County of Yolo

PLANNING AND PUBLIC WORKS DEPARTMENT

John Bencomo
DIRECTOR

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PLANNING COMMISSION STAFF REPORT **OCTOBER 27, 2011**

FILE #2010-0039: Use Permit for a single large wind turbine that would generate one megawatt of electricity to power the aggregate mining activities of CEMEX mining operations.

APPLICANT:	**OWNER:**
Matt Wilson Foundation Windpower 200 Middlefield Road Menlo Park, CA 94025	United Metro Materials (CEMEX) 30288 State Highway 16 Madison, CA 95653
LOCATION: The project site is located at 30288 State Highway 16, just east of Interstate I-505 near the town of Madison (Attachment A) **GENERAL PLAN:** Agriculture (AG) **ZONING:** Agricultural General (A-1)/Sand and Gravel Combining Zone **FIRE SEVERITY ZONE:** None	**SUPERVISORIAL DISTRICT:** 5 (Supervisor Chamberlain) **FLOOD ZONE:** X (area outside the 100-year flood plain) **SOILS:** Sycamore silt loam (So), a prime Class II soil.
ENVIRONMENTAL DETERMINATION: Negative Declaration	
REPORT PREPARED BY: Eric Parfrey, Principal Planner	**REVIEWED BY:** David Morrison, Assistant Director

RECOMMENDED ACTIONS

That the Planning Commission:

1. Hold a public hearing and receive comments;

2. Adopt the Initial Study/Negative Declaration prepared for the proposed project in accordance with the California Environmental Quality Act (CEQA) and Guidelines (Attachment E**)**;

3. Adopt Findings for the Use Permit (Attachment F; and

4. Approve the Use Permit in accordance with the Conditions of Approval (Attachment G).

REASONS FOR RECOMMENDED ACTIONS

The proposed Use Permit is consistent with policies in the Yolo County 2030 Countywide General Plan and Climate Action Plan that encourage expanded capacity and reliance on renewable energy resources in order to promote greenhouse gas emission reductions and reduce the potentially adverse effects of climate change. The project is consistent with the existing zoning (Agricultural General (A-1)/Sand and Gravel Combining Zone) and is consistent with Section 8-2.2418 of the Yolo County Code, which regulates the placement of wind energy structures.

BACKGROUND

The application is a request for a Use Permit to construct a single large wind turbine that would generate one megawatt of electricity, to be used to power the aggregate mining activities of CEMEX, one of several aggregate producers located along Cache Creek. The CEMEX site is located at 30288 State Highway 16, just east of Interstate I-505 near the town of Madison (Attachment A). The proposed wind turbine would be constructed on the southeast quadrant of a 76.5-acre property, which is one of several adjacent parcels owned by CEMEX (APN: 049-070-005) (Attachment B).

The project will require construction of the foundation, turbine, transmission line, transformers, electrical switchgear and access road as illustrated in Attachments B and C. The foundation for the turbine consists of a 15-foot diameter by 30-foot deep pier type foundation. The total land area required for the foundation, transformer, and electrical panels is approximately 800 square feet (0.018 acre). The access road will permanently remove an estimated 1,800 square feet (0.041 acres, for a total of 0.059 acre of annual grassland/weedy vegetation removed by the project.

Approximately 1,100 feet of below grade 12.47 kV transmission line will be constructed from the transformer pad of the proposed wind turbine to the point of electrical connection with the existing CEMEX aggregate production facility, as shown on Attachment C.

The proposed wind turbine measures 181 feet to the hub of the turbine, and a total of 335 feet above the ground to the tip of the turbine blade at the twelve o'clock position (Attachment D).

Construction of the wind turbine will occur in two phases. The first phase is site preparation and foundation construction. This requires an excavation depth of up to approximately 30 feet from the surface to construct a foundation approximately 15 feet in diameter. The installation of electrical equipment, underground conductors, and transformers is also installed during this time. The first phase of construction lasts approximately two weeks followed by at least 30 days of no activity to allow sufficient time for the foundation's concrete to cure.

The second phase of construction involves the delivery and assembly of the tower, rotor, nacelle, and transformer. Each piece will be shipped and assembled on site with the use of cranes. The turbine components will be delivered to the site over existing gravel roads. Then associated electrical work is performed to connect the wind turbine generator to the transformer and transmission line. The transmission line will run underground and this phase of work will take approximately four weeks. Construction activities will employ approximately 35 employees and will generate 35 total truck loads over the entire two to three month construction period.

The wind turbine will be owned and operated by Foundation Windpower through a long term power purchase agreement and site lease with CEMEX. Operations and maintenance functions for the wind turbine will be contracted to a private entity in the turbine operation and maintenance business. Typically this is the turbine manufacturer, or their direct representative, who is intimately familiar with the machine.

The wind turbine operates on an automatic basis whenever sufficient wind is present at a maximum 24 hours per day, seven days per week. The system is expected to have an operational lifespan of at least 20 years and may be operational for more than 30 years.

STAFF ANALYSIS

Under Yolo County Code Section 8-2.2418.3, commercial wind turbines are permitted in the Agricultural General (A-1) zoning district, provided a Use Permit is first obtained. The project is defined as a "large wind energy system" because of its height and the amount of energy generated. Section 8-2.2418.5 sets numerous design standards for large wind energy systems. Applications for large wind energy systems must meet all of the listed standards and any Major Use Permit issued for such systems shall be conditioned to meet the standards, unless findings of fact to justify a waiver of any of the standards are adopted by the Planning Commission.

The proposed wind turbine meets all of the standards, as noted in the Findings (Attachment F), except for the setback requirement from the nearest property line. The proposed turbine is located approximately 87 feet from the nearest property line to the east. The distance does not conform to the requirement that the setback be one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is less. This setback is established to ensure that adjacent property owners are not affected should the turbine fall down.

Under Section 8-2.2418.5.(c).(4) of the County Code, the Planning Commission may allow a reduction or waiver of the setback, if the project exterior boundary is a common property line between two or more approved wind energy projects and the property owner of each affected property has filed a letter of consent to the proposed setback reduction with the county. Although there is not an approved wind power project on the adjoining parcel, the applicant has filed a letter providing such consent and agreeing that it would not unreasonably object to potential wind power development of the adjoining parcel in the future. Staff believes that this letter meets the intent of the County Code. Consequently, staff recommends that the Planning Commission finds that this setback be decreased from 500 feet to 87 feet.

Section 2814.5.(a) of the County Code states that large wind towers shall not be located within 500-feet of any wetlands, staging areas, wintering areas, bat roosts, or rookeries documented as supporting birds or bats listed as endangered or threatened species under the federal or California Endangered Species Acts. The proposed turbine would be located approximately 420 feet from the streambed of Cache Creek. However, the turbine would not be located within 500 feet of any known sites supporting endangered or threatened species and is consistent with this requirement.

Aesthetics

Several photo simulations have been prepared by the applicant to illustrate how the wind turbine would appear on the horizon from various vantage points (see Figure 5 in the Initial Study/Mitigated Negative Declaration, Attachment E). According to the analysis contained in the Initial Study/Mitigated Negative Declaration, the turbine is located in a very rural area heavily disturbed with mining and excavation activities. There are 230 kV high tension electrical transmission lines located 0.5 miles to the west that are approximately 90 feet in height. In addition, there are 500 kV towers 1.1 miles to the east of the proposed site that are about 150 feet in height. The photo

simulations prepared for the project indicate that the turbine as seen by passing motorists from the nearby roadways (I-505 freeway, State Route 16, and County Road 19) will appear as a very faint white image on the horizon. These roads are between one and two miles from the turbine site.

Biological Resources

Biological impacts have been discussed extensively in the Initial Study/Mitigated Negative Declaration. The total land area required for the foundation, transformer and electrical panels is approximately 800 square feet (0.018 acre). The access road will permanently remove an estimated 1,800 square feet (0.041 acres, for a total of 0.059 acre of annual grassland/weedy vegetation removed by the project. Thus, an additional 4,400 square feet (estimated 1,100 feet long by 4 feet wide) (0.1 acre) of annual grassland and ruderal vegetation would be temporarily disturbed during installation of the underground transmission line.

With the possible exception of one walnut tree, the project will not remove any trees or shrubs. The turbine pad is sited in an open area, and while surrounded by trees, the only vegetation removed will be grassland/weedy vegetation. One walnut tree on the south side of the proposed turbine site may interfere with construction and could potentially be removed.

According to the biological report prepared for the Initial Study/Mitigated Negative Declaration (Estep, 2011), two protected bird species, bank swallows and Swainson's hawks, may be affected by the project.

Bank swallows are known to occur in the vicinity of the proposed project, and the nearest active nesting colony is approximately one mile east of the proposed turbine location. The average altitude of foraging bank swallows is 15 meters (49 feet) over open ground up to a maximum of 33 meters (108 feet). The height of the proposed turbine from ground to rotor tip is 38.3 meters (126 feet). This information, along with the current distance to the active colony site, suggests that the potential for collision mortality of bank swallows is very low.

