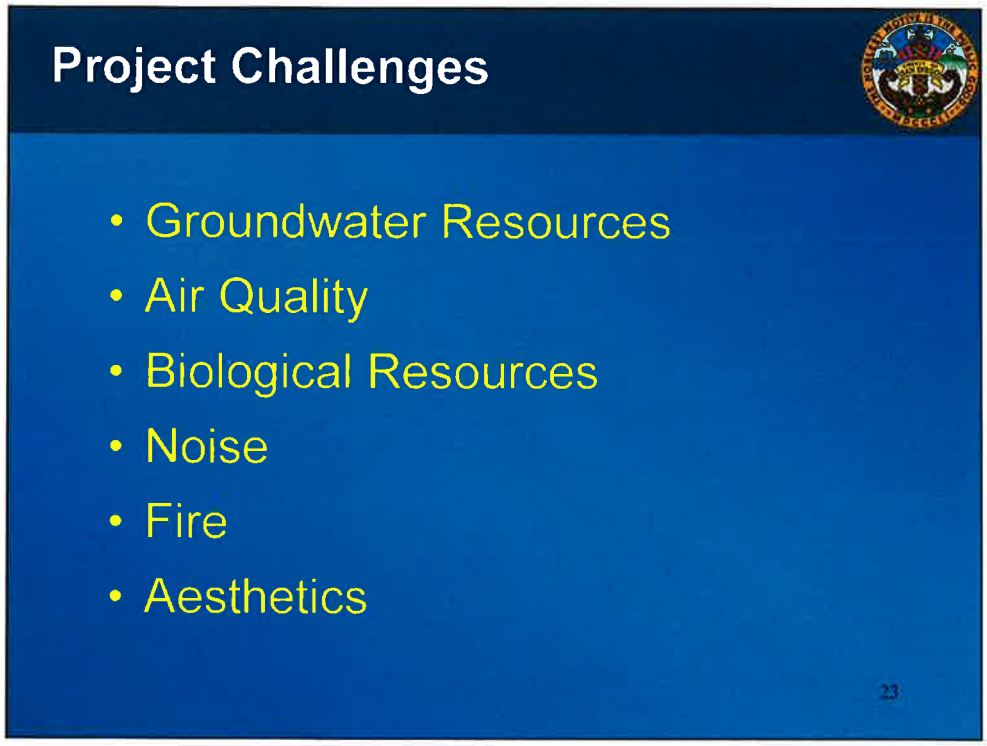
The northern portion of the TDS site is located within an approximately 339 acre agricultural preserve as shown in green. Lands adjacent to the site are within a Williamson Act Contract but the project site itself was non-renewed in 1988 and therefore is no longer under contract.

The proposed use would not be consistent with the agricultural preserve and therefore the project includes an Agricultural Preserve Disestablishment to remove (CLICK) the portion of the agricultural preserve on the TDS site. The remainder of the preserve on the adjoining sites totaling approximately 225 acres would remain. The adjacent lands would also remain under the existing Williamson Act Contract.

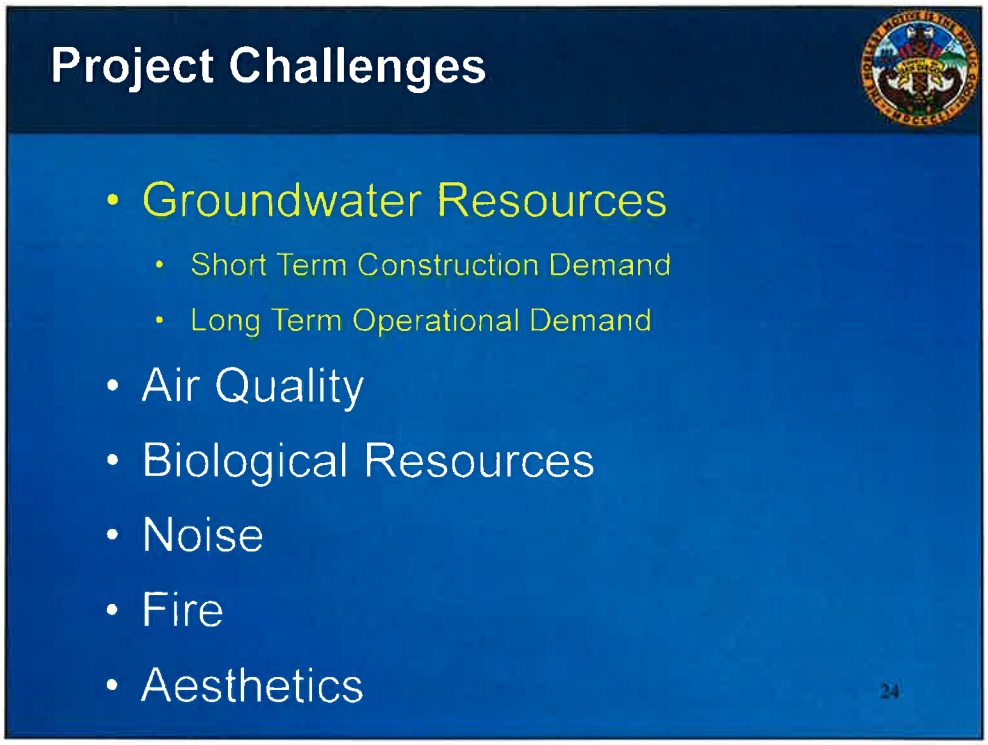


The northern portion of the TDS site also contains an "A" special area designator associated with the exiting agricultural preserve. With the removal of the site from the agricultural preserve, the project also includes a Rezone to remove the "A" special area designator from the zoning for the TDS site. The remainder of the adjoining sites which would remain within the agricultural preserve would also maintain the "A" special area designator.

During processing of the Rugged and TDS projects, environmental issues were analyzed in the EIR. Concerns were raised by a number of interested parties regarding a number of planning and environmental issues..

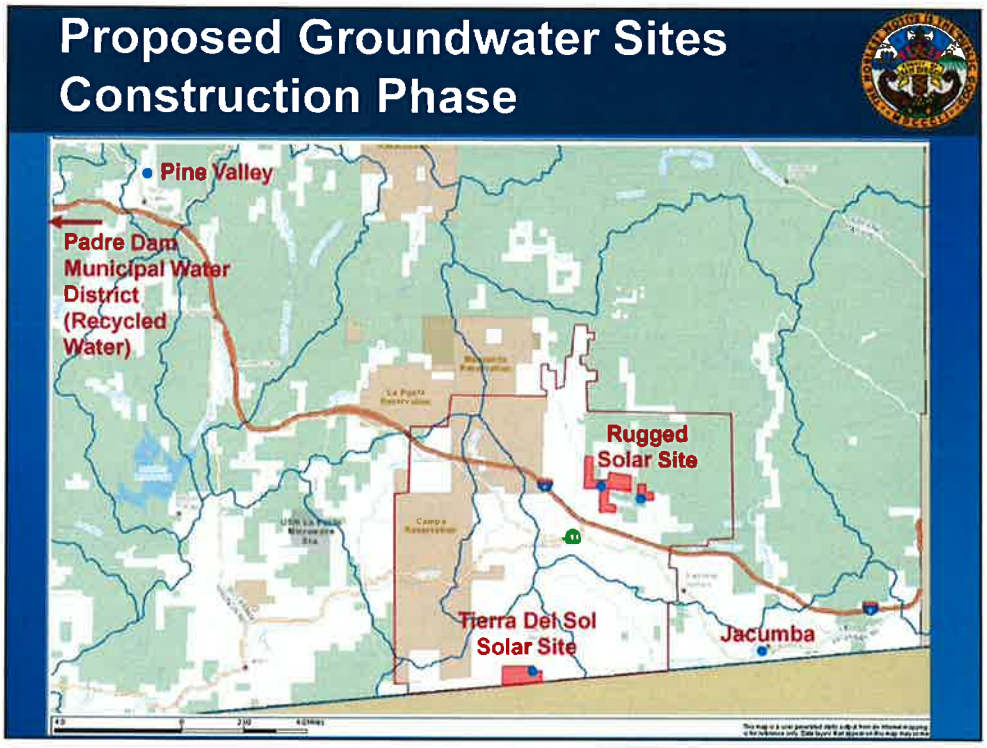


These issues include groundwater resources, air quality, biological resources, noise, fire and aesthetics.

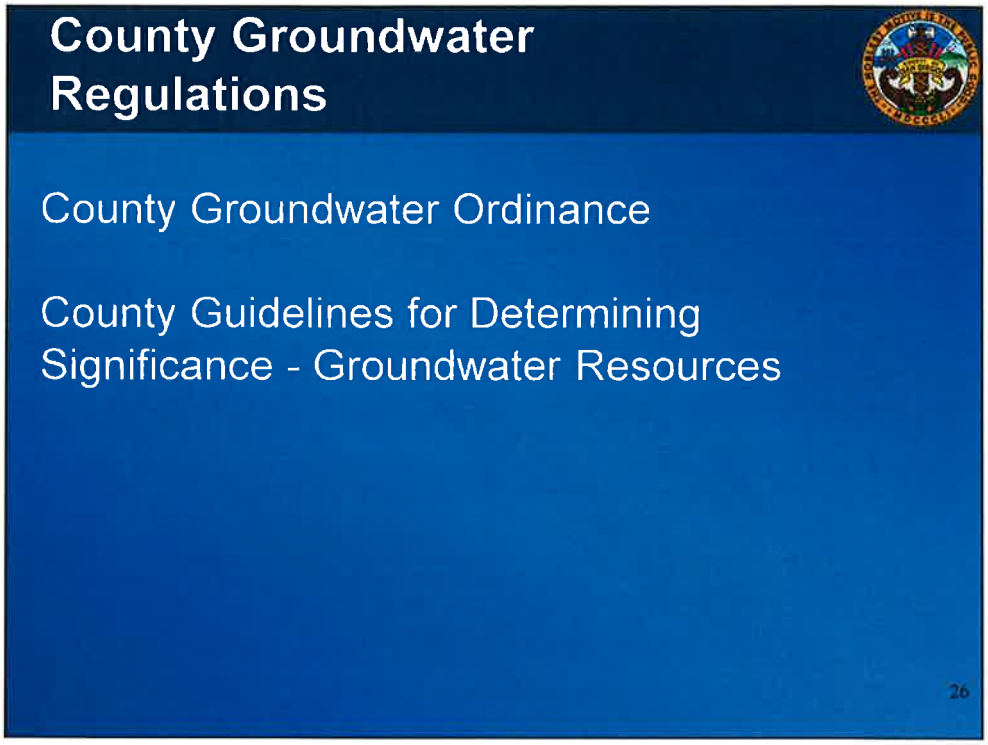


The first area of concern is groundwater resources. The Rugged and TDS projects would obtain water from onsite wells, the Jacumba Community Services District and recycled water from the Padre Dam Municipal Water District and, the Rugged Solar project would obtain water from the Pine Valley Mutual Water Company for construction water needs. In addition, minimal long term water for operational uses will provided from onsite wells.

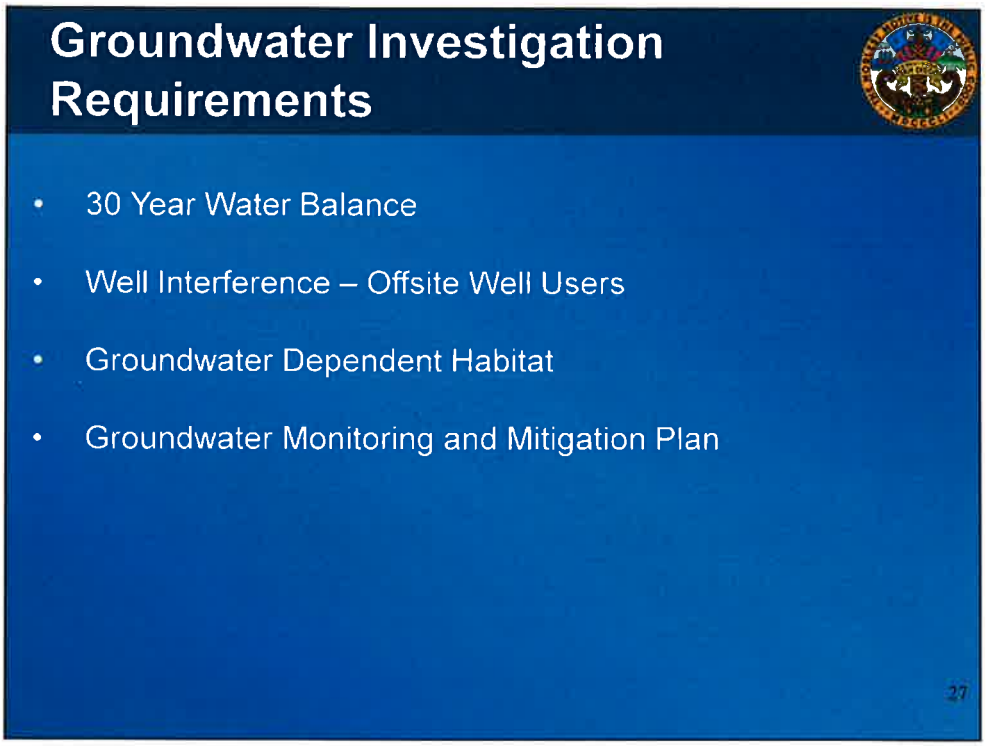
I will now turn the presentation over to Jim Bennett, the County's groundwater geologist to provide a summary of the evaluation of groundwater resources and the measures in place to ensure that groundwater resources are not significantly impacted.



Water for solar projects typically require large amounts during the construction phase for uses such as dust control and soil compaction and much less water for ongoing use of cleaning the solar panels and other minor uses. The construction phase of this project has required development of a water resource portfolio to serve the water demand which includes utilizing on-site wells as shown in blue at the Rugged and TDS sites, importing groundwater from two wells shown in blue from Pine Valley Mutual Water Company and Jacumba Community Services District, and importing recycled water from the Padre Dam Municipal Water District.



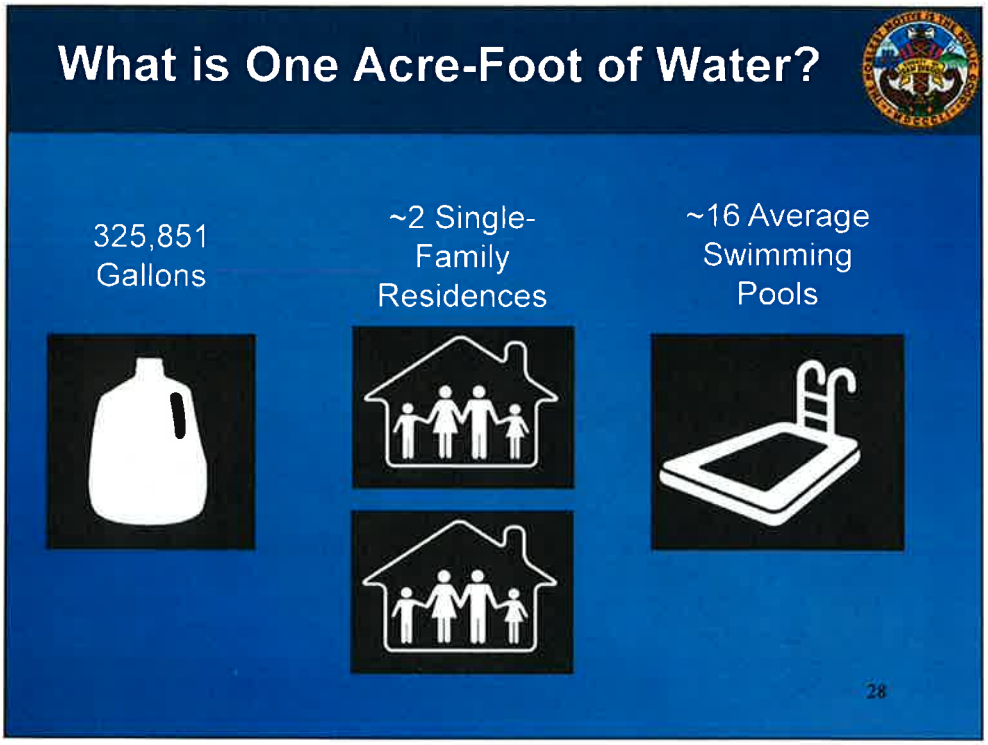
The Rugged and TDS project sites are both subject to and were evaluated in accordance with the County Groundwater Ordinance and the County Guidelines for Determining Significance – Groundwater Resources.



