Comparison of Current 20 MW Project vs Previously Approved 100 MW Project (as described in MND)		
Topic	**Original 100 MW Project**	**Current 20 MW Project**
Aesthetics	829-acre project will create a new source of light. Mitigation to include directing all light sources downward and kept within the site boundary.	156-acre project will generate less light than larger project.
Air Quality Impacts	Fugitive dust generated from a total of 829 acres during construction over multiple years	Fugitive dust generated from a total of 156.5 acres during construction over 6-9 months
Biological Impacts	Impacts to 829 acres of disturbed lands with marginal habitats	Impacts to 156.5 acres of disturbed lands with marginal habitats
	Low potential to impact sensitive species with implementation of mitigation	Same
Cultural Resources	Two prehistoric sites and remnants of Blythe Airfield within the 829-acre site, impacts would be minimized with implementation of mitigation	One prehistoric site within 156.5-acre site, impacts would be minimized with implementation of mitigation
Paleontological Resources	Low potential for impacts with implementation of mitigation	Same
Geology/Soils	Low potential for erosion from water and wind with implementation of mitigation	Same
Transportation and Traffic	Potential for impact to transportation and traffic would be less than significant with mitigation incorporated	Same
Utilities Service Systems	Potential for impact to utilities and services would be less than significant with mitigation incorporated	Same
Hazards and Hazardous Materials	Potential for impact would be less than significant from hazards and hazardous materials with mitigation incorporated	Same
ALUC Issues	2010 ALUC letter indicated that if the gen-tie route going south to Hobsonway was selected, the portion going through airport Zone B1 would need to be undergrounded	2010 ALUC letter indicated that the currently planned gen-tie route along Butch and Riverside does not cross Zone B-1 and undergrounding would not be necessary
Other Resources	As described in MND	Impacts would be similar to those described for 100 MW project but would affect a smaller footprint with construction occurring over a much shorter time period

Figures

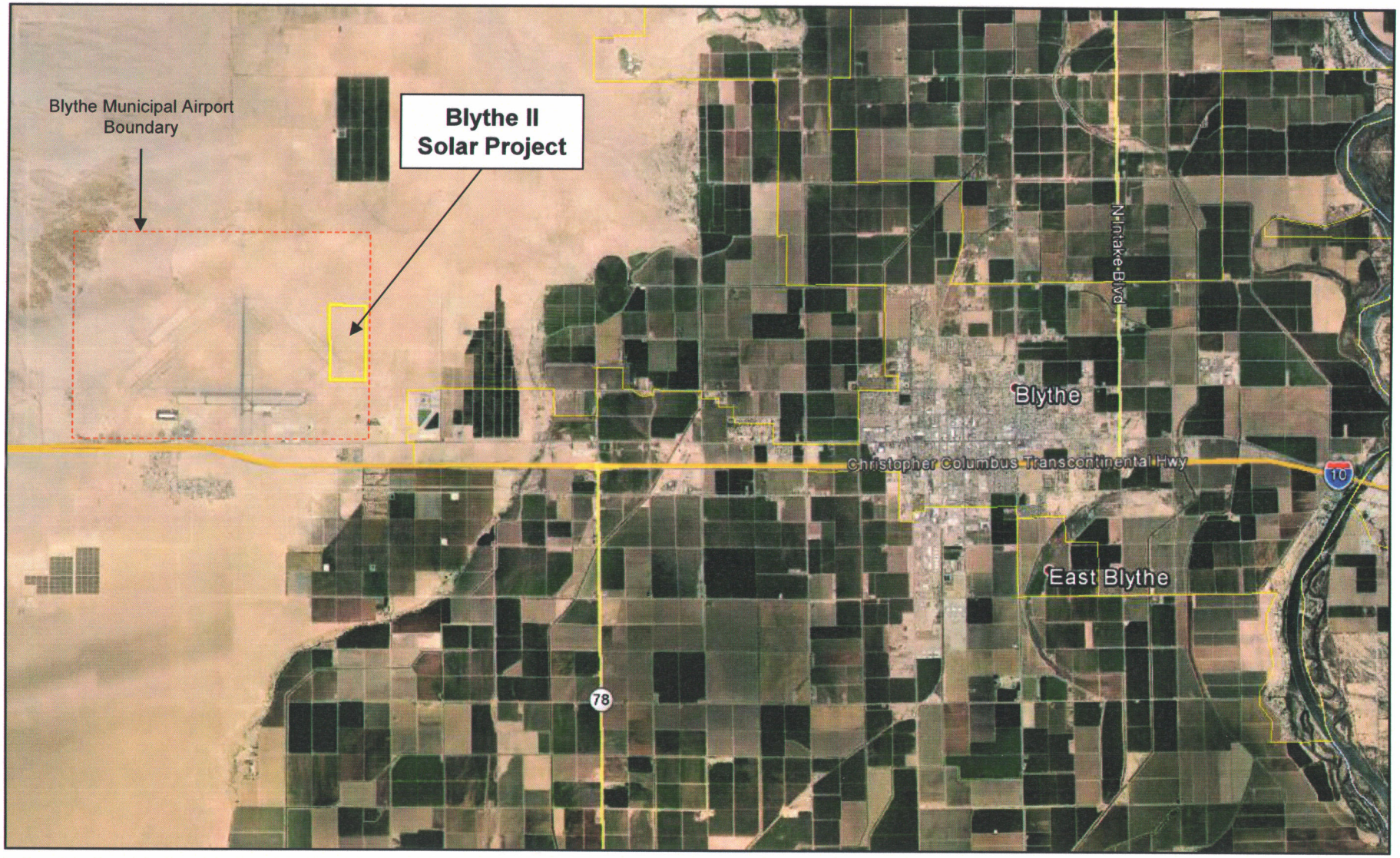
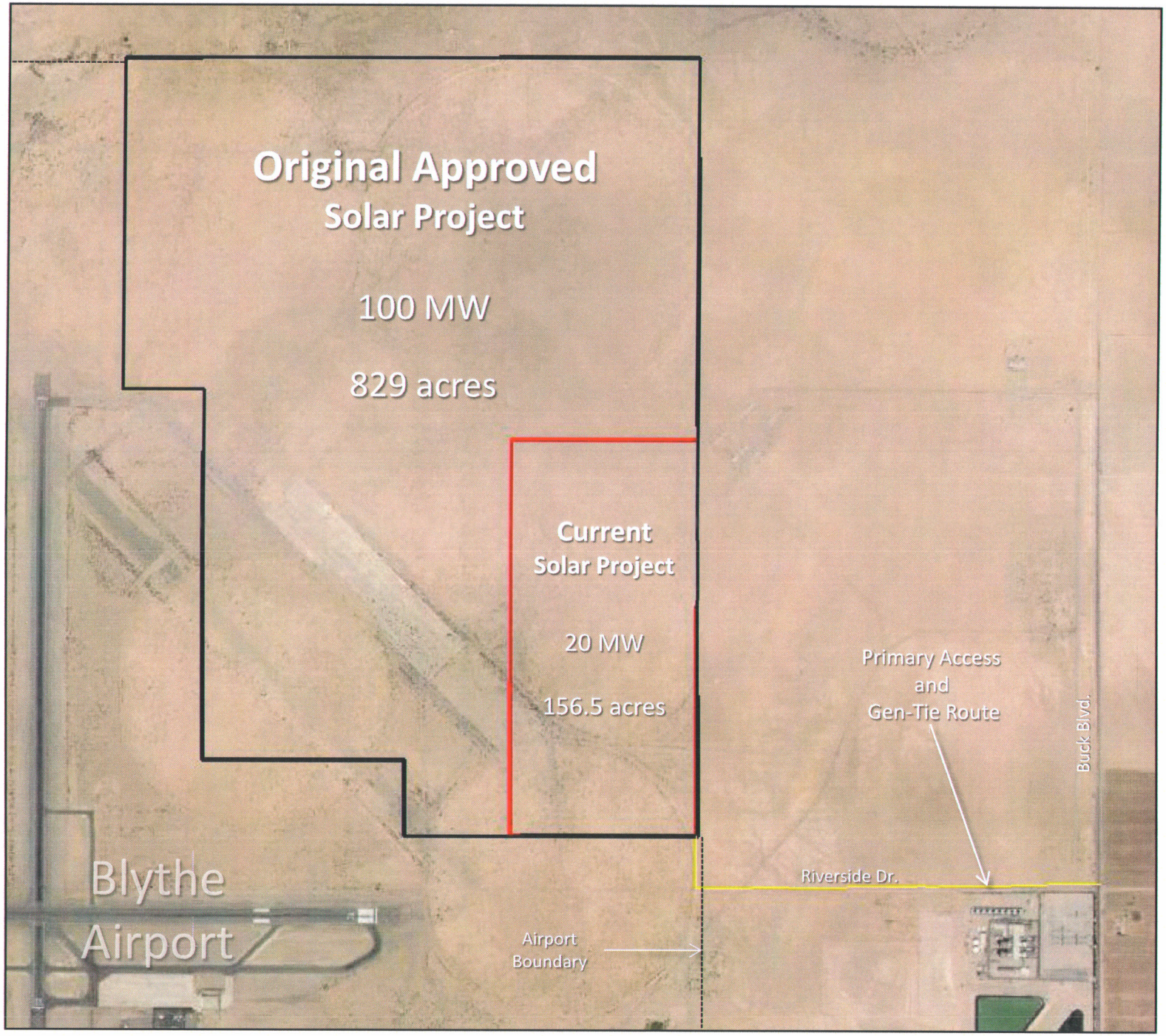