Nesting Swainson's hawks occur in the vicinity of the project and regularly fly at the altitude of the rotor swept area. While there are no reported Swainson's hawk nests in the quarry or in the immediate vicinity of the proposed project, there are at least twenty reported nests within five miles of the project site. According to the Estep report, while the potential for collision-related Swainson's hawk mortality may not reach the level of biological significance, any mortality of a Swainson's hawk from collision with the wind turbine may constitute a take pursuant to the state endangered species act. A mitigation measure and Condition of Approval of the project requires the applicant to consult with the California Department of Fish and Game (DFG) pursuant to Section 2080 et seq. of the Fish and Game Code to evaluate the need to provide for incidental take of Swainson's hawk. If DFG requires an incidental take permit as a result of the consultation, the applicant shall obtain the permit prior to commencing operation of the facility.

Additional mitigation measures and Conditions of Approval have also been required to reduce potential impacts to raptor nests, burrowing owls, and elderberry beetle.

SUMMARY OF AGENCY COMMENTS

An Initial Study/Mitigated Negative Declaration was prepared to analyze the environmental issues related to the project. The IS/MND was circulated through the State Clearinghouse for 30 days for public review from September 27, 2011 through October 27, 2011. Public notices of the availability of the IS/MND were mailed to all property owners within at least 2,000 to 3,000 feet.

At the time of this report, staff has not received any comments from State or other agencies, or from any nearby property owners in opposition to the proposed project.

The project was referred to the Madison Citizens Advisory Committee, which will hold a special meeting on October 26 to review the item. Staff will report the results of the committee meeting verbally to the Commission.

APPEALS

Any person who is dissatisfied with the decisions of this Planning Commission may appeal to the Board of Supervisors by filing with the Clerk of the Board of Supervisors within **fifteen (15) days** from the date of the action. A written notice of appeal specifying the grounds for appeal and an appeal fee immediately payable to the Clerk of the Board must be submitted at the time of filing. The Board of Supervisors may sustain, modify, or overrule this decision.

ATTACHMENTS

A: Location Map
B: Site Plan for Proposed Wind Turbine
C: Alignment of the Proposed Transmission Line
D: Wind Turbine Specifications
E: Initial Study/Negative Declaration
F: Findings for Use Permit
G: Conditions of Approval for Use Permit