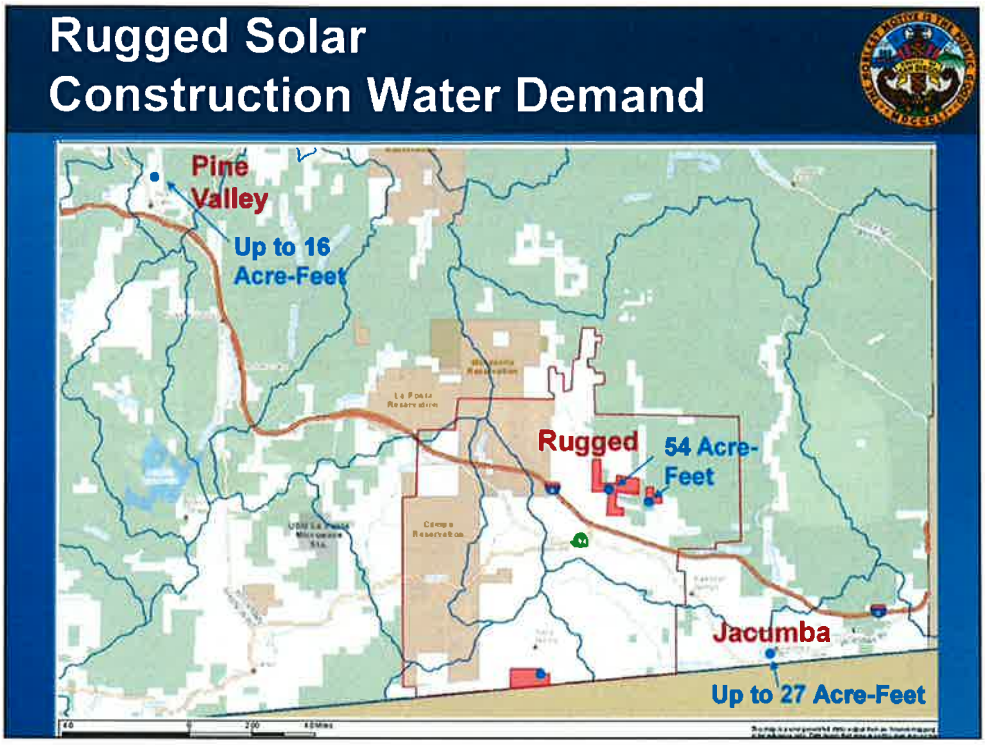
Four groundwater investigations were completed to evaluate impacts to groundwater resources from the TDS Site, the Rugged Site, the Pine Valley Mutual Water Company, and the Jacumba Community Services District.

Each investigation evaluated the potential cumulative impacts to groundwater in storage in the basin through a 30 year water balance evaluation. Direct impacts were analyzed for well interference to the nearest offsite existing well users and groundwater dependent habitat. The cumulative and direct impacts analyses included water demand from other reasonably foreseeable projects in the area including the recently approved Tule Wind Farm, the proposed Jacumba Solar Farm, and the proposed Rough Acres Campground and Retreat facility.

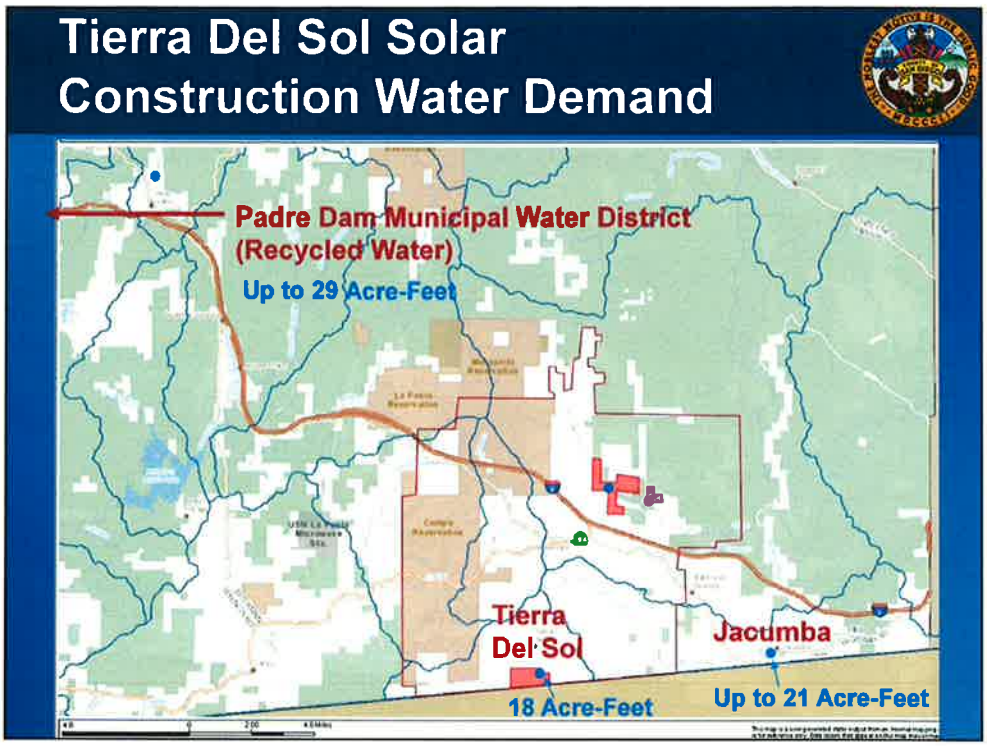
Groundwater monitoring and mitigation plans for each of the four areas have been prepared which detail establishment of maximum groundwater pumping limits and groundwater level thresholds. Groundwater pumping would be required to cease if established thresholds are exceeded to protect offsite well users and groundwater dependent habitat.



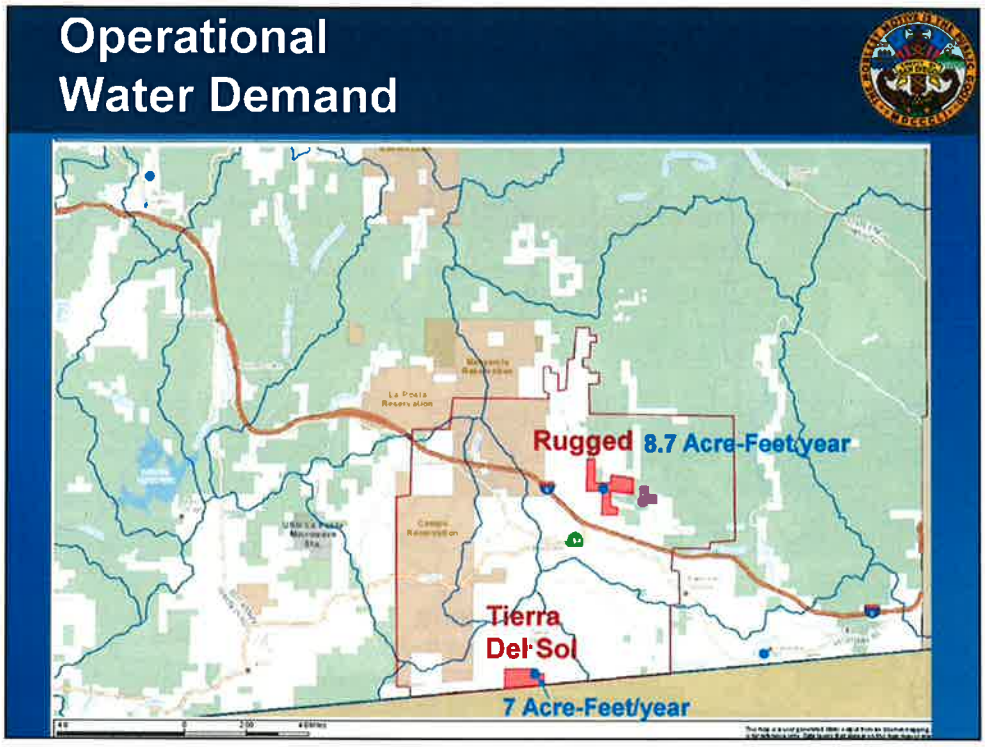
In order to aid in understanding the next few slides in regard to discussion of water in terms of acre-feet, an acre-foot is equivalent to approximately 326,000 gallons of water, or equivalent to approximately 2 average single-family residences of water use per year, or the volume of filling an average swmming pool about 16 times.



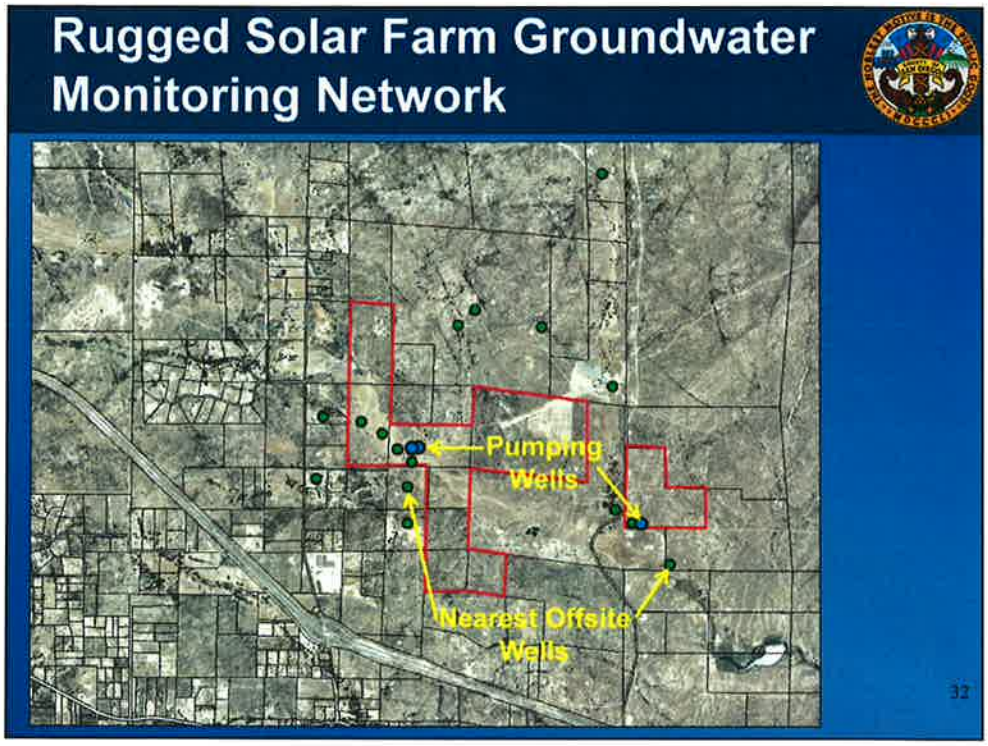
The Rugged project requires approximately 83 acre-feet of water (or about 27 million gallons) over the 12 month construction period, with peak water demand requirements during the first 60 days of construction. Based on groundwater investigations prepared, the Rugged Site has the capacity to provide up to 54 acre-feet of the total demand, with up to 27 acre-feet to be provided from Jacumba Community Services District and up to 16 acre-feet from the Pine Valley Mutual Water Company.



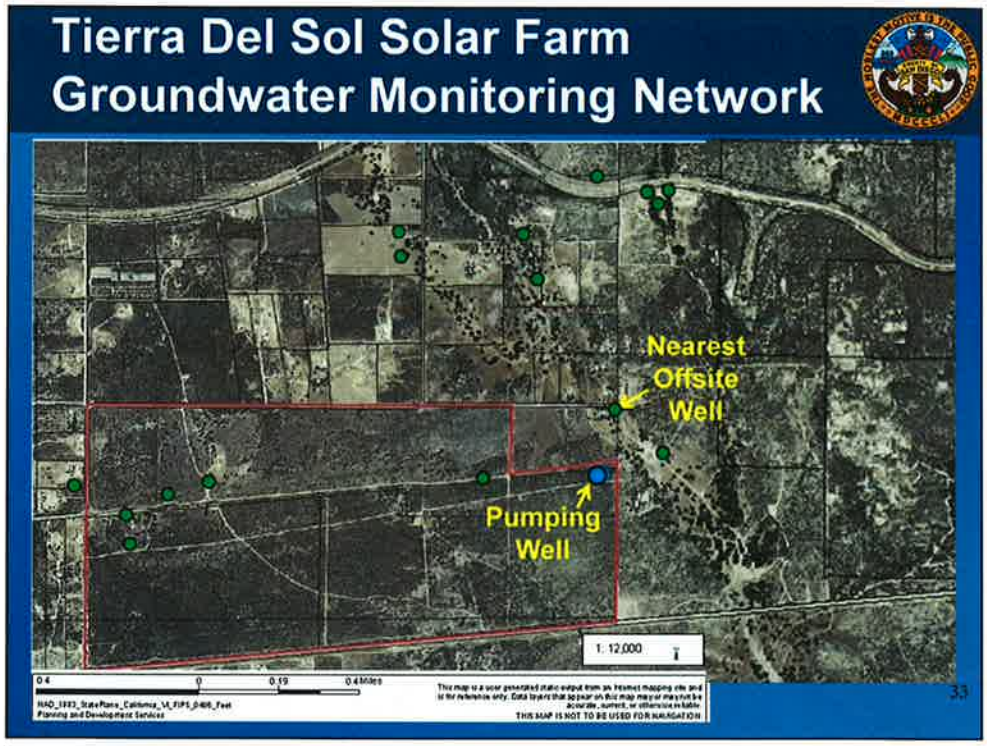
The TDS project requires approximately 68 acre-feet of water (or about 22.1 million gallons) over the 12 month construction period, with peak water demand requirements during the first 60 days of construction. Based on groundwater investigations prepared, an on-site well at the TDS Site has the capacity to provide up to 18 acre-feet of the total demand, with up to 21 acre-feet to be provided from Jacumba Community Services District and up to 29 acre-feet to be imported from the Padre Dam Municipal Water District.



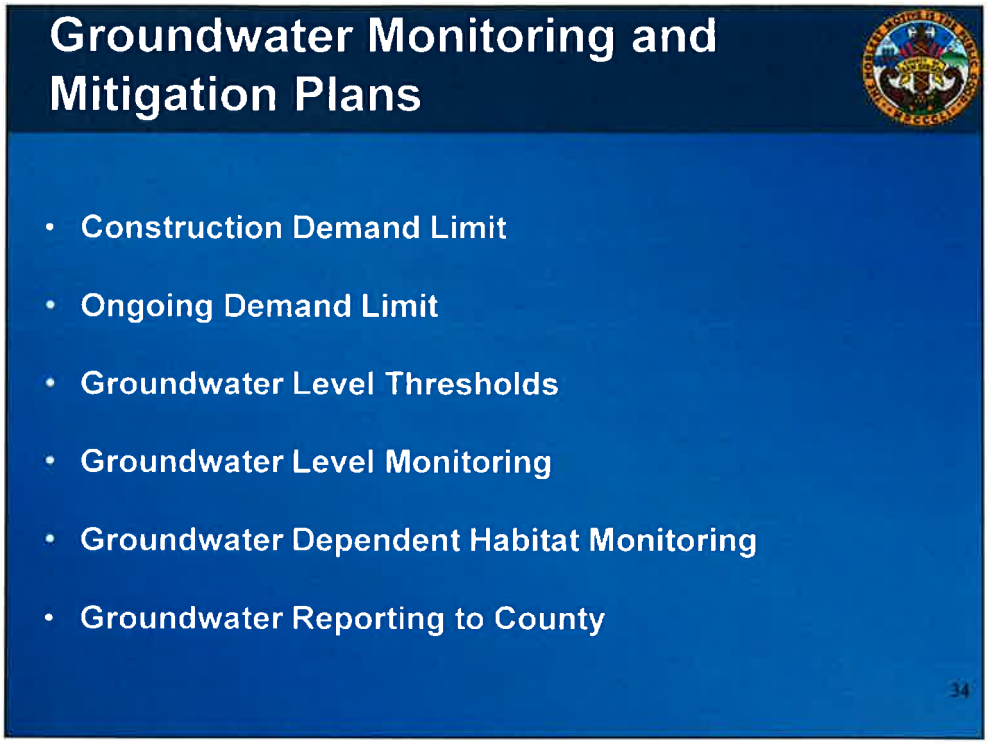
The operational water demands of these two projects is substantially less with Rugged and TDS on-site production wells requiring up to 8.7 acre-feet and 7 acre-feet per year, respectively. This includes water for tracker washing, potable water needs, landscape vegetative screen, and annual re-application of the soil binding stabilization agent.



The Rugged Solar Farm has three wells as shown on this figure in two separate well fields in which groundwater is proposed to be pumped during the project. A groundwater monitoring network has been established and includes 8 on-site wells to be monitored and up to 11 off-site wells. The wells would be outfitted with automated water level reading devices to ensure continuous monitoring of the water levels within each well.



The TDS project has one well shown in blue on this figure in which groundwater is proposed to be pumped during the project. A groundwater monitoring network has been established which includes 6 on-site wells to be monitored and up to 11 off-site wells. Similar to the Rugged Solar site, the wells would be outfitted with automated water level reading devices to ensure continuous monitoring of the water levels within each well.