Figure 1

Blythe II Solar Project

Project Location



BLYTHE II SOLAR PROJECT

Figure 2

Comparison
of
Current 20 MW Project
vs
Originally Approved
100 MW Project

Attachments

Attachment A

Valley Fever Discussion

VALLEY FEVER
Blythe II Solar Project
Potential Risks

Background

Valley Fever (coccidioidomycosis or "cocci") is an illness caused by a fungus called *Coccidioides* which lives in the top 2 to 12 inches of soil in certain areas of California. Infection with Valley Fever results from directly inhaling spores of the fungus from soil or airborne dust. The fungus usually infects the lungs causing flu-like symptoms. Most of the time symptoms get better on their own. More severe forms of the illness are rare but can be very serious.

Valley Fever infection can occur year-round and tends to occur in areas with dry dirt and desert-like weather conditions that allow the fungus to grow. Cases of Valley Fever have been reported from most counties in California. Over 75% of reported cases have been in people who live in the San Joaquin (Central) Valley. In California, the number of reported Valley Fever cases has increased greatly since the year 2000 in part likely due to greater awareness in the medical community and changes in the definition and reporting requirements.

Anyone can get Valley Fever, including young and healthy people. People who live, work, or travel in areas with high rates of Valley Fever may be at a higher risk of breathing in spores and getting infected than others. People at additional risk include those who:

- Participate in recreational activities where dirt and soil are disturbed
- Work in jobs where dirt and soil are disturbed, including construction, farming, military work, and archaeology.

Valley Fever is not contagious and cannot be spread from one person to another. Persons at increased risk for severe disease include African-Americans, Filipinos, Hispanics, pregnant women, adults 60 years of age and older, and people with weakened immune systems. Located on the Blythe Airport, there are no residences, schools, or other sensitive areas with at risk populations located near the Blythe II Solar Project site. In Riverside County, males are three times more likely to contract the disease possibly due to increased occupational exposure from professions that require more outdoor work in dry, dusty conditions such as construction, agriculture, land development, and landscaping.

About 60 percent of people infected with Valley Fever will develop no symptoms and will fight off the infection naturally. The people who get sick usually develop a flu-like illness 1 to 3 weeks after exposure to the fungus. These symptoms can last a month or more but most people recover fully. Most people who have been infected become immune and will not get the infection again. The disease can cause severe lung problems that can result in hospitalization or death if left untreated.

Riverside County has had a relatively low to moderate incidence of Valley Fever relative to other parts of California as shown on **Figure 1** below (CDHP, 2013. In Riverside County, there have been just over three cases for every 100,000 people (Riverside County DPH 2012). The highest incidence of Valley Fever in Riverside County between 2006 and 2010 occurred in the western portion of the County as shown in **Figure 2** (Riverside County DPH, 2013). The Blythe II Solar Project is located in the eastern portion of Riverside County.