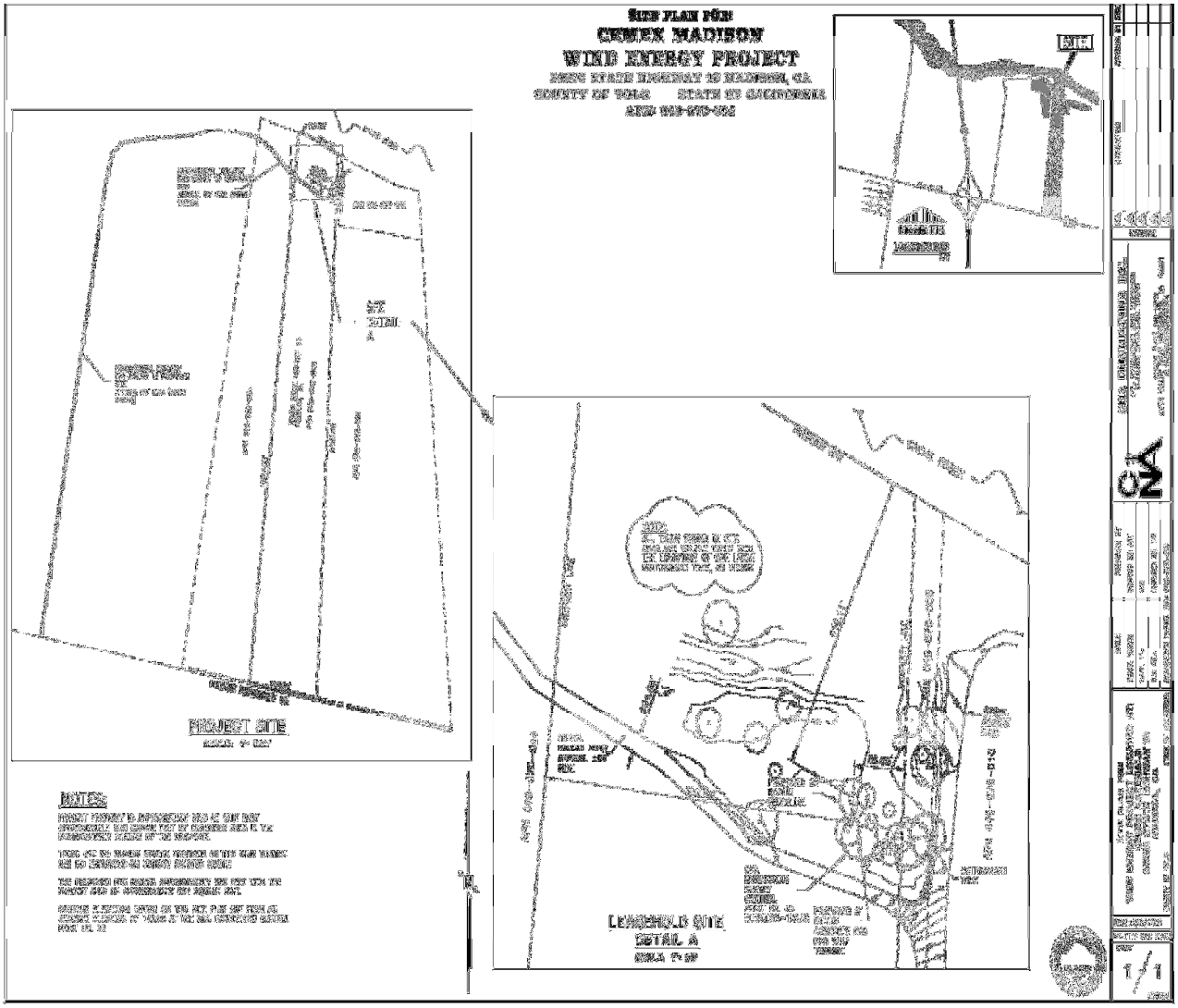
ATTACHMENT A

VICINITY MAP

Figure 2
CEMEX Wind Energy Generation Project Site Map

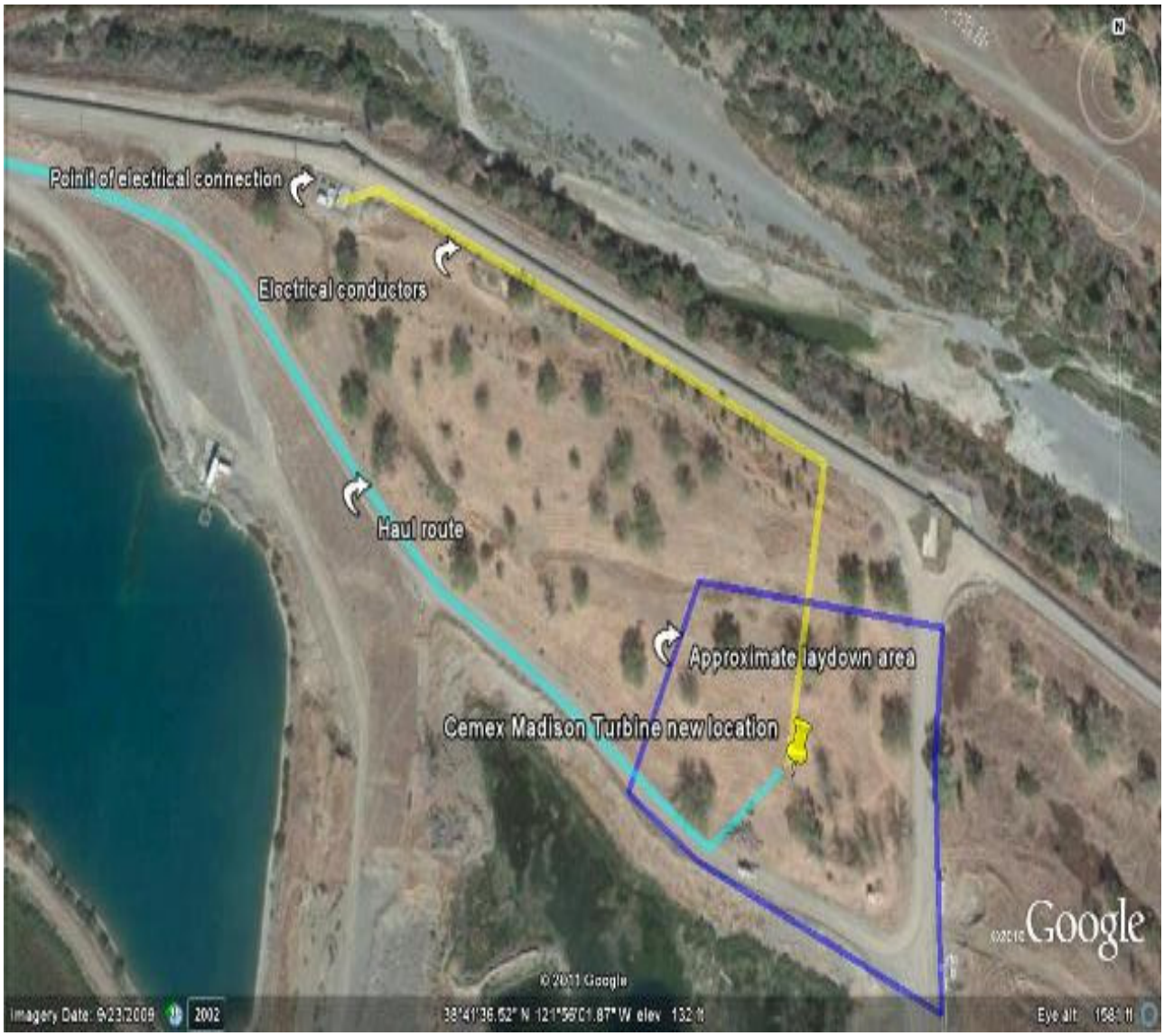
ATTACHMENT B

SITE PLAN



ATTACHMENT C

ALIGNMENT OF THE PROPOSED TRANSMISSION LINE



ATTACHMENT D

TURBINE SPECIFICATIONS

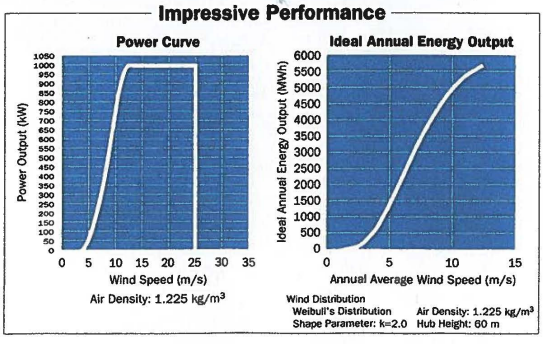
MITSUBISHI WIND TURBINE GENERATOR

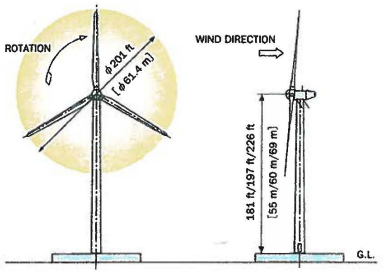
MWT62/1.0 (MWT-1000A)

Technical Data

Operation Data	
Rated Power	1000 kW
Hub Height	55 m/60 m/69 m
Power Regulation	Blade-Pitch Control
Cut-in Wind Speed	3.0 m/s
Rated Wind Speed	12.5 m/s
Cut-out Wind Speed	25 m/s (10 min. Ave.), 30 m/s (Instantaneous)
Survival Wind Speed	60 m/s
Yaw System	Active
Rotor	
Number of Blades	3
Material	GFRP
Diameter	61.4 m
Swept Area	2,960 m²
Rotational Speed	19.8 rpm
Gearbox	
Type	3 Stage (1 Planetary, 2 Parallel)
Gear Ratio	1:92/1:76 (60 Hz/50 Hz)
Generator	
Type	Induction Generator (4 Pole Type)
Voltage	600 V/690 V (60 Hz/50 Hz)
Frequency	60 Hz/50 Hz
Rated Speed	1,800 rpm/1,500 rpm (60 Hz/50 Hz)
Grid Connection of Generator	Soft Starter
Safety System — Brake	
Aerodynamic Brake	Blade Feathering
Mechanical Brake	Disk Brake (High Speed Shaft)
Tower	
Type	Taper Monopole 55 m (2 section type) 60 m (3 section type) 69 m (3 section type)

Impressive Performance





MITSUBISHI HEAVY INDUSTRIES, LTD.

ATTACHMENT E

IS/ND

YOLO COUNTY
PLANNING & PUBLIC WORKS DEPARTMENT

INITIAL STUDY/ NEGATIVE DECLARATION
ZONE FILE # 2011-002

CEMEX FOUNDATION WINDPOWER USE PERMIT

September, 2011

Initial Environmental Study/Negative Declaration

1. Project Title: Zone File #2011-0039 (CEMEX/Foundation Windpower Turbine)

2. Lead Agency Name and Address:
Yolo County Planning and Public Works Department
292 West Beamer Street
Woodland, CA 95695

3. Contact Person, Phone Number, E-Mail:
Eric Parfrey, Principal Planner
(530) 666-8043
eric.parfrey @yolocounty.org

4. Project Location: The project is located along Cache Creek at 30288 State Highway 16, just east of Interstate I-505 near the town of Madison

5. Project Sponsor's Name and Address:
Matt Wilson
Foundation Windpower
200 Middlefield Road
Menlo Park, CA 94025

6. Owner:
United Metro Materials (CEMEX)
30288 State Highway 16
Madison, CA 95653

7. General Plan Designation(s): Agriculture/Mineral Resource Overlay

8. Zoning: Agricultural General (A-1)/Sand and Gravel Combining Zone

9. Project Summary: See attached summary on following pages

10. Surrounding Land Uses and Setting:

Relation to Project	Land Use	Zoning	General Plan Designation
Project Site	Aggregate mining and processing	Agricultural General (A-1)/ Sand and Gravel Combining Zone	Agriculture/Mineral Resource Overlay
North	Agricultural row crops	Agricultural Preserve (A-P)/ Sand and Gravel Combining Zone	Agriculture Mineral Resource Overlay
South	Agricultural row crops	Agricultural Preserve (A-P)	Agriculture
East	Aggregate mining and processing	Agricultural Preserve (A-P)/ Sand and Gravel Combining Zone	Agriculture/Mineral Resource Overlay

WEST	AGGREGATE MINING AND PROCESSING	AGRICULTURAL GENERAL (A-1)/ SAND AND GRAVEL COMBINING ZONE	AGRICULTURE/MINERAL RESOURCE OVERLAY

10. Other public agencies whose approval is required: Yolo County Public Works Division; Yolo County Building Division; California Natural Resources Agency, Department of Conservation; Federal Aviation Administration

11. Other Project Assumptions: The Initial Study assumes compliance with all applicable State, Federal, and Local Codes and Regulations including, but not limited to, County of Yolo Improvement Standards, the California Building Code, the State Health and Safety Code, and the State Public Resources Code.

Project Description

The proposed project is a single large wind turbine that would generate one megawatt of electricity, to be used to power the aggregate mining activities of CEMEX, one of several aggregate producers located along Cache Creek. The CEMEX site is located at 30288 State Highway 16, just east of Interstate I-505 near the town of Madison (Figure 1). The proposed wind turbine would be constructed on the southeast quadrant of a 76.5-acre property, which is one of several adjacent parcels owned by CEMEX (APN: 049-070-005) (Figure 2).

The wind turbine project will require approval of a Major Use Permit as described in Yolo County Code Section 8-2.2418 (Small and Large Wind Energy Systems). The application and proposed design of the project is consistent with the requirements of the Code section.

The project will require construction of the foundation, turbine, transmission line, transformers, electrical switchgear and access road as illustrated in Figures 2 and 3. The foundation for the turbine consists of a 15-foot diameter by 30-foot deep pier type foundation. The total land area required for the foundation, transformer and electrical panels is approximately 800 square feet (0.018 acre).

The access road will permanently remove an estimated 1,800 square feet (0.041 acres, for a total of 0.059 acre of annual grassland/weedy vegetation removed by the project. Approximately 1,100 feet of below grade 12.47 kV transmission line will be constructed from the transformer pad of the proposed wind turbine to the point of electrical connection with the existing CEMEX aggregate production facility, as shown on Figure 3. Thus, an additional 4,400 square feet (estimated 1,100 feet long by 4 feet wide) (0.1 acre) of annual grassland and ruderal vegetation would be temporarily disturbed during installation of the underground transmission line.

With the possible exception of one walnut tree, the project will not remove any trees or shrubs. The turbine pad is sited in an open area, and while surrounded by trees, the only vegetation removed will be grassland/weedy vegetation. One walnut tree on the

south side of the proposed turbine site may interfere with construction and could potentially be removed.

The proposed wind turbine measures 181 feet to the hub of the turbine, and a total of 335 feet above the ground to the tip of the turbine blade at the twelve o'clock position (Figure 4).

Construction of the wind turbine will occur in two phases. The first phase is site preparation and foundation construction. This requires an excavation depth of up to approximately 30 ft. from the surface to construct a foundation approximately 15 ft. in diameter. The installation of electrical equipment, underground conductors, and transformers is also installed during this time. The first phase of construction lasts approximately 2 weeks followed by at least 30 days of no activity to allow sufficient time for the foundation's concrete to cure.

The second phase of construction involves the delivery and assembly of the tower, rotor, nacelle and transformer. Each piece will be shipped and assembled on site with the use of cranes. The turbine components will be delivered to the site over existing gravel roads. Then associated electrical work is performed to connect the wind turbine generator to the transformer and transmission line. The transmission line will run underground and this phase of work will take approximately 4 weeks.

The two phases of construction described above may be separated by as many as 3 months due to the variability in delivery schedule of the wind turbine equipment. During both phases all construction vehicles and equipment will be staged onsite and will not require street closures.

Construction activities will employ approximately 35 employees and will generate 35 total truck loads over the entire two to three month construction period.