The Rugged, TDS, Jacumba Community Services District, and Pine Valley Mutual Water Company sites each have a groundwater monitoring and mitigation plan that will be implemented. Each site has a maximum pumping limit for both construction and ongoing operational water that can be used. There are groundwater water level thresholds to ensure protection of nearby off-site well users and groundwater dependent habitat. The monitoring plans have groundwater level monitoring and groundwater dependent habitat monitoring with regular reporting to the County through the construction period to ensure the project is complying with the groundwater limitations.

During peak construction groundwater pumping at the Tierra Del Sol and Rugged sites, the amount of water pumped from the wells will be recorded daily and the water level data from all monitoring wells shall be collected on a weekly basis. Groundwater monitoring reports shall be submitted to the County on a once every two weeks basis during peak construction over the first 90 days and then monthly for the remainder of the construction period. Annual monitoring reports shall also be required for the life of the project. If at any time production or water level thresholds are exceeded, pumping from the associated pumping well shall cease and the County will be notified within five working days of the exceedance.

In summary, based on the analysis completed and with the conditioning of the Major Use Permit decisions to limit the amount of water from each of the identified groundwater sources as well as the conditioning for groundwater monitoring and mitigation plans, it has been concluded that there would be a less than significant impact to groundwater resources.

The next area of concern is air quality. Air quality impacts associated with the Rugged and TDS projects are related to emissions from short-term construction and long-term operations. Similar to other development projects, construction may affect air quality as a result of construction equipment emissions, fugitive dust from grading and earthmoving, and emissions from vehicles driven to and from the project site by construction workers and material delivery trucks. Operational emissions would result primarily from vehicle exhaust.

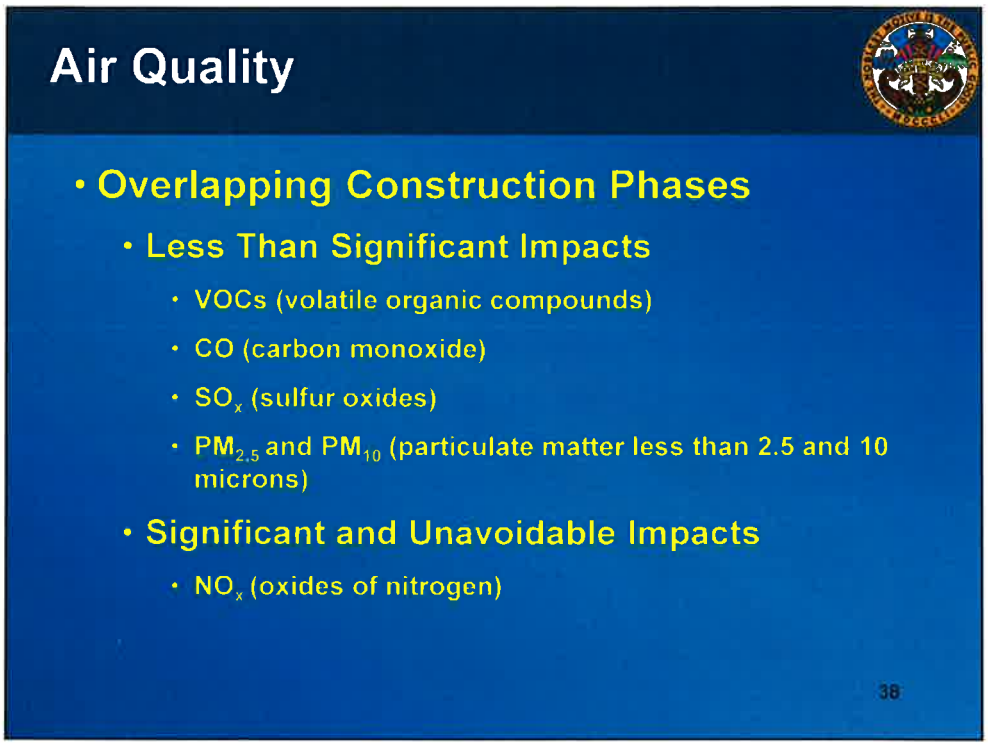
Daily construction emissions and daily operational emissions for the Rugged and TDS projects would not exceed any air quality thresholds individually.

Nevertheless... the projects would result in a temporary addition of pollutants to the local airshed and therefore the projects have been conditioned to apply measures to minimize air quality impacts during the approximate 1 year construction period. These measures include:

- the application of water or soil binders
- the use of sweepers and stabilization of internal construction roadways
- covering or watering of exposed stockpiles
- limiting of traffic speeds
- secured hauling
- reseeding or use of soil binders on disturbed areas

Although long-term operational emissions of the Rugged Solar and TDS projects would be below the thresholds, in accordance with the requirements of the County Grading Ordinance, the following dust control measures would be conditions of approval of the projects:

- limiting of traffic speeds on unpaved roads to 15 miles per hour
- implementation of erosion control measures and annual application of soil binding agents

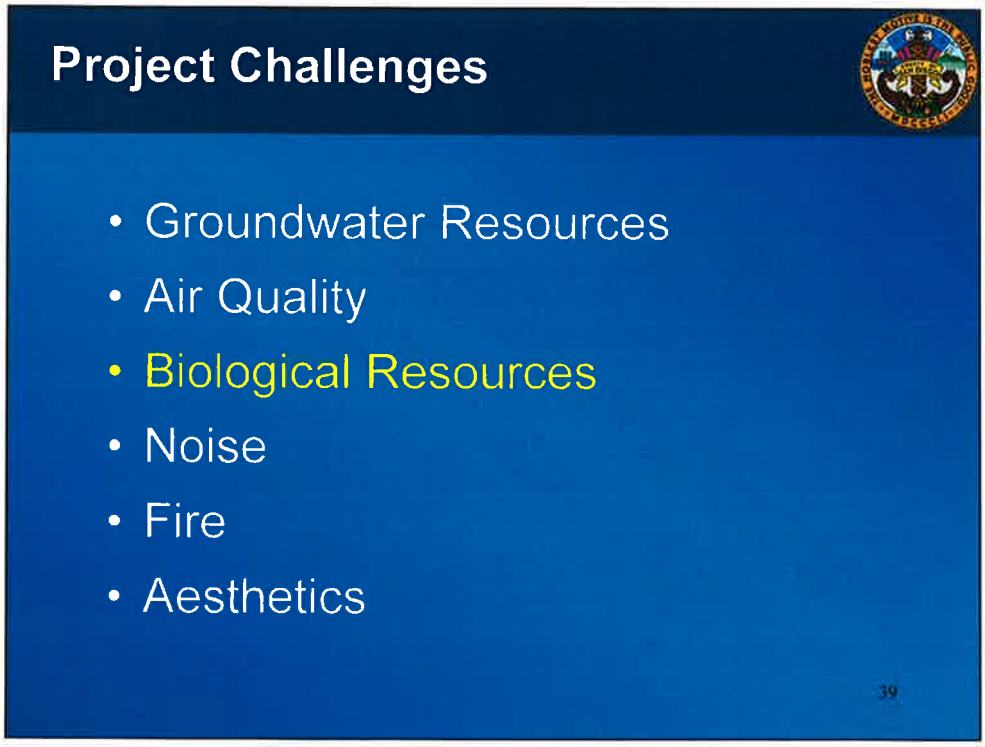


Although the short-term construction and long-term operations of the individual Rugged and TDS projects would not result in significant air quality impacts, the construction phases of the two projects will occur concurrently, therefore resulting in the exceedance of maximum daily emissions during construction activities.

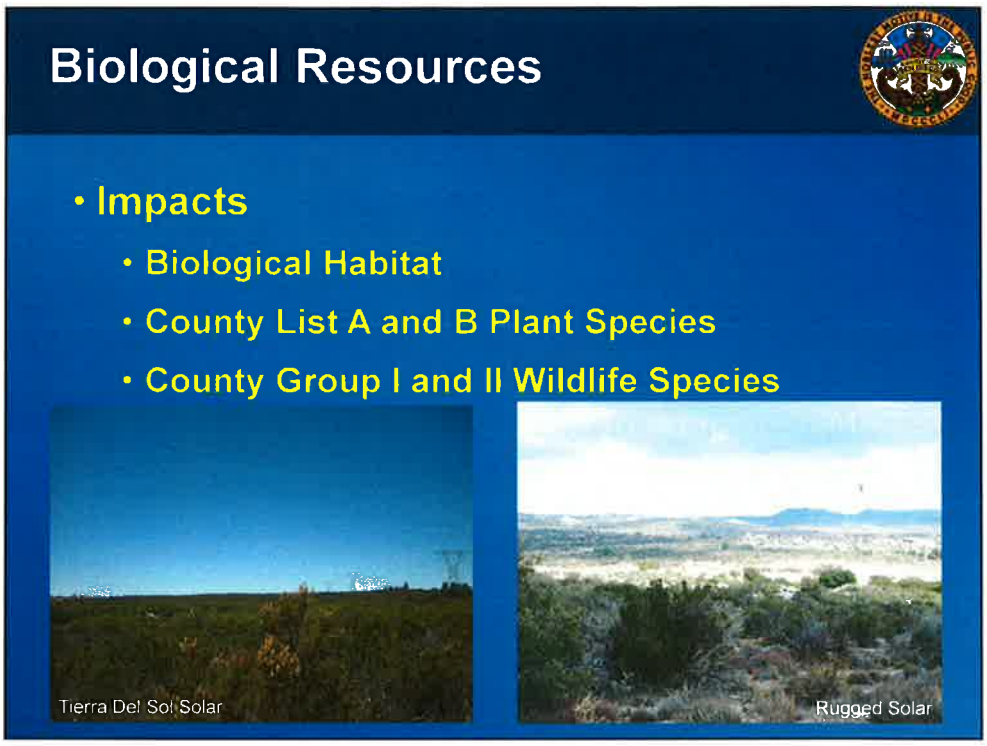
During the overlapping construction periods of the projects, air quality impacts are expected to remain below the daily significance thresholds for most criteria air pollutants. [volatile organic compounds (VOCs), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter less than 10 microns (PM_{10}), or particulate matter less than 2.5 microns ($PM_{2.5}$)]

However, construction-related emissions during the overlapping construction periods of the projects would exceed the thresholds for oxides of nitrogen or NO_x for a brief period during the overlap of the Rugged tracker installation phase and the TDS grading phase. As such, construction related impacts resulting in NO_x emissions would be significant and unavoidable.

All other construction, operational and decommissioning air quality impacts would be less than significant.



The next area of concern is biological resources. Biological resources on the Rugged and TDS project sites was evaluated through vegetation mapping of the site as well as various surveys including a focused botanical survey, a formal jurisdictional delineation, focused surveys for the federally listed endangered Quino checkerspot butterfly and a raptor habitat assessment.



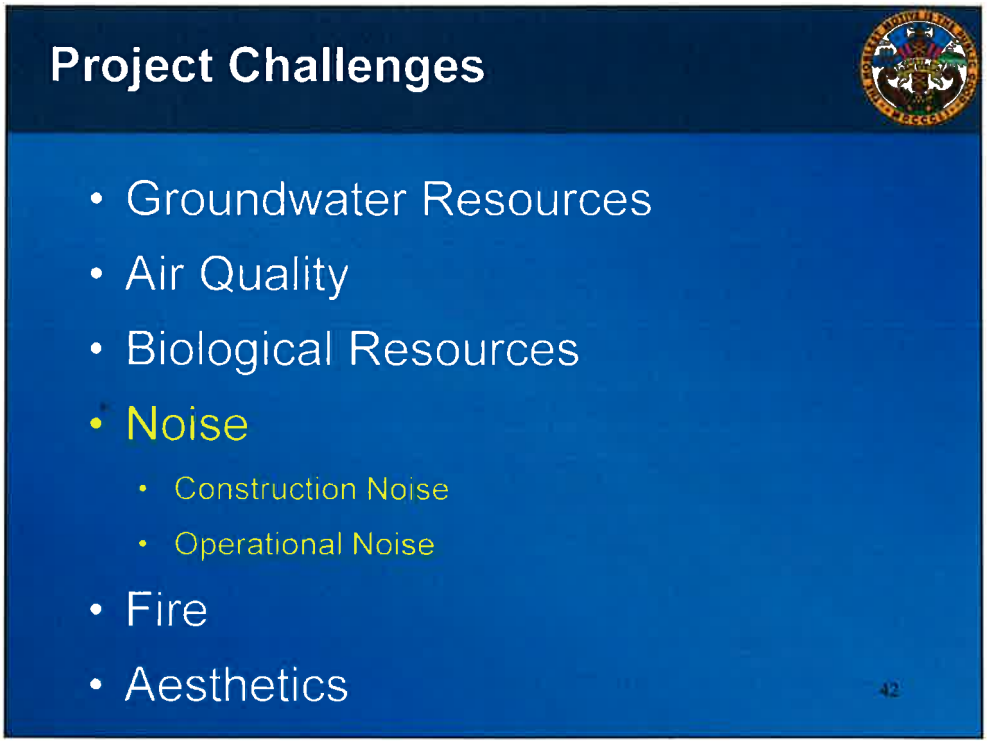
The project will result in potential impacts to:

- biological habitat (including Big Sagebrush Scrub, various Chaparral habitat types, Montane Buckwheat Scrub, Non-native Grassland, Alkali Meadow, and Tamarisk Scrub)
- County List A and B plant species (including Tecate tarplant, Desert beauty, Jacumba milk-vetch and Sticky geraea)
- County Group I and II wildlife species and their habitats

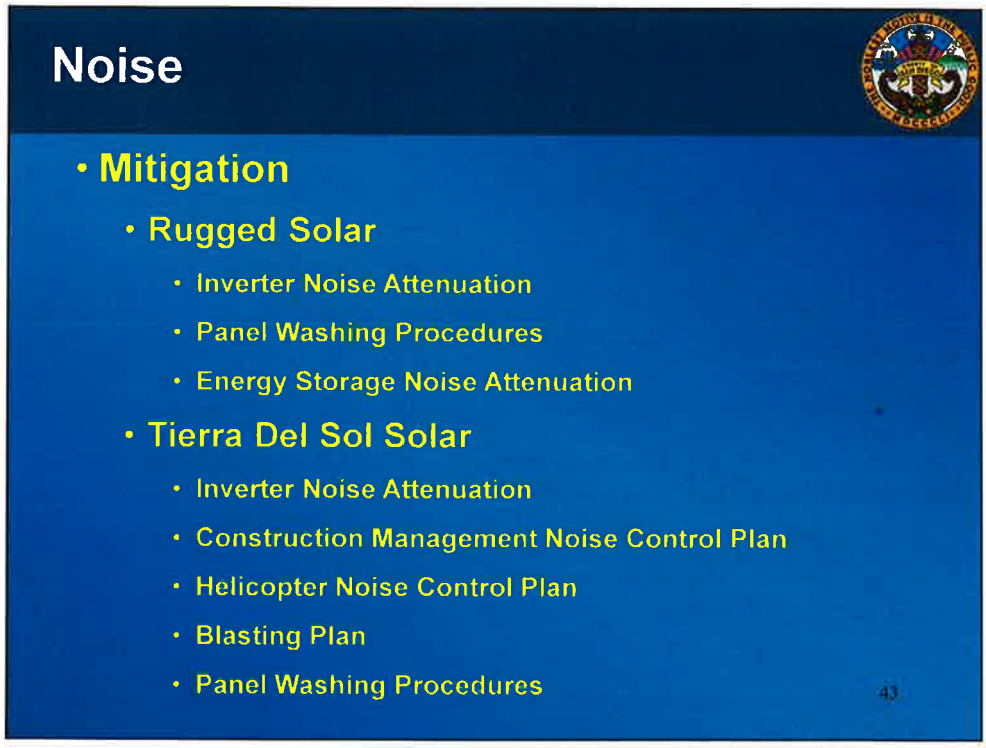
Specific concerns were also raised in regards to potential impacts to Golden eagles. The Wildlife Research Institute completed a Golden eagle report specific to the projects sites evaluated in the EIR, including the Rugged and TDS project sites. WRI biologists confirmed recent Golden eagle breeding activity in six golden eagle territories surrounding the project sites. Two active Golden eagle territories were found to overlap with the project sites and one extirpated Golden eagle territory was found to be located within and around the project sites. Results from satellite telemetry research documented six individual Golden eagles flying near the project area with estimated flight paths within 4,000-feet. However, there are no nests documented within 4,000-feet of the Rugged or TDS projects. Additionally, there is no suitable nesting habitat within the Rugged or TDS project areas due to the lack of forested areas and cliffs.