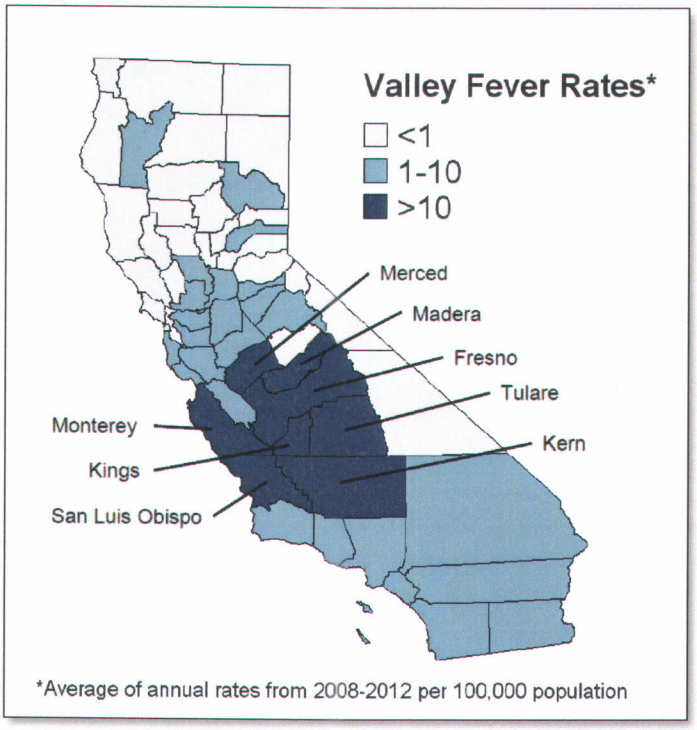


Figure 1

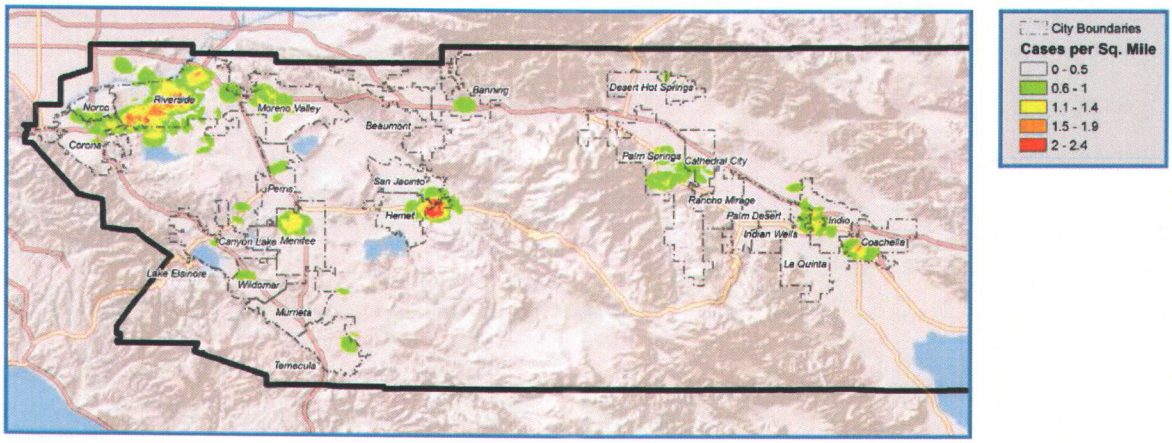


Figure 2. Valley Fever cases per square mile (hot spot analysis) Riverside County 2006-2010.

Although it can be difficult to prevent Valley Fever, the best way to reduce risk is to avoid breathing in dirt or dust in areas where Valley Fever can occur. This can be accomplished by controlling the amount of air-borne dust, increasing the awareness of workers who could be at risk, and providing personal protective equipment to workers potentially at risk (CDHP-OHB, 2014).

The Blythe II Solar Project will employ several measures to reduce fugitive dust generated by the Project. The following measures would be applied for the Project:

- **DUST CONTROL** - All necessary measures to control dust shall be implemented by the developer during grading. A PM_{10} (dust control) plan may be required at the time a grading permit is issued.

- **PREVENT DUST & BLOWSAND** - Graded but undeveloped land shall be maintained in a condition so as to prevent a dust and/or blowsand nuisance and shall be provided with wind and water erosion control measures as approved by the Building and Safety Department and the State air quality management authorities. At minimum: 1) All active areas (including haul roads) shall be watered as needed to minimize fugitive dust production in conformance with applicable regulations; and, 2) Vehicles onsite shall not travel at speeds greater than 15 miles per hour.

- **DUST CONTROL** - All active areas (including haul roads) shall be watered as needed to minimize fugitive dust production in conformance with applicable regulations. Vehicles onsite shall not travel at speeds greater than 15 miles per hour.

- **BLOWSAND & DUST CONTROL** - The permittee shall institute blowsand and dust control measures during grading and shall note or show the measures to be used on their grading plans. These measures shall include, but not be limited to:

  a) The use of water application during any construction activities;

  b) provisions that comply with the directives of the Director of the Building and Safety Department with regards to the applicable sections of Ordinance No. 484 (Blowsand Control) and Ordinance No. 742 (Control of Fugitive Dust/PM10 in Urban Areas).

- **PARKING DUST TREATMENT** - The drive aisles shall be improved with a non-toxic chemical soil stabilization (or equipvalent treatment), to prevent the emission of fugitive dust and/or blowsand.

In addition, the Project will have to comply with the applicable Mojave Desert Air Quality Management District (MDAQMD) rules, including the fugitive dust control measures as required under MDAQMD Rule 403, implementation of Project BMPs, adherence to OSHA requirements, and reducing vehicle speeds during high wind conditions.

Also, a Worker Environmental Awareness Program (WEAP) will be incorporated into the final construction requirements and would specifically address impacts associated with fugitive dust and Valley Fever among other topics. The WEAP would be implemented to ensure worker safety and minimize worker hazards during construction and operation. The program would include a personal protective equipment (PPE) program, an Emergency Action Plan (EAP), and an Injury and Illness Prevention Program (IIPP) to address health and safety issues associated with normal and unusual (emergency) conditions. Construction related safety programs and procedures would include a respiratory protection program, among other things. Construction would be undertaken sequentially in accordance with a Construction Plan that would include the final design documents, work plan, health and safety plans, permits, project schedule, and operation and maintenance manuals.

Collectively, these measures will reduce fugitive dust emissions from the project during construction and operations and will reduce the already low associated potential risk of exposure to Valley Fever.

Literature Cited

California Department of Industrial Relations (CDIR). 2015. Advice to Employers and Employees Regarding Work-related Valley Fever. http://www.dir.ca.gov/dosh/valley-fever-home.html

California Department of Public Health (CDPH). 2013. Valley Fever Fact Sheet.

CDPH, Occupational Health Branch (OHB). 2013. Preventing Work-Related Coccidioidomycosis (Valley Fever). http://www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf

Center for Infectious Diseases - Division of Communicable Disease Control – Infectious Diseases Branch, 2014. Epidemiologic Summary of Coccidioidomycosis in California, 2009 – 2012

Riverside County Department of Public Health (RCDPH). 2012. Impact of Valley Fever in Riverside County, 2006-2010. Epidemiology and Program Evaluation – Volume 6.

Attachment B

Glare Analysis

GLARE ANALYSIS

FOR

BLYTHE II PV SOLAR PROJECT

LOCATED AT THE

BLYTHE AIRPORT IN BLYTHE, CALIFORNIA

The Blythe II Solar Project is a proposed 20 MW photovoltaic (PV) solar project proposed to be located on approximately 156 acres of land at the Blythe Airport (BLH) near Blythe, California. **Figure 1** shows the location of the proposed solar project in relation to the airport and runways.

An analysis of potential glare hazards near airports is required by the Federal Aviation Administration (FAA). On October 23, 2013, the FAA published interim policy in the Federal Register for proposals by sponsors of federally obligated airports to construct solar energy systems on airport property (78-FR-63276). Airport sponsors and project proponents must comply with the procedures in this policy to demonstrate to the FAA that a proposed solar energy system will not result in an ocular impact that compromises the safety of the air transportation system at airports.

METHODOLOGY

FAA adopted the *Solar Glare Hazard Analysis Plot* shown in **Figure 2** below as the standard for measuring the ocular impact of any proposed solar energy system on an airport under FAA jurisdiction. To obtain FAA approval, the airport sponsor and proponent are required to demonstrate that the proposed solar energy system meets the following standards:

1. There would be no potential for glint or glare in the existing or planned Airport Traffic Control Tower (ATCT) cab, and
2. There would be no potential for glare or "low potential for after-image" (shown in green in Figure 2) along the final approach path for any existing landing threshold or future landing thresholds (including any planned interim phases of the landing thresholds) as shown on the current FAA-approved Airport Layout Plan (ALP). The final approach path is defined as two (2) miles from fifty (50) feet above the landing threshold using a standard three (3) degree glidepath.