The wind turbine will be owned and operated by Foundation Windpower through a long term power purchase agreement and site lease with CEMEX. Operations and maintenance functions for the wind turbine will be contracted to a private entity in the turbine operation and maintenance business. Typically this is the turbine manufacturer, or their direct representative, who is intimately familiar with the machine.

The wind turbine operates on an automatic basis whenever sufficient wind is present at a maximum 24 hours per day, seven days per week. The system is expected to have an operational lifespan of at least 20 years and may be operational for more than 30 years.

Several photo simulations have been prepared by the applicant to illustrate how the wind turbine would appear on the horizon from various vantage points (Figure 5).

FIGURE 1

VICINITY MAP

Figure 2
CEMEX Wind Energy Generation Project Site Map

FIGURE 2 SITE PLAN

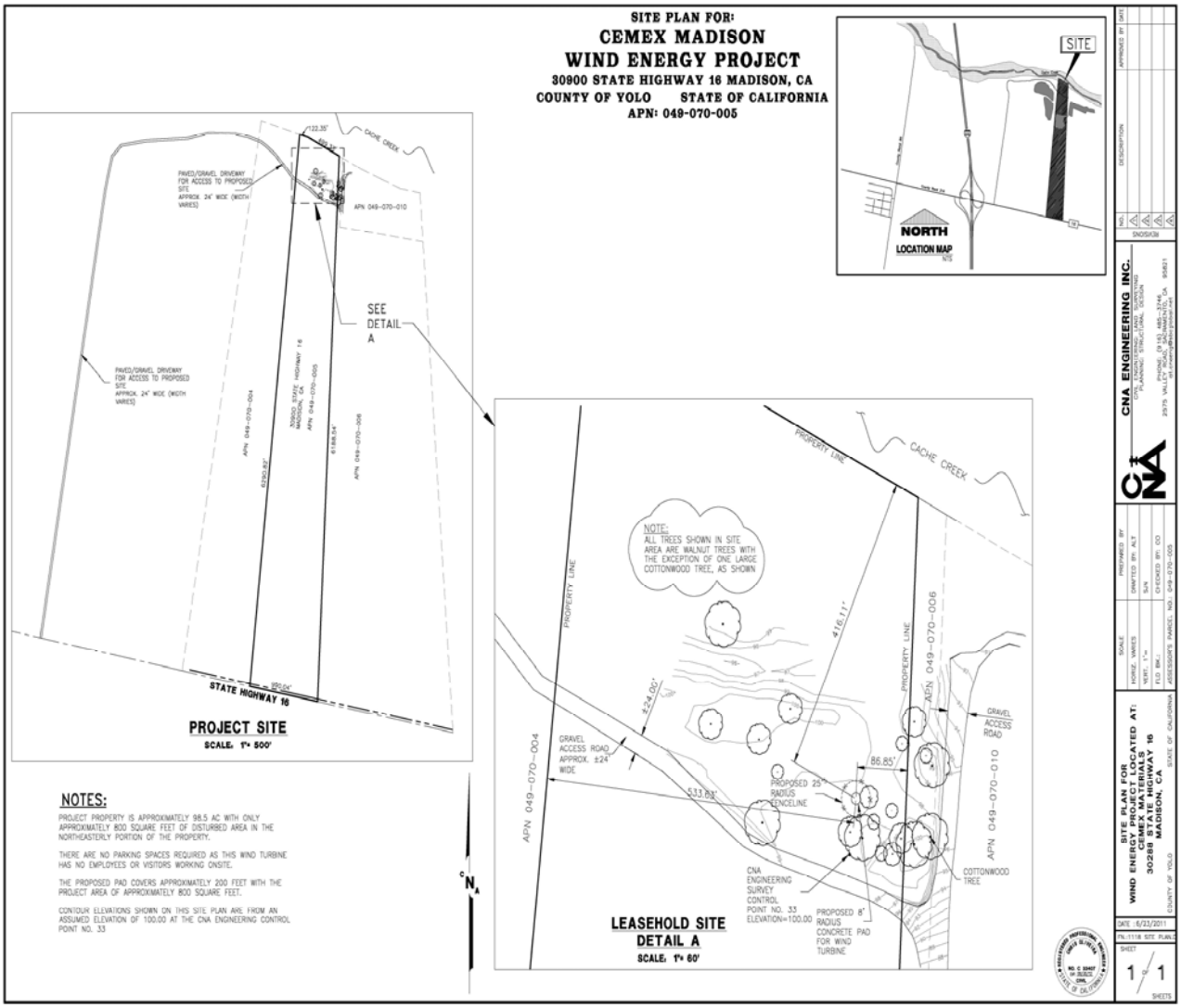


FIGURE 3

ALIGNMENT OF THE PROPOSED TRANSMISSION LINE

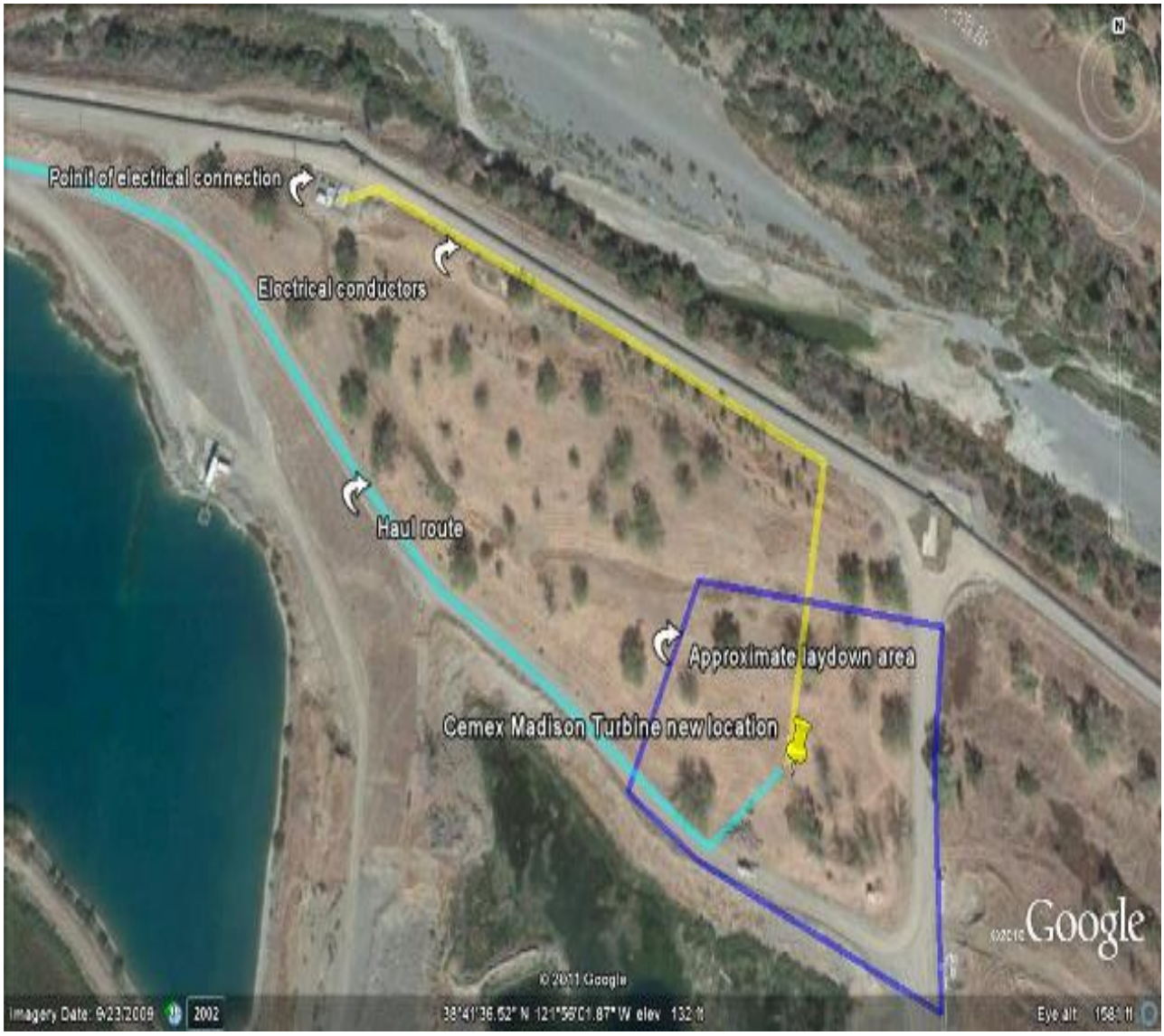


FIGURE 4
TURBINE SPECIFICATIONS

MITSUBISHI WIND TURBINE GENERATOR

MWT62/1.0 (MWT-1000A)

Technical Data

Operation Data

Rated Power	1000 kW
Hub Height	55 m/60 m/69 m
Power Regulation	Blade-Pitch Control
Cut-in Wind Speed	3.0 m/s
Rated Wind Speed	12.5 m/s
Cut-out Wind Speed	25 m/s (10 min. Ave.), 30 m/s (Instantaneous)
Survival Wind Speed	60 m/s
Yaw System	Active