In order to mitigate for impacts of the Rugged and TDS projects on biological resources, including foraging habitat for golden eagles, several measures would become conditions of approval of the Major Use Permit. These conditions include offsite preservation with long term management, construction monitoring, measures to minimize edge effects, conditions to obtain necessary federal and state permits, implementation of revegetation and ongoing monitoring.

With the implementation of the offsite mitigation and the additional mitigation measures detailed previously, the Rugged and TDS projects would have a less than significant impact on biological resources.



The next area of concern is noise. Noise impacts associated with the Rugged Solar and TDS projects include short-term construction activities and permanent outdoor mechanical equipment noise.



The use of a vibratory pile driver for the Rugged Solar and TDS projects to install tracker support masts would generate noise levels which would comply with the County's Noise Ordinance. Noise abatement measures pertinent to construction nuisance have been incorporated for general project construction.

The proposed inverters for the Rugged and TDS projects would have the potential to result in a significant noise impact at the property lines adjacent to the project. The inverter noise would be mitigated by placing all inverters within an enclosure or placing them a minimum distance of 800-feet from the adjacent property lines.

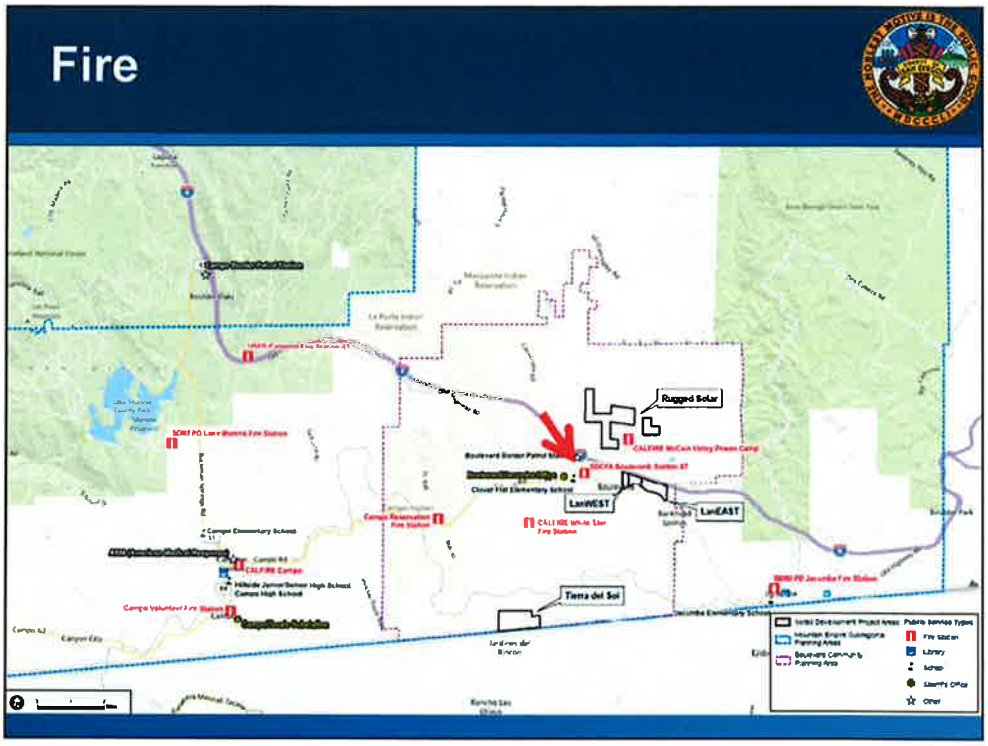
The Rugged and TDS projects also include several design features to address noise from panel washing activity, including retrofitting of the proposed wash station (IPC Eagle Wash Station) to include an acoustic enclosure for the engine and prohibition of the wash station itself within a specified distance from any adjacent property line with occupied residence.

In addition, heavy construction equipment used during construction of the TDS gen-tie line has the potential to exceed the County Noise Ordinance, resulting in a potentially significant short-term noise impact. This impact would be mitigated through the completion of a Construction Management Noise Control Plan. Helicopter use during construction of the gen-tie line also has the potential to exceed the County Noise Ordinance but would be mitigated through the completion of a Helicopter Noise Control Plan, which includes schedule restrictions to achieve 8-hour average noise levels in compliance with the County Noise Ordinance. Potential blasting

activities for installation of gen-tie poles in areas of encountered bedrock has the potential to exceed the County Noise Ordinance limits for impulsive noise. This impact would be mitigated by prohibiting blasting within 430-feet of the boundary of any occupied parcels zoned for residential or agricultural use, and through the requirement to prepare and adhere to a comprehensive Blasting Plan. Blasting also has the potential to produce significant vibration impacts upon existing structures. This impact would be mitigated by prohibiting blasting within 1,700-feet of any existing structure.

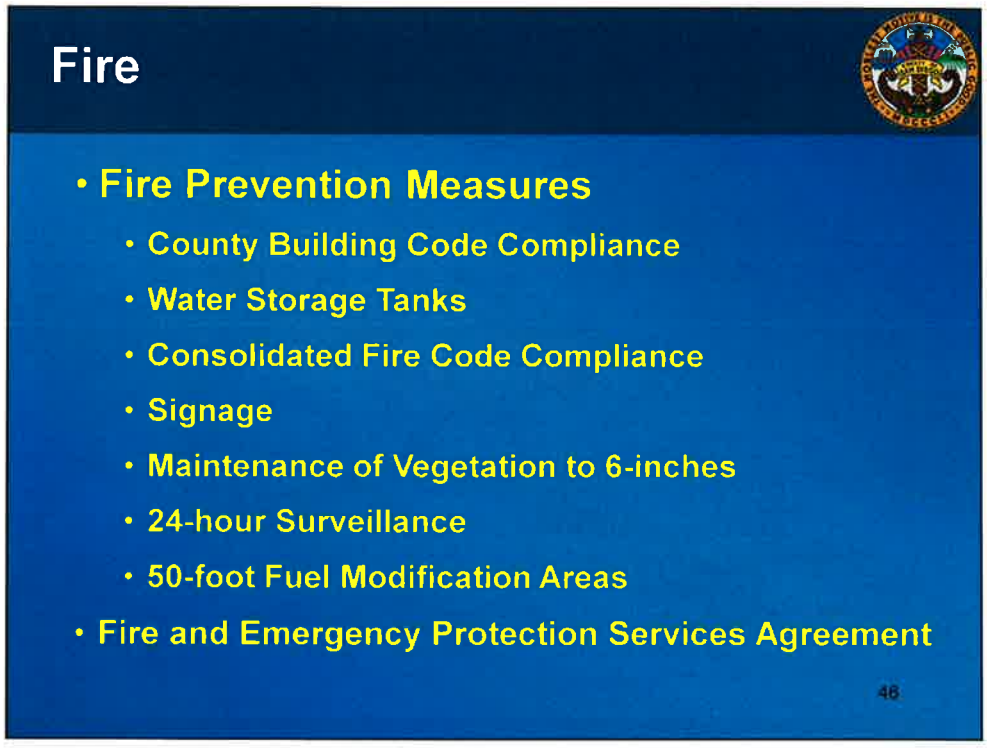
With the incorporation of these mitigation measures, the Rugged and TDS projects would have less than significant noise impacts.

The Rugged and TDS sites are designated as a Very High Fire Hazard Severity Zone by CalFire. Concerns have been raised that the Rugged and TDS projects will increase the severity of the fire hazards in the area.



Fire protection in the area of the Rugged and TDS projects is shared by several agencies, with the San Diego County Fire Authority and CalFire providing significant resources. The closest fire station is the Boulevard Volunteer Fire Department (CLICK) which is located approximately 2.2 miles south of the Rugged project site and approximately 5.9 miles north of the TDS project site. Based on the distances to the most remote portions of the project site, travel time standards in accordance with the General Plan are met.

Fire Protection Plans have been prepared for each the Rugged and TDS projects which include fire prevention measures to reduce the risk of structural and human loss due to wildfire.



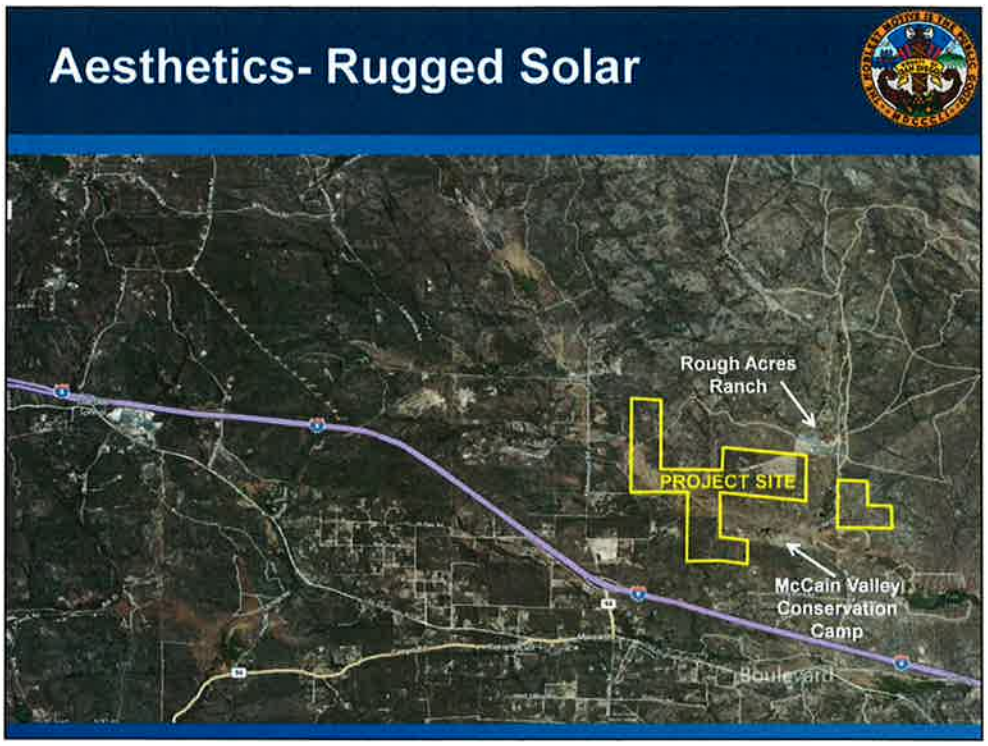
These measures include:

- Use of non-combustible or ignition-resistant materials in accordance with County Building Code.
- Water availability.
- County Consolidated Fire Code compliance.
- Signage [illuminated sign at the project entrances that clearly indicates inverter and electrical grid layout, trackers "safe" mode switch location and entire site de-energizing disconnect switch identification and location]
- Maintenance of vegetation to 6-inches
- 24-hour surveillance
- And 50-foot fuel modification areas.

In addition, as detailed in the TDS fire protection plan the overhead portion of the TDS gen-tie will be constructed on steel poles designed for extreme winds that meets or exceed current California Public Utilities Commission standards. The line will also have an overhead static wire to reduce risks from lightning. In addition, the gen-tie will require standard vegetation clearance which is regulated by State and Federal Regulations including the California Public Utilities Commission GO 95, Rules for Overhead Electric Line Construction and California Code of Regulations, Title 14 Section 1254. It has also been concluded that the proposed gen-tie would not interfere with implementation of emergency responses in the area including aerial firefighting operations.

With the incorporation of the measures detailed in the fire protection plans, the project would not have a significant impact that would expose people or structures to a significant risk of loss, injury or death involving wildland fires.

The final area of concern is aesthetic resources. The Rugged and TDS projects would result in potentially significant visual impacts as they relate to the existing visual character and quality of the site and surroundings. First, I will provide an overview of the existing visual setting of the Rugged and TDS projects, then I will provide an overview of how the projects will impact the visual setting and finally will conclude with the mitigation measures that have been incorporated to reduce the visual impacts to the extent feasible.

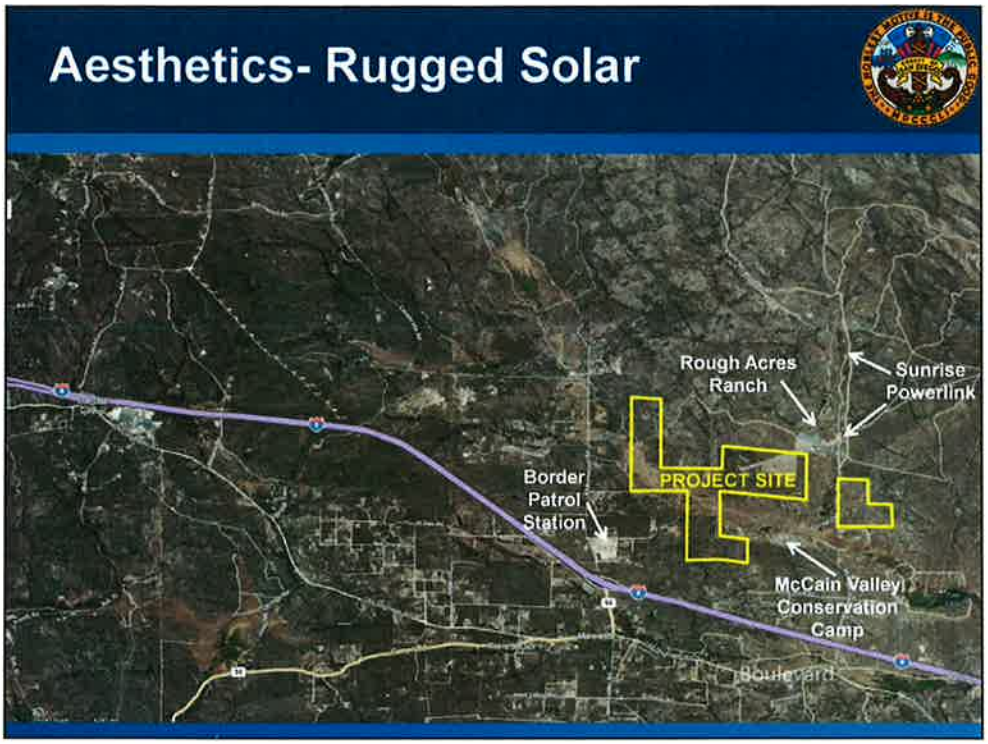


This image (CLICK) shows the Rugged project site in yellow located north of Interstate 8. Lands surrounding the project site consist primarily of scattered rural residences situated on large lots bisected by narrow dirt roadways. While the project area is generally rural in nature, there are several commercial, law enforcement, wind and utility infrastructure in the surrounding area.

Rough Acres Ranch (CLICK) is located immediately north of the project site adjacent to McCain Valley Road and consists of open and disturbed grazing lands, a large construction yard, a conference center, and several agricultural-supporting structures such as barns and bunkhouses totaling 60,220 square feet of structures. Rough Acres Ranch was the former Chargers training facility.

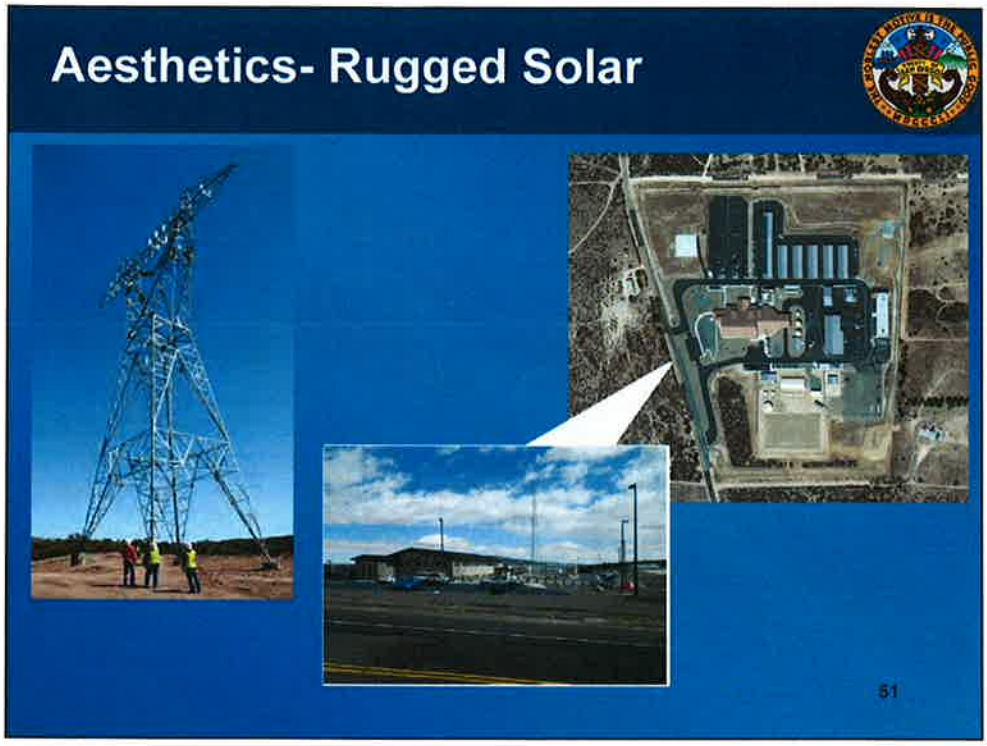
The McCain Valley Conservation Camp (CLICK), a rural prison camp managed jointly by CALFIRE and the California Department of Corrections and Rehabilitation is located southeast of the project site. The prison facility consists of a cluster of approximately 30 buildings and structures totaling 60,550 square feet.