Ocular impact must be analyzed over the entire calendar year in one (1) minute intervals from when the sun rises above the horizon until the sun sets below the horizon.

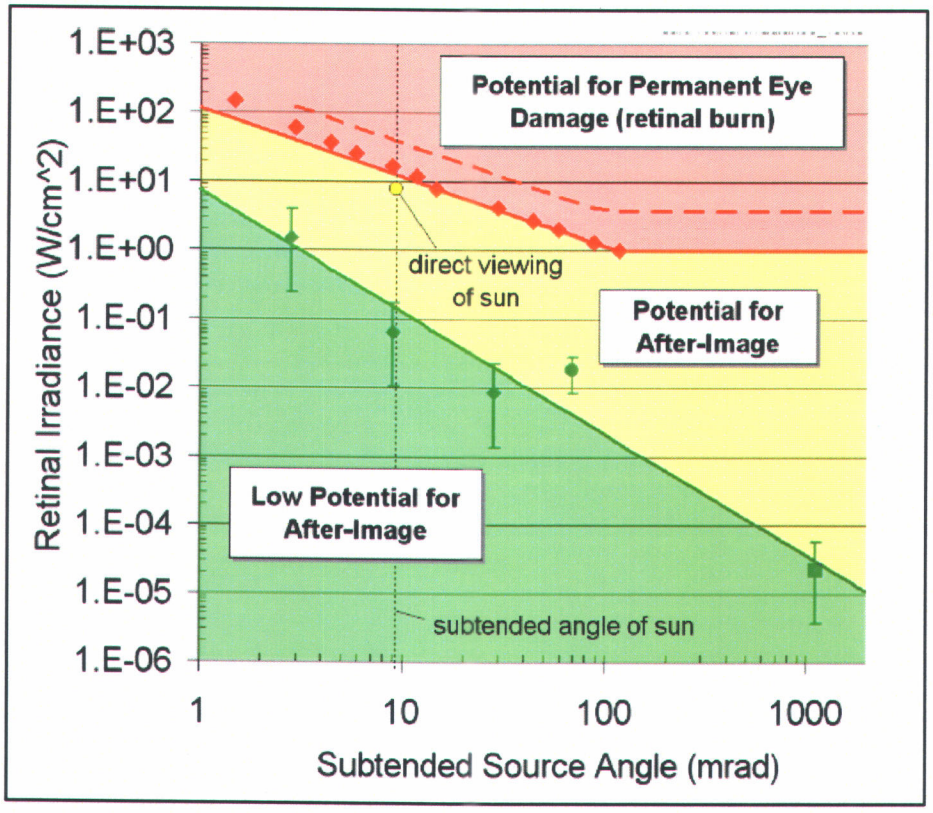


Figure 2
OCULAR HAZARD PLOT

To conduct the analysis to determine the potential for ocular impact, in cooperation with the DOE, the FAA is requiring the use of the *Solar Glare Hazard Analysis Tool* (SGHAT) developed by Sandia National Laboratories. If glare is found, the tool calculates the retinal irradiance and subtended source angle (size/distance) of the glare source to predict potential ocular hazards ranging from temporary afterimage to retinal burn. The results are presented in a simple, easy-to-interpret plot that specifies when glare will occur throughout the year, with color codes that are consistent with the hazard plot indicating the potential ocular hazard.

The SGHAT tool determines when and where solar glare can occur throughout the year from a user-specified PV array as viewed from user-prescribed observation points. The potential ocular impact from the observed glare is also determined.

The Blythe Airport does not have a control tower, so the glare hazard analysis for the Blythe II Solar Project focused on the approach path for the landing thresholds of each of the four runway approaches at the airport.

The following inputs were used to set up the SGHAT tool:

- The site layout plan for the Blythe II Solar Project (**Figure 3**) that includes PV panels with anti-reflective coating (ARC) and a single-axis tracking panel mounting system
- The six (6) outlying corners of the panel array were used to identify the geoposition of the project
- Four (4) points to identify each of the four (4) flight paths originating at the runway threshold paint bar at the end of each runway

The additional detailed inputs used in the analysis are shown on the pages of the Solar Glare Hazard Analysis Flight Path Report generated by the SGHAT tool that is included in **Attachment A**.

RESULTS

The analysis shows that glare from the Blythe II Solar Project could occur for each of the four runway approaches at the Blythe Airport but the potential glare hazard would be low (with low potential for after image) in all cases.

While the glare hazard would be low for each runway approach, the time of year, time of day, and the distances where glare could occur would be different of each runway because of its different orientation relative to the solar project. This is discussed below and shown graphically in **Attachment A**:

- Southbound Approach to BLH Runway 17 – Low intensity glare could be seen at the landing threshold and a half mile away during the late afternoon during winter months.
- Westbound Approach to BLH Runway 26 – Low intensity glare could be seen at the landing threshold during the late afternoon and at 0.75 to 2 miles in the early morning during summer months.
- Northbound Approach to BLH Runway 35 – Low intensity glare could be seen at the landing threshold and near during the late afternoon during summer months.
- Eastbound Approach to BLH Runway 8 – Low intensity glare could be seen at all approach distances during the late afternoon during summer months and during spring and fall.

CONCLUSION

The Blythe II Solar Project would generate low intensity glare. Because it will be built as a single-axis tracking project with panels that track the sun during the course of the day, the glare would be visible at any of the runway approaches at the Blythe Airport for only very short periods of time during the early morning and later afternoon and only during parts of the year. .

Because the generated glare would be of low intensity and occur for only short periods, the Blythe II Solar Project would not create a significant glare hazard to pilots landing at all runways at the Blythe Airport. Therefore, the Project would not result in an ocular impact that would compromise the safety of air traffic at the airport.