Rotor

Number of Blades	3
Material	GFRP
Diameter	61.4 m
Swept Area	2,960 m²
Rotational Speed	19.8 rpm

Gearbox

Type	3 Stage (1 Planetary, 2 Parallel)
Gear Ratio	1:92/1:76 (60 Hz/50 Hz)

Generator

Type	Induction Generator (4 Pole Type)
Voltage	600 V/690 V (60 Hz/50 Hz)
Frequency	60 Hz/50 Hz
Rated Speed	1,800 rpm/1,500 rpm (60 Hz/50 Hz)
Grid Connection of Generator	Soft Starter

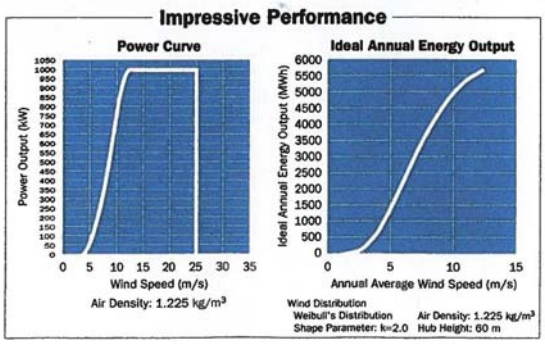
Safety System — Brake

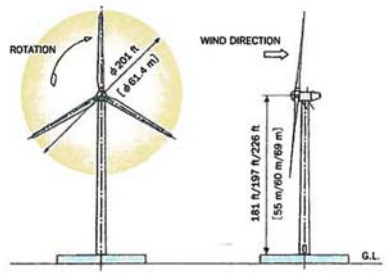
Aerodynamic Brake	Blade Feathering
Mechanical Brake	Disk Brake (High Speed Shaft)

Tower

Type	Taper Monopole	55 m (2 section type)
		60 m (3 section type)
		69 m (3 section type)

Impressive Performance





MITSUBISHI HEAVY INDUSTRIES, LTD.

FIGURE 5

MAP OF PHOTO SIMULATION LOCATIONS

PHOTO SIMULATION OF TURBINE
TAKEN FROM I-505/STATE HIGHWAY 16

PHOTO SIMULATION OF TURBINE
TAKEN FROM CEMEX DRIVEWAY ENTRANCE FROM SR 16

PHOTO SIMULATION OF TURBINE
TAKEN FROM COUNTY ROAD 19

PHOTO SIMULATION OF TURBINE
TAKEN FROM WILD WINGS GOLF COURSE

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is still "Potentially Significant Impact" (after any proposed mitigation measures have been adopted) as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality	☐ Land Use / Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	☐ Transportation / Traffic
☐ Utilities / Service Systems	☐ Mandatory Findings of Significance	

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to the earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Planner's Signature Date

PURPOSE OF THIS INITIAL STUDY

This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the project as described herein may have a significant effect upon the environment.

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5. A determination that a "Less Than Significant Impact" would occur is appropriate when the project could create some identifiable impact, but the impact would be less than the threshold set by a performance standard or adopted policy. The initial study should describe the impact and state why it is found to be "less than significant."

6. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration, pursuant to Section 15063 (c)(3)(D) of the California Government Code. Earlier analyses are discussed in Section XVII at the end of the checklist.

7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning solar projects). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

I.	AESTHETICS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☒	☐
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Discussion of Impacts

a) *Less Than Significant Impact.* The wind turbine would not have a substantial effect on a scenic vista. As discussed in (c) below, the turbine would be located within a mining area along Cache Creek near various heavy equipment and structures including conveyor belts, stockpiles of aggregate materials, a processing plant, and excavated lakes. The turbine would be located near Cache Creek in an existing grove of mature oak and walnut trees, one of which may be removed.

The 335-foot high turbine would be visible from various agricultural and open space vantage points. Several photo simulations have been prepared by the applicant to illustrate how the wind turbine would appear on the horizon from various vantage points, including the I-505 and State Route 16 roadways and the Wild Wings golf course (Figure 5 in the Project Description). The turbine would not obscure any vistas or scenic views.

b) *Less Than Significant Impact.* The proposal would not damage any scenic resources along a scenic highway. There are presently no highways within Yolo County that have been officially designated within the California Scenic Highway System. The Yolo County 2030 General Plan designates several routes in Yolo County as local scenic roadways. The nearest section of a local scenic roadway is State Route 16 from the Colusa County line to the town of Capay, which is approximately five miles west of the proposed turbine location. The turbine would not be visible from this stretch of State Route 16.

c) *Less Than Significant Impact.* Aesthetic perceptions are subjective and the aesthetic impacts associated with this project may be perceived differently by various individuals. The turbine is located in a very rural area heavily disturbed with mining and excavation activities. The photo simulations prepared for the project (Figure 5) indicate that the turbine as seen by passing motorists from the nearby roadways (I-505 freeway, State Route 16, and County Road 19) will appear as a very faint white image on the horizon. These roads are between one and two miles from the turbine site.

The surrounding properties are all involved in mining and agricultural uses. The nearest home sites in the vicinity of the turbine are two residences, one located approximately 3,000 feet (about 0.6 mile) north of the site and the other located 4,000 feet south of the site. There are no other residences within one mile.

The nearest group of homes is the Wild Wings planned community, located approximately 2.8 miles east of the proposed wind turbine site. The photo simulation prepared to assess the visual

impacts to the Wild Wings community indicate that the turbine outline on the horizon is hardly visible to Wild Wings residents. The photo simulations support the conclusion that the turbine would not substantially degrade the existing visual character or quality of the site and its surroundings.

d) *Less Than Significant Impact.* The wind turbine will be required by the Federal Aviation Administration to include a red flashing light at the top of the tower to increase aviation safety (particularly for crop dusters). The lighting is typical of other lighting found on towers throughout agricultural areas in the county. The light will be visible to rural home sites (the two closest home sites are within one mile) and other vantage points in the nearby area, including County roads and portions of I-505 and State Route 16. Lighting of structures and towers in rural and urban areas is a proven practice for increasing aircraft safety. Although the light will be visible from select vantage points, this impact is considered less than significant.

II.	**AGRICULTURAL AND FOREST RESOURCES.**	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion of Impacts

a) *Less Than Significant Impact.* The project site is designated as "Farmland of Local Importance" on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. The proposed wind turbine is a permitted use and will not convert the land to a non-agricultural use.

b) *No Impact.* The subject property is zoned Agricultural General (A-1) with a Sand and Gravel Overlay , and is not enrolled in the Williamson Act. Wind energy facilities are permitted within the A-1 zone in accordance with the Wind Energy Ordinance (Yolo County Code Section 8-2.2418).

c) and d) *No Impact.* The project does not conflict with existing zoning for, or cause rezoning of, forest land and would not result in the loss of forest land or conversion of forest land to non-forest use.

e) *No Impact.* The project is consistent with the General Plan and zoning designations and does not involve any other changes that could result in the conversion of farmland to non-agricultural uses.

III.	**AIR QUALITY.**	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Environmental Setting

The project site is within the Yolo-Solano Air Quality Management District (YSAQMD), and the Sacramento Valley Air Basin regulates air quality conditions within Yolo County. Yolo County is classified as a non-attainment area for several air pollutants, including ozone (O_3) and particulate matter 10 microns or less in diameter (PM_{10}) for both federal and state standards, and is classified as a moderate maintenance area for carbon monoxide (CO) by the state.

Development projects are most likely to violate an air quality plan or standard, or contribute substantially to an existing or project air quality violation, through generation of vehicle trips.

The YSAQMD sets threshold levels for use in evaluating the significance of criteria air pollutant emissions from project-related mobile and area sources in the Handbook for Assessing and Mitigating Air Quality Impacts (YSAQMD, 2007). The handbook identifies quantitative and qualitative long-term significance thresholds for use in evaluating the significance of criteria air pollutant emissions from project-related mobile and area sources. These thresholds include:

- Reactive Organic Gases (ROG): 10 tons per year (approx. 55 pounds per day)
- Oxides of Nitrogen (NOx): 10 tons per year (approx. 55 pounds per day)
- Particulate Matter (PM_{10}): 80 pounds per day
- Carbon Monoxide (CO): Violation of State ambient air quality standard

Discussion of Impacts

a) *No Impact.* The project would not substantially conflict with or obstruct implementation of the Yolo Solano Air Quality Management District Air Quality Attainment Plan (1992), the Sacramento Area Regional Ozone Attainment Plan (1994), or the goals and objectives of the Yolo County 2030 General Plan.

b) *Less Than Significant Impact.* The Yolo-Solano Region is a non-attainment area for state particulate matter (PM_{10}) and ozone standards, and the Federal ozone standard. The project would not contribute significantly to air quality impacts, including PM_{10}, since site preparation would by limited to installation of the wind turbine and the transmission lines. Ground disturbance from construction activity will be minimal. Construction activities, including vehicular traffic, would generate a minor temporary or short-term increase in PM_{10}.

The applicant anticipates two phases of construction. The first phase consists of site preparation and foundation construction. The first phase of construction lasts approximately two weeks followed by at least 30 days of no activity to allow sufficient time for the foundation's concrete to cure.