This photo shows an aerial view of the McCain Valley Conservation Camp and associated water quality ponds. [PAUSE]



A portion of the 500 kV Sunrise Powerlink (CLICK) is located directly adjacent to Interstate 8 and winds up McCain Valley Road through the project site. The Sunrise Powerlink consists of lattice towers which are 160 feet in height. Each tower is connected to the next by a graded access road, and each tower includes a cleared fuel management area.

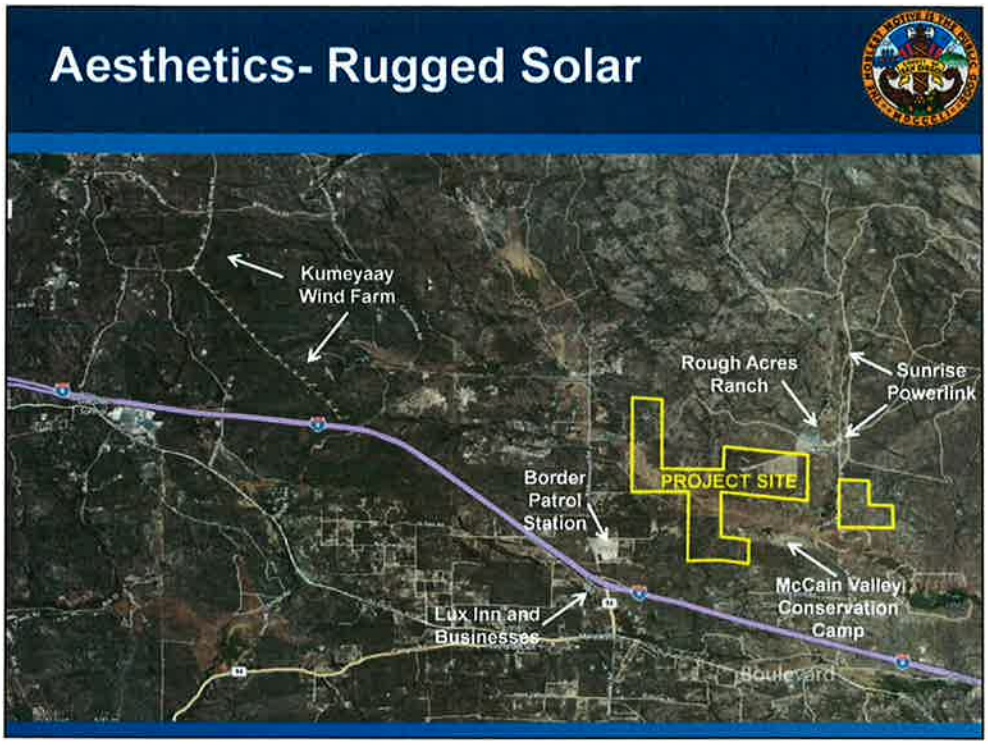
The U.S. Customs and Border Patrol Boulevard Station (CLICK) is located southwest of the project site along Ribbonwood Road. The expanded station was recently constructed for the operations of approximately 250 border patrol agents. The facility consists of a vehicle and facility maintenance building, an equestrian compound with a stable and arena, a 160-foot communications tower, a fueling station, a helicopter landing pad, and an indoor firing range totaling 29,000 square feet.



The photo on the left shows one of the lattice towers associated with the Sunrise Powerlink running adjacent to McCain Valley Road.

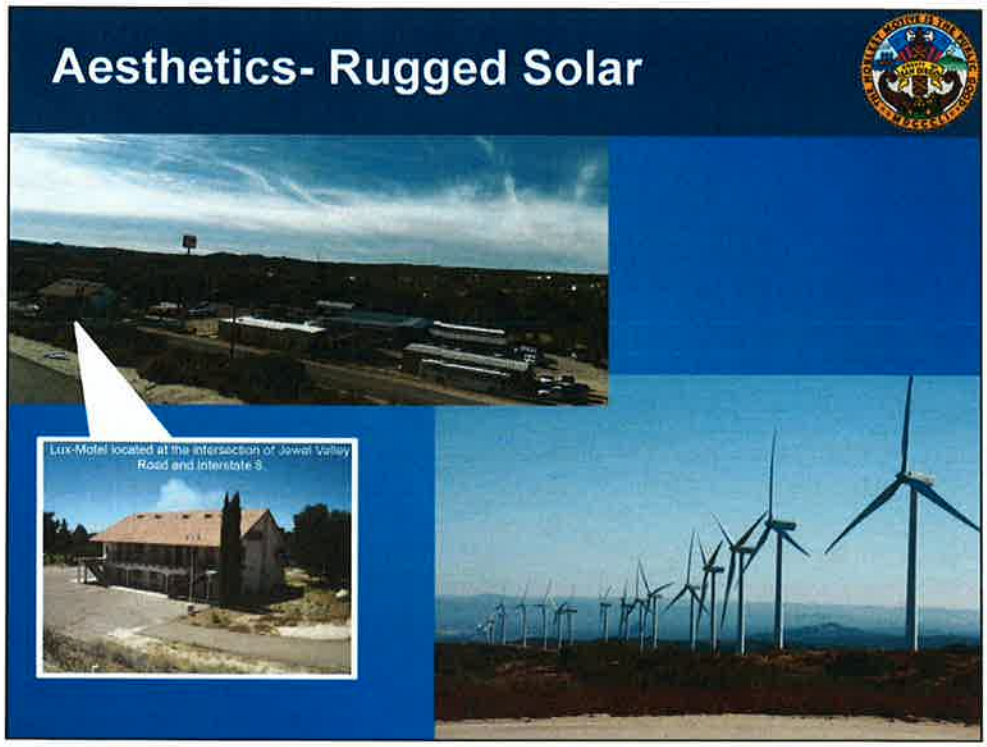
The photos on the right show an aerial view of the U.S. Customs and Border Patrol Boulevard Station and the inset photo provides a street view of the station from Ribbonwood Road.

[PAUSE]

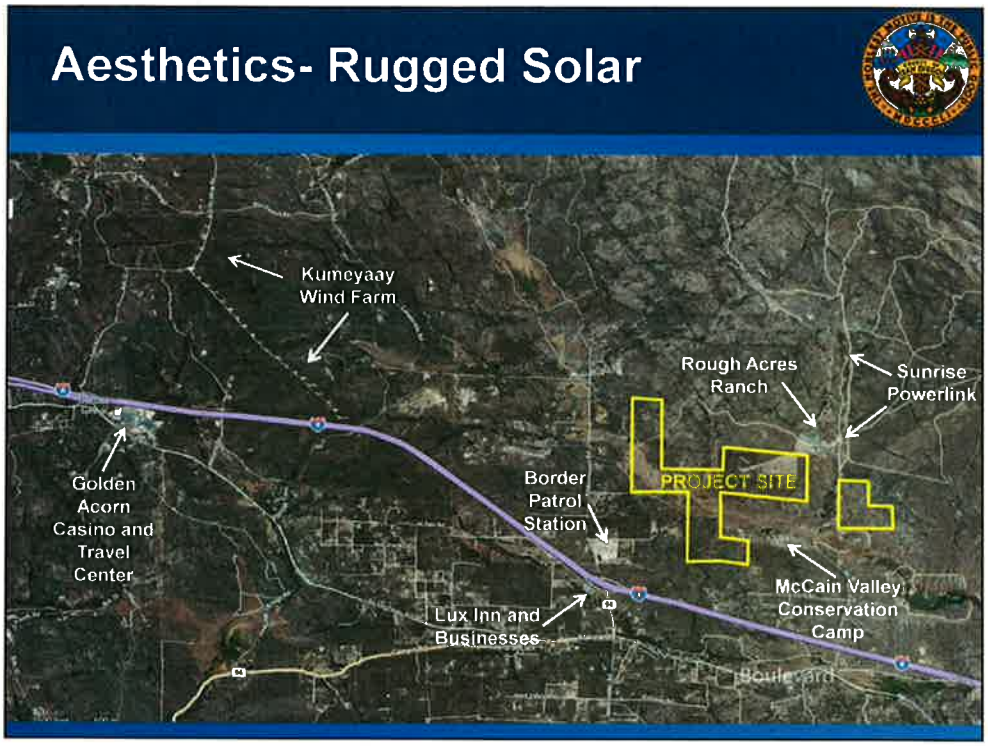


The Lux Inn and businesses (CLICK) is located southwest of the project site at the Interstate 8 Ribbonwood exit.

The Kumeyaay Wind Farm (CLICK) is located approximately 2 miles northwest of the Rugged site, and within view of Interstate 8. The wind farm consists of a prominent row of 24, 400-foot tall wind turbines, located on the western rim of the McCain Valley.

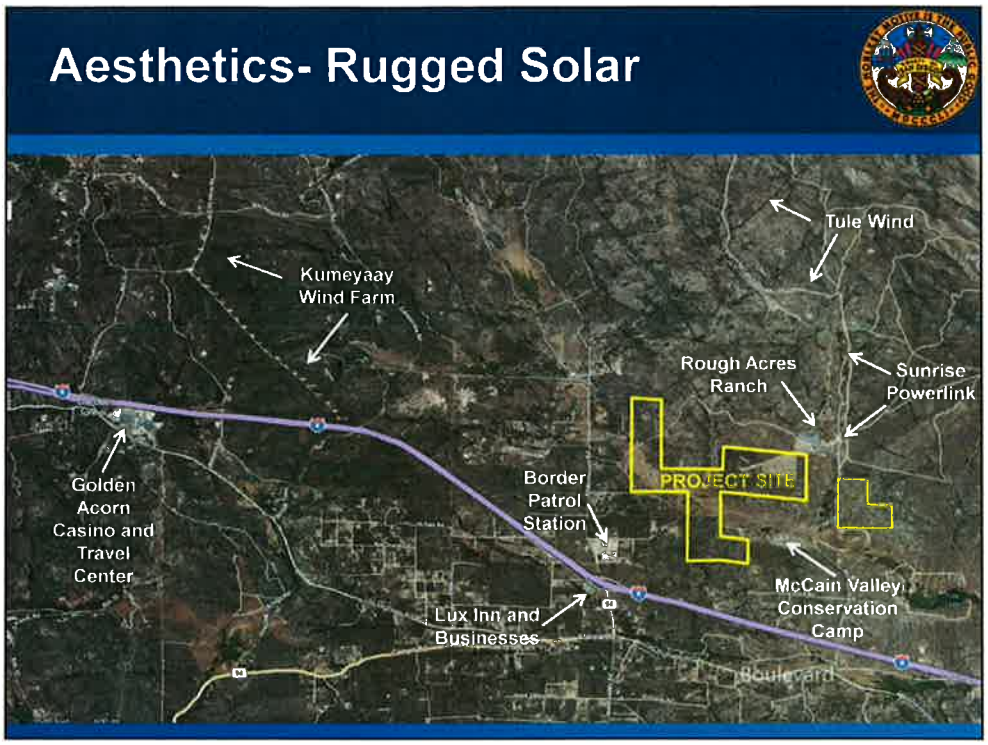


The photos on the left show the existing Lux Inn and Businesses and the photo in the bottom right hand corner shows the Kumeyaay Wind Farm. [PAUSE]

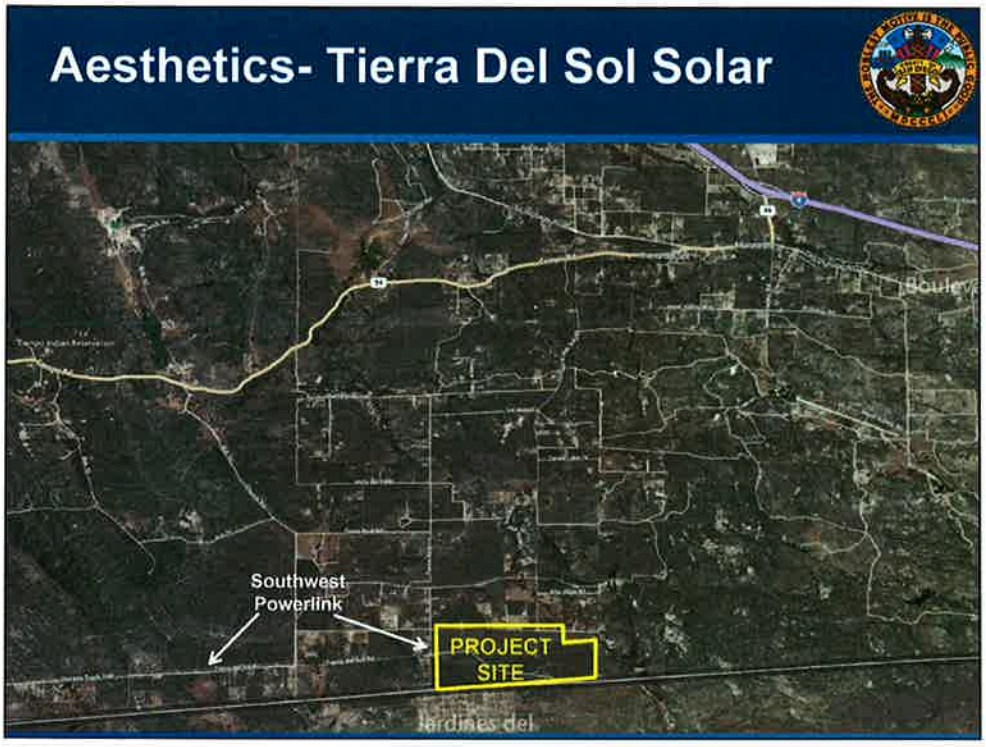


The Golden Acorn Casino and Travel Center (CLICK) is located approximately 3 miles west of the project site and immediately south of Interstate 8. The Golden Acorn Casino and Travel Center consists of a 60,000 square foot casino and entertainment center, 18 acres of paved parking lots, several restaurants, and an approximate 8,000 square foot travel center and gas station.

This photo shows the Golden Acorn Casino and Travel Center.

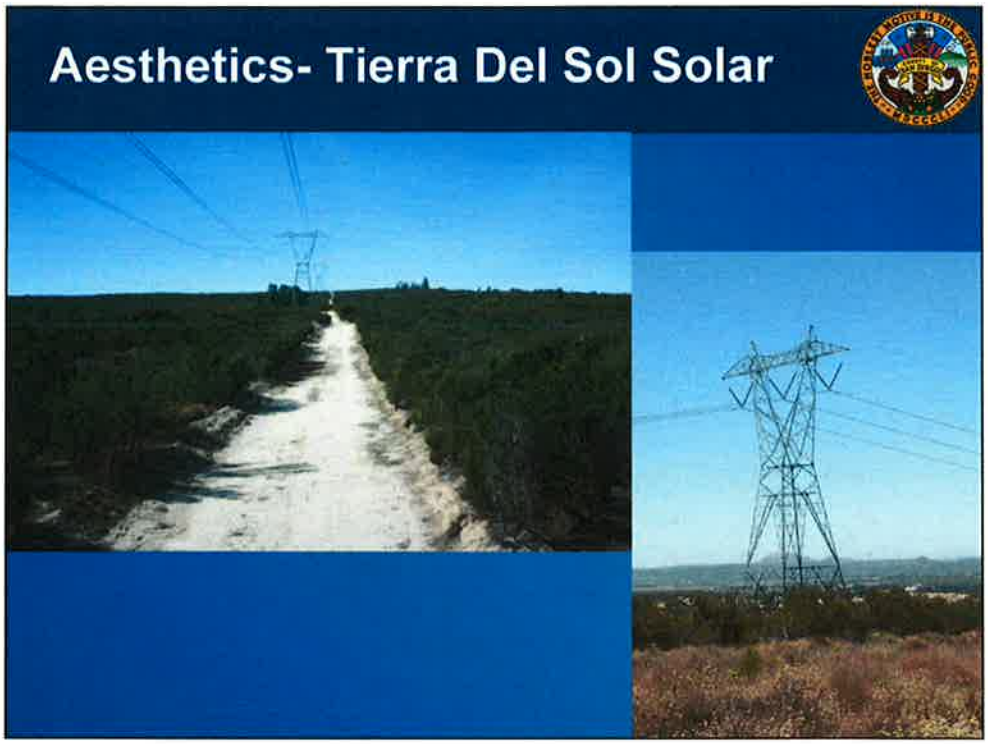


The Tule Wind (CLICK) project has been approved but not constructed and is located north of the Rugged project site. The Tule Wind project would consist of approximately 87 wind turbines up to 492 feet in height, a 34.5 kv overhead and underground collector cable system with steel poles up to 80 feet in height, a 5 acre collector substation, a 5 acre operations and maintenance area and over 36 miles of newly constructed access roads.