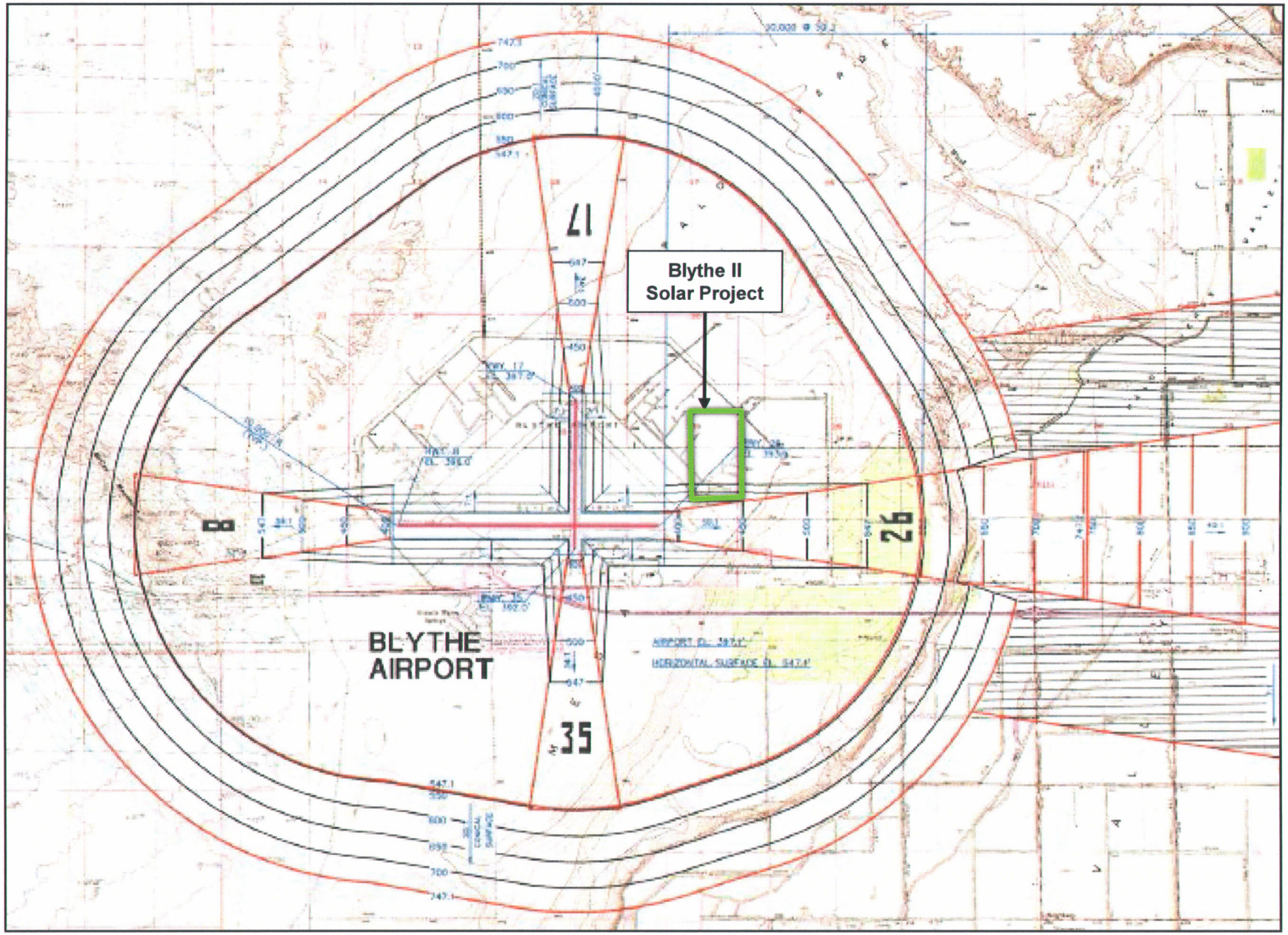


Figure 1

Blythe II Solar Project

Project Location Relative to Blythe Airport Runways

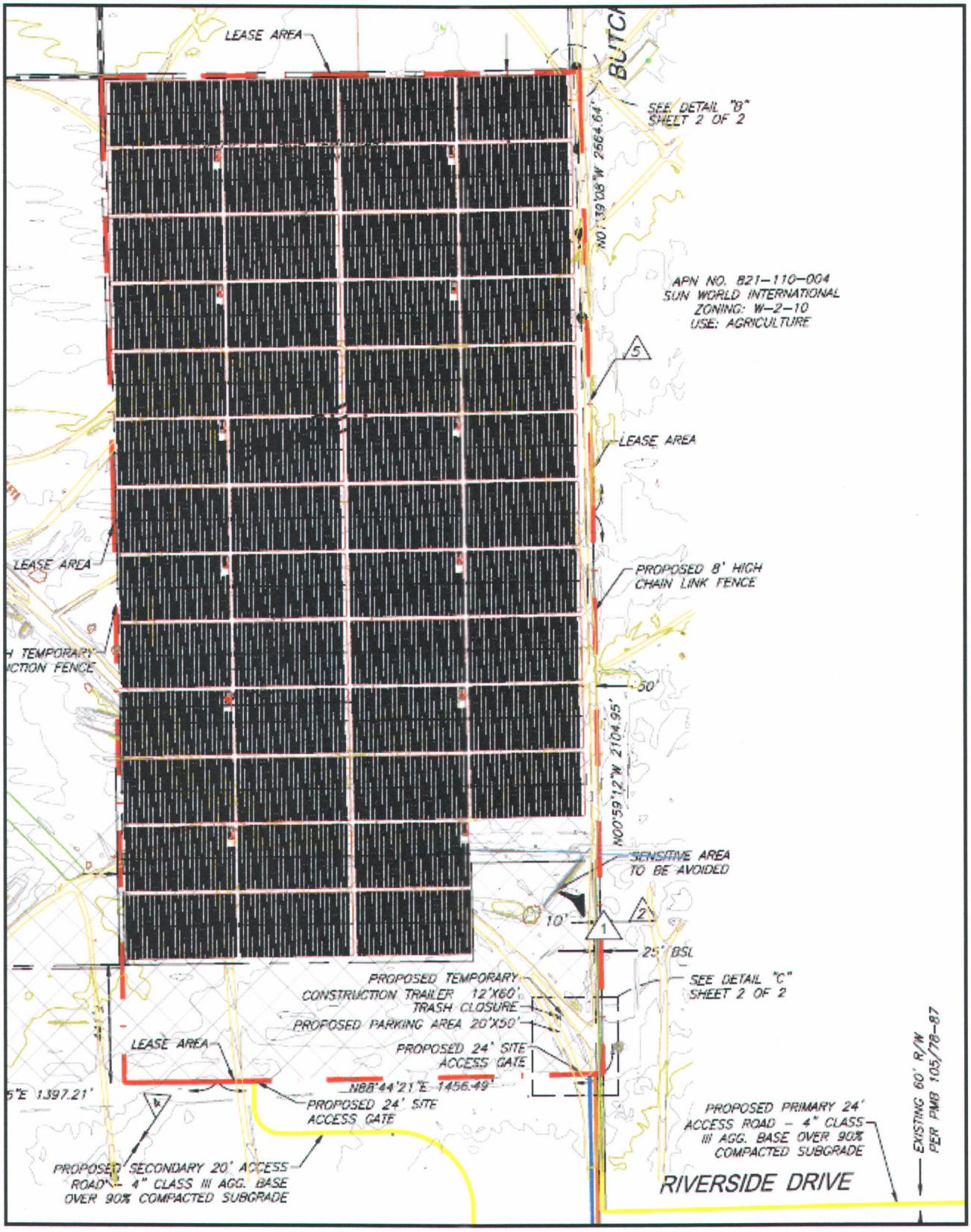


Figure 3

Blythe II Solar Project

Proposed Site Layout

ATTACHMENT 1

SOLAR GLARE HAZARD ANALYSIS FLIGHT PATH REPORT FROM SGAHT TOOL

Solar Glare Hazard Analysis Flight Path Report

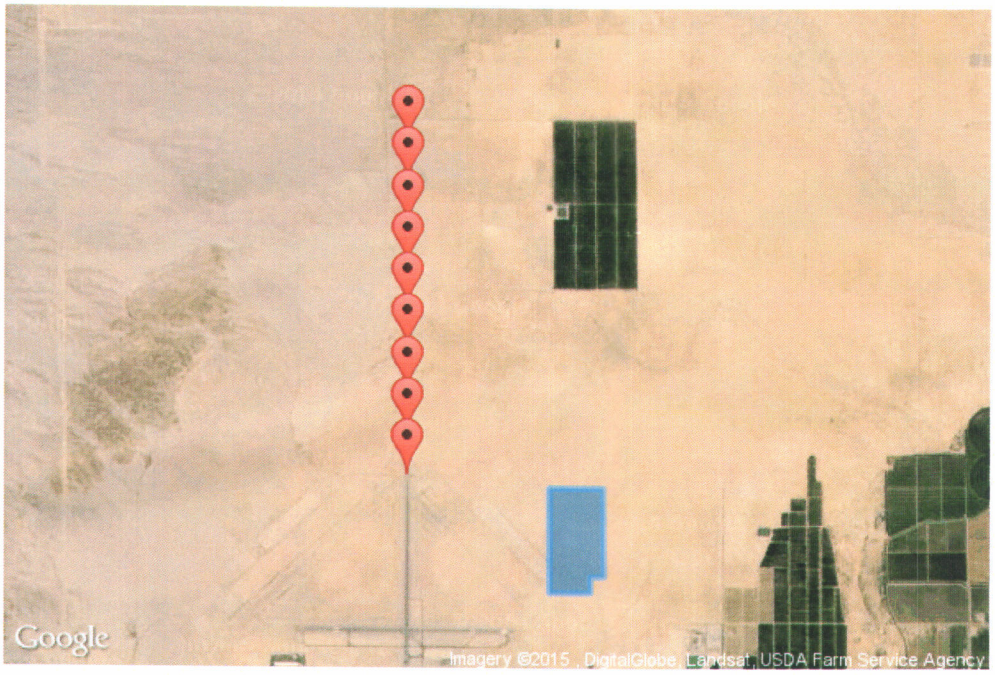
Generated April 9, 2015, 2:17 p.m.

Flight path: BLH Runway 17

Southbound Landing Approach

Glare found

Print



Analysis & PV array parameters

Analysis name	BLH Solar Site Part A
PV array axis tracking	single
Tilt of tracking axis (deg)	0.0
Orientation of tracking axis (deg)	179.0
Offset angle of module (deg)	0.0
Limit rotation angle?	True
Maximum tracking angle (deg)	90.0
Rated power (kW)	0.0
Vary reflectivity	True