The second phase of construction involves the delivery and assembly of the turbine components (tower, rotor, nacelle and transformer). Each piece will be shipped and assembled on site with the use of cranes. The turbine components will be delivered to the site over existing gravel roads. Then associated electrical work is performed to connect the wind turbine generator to the transformer and transmission line. The transmission line will run underground and this phase of work will take approximately four weeks.

The two phases of construction described above may be separated by as many as three months due to the variability in delivery schedule of the wind turbine equipment. During both phases all construction vehicles and equipment will be staged onsite and will not require street closures.

Construction activities will employ approximately 35 employees and will generate 35 total truck loads over the entire construction period.

Short-term air quality impacts associated wit construction activities is considered less than significant because any potentially sensitive receptors would be exposed to minor amounts of construction dust and equipment emissions for short periods of time with no long-term exposure to potentially affected groups. The project applicant would be required to comply with all standards as applied by the YSAQMD to minimize dust and other construction related pollutants. In addition, prior to any grading or building permit issuance, the applicant is required to obtain any permits as required by the YSAQMD to ensure the project complies with District regulations. Thresholds for project-related air pollutant emissions would not exceed significant levels as set forth in the 2007 YSAQMD Handbook.

The applicant has incorporated a set of environmentally-related best management practices into the project plan, in order to avoid and minimize potential impacts on environmental resources. If the project is approved, Foundation Windpower, its contractors, or affiliates would implement project-based best environmental practices as described below.

1. To reduce tailpipe emissions from diesel-powered construction equipment, the applicant would implement all applicable and feasible measures, such as:

- Maximizing the use of diesel construction equipment that meet CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines;
- Using emission control devices at least as effective as the original factory-installed equipment;
- Substituting gasoline-powered for diesel-powered equipment when feasible;
- Ensuring that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation; and
- Using Tier 2 engines in all construction equipment, if available.

2. To reduce construction fugitive dust emissions, the applicant would implement the following dust control measures:

    - Water all active construction sites a least twice daily in dry conditions, with the frequency of watering based on the type of operation, soil, and wind exposure;
    - Effectively stabilize dust emissions by using water or other approved substances on all disturbed areas, including storage piles, which are not being actively utilized for construction purposes;
    - Prohibit all grading activities during periods of high wind (over 20 miles per hour).
    - Limit onsite vehicle speeds on unpaved roads to 15 miles per hour;
    - Cover all trucks hauling dirt, sand, or loose materials;
    - Cover inactive storage piles;
    - Post a publicly visible sign with the telephone number and person to contact regarding dust complaints; and
    - Limit the area under construction at any one time.

c) *Less Than Significant Impact.* Effects on air quality can be divided into short-term construction-related effects and those associated with long-term aspects of the project. Short-term construction impacts are addressed in (b), above. Long-term mobile source emissions from a wind turbine would be negligible and would not exceed thresholds established by the YSAQMD Handbook for Assessing and Mitigating Air Quality Impacts (2007), and would not be cumulatively considerable for any non-attainment pollutant from the project. Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

d) and e) *No Impact.* The project site is located in a rural agricultural and mining area. There are no sensitive receptors in the vicinity of the project site ("sensitive receptors" refers to those segments of the population most susceptible to poor air quality, i.e. children, elderly and the sick, and to certain at-risk sensitive land uses such as schools, hospitals, parks, or residential communities). There are only two residences within one mile of the site (individual home are not "sensitive receptors"). The proposed project will not expose sensitive receptors to pollutant concentrations in excess of standards. The proposed project and associated uses would not create objectionable odors.

IV.	BIOLOGICAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

The following discussion is excerpted from a biological reconnaissance study prepared by biologist Jim Estep, based on on-site visits conducted in August, 2011 (*Initial Assessment of the Effects of the Proposed CEMEX Madison Wind Energy Generation Project on Biological Resources*, Estep Environmental Consulting, September, 2011.)

The proposed project site is within the quarry area of the CEMEX facility, which extends for nearly two miles east of Interstate 505 along the southern edge of Cache Creek. Lands within the CEMEX facility surrounding the proposed turbine location have either been excavated, are planned for future excavation, or have been returned to agricultural production following excavation and rehabilitation.

The proposed turbine is sited in a remnant uncultivated upper terrace of Cache Creek (Figure 6). This approximately nine-acre patch of valley oak/black walnut/elderberry savannah is immediately adjacent to the south bank of Cache Creek and separated by only a dirt access road and a gravel conveyor that parallels the creek. The small savannah consists mainly of an herbaceous understory with an overstory of scattered trees and shrubs. The understory consists of a variety of annual grasses and invasive weeds. The overstory consists of scattered valley oak and black walnut trees, and occasional mature elderberry shrubs. The turbine pad site is in an open area between the trees.

The south bank of Cache Creek is approximately 113 meters (370 feet) north of the proposed turbine location. This section of Cache Creek supports relatively well-developed cottonwood-willow riparian woodland on the north and south banks. A large pond occurs immediately south of the proposed turbine location formed from groundwater seeping into a previously excavated area. Emergent marsh consisting of cattails and tules has developed around much of the perimeter of the pond, and a steep vertical bank borders the northern edge of the pond within about 100 feet of the proposed turbine location. Other temporary and permanent ponds occur on the CEMEX quarry.

Outside of the CEMEX quarry, the landscape is entirely agricultural, consisting mostly of annually rotated irrigated field and row crops, but also including alfalfa and other hay crops and orchards.

Despite the extent of ground disturbance associated with gravel extraction, the CEMEX facility appears to support a relative abundance of wildlife. The retention of several patches of upper terrace savannah – including the project area, the proximity of Cache Creek, and the development of ponds and associated marsh habitats is providing habitat for a variety of wildlife species. The trees in the savannah and riparian areas support nesting habitat for raptors and a variety of other birds, the broad creek basin provides an important movement corridor for mammals, and the ponds and marshes provide habitat for waterfowl and marsh-associated birds. As a result, the project area likely supports a relative abundance of resident and migratory wildlife compared to the surrounding agricultural lands.

Agricultural lands can also provide important habitat for many wildlife, particularly those that use agricultural lands as foraging habitats. The Cache Creek corridor and the remnant natural habitats along the creek, including those within the quarry, provide nesting and cover opportunities for species that also use the adjacent agricultural lands.

Table 1 on the following page indicates the special-status species that have potential to occur in the project area, along with their habitat association, the availability of habitat within the project area, and whether or not the species has been detected within the project corridor.

FIGURE 6

PHOTOS OF THE PROJECT SITE

Plate 1. Turbine location in the uncultivated upper terrace of Cache Creek.

Plate 2. Valley oak and black walnut trees with scattered elderberry shrubs on the upper terrace of Cache Creek just north of the proposed turbine site. The trees in the right background are along Cache Creek.

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Table 1
Special-status species with Potential to Occur
in the vicinity of the CEMEX Madison Wind Energy Project

Species	Status State/federal /CNPS	Habitat Association	Habitat Availability in the Project Area	Reported Occurrence in the Project Area
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	-/T	Elderberry shrubs	Several elderberry shrubs occur in the vicinity of the project site	Yes (elderberry shrubs are present)
Western pond turtle *Actinemys marmorata*	CSC/-	Streams, ponds, water conveyance channels	Suitable aquatic habitat in ponds and along portions of Cache Creek	No occurrences reported
White-tailed kite *Elanus leucurus*	FP/-	Riparian trees, woodlands, roadside trees	Suitable nest trees around the project site and along Cache Creek.	No nests reported
Northern harrier *Circus cyaneus*	CSC/-	Grasslands, seasonal marshes, some agricultural edges	Limited potential at the project site, but possible in the surrounding area	No nests reported
Swainson's hawk *Buteo swainsoni*	T/-	Riparian trees, woodlands, roadside trees; grassland and agricultural foraging habitat.	Suitable trees around the project site and along Cache Creek. Suitable foraging habitat surrounding site.	No nests in quarry, but numerous within 5 miles of the project site
Burrowing owl *Athene cunicularia*	CSC/-	Grasslands, field edges with ground squirrel activity	Potential along the field edge, and open grassland areas.	None from quarry or immediate vicinity.
Bank swallow *Riparia riparia*	T/-	Stream banks or other erodible bank habitat suitable for creating burrows	Potential habitat along Cache Creek and banks of previously excavated areas.	Reported nesting at sites within quarry.
Tricolored blackbird *Agelaius tricolor*	CSC/-	Emergent marshes, blackberry thickets, silage, pastures	Some emergent marsh habitat associated with ponds.	None reported.

Notes: T=threatened; E=Endangered; CSC=California species of species concern; FP=state fully protected

The species listed in Table 1 have potential to occur within or in the immediate vicinity of the project area due to their distribution, habitat requirements, and availability of suitable habitat. Three species have potential to occur within the patch of savannah where the WIND TURBINE would be sited. The valley oak and walnut trees surrounding the project site are potential nesting habitat for Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*). The elderberry shrubs in the open savannah surrounding the project site are potential habitat for valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Burrowing owl (*Athene cunicularia*), could also potentially nest along the field and roadside edges.