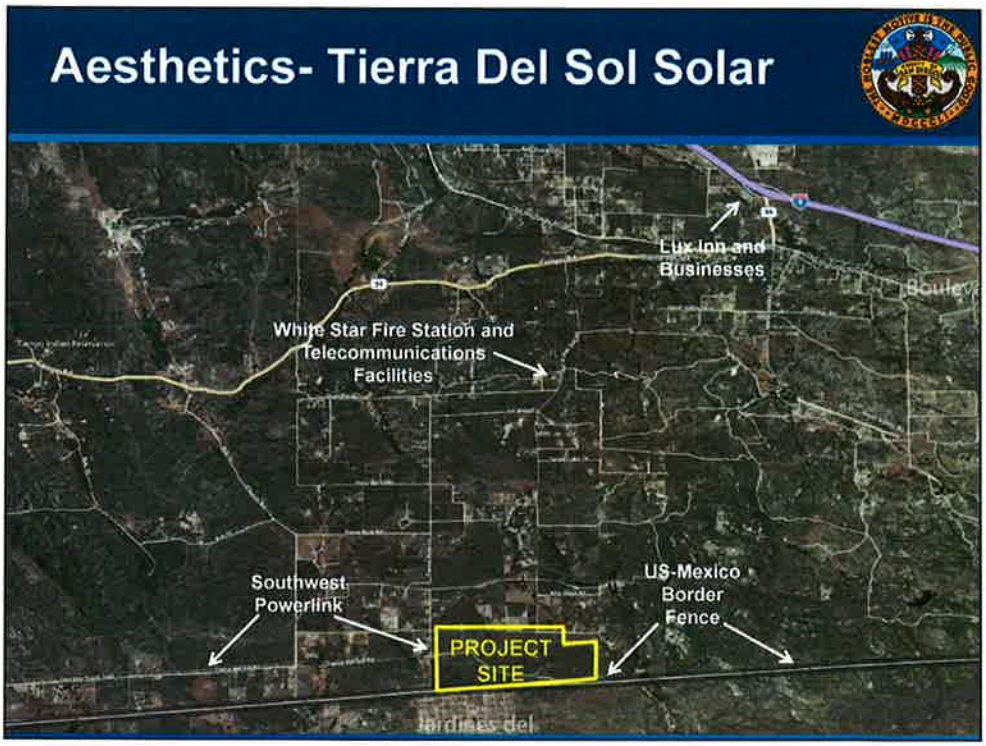
Now moving on to the Tierra Del Sol project.... This image (CLICK) shows the TDS site in yellow, located south of Interstate 8 and Tierra Del Sol Road and adjacent to the US-Mexico border.

The 500 kV (CLICK) Southwest Powerlink traverses the project site from east to west and four large, approximately 150-foot tall steel lattice support towers are located on site.



The photo on the left shows the project site which is bisected by the Southwest Powerlink and the adjacent access road.

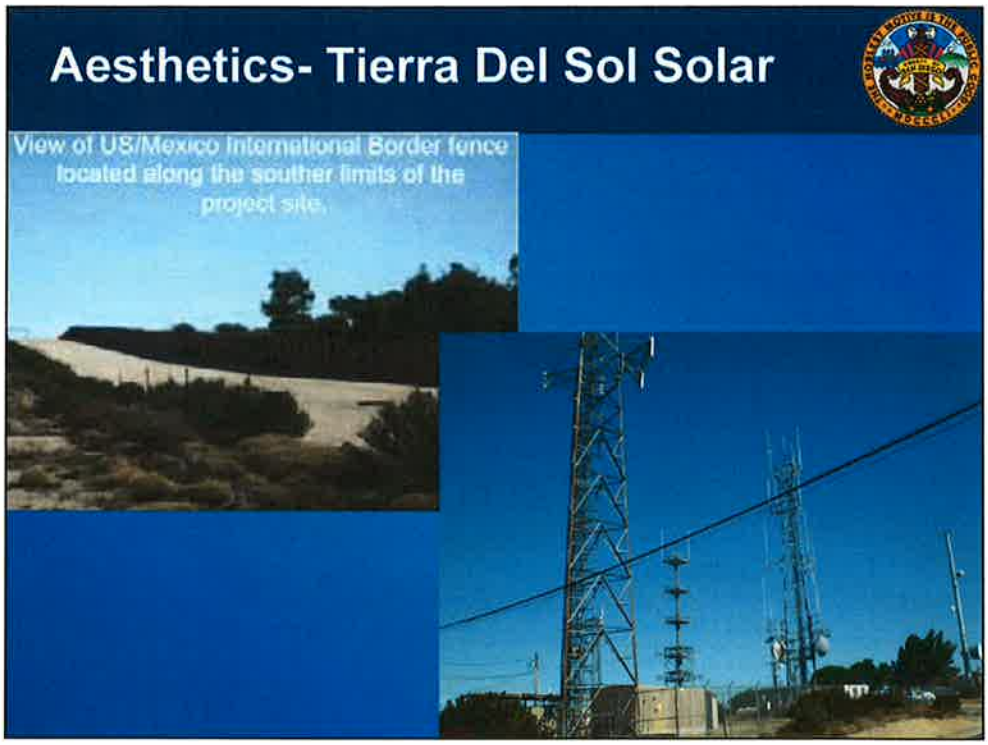
The photo on the right shows one of the Southwest Powerlink's lattice towers.



The 10-foot tall, (CLICK) rust colored US-Mexico international border fence is located immediately south of the project site and is bordered by the 60-foot wide public reserve line utilized by U.S. Customs and Border Protection to conduct patrols in the area.

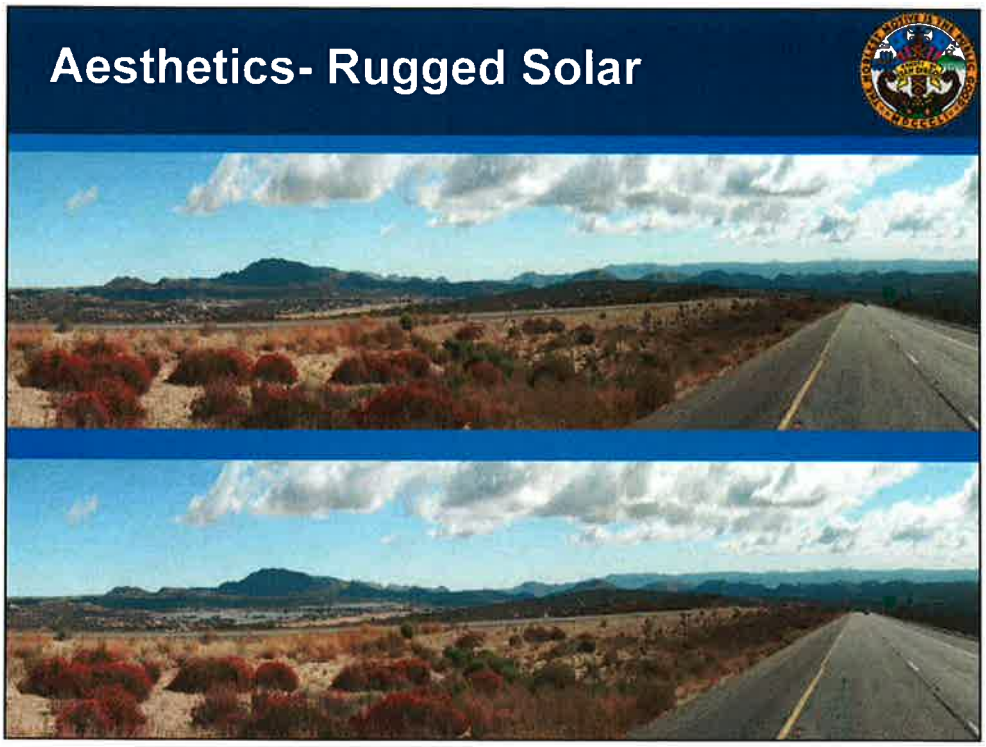
The White Star Communications Facility (CLICK) and adjacent CAL FIRE WhiteStar station are located 2.6 miles to the north of the site along Tierra Del Sol Road. The White Star Communications Facility includes three communication towers ranging in height from 50-75 foot tall and approximately 1,000 square feet of control buildings/structures. The CALFIRE station also includes an approximately 50-75 foot communication tower as well as 5,000 square feet of buildings/structures.

Finally, as detailed previously, the Lux Inn and businesses (CLICK) is located at the Interstate 8 Ribbonwood exit.



The photo on the left shows the US-Mexico International Border Fence and 60-foot wide public reserve containing border patrol access roads.

The photo on the right shows the Whitestar Communication Facilities from Tierra Del Sol Road looking north.

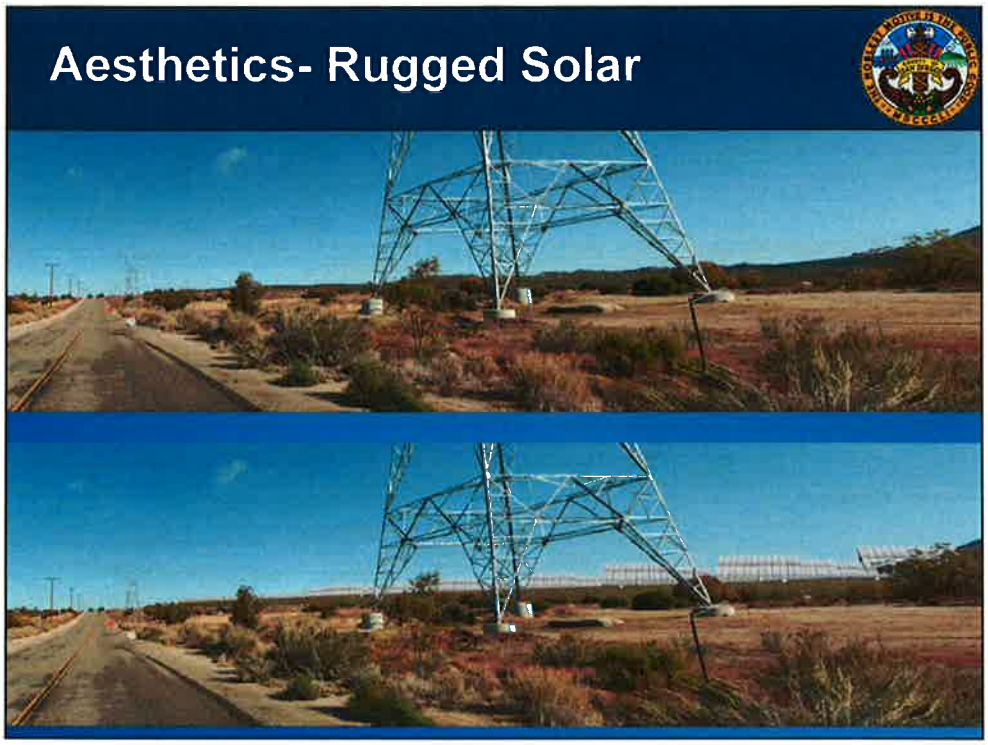


Next we will show a few photo simulations for distant views of the projects...

With the incorporation of the Rugged project, the existing visual character and quality of the site and surroundings will be modified.

The top image shows the existing views travelling east on Interstate 8 and the bottom image shows a photosimulation of the views traveling along Interstate 8 with the incorporation of the project.

Views of the project will be visible to eastbound drivers for approximately 1.2 minutes and views of the project site will be visible to westbound travelers for periods of 48 and 18 seconds as intervening topography intermittently blocks views of the project site.



The existing visual character and quality of the Rugged site and surroundings will also be modified in the area of McCain Valley Road. The top photo is the existing view looking northeast along McCain Valley Road.

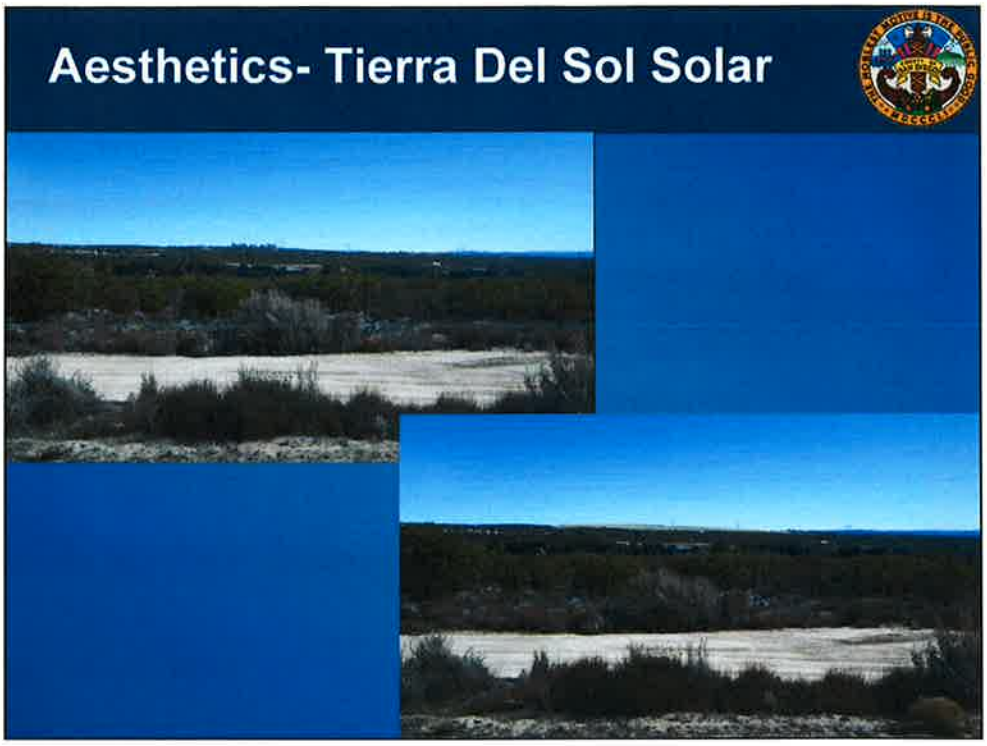
As shown in the bottom photosimulation, the noncontiguous eastern portion of the Rugged project would be located in the immediate foreground and motorists would have generally unobstructed foreground views of the Rugged project site as they travel either north or south along McCain Valley Road.

The larger, western portion of the Rugged project would also be briefly visible in the middleground, approximately 30 seconds prior to reaching this viewpoint on McCain Valley Road but the remainder of the views to the west of McCain Valley Road would be screened by intervening topography and a large stand of oaks.

Now moving on again to the TDS project.... The top photo here provides a representative view for eastbound motorists on Tierra del Sol Road. In this photo, the western boundary of the site is located approximately six tenths of a mile away. High voltage transmission lines and lattice towers are visible in the foreground and middleground and lower wooden power or telephone poles parallel the roadway.

As seen in the bottom photosimulation, CPV trackers proposed in the western extent of the project boundary would be visible in the middleground at this location although a majority of the proposed CPV trackers, the substation, the O&M building,

and overhead portion of the gen-tie line would be obscured from this view due to topography.



The top photo is from near the western terminus of Tierra Estrella on County lands located adjacent to the Campo Indian reservation looking in an east-southeast direction. The western boundary of the site is located approximately 1 mile away.

The topography of the area slopes downward into a shallow valley before climbing toward the project site which is demarcated by the presence of a clustering of pine trees at the top of the ridge. The Southwest Powerlink transmission lattice towers are

partially and wholly visible, depending upon the position in the landscape and intervening topography.

Proposed trackers would be the primary project components visible from this view, however more distant project components including the gen-tie line, collector substation, and O&M annex building would be obscured by the topography of the site.