PV surface material	Light textured glass with ARC

Timezone offset	-8.0
Subtended angle of sun (mrad)	9.3
Peak DNI (W/m^2)	1000.0
Ocular transmission coefficient	0.5
Pupil diameter (m)	0.002
Eye focal length (m)	0.017
Time interval (min)	1
Correlate slope error with material	False
Slope error (mrad)	10.0

Flight path parameters

Direction (deg)	180.0

Glide slope (deg)	3.0
Consider pilot visibility from cockpit	True
Max downward viewing angle (deg)	30.0
Azimuthal viewing angle (deg)	180.0

PV array vertices

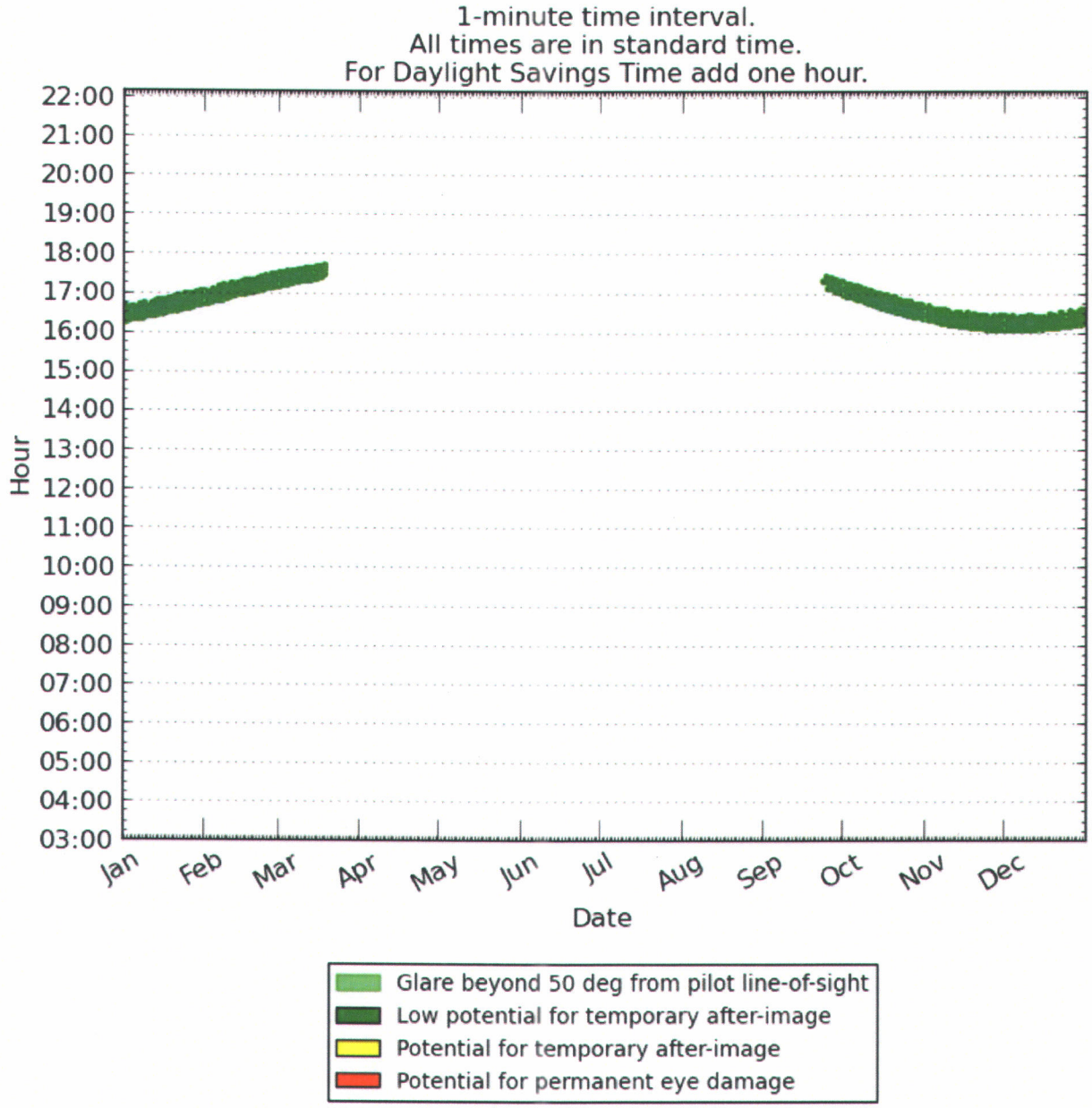
id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
1	33.619921217	-114.69771	391.82	6.0	397.82
2	33.62131	-114.69772	392.07	6.0	398.07
3	33.62133	-114.69629	391.61	6.0	397.61
4	33.62897	-114.69639	393.61	6.0	399.61
5	33.62896	-114.70204	395.25	6.0	401.25
6	33.61991	-114.70198	393.62	6.0	399.62