Discussion of Impacts

a) *Less Than Significant Impact with Mitigation Incorporated.* Potential impacts of the proposed project can be characterized as construction-related – referring primarily to the permanent loss or temporary disturbance to vegetation and wildlife habitat; or operational-related – referring to the potential for bird and bat mortality resulting from collision with the rotating turbine blades.

Construction-Related Impacts

Because of the small amount that would be affected, the removal of annual grassland/weedy habitat for construction of the wind turbine, the access road, and the installation of the underground power line would have no impact on special-status species. However, while unlikely, there remains some potential for construction-related impacts to special-status species.

Swainson's Hawk and White-tailed Kite. There is potential for these species to nest in the immediate vicinity of the project site. Construction-related disturbances during the breeding season could result in nest abandonment, and if a tree is removed, there is potential for removing an active nest. Removal of an active nest or disturbances that cause nest abandonment would be considered a significant impact.

The project will remove an estimated 0.059 acres of grassland/weedy habitat that is suitable Swainson's hawk foraging habitat for the construction of the turbine pad and access road. This amount of habitat loss is considered negligible and would have no affect on Swainson's hawk foraging use of the area or on any breeding site in the vicinity of the project. Therefore, this impact is considered less than significant.

Burrowing Owl. There is potential for burrowing owls to nest on or in the immediate vicinity of the project site. Ground disturbances from access road construction or power line installation could directly or indirectly impact active nesting or wintering burrows. Removal of an active nesting or wintering burrow or disturbances that cause nest abandonment would be considered a significant impact.

Valley Elderberry Longhorn Beetle. There is potential to directly or indirectly impact elderberry shrubs from the construction of the access road or installation of the power line if shrubs occur within or near the construction corridors for these project elements. Removal or damage to elderberry shrubs would be considered a significant impact.

Operational Impacts

Birds and bats occasionally collide with operating wind turbines. The mechanisms of this phenomena have been extensively researched over the last twenty years and research continues to identify causes of collision mortality and to develop strategies to reduce collision mortality (Erickson et al., 2001). In general, wind turbine-related mortality is responsible for only a small proportion of overall collision-related mortality in the United States relative to other sources (e.g., buildings, power lines, communication towers, roads). However, wind resource areas are sometimes associated with conditions that also attract large concentrations of resident or

migratory birds, particularly raptors. Wind patterns, topography, and land use/prey availability influence migratory patterns and use of the landscape by many raptor species. Wind turbines sited in areas of high raptor use can lead to high incidences of collision mortality (Smallwood and Thelander, 2004).

Collision mortality of some species, particularly those that are state or federally listed, can have a greater affect on local or regional populations.

The federal Migratory Bird Treaty Act (MBTA) authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs. The United State Fish and Wildlife Service (USFWS) has considered bird mortality from collisions with operating wind turbines a possible violation of the MBTA and has developed guidelines for minimizing the potential for collision mortality on large wind farms (USFWS, 2003). However, the guidelines are less applicable to individual turbines and there has been no enforcement of MBTA related to mortality at individual turbines.

Turbine siting, the number and proximity of turbines, and structural and operational features of the turbine all influence the extent of potential collision mortality. Generally, single turbines, particularly new generation turbines, are not expected to result in the same rate of collision mortality compared with larger wind generation facilities where birds and bats must negotiate through a dense turbine field. State and federal guidelines regarding the siting and design of turbines are oriented toward larger wind turbine facilities with multiple turbines and are less applicable to individual turbines.

However, even with individual turbines, siting and the structural and operational features of the turbine also influence the extent of potential collision mortality. For example, siting the turbine within a wetland area that attracts large numbers of birds, or in topographical conditions that concentrates migrating birds, can increase collision potential. Turbines with lattice towers or other perching structures can attract birds into the rotor swept area and contribute to mortality potential. Mortality potential is reduced by using tubular towers and minimizing the opportunities for perching on the turbine structure.

When sited in flat, open agricultural land, collision potential is generally expected to be substantially lower. In these areas, birds and bats tend to be more dispersed on the landscape, and the opportunity for birds to fly through the rotor swept area is correspondingly less. The proximity of the proposed project to Cache Creek may increase mortality potential to some extent due to potentially larger concentrations of birds using the riparian habitat along the creek. The presence of the ponds within the quarry area may also concentrate some bird species, particularly waterfowl. However, while the actual extent of collision mortality cannot be accurately predicted or estimated, it is not expected that a single turbine would reach the threshold of biological significance for non-special-status species.

For special-status species, while overall collision potential is expected to be low, it cannot be entirely eliminated. For most species, low levels of mortality resulting from the affects of a single turbine would not affect local or regional populations and would be considered negligible. However, turbine-caused mortality of species that are uncommon may have a greater potential effect on local populations.

Bank Swallow. Bank swallows are known to occur in the vicinity of the proposed project. Evaluating the susceptibility of bank swallows to collision with the turbine is based on two key factors: (1) the distance between active colonies and the turbine; and (2) the flight altitude of bank swallows. The nearest active nesting colony is approximately one mile east of the proposed turbine location. This distance may sufficiently minimize the use of the area in the immediate vicinity of the turbine. While variable depending on the availability of food resources, during the breeding season, feeding sites are usually within 200 meters of the colony (Turner, 1980).

However, other suitable nesting habitat occurs closer to the project site that could be utilized by bank swallows in the future.

The average altitude of foraging bank swallows is 15 meters (49 feet) over open ground (Waugh, 1979) up to a maximum of 33 meters (108 feet) (Bryant and Turner, 1982). The height of the proposed turbine from ground to rotor tip is 38.3 meters (126 feet). Therefore, while it is possible for bank swallows to fly at the altitude of the rotor swept area, their behavior suggests that they typically do not do so. This information, along with the current distance to the active colony site, suggests that the potential for collision mortality of bank swallows is very low.

Swainson's Hawk. Nesting Swainson's hawks occur in the vicinity of the project and regularly fly at the altitude of the rotor swept area. Because most wind generation facilities occur outside the range of the Swainson's hawk, there is limited mortality data that can be used to assess the susceptibility of the species to turbine collision. However, there are recent reports from the Solano Wind Resource Area in the Montezuma Hills, of Swainson's hawk collisions with turbines. Therefore, it is reasonable to suggest that the Swainson's hawk may be susceptible to collision with the proposed turbine due to its occurrence in the area and its flight behavior.

While there are no reported Swainson's hawk nests in the quarry or in the immediate vicinity of the proposed project, there are at least twenty reported nests within five miles of the project site (Figure 7). There are also nearly 300 nesting pairs of Swainson's hawks in Yolo County (Estep, 2008). Radio-telemetry results indicate that these birds have large home ranges and are highly mobile throughout a large area (Estep, 1989). Individuals have been reported flying over the quarry (Zentner and Zentner, 2010). Therefore, it is reasonable to conclude that there is potential for Swainson's hawks to occur over the project site at the altitude of the rotor swept area. The frequency of a Swainson's hawk flying at rotor altitude near the proposed wind turbine site is unknown. Further, the frequency of a Swainson's hawk flying through the rotor swept area and then being struck by the rotors is even less quantifiable, but is likely low and probably would not reach a level of biological significance. Still, the potential for a collision cannot be entirely eliminated.

While the potential for collision-related Swainson's hawk mortality may not reach the level of biological significance, any mortality of a Swainson's hawk from collision with the wind turbine may constitute a take pursuant to the state endangered species act and a violation of Fish and Game Code 3503.5, and may necessitate an incidental take permit pursuant to Section 2080 of the Fish and Game Code. State guidelines on reducing bird strikes due to turbines have also been developed by the California Energy Commission and CDFG (CEC, 2007). The State guidelines are consistent with, but much more general, that the federal guidelines.

Local biologists from the California Department of Fish and Game have encouraged wind energy applicants in Yolo County to incorporate the siting and design recommendations in the USFWS guidelines (USFWS, 2003). These recommendations include measures such as: develop a habitat restoration plan for the site that minimizes impacts such as minimizing prey populations, removing carrion; avoid placement of perch areas on the tower; and consistent with FAA requirements, avoid red lights if possible and install lighting with the minimum intensity and minimum number of flashes per minute; and undergrounding of power lines.

Regarding lighting, research suggests that light flash duration, rather than color, may be a more critical factor reducing bird collisions. Therefore, the longer the off phase between the flash phase of the light pulses, the less likely the birds are to be attracted to the lighting (Estep, 2010). The applicant is required to use red flashing lights (as regulated by the FAA). A Condition of Approval will be added to ensure the lights operate with the longest allowable off phase.

The following measures are recommended to avoid and minimize the potential for construction-related impacts and ensure that all potential impacts are reduced to a level of less than significant.

Mitigation Measure BIO-1: Swainson's Hawk and White-tailed Kite

If construction is scheduled to occur between March 15 and September 15, prior to construction activity, a qualified biologist should conduct a survey to determine the presence/absence of Swainson's hawk and white-tailed kite nests within 0.25 miles of the project site. This survey is not required if construction occurs during the non-breeding season (September 16 to March 14).