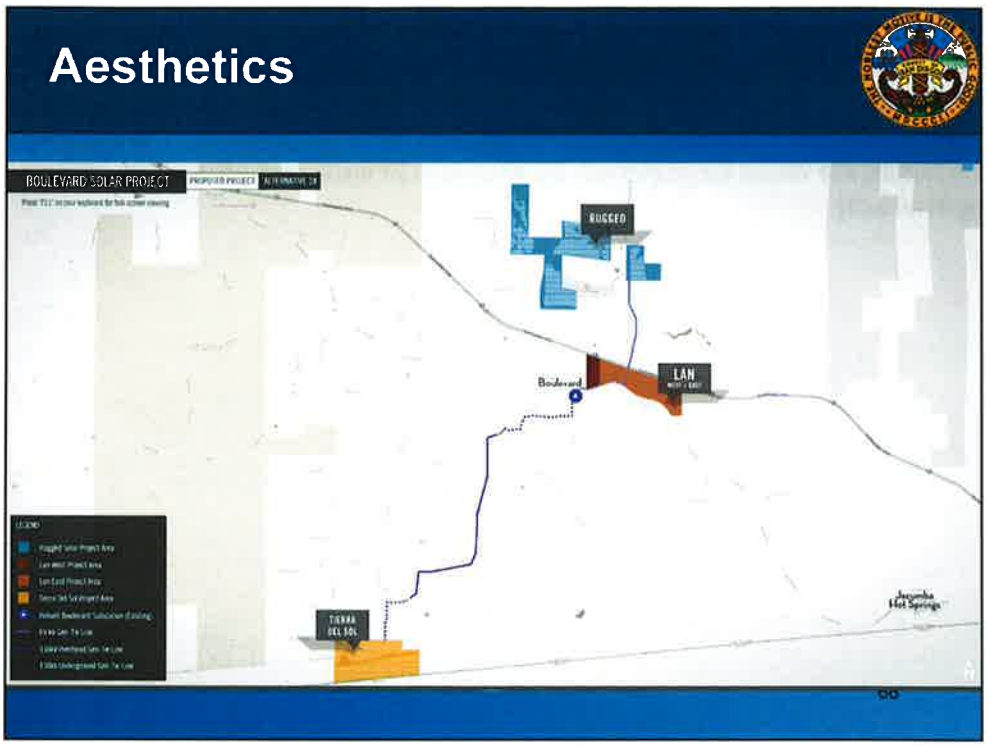
The top photo provides a representative view of southbound motorists on Jewel Valley Road looking in a south-southwest direction towards the proposed overhead portion of the gen-tie line alignment.

An existing electrical distribution line traverses the valley landscape in the foreground, however, existing support poles are back screened by vegetation and are not visually prominent.

The proposed gen-tie line would traverse the middleground ridgeline north of Rattlesnake Mountain, the tall, mounded terrain to the south, and would proceed in a general northerly direction into the Jewel Valley area.

The nearest gen-tie pole would be located east of Jewel Valley Road and would be visible at a distance approximately 0.27 miles. While the base of visible gen-tie structures would not be visible due to intervening vegetation, a portion of several poles would

be skylined. In total, approximately ten gen-tie support structures would be visible at varying distances.



I would now like to utilize a visual tool to summarize the evolution of the proposed project in relation to aesthetic resources.

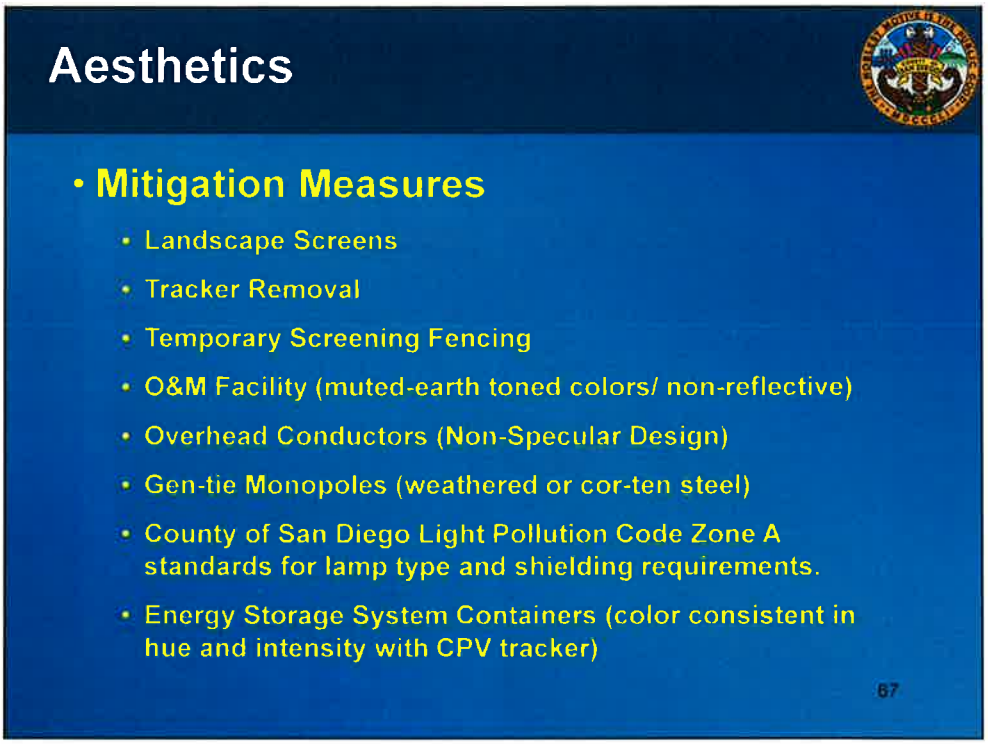
This first image shows the proposed project as originally proposed and this second image shows the proposed project with the incorporation of Alternative 2A.

More specifically, this image reflects the removal of trackers in red and the addition of landscape screens in green on the Rugged project.

This image reflects the removal of trackers in red and purple and the addition of landscape screens in green on the Tierra Del Sol project.

Specific visual simulations in the vicinity of the removed trackers and added landscape screens are provided along Tierra Del Sol Road. The first shows the view looking west along Tierra Del Sol Road along the northern project boundary. The first simulation shows the existing site versus what was originally proposed for TDS before removal of trackers per Alternative 2A. The second simulation shows the existing site versus the project with the Alternative 2A tracker reductions and initial installation of landscape screening with immature vegetation. The final simulation shows the existing site versus the project with the Alternative 2A tracker reductions and landscape screening at maturity.

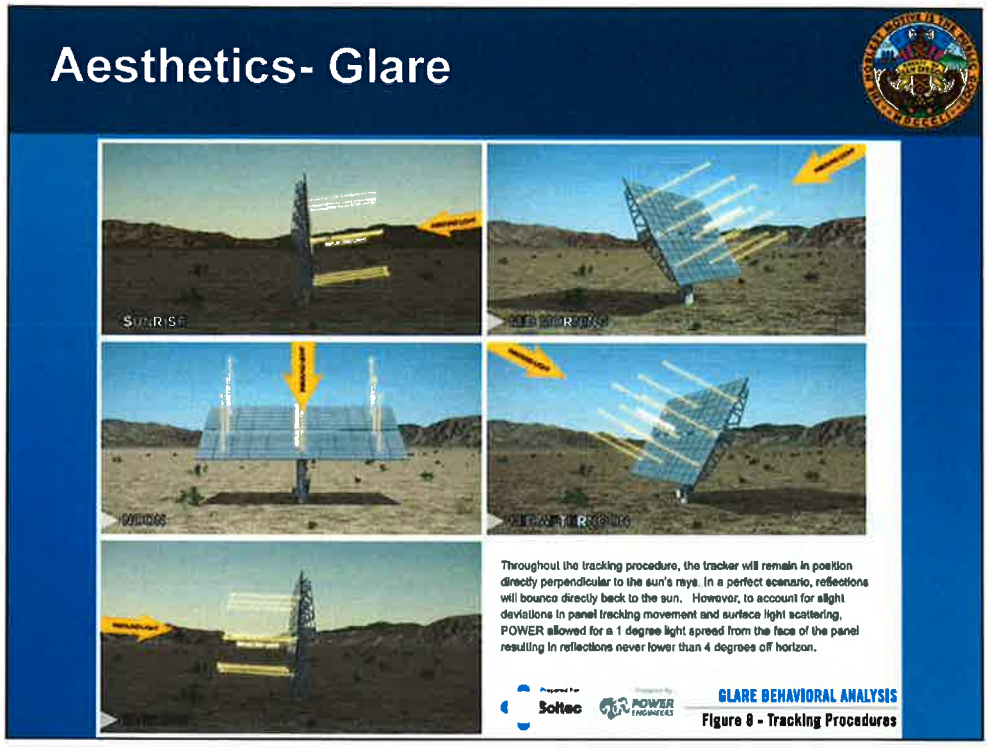
The second shows the view looking northeast along Tierra Del Sol Road along the western project boundary. Again, the first simulation shows the existing site versus the originally proposed TDS project – coming up to the property boundary. The second simulation shows the existing site versus the project with the Alternative 2A tracker reductions and initial installation of landscape screening. The final simulation shows the existing site versus the project with the Alternative 2A tracker reductions and landscape screening at maturity.



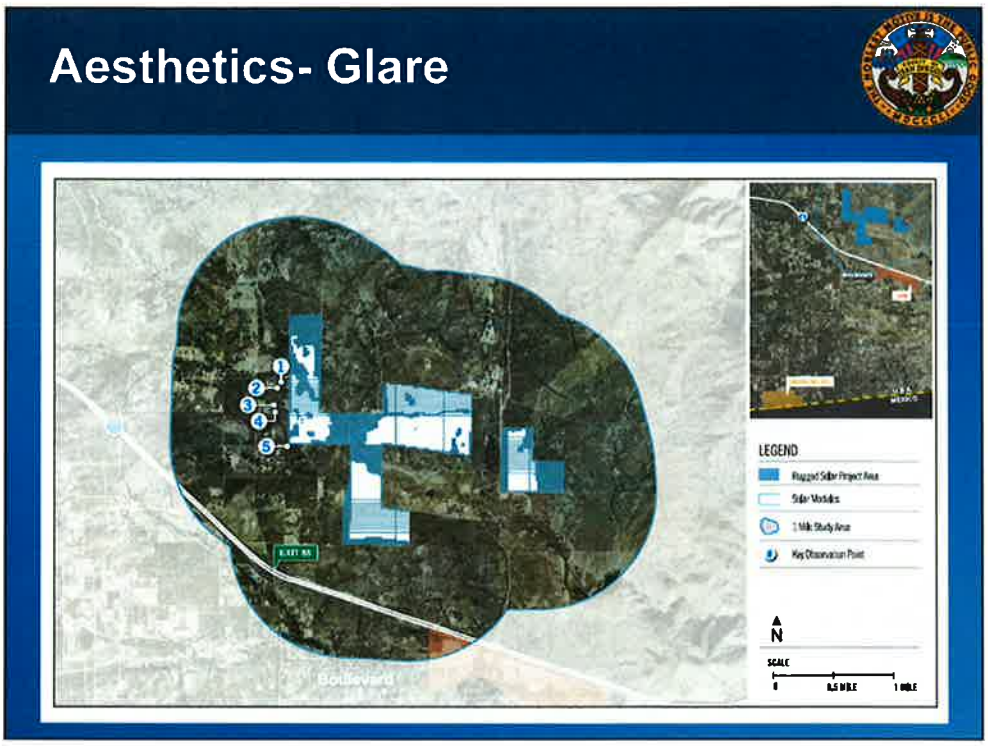
As evident in the previous photosimulations of the Rugged and TDS projects, views of the proposed facilities cannot be fully screened from view and therefore, the project will result in significant and unavoidable impacts to aesthetic resources. While the Rugged and TDS projects will result in significant and unavoidable impacts to aesthetic resources, achievable measures have been taken to reduce the visual impacts to the extent feasible.

These measures include:

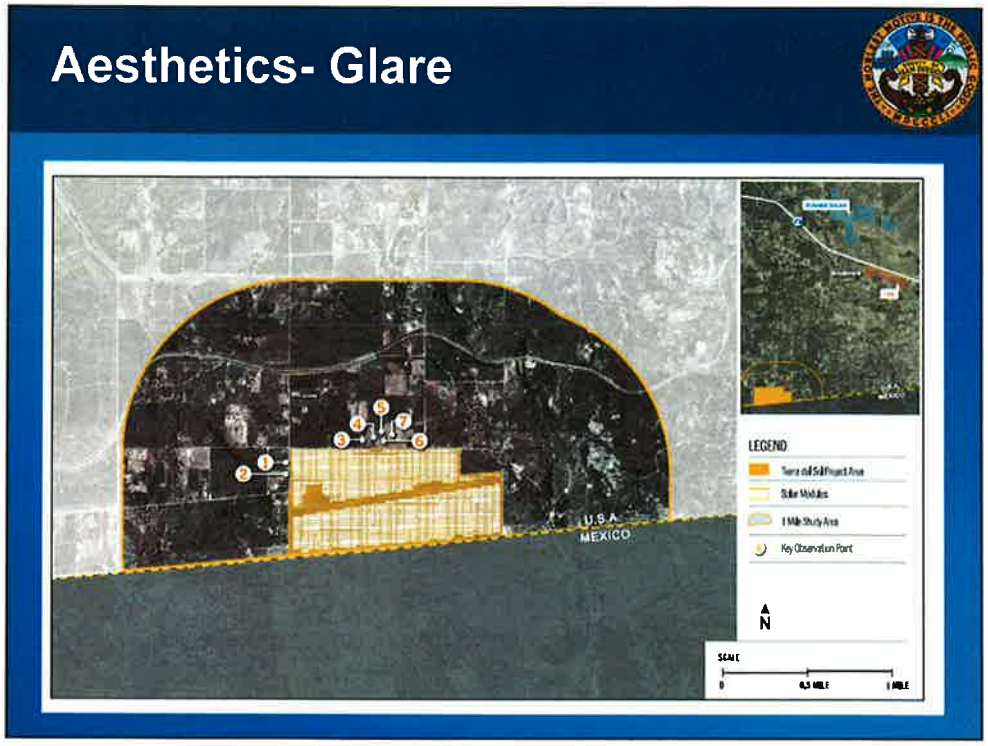
- Landscape Screens
- Tracker Removal [along a prominent saddle of the Rugged Solar project visible from Interstate 8]
- Temporary Screening Fencing during construction
- Use of muted-earth toned paints with a non-reflective finish
- Use of a Non-Specular Overhead Conductors
- Use of weathered or cor-ten steel for proposed Gen-tie Monopoles; and
- County of San Diego Light Pollution Code compliance



In addition to the aesthetic impacts, the project also has the potential to produce glare for short periods of the day. CPV trackers are designed to directly face and track the sun throughout the day as illustrated in this image. Based on a Glare Study completed by POWER engineers it was concluded that occurrences of glare are limited and in all cases, the occurrence of glare is limited to the early mornings and late evenings when the sun is lowest in the sky.

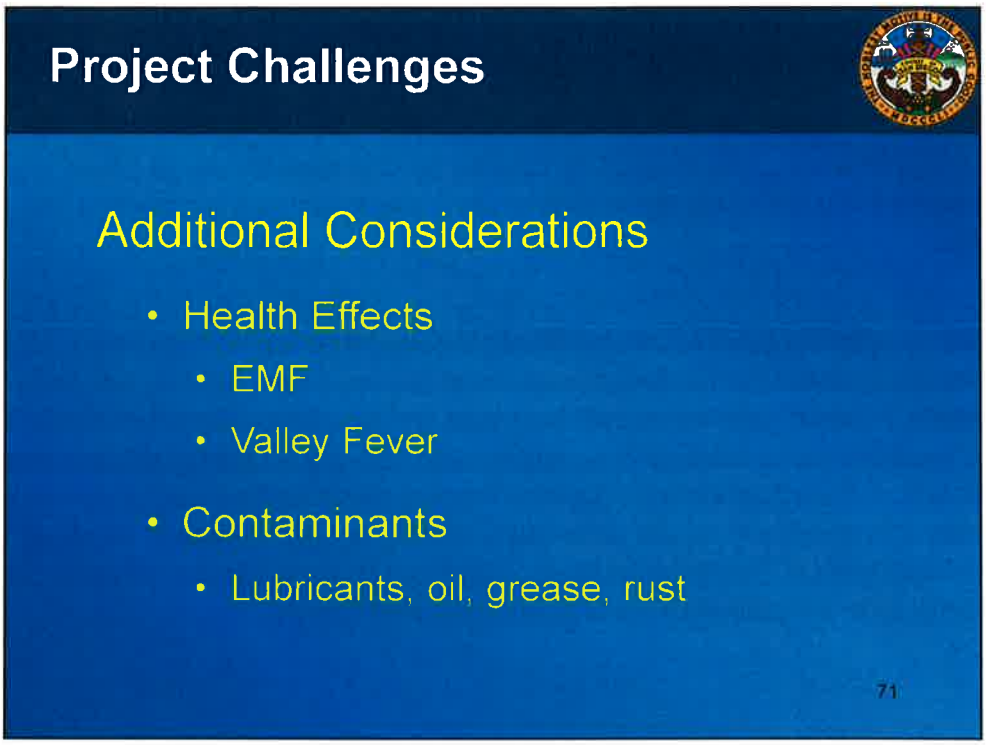


Based on the analysis completed in the glare study, it was determined that during operation of the Rugged project, five residences, as illustrated in this image could receive glare. The glare would be received during the hour leading up to sunset with duration of daily glare exposure being less than 45 minutes. Two of the five residences would receive glare throughout the year and the remaining three residences would receive glare seasonally.