Flight Path Observation Points

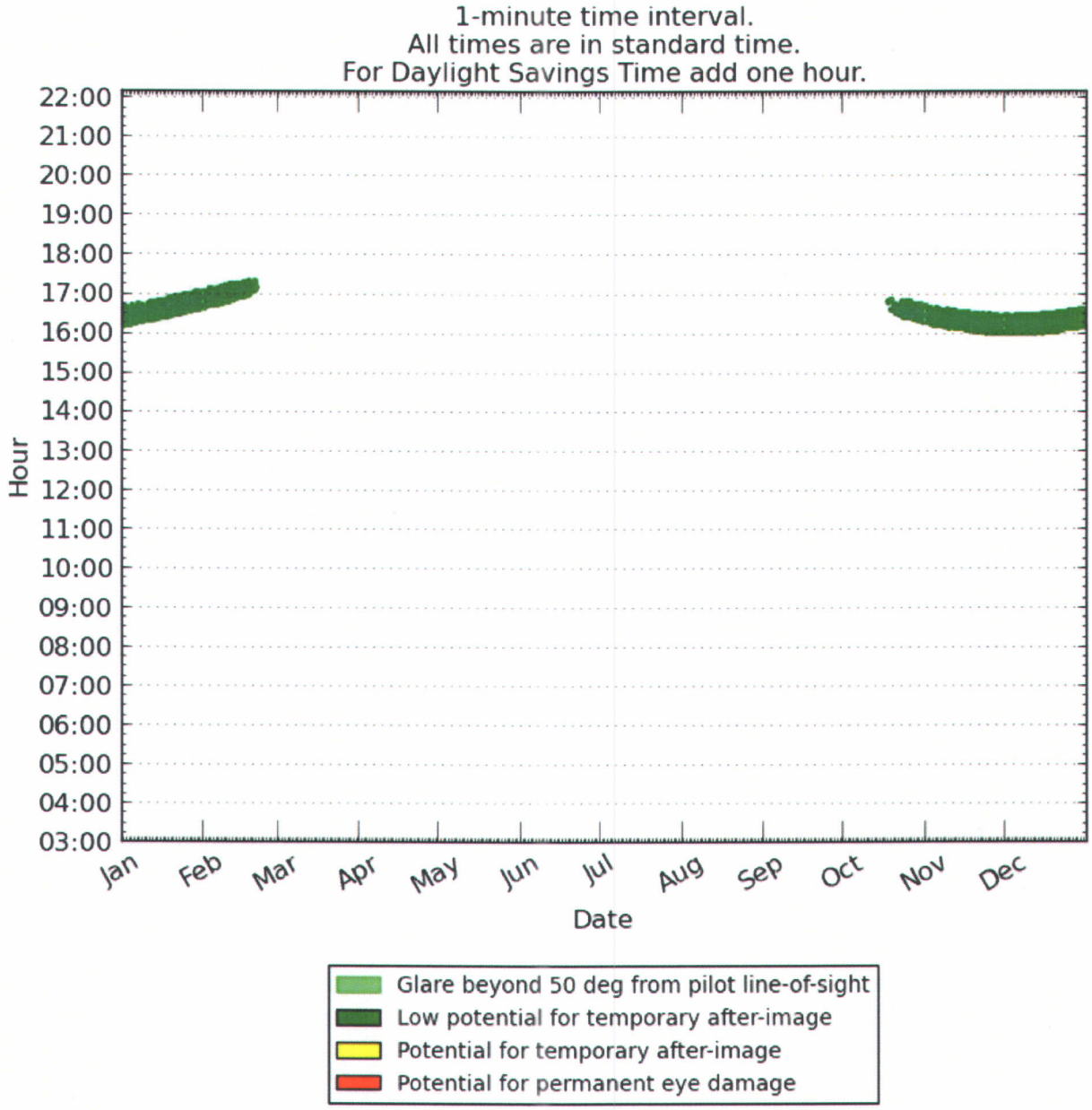
	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Eye-level height above ground (ft)	Glare?
Threshold	33.6300193543	-114.716752142	397.55	50.0	Yes
1/4 mi	33.6336330978	-114.716752142	397.22	119.5	Yes
1/2 mi	33.6372468414	-114.716752142	399.19	186.72	Yes
3/4 mi	33.6408605849	-114.716752142	401.63	253.46	No
1 mi	33.6444743285	-114.716752142	404.77	319.49	No
1 1/4 mi	33.648088072	-114.716752142	407.09	386.35	No
1 1/2 mi	33.6517018156	-114.716752142	410.47	452.15	No
1 3/4 mi	33.6553155591	-114.716752142	414.41	517.4	No
2 mi	33.6589293027	-114.716752142	418.02	582.96	No