Based on the analysis completed in the glare study, it was determined that during operation of the TDS project, glare could be received by five residences to the north (during summer months), two residences to the west, and by motorists along an approximate one-mile segment of Tierra del Sol Road located adjacent to the northern and western project boundary. The daily duration of glare exposure throughout the year would be one hour or less at the two residences located to the west, and during summer months, the daily duration of glare exposure at the five residences to the north would be less than 35 minutes. The glare along the approximate one-mile segment of Tierra Del Sol Road would have a daily duration not exceeding two hours.

As concluded in the Boulevard Glare Study prepared for this project, the intensity of glare produced by the CPV trackers would be less than that of metal, glass, and water and the generated reflection values are not considered hazardous to vision.



Additional concerns raised by the public include potential health effects and potential contaminants that may affect the quality of surface or groundwater.

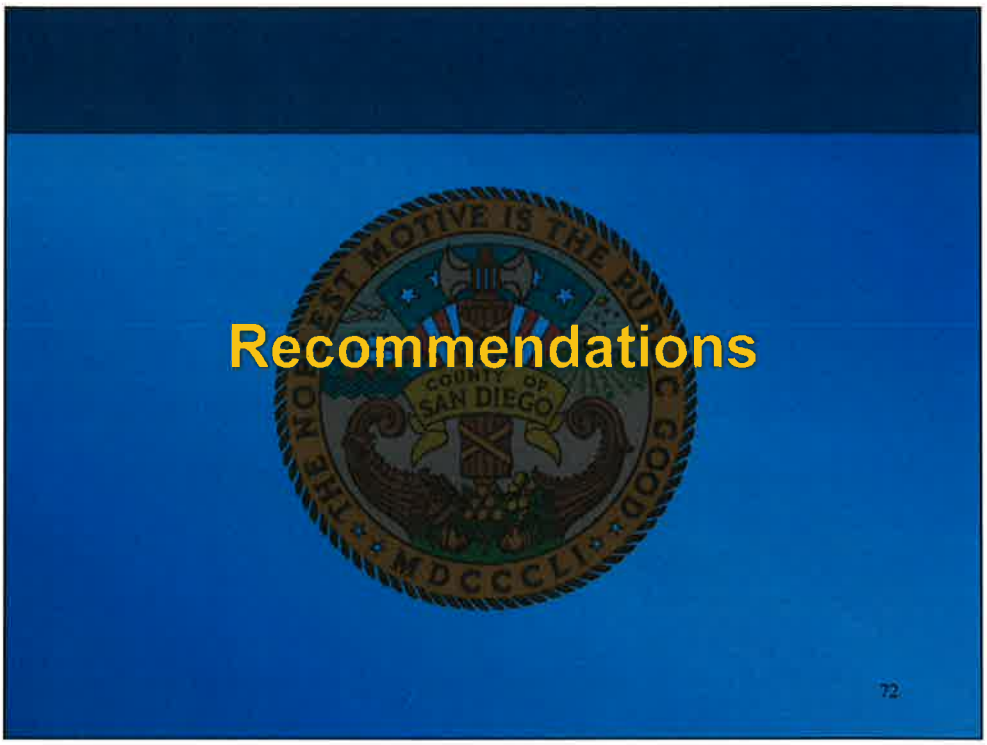
Since solar facilities create varying amounts of electric and magnetic fields, or EMFs, concerns have been raised that the resulting EMFs from this project could cause adverse health effects for people nearby. An evaluation of the project was completed in a study entitled "Health Issues Related to the Static and Power-Frequency Electric and Magnetic Fields of the Soitec Solar Energy Farms". This study concluded that EMFs from this project would be highly localized and substantially weaker than limits found in all safety guidelines. They would pose no known concern for human health.

The potential for Valley Fever was also raised as a concern. This affliction is caused by a mold that could be inhaled when soils are disrupted. However, the project would be located in southeastern San Diego County, which, based on information compiled by the County of San Diego Health and Human Services Agency, has a very low background risk of Valley Fever. The HHSA Communicable Disease Report cites less than 5 cases of Valley Fever per 100,000 population being reported in southeastern San Diego County from 2003 to 2007. There were no cases of Valley Fever from 2008 to 2014 reported in the zip codes corresponding to Boulevard, Jacumba Hot Springs, Campo, and Pine Valley. Assertions have been made that adding water for dust suppression can cause Valley Fever to bloom in the soil the following dry season. The California Department of Public Health actually recommends implementation of dust control measures including regular application of water during soil disturbance activities to reduce potential exposure to Valley Fever. With the low historical occurrences of valley fever and the

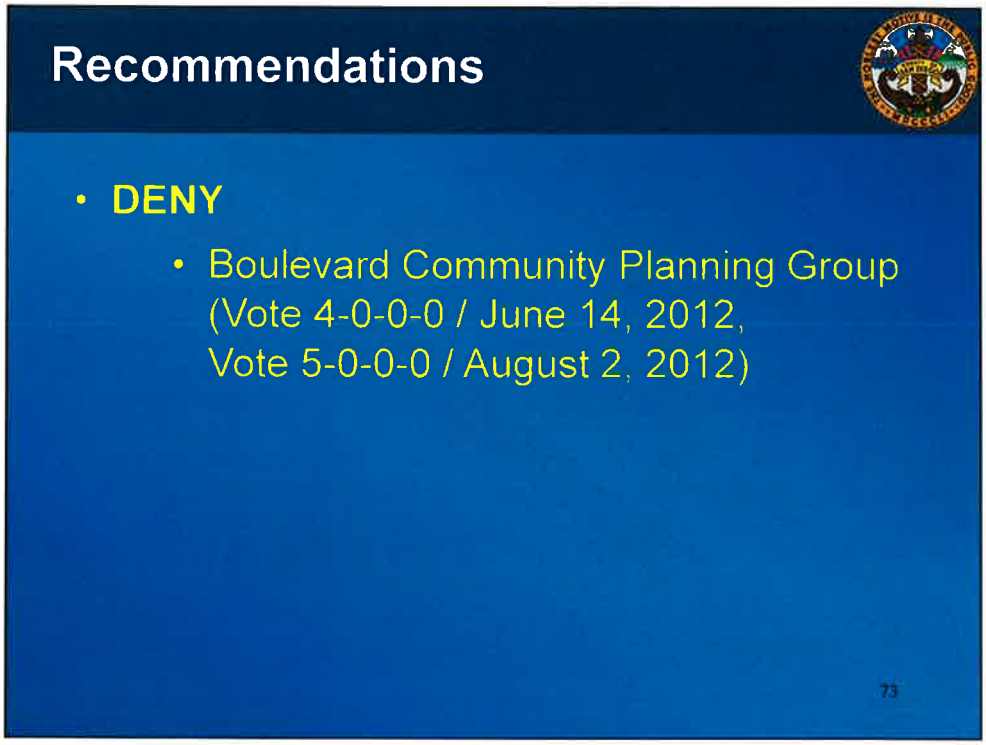
implementation of dust control measures for the project, it has been determined that the project would not cause a significant increase in Valley Fever infections.

Staff has also received questions about the potential for contaminants from the project to pollute water supplies in the community due to spills on site or due to oxidation and leaching from metal supports.

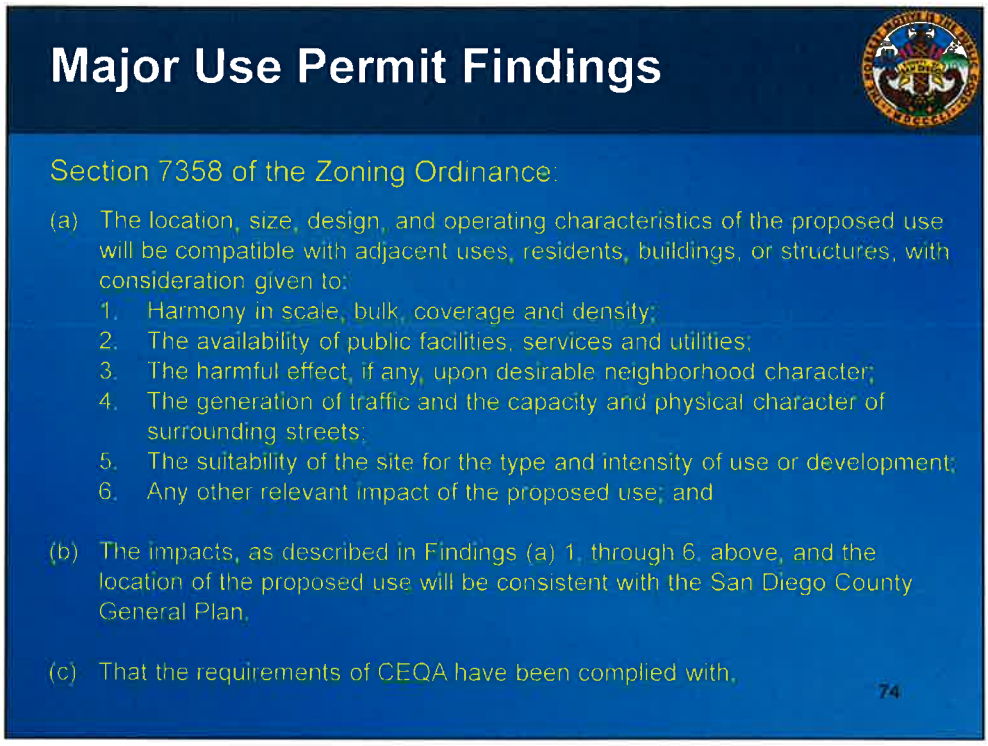
The tracker support masts will be constructed of galvanized steel that resist corrosion. Oil and grease would be used in the dual axis drive approximately every 5 years during scheduled maintenance. However, there are multiple local, state and federal regulations that impose "cradle to grave" requirements for handling these materials and reporting accidental spills or release of contaminants. A Hazardous Materials Business Plan is required for the project along with a construction and operational plan for water quality best management practices. Moreover, the County's Department of Environmental Health, Hazardous Materials Division, responds directly to any potential spills and conducts a soil or groundwater investigation.



I would now like to move to project recommendations.



Throughout the processing of the project, the Boulevard Community Planning Group has discussed and taken several actions on the project. On June 14 and August 2, 2012, the Boulevard Community Planning Group voted to deny the Rugged Solar and Tierra Del Sol Solar projects due primarily to the project challenges previously discussed in this presentation and in the staff report.



In accordance with Section 7358 of the Zoning Ordinance, findings must be made prior to approval of a Major Use Permit. These findings include (a) that the location, size, design, and operating characteristics of the proposed use will be compatible with adjacent uses, residents, buildings, or structures, with consideration

given to:

- Harmony in scale, bulk, coverage and density
- The availability of public facilities, services and utilities
- The harmful effect, if any, upon desirable neighborhood character
- The generation of traffic and the capacity and physical character of surrounding streets
- The suitability of the site for the type and intensity of use or development, which is proposed
- Any other relevant impact of the proposed use

(b). That the impacts, as described in the previous finding, and the location of the proposed use will be consistent with the San Diego County General Plan and

(c). That the requirements of the California Environmental Quality Act have been complied with.

Concerns have been raised that the Rugged and TDS projects are not compatible with the community character and therefore, that these findings cannot be made. Staff has carefully considered these required findings and has determined that they can be made in support of the Rugged and TDS projects.

In accordance with finding (a), the Rugged Solar project has been found to be compatible with the harmony of surrounding uses, residents, buildings, or structures in scale, bulk, coverage and density due to their similarity with other large-scale facilities and uses in the project area including the 500 kV Sunrise Powerlink, the SDG&E Rebuilt Boulevard Substation, the Border Patrol Station, the Kumeyaay Wind Turbines, the McCain Valley Conservation Camp, Rough Acres Ranch and the Tule Wind project.

Similar to the Rugged project, in accordance with finding (a), the TDS project has been found to be compatible due to its similarity with other large-scale facilities and uses in the project area including the 500 kV Southwest Powerlink, the White Star Fire Station and White Star Communication Towers, the SDG&E Rebuilt Boulevard Substation, the Lux Inn and Businesses and the US-Mexico international border fence.

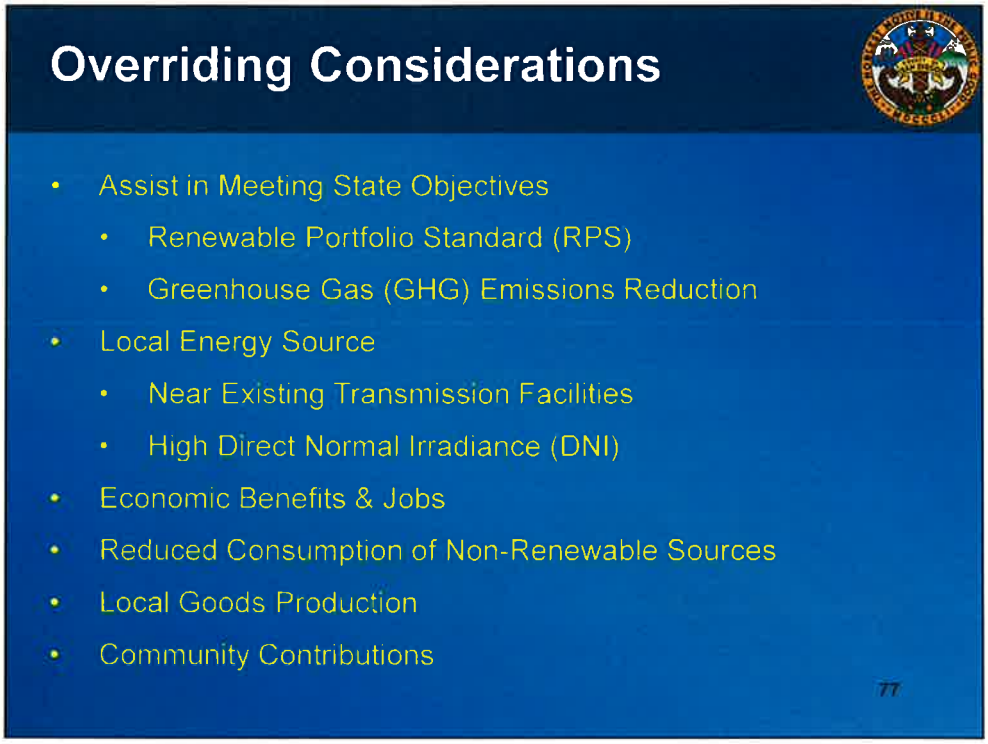
Measures have been taken to minimize impacts such as lighting, noise and visual impacts to reduce potential harmful effects upon desirable neighborhood character. All public facilities, services and utilities have been found to be available and the generation of traffic and the capacity and physical character of surrounding streets has been found to be acceptable due to the projects low intensity ongoing use.

In accordance with finding (b), a comprehensive review of the Rugged and TDS projects has been completed and the projects have been found to be consistent with the San Diego County General Plan. Also, in accordance with finding (c), compliance with the requirements of CEQA

has been demonstrated through the completion of an EIR.

In addition to making the required Major Use Permit findings, the Rugged and TDS projects have also undergone a comprehensive review for compliance with the General Plan including the Mountain Empire Subregional Plan and Boulevard Subregional Plan. The projects were found to comply with all applicable General Plan and Subregional Plan policies.

The projects were also reviewed and found to comply with the Zoning Ordinance and all other applicable County regulations.



As previously detailed, the proposed project would result in significant and unavoidable impacts related to aesthetics and air quality. The County is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

As detailed in the Findings Regarding Significant Effects Pursuant to State CEQA Guidelines Sections 15091 and 15093, the proposed project will provide the following benefits:

It will assist in achieving the state's Renewable Portfolio Standard and GHG emissions reduction objectives

Will provide a local source of energy near existing transmission facilities and with high direct normal irradiance

Will provide tax benefits, job benefits, and broader economic benefits for the County of San Diego

Will assist in the reduced consumption of non-renewable resources

Would result in local goods production and

Would provide one-time and on-going contributions to the local community that would provide significant educational, fire protection, medical, and social benefits.

For these reasons, the County finds that the project's unavoidable potential significant environmental impacts are outweighed by these considerable benefits.

Because the project complies with relevant codes and regulations, makes the required findings and, what we feel adequately addresses the planning issues that have been raised, staff recommends that the Commission recommend approval of the project to the Board of Supervisors, including the certification of the EIR, the adoption of the rezone ordinance, adoption of the agricultural preserve disestablishment resolution and granting of two major use permits, one for the Rugged Solar project and one for the Tierra Del Sol Solar project.

We'd also like to note that numerous letters commenting on this project have been received since preparation of staff's hearing report; however, these letters have not changed the Department's recommendation before you today.

This concludes our presentation. Thank you.