Glare occurrence plots

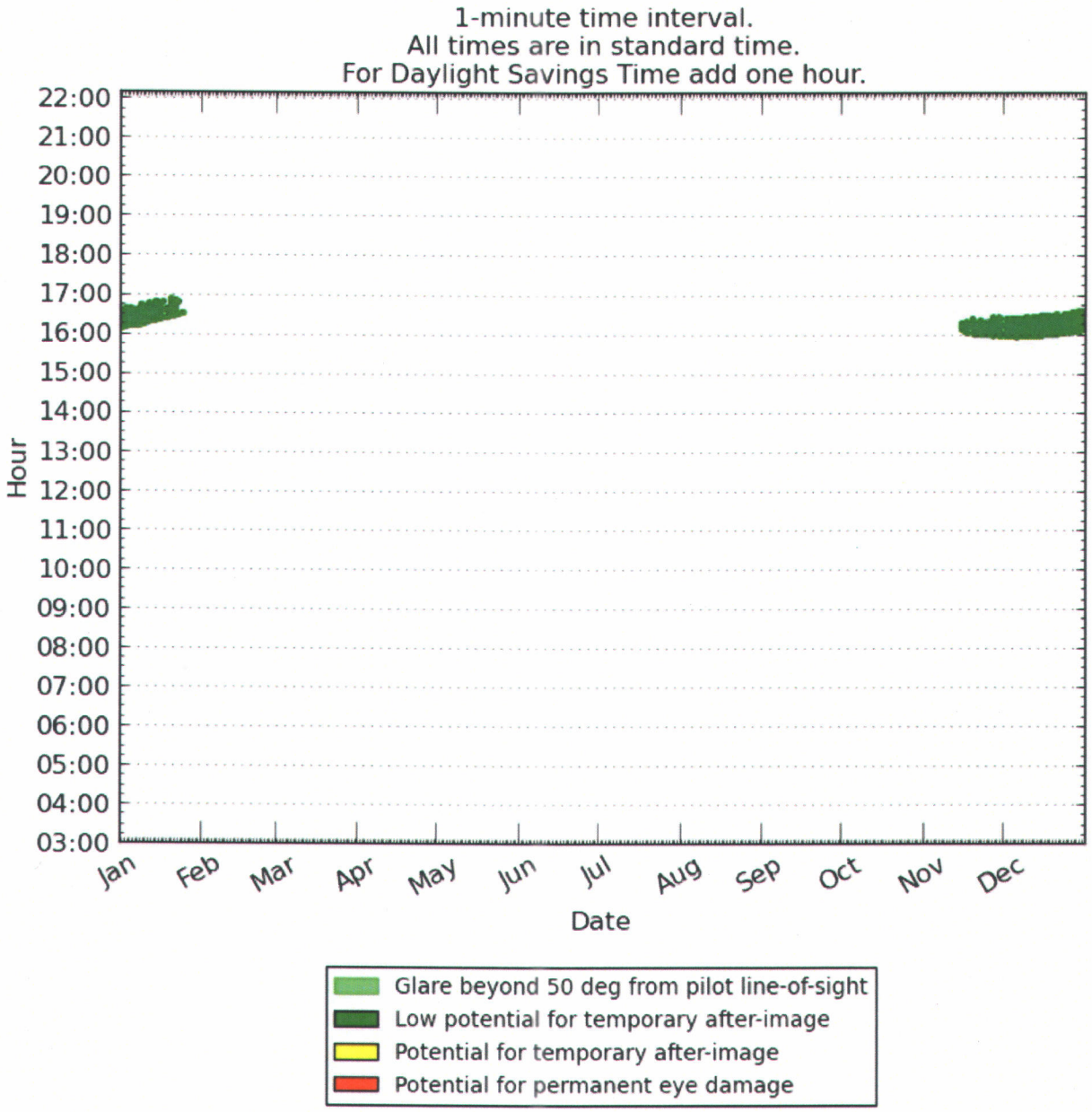
Threshold


1-minute time interval.
All times are in standard time.
For Daylight Savings Time add one hour.
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
13:00
12:00
11:00
10:00
09:00
08:00
07:00
06:00
05:00
04:00
03:00
Hour
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Date
Glare beyond 50 deg from pilot line-of-sight
Low potential for temporary after-image
Potential for temporary after-image
Potential for permanent eye damage

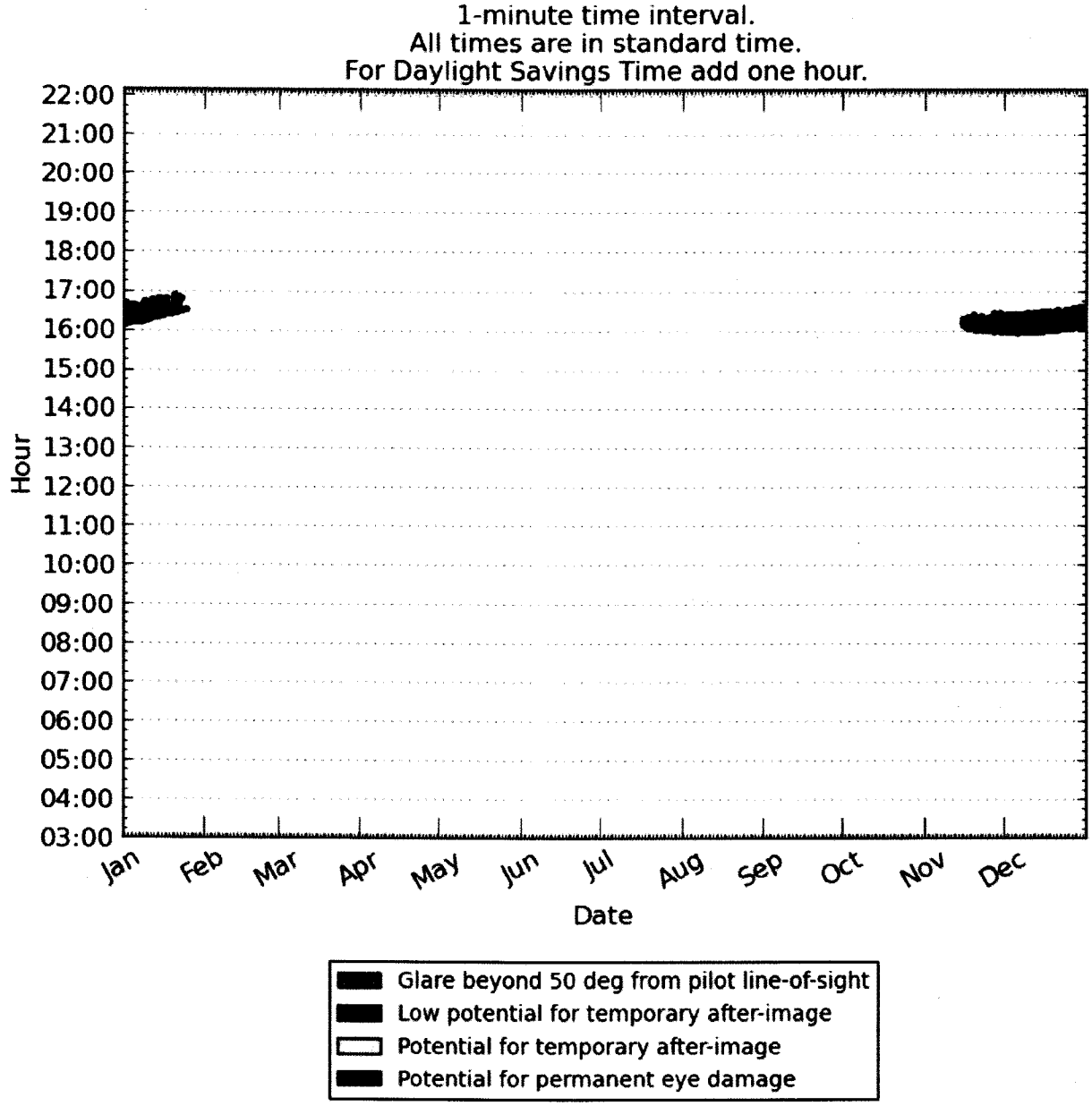
1/4 mi


1-minute time interval.
All times are in standard time.
For Daylight Savings Time add one hour.
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
13:00
12:00
11:00
10:00
09:00
08:00
07:00
06:00
05:00
04:00
03:00
Hour
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Date
Glare beyond 50 deg from pilot line-of-sight
Low potential for temporary after-image
Potential for temporary after-image
Potential for permanent eye damage

1/2 mi


1-minute time interval.
All times are in standard time.
For Daylight Savings Time add one hour.
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
13:00
12:00
11:00
10:00
09:00
08:00
07:00
06:00
05:00
04:00
03:00
Hour
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Date
Glare beyond 50 deg from pilot line-of-sight
Low potential for temporary after-image
Potential for temporary after-image
Potential for permanent eye damage

1/2 mi


1-minute time interval.
All times are in standard time.
For Daylight Savings Time add one hour.
22:00
21:00
20:00
19:00
18:00
17:00
16:00
15:00
14:00
13:00
12:00
11:00
10:00
09:00
08:00
07:00
06:00
05:00
04:00
03:00
Hour
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Date
Glare beyond 50 deg from pilot line-of-sight
Low potential for temporary after-image
Potential for temporary after-image
Potential for permanent eye damage

3/4 mi

No glare