If an active Swainson's hawk or white-tailed kite nest is found during preconstruction surveys, establish a no-disturbance set-back to avoid nest abandonment. The size of the set-back should be determined based on the ambient noise and disturbance levels, line of sight to the nest, and other relevant site-specific factors. Because of the high levels of existing disturbances on the quarry property, unless it is within approximately 500 feet or appears particularly vulnerable, it is unlikely to be disturbed by construction activities. A site assessment should be conducted by a qualified biologist along with quarry personnel and if necessary, DFG staff, to determine the appropriate set-back distance.

Mitigation Measure BIO-2: Burrowing Owl

Prior to construction at any time of the year, a qualified biologist should conduct a survey to determine the presence/absence of active burrowing owl nesting or wintering burrows within 500-feet of all ground disturbance (staging area, turbine pad, access road, and power line corridor).

If an active burrowing owl nesting burrow is located during preconstruction surveys, establish a no-disturbance set-back to avoid removal or disturbance to the burrow. Maintain a set-back of at least 100 feet from active breeding burrow until after young have fledged. This distance is less than that recommended in the DFG guidelines (California Department of Fish and Game 1995) due to the very high levels of existing noise, truck traffic, and other disturbances associated with aggregate mining. If an active wintering burrow is within the footprint of the turbine pad, staging area, access road, or power line corridor, either adjust the footprint to avoid direct disturbance to the burrow or remove the winter burrow by installing one-way doors to allow owls to escape and then collapse the burrow according to DFG guidelines (California Department of Fish and Game 1994). This also requires consultation and approval from DFG.

Mitigation Measure BIO-3: Valley Elderberry Longhorn Beetle

Prior to construction at any time of the year, a qualified biologist should conduct a survey to determine the presence/absence of elderberry shrubs within 100-feet of all ground disturbance (staging area, turbine pad, access road, and power line corridor).

For complete avoidance of an elderberry shrub that meets the USFWS definition of potentially occupied VELB habitat (i.e., stems measuring 1.0 inch or greater in diameter at ground level), maintain a 100-foot set-back from any project component (USFWS 1999). Identify the location of the shrub by installing a temporary fence around the shrub. With approval from the USFWS, the set-back can be reduced to 20 feet from the dripline of the shrub as long as other protective measures (e.g., signage, worker training, etc.) and restoration and maintenance of the site are applied according to the USFWS guidance (USFWS 1999). If avoidance is not possible, consultation with the USFWS may be required pursuant to Section 10 of the federal endangered species act. Through preparation of a low-effect habitat conservation plan, the project will be permitted to relocate the shrub out of the construction area. Other mitigation may also be necessary according to USFWS guidelines (USFWS 1999).

The following measure is recommended to avoid and minimize the potential for operation-related impacts and ensure that all potential impacts are reduced to a level of less than significant.

Mitigation Measure BIO-4

Due to the low potential for a collision-related injury or mortality, the applicant shall consult with DFG pursuant to Section 2080 et seq. of the Fish and Game Code to evaluate the need to provide for incidental take of Swainson's hawk. If DFG requires an incidental take permit as a result of the consultation, the applicant shall obtain the permit prior to commencing operation of the facility. The applicant shall comply with all terms and conditions of the incidental take permit, including but not limited to the performance of any monitoring surveys and compensation for documented fatalities, during the operation of the facility.

b), c), and d). *No Impact.* The Estep biological study concludes that the proposed project will have no significant impacts on vegetation or wildlife habitat resources. It will not affect animal movement or migratory patterns, will not affect reproductive potential, and will not affect the range, distribution, or abundance of any species. The project will also not affect any sensitive biological communities, such as wetlands, riparian, or oak woodlands.

Vegetation. Two project elements would permanently remove vegetation, the turbine pad and the access road to the turbine pad. Additional vegetation would be temporarily disturbed during the undergrounding of the power line extending from the turbine to the substation.

The turbine pad will permanently remove 800 square feet (0.018 acre), and the access road will permanently remove an estimated 1,800 square feet (0.041 acres, for a total of 0.059 acre of annual grassland/weedy vegetation removed by the project. This very small area does not represent a significant loss of grassland vegetation.

An additional 4,400 square feet (estimated 1,100 feet long by 4 feet wide) (0.1 acre) of annual grassland and ruderal vegetation would be temporarily disturbed during installation of the underground transmission line. This very small area does not represent a significant temporary loss of grassland vegetation.

With the possible exception of one walnut tree, the project will not remove any trees or shrubs. The turbine pad is sited in an open area, and while surrounded by trees, the only vegetation removed will be grassland/weedy vegetation. One walnut tree on the south side of the proposed turbine site may interfere with construction and could potentially be removed. This does not represent a significant loss of trees or shrubs.

Wetlands. There are no wetlands on the project site or immediately surrounding area and none would be disturbed directly or indirectly from the construction or operation of the turbine.

General Wildlife. The small amount of wildlife habitat that would be permanently or temporarily disturbed does not represent a significant impact on resident or migratory wildlife. Habitat impacts would not impede wildlife movement, reduce populations, restrict the distribution of any species, affect reproductive potential, or reduce habitat availability.

e) *No Impact.* The proposed project does not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) *No Impact.* The proposed project would not conflict with any local policies or ordinances protecting biological resources. The Yolo County Habitat Conservation Plan (HCP)/Natural Communities Conservation Plan (NCCP) is in preparation by the Natural Heritage Program. Thus,

the project would not conflict with the provisions of any adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.

V.	CULTURAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion of Impacts

a) *No Impact.* The construction of the wind turbine would not affect any historic resources, such as historic structures, known or suspected to occur on the project site. The project site is not known to have any significant historical resources as defined by the criteria within the CEQA Guidelines

b) *Less Than Significant Impact with Mitigation Incorporated.* One known archeological resource is located on the CEMEX property. A Native American Indian site (CA-YOL-69) was discovered approximately one-half mile southeast of the proposed wind turbine. The resource, consisting of Native American skeletal remains and associated artifacts, was excavated in 2002, to remove the resources in an area planned for mining. The remains were reinterred and relocated to the northeast of the original archeological site (Holman, 2004). The interred remains are approximately one-half to three-quarters of a mile east of the turbine location.

There are no other documented archeological sites on the CEMEX property. The wind turbine site is in an area that has not been previously excavated or otherwise disturbed, thus there is the potential that during construction previously unidentified resources may be uncovered.

Mitigation Measure CUL-1:

Prior to the issuance of any grading or building permits for the proposed wind turbine, the applicant shall submit a report from a qualified archeologist that analyzes the potential for encountering archeological resources at the turbine location and the along the route of the underground power lines. If the potential for encountering archeological resources is determined by the report to be high or significant, appropriate measures to avoid or lessen the potential impacts, such as employing an on-site monitor during grading and excavation activities, shall be implemented as a condition of grading or building permit approval.

c) *No Impact.* The construction of the wind turbine would not affect any unique paleontological resource or site or unique geologic feature, known or suspected to occur on the project site. The project site is not known to have any significant paleontological resources as defined by the criteria within the CEQA Guidelines.

d) *Less Than Significant Impact with Mitigation Incorporated.* Pre-historic Native American human remains have been documented in the project area, as noted above in (b). Therefore, the potential exists that during excavation for the turbine foundation and underground power line that previously unidentified resources could be uncovered. Any development that uncovers cultural resources is required to follow procedures and recommendations as set forth in the CEQA Guidelines, Section 15064.5

Mitigation Measure CUL-2:

(a) Implement Mitigation Measure CUL-1, above.

(b) Section 7050.5 of the California Health and Safety Code states that, when human remains are discovered, no further site disturbance shall occur until the county coroner has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours.

VI.	GEOLOGY AND SOILS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
	1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
	2. Strong seismic groundshaking?				
	3. Seismic-related ground failure, including liquefaction?				
	4. Landslides?				
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c.	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

VI.	GEOLOGY AND SOILS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion of Impacts

a) Less Than Significant Impact:

1. The project site is not located within an Alquist-Priolo Earthquake Fault Zone. However, the site is located within approximately seven miles of the Dunnigan Hills Fault and within five miles of the Capay Fault. The project site can be expected to experience moderate to strong ground shaking during future seismic events along active faults throughout Northern California or on smaller active faults located in the project vicinity. The construction of the wind turbine will be required to comply with all applicable Uniform Building Code requirements.

2. Any major earthquake damage on the project site is likely to occur from ground shaking, and seismically related ground and structural failures. Local soil conditions, such as soil strength, thickness, density, water content, and firmness of underlying bedrock affect seismic response. Seismically induced shaking and some damage should be expected to occur during a major event but damage should be no more severe in the project area than elsewhere in the region. The wind turbine will be built in accordance with Uniform Building Code requirements and will be generally flexible enough to sustain only minor structural damage from ground shaking. Therefore, people and structures would not be exposed to potential substantial adverse effects involving strong seismic ground shaking.

3. The proposed project is not located within close proximity to any people or structures. The tower will be located on a private mining property along Cache Creek. Effects of liquefaction or cyclic strength degradation beneath the project vicinity during seismic events are unlikely. In the event of tower failure, no humans or structures would be affected.

4. The proposed project is a wind turbine, and would not expose people or structures to potential landslides.

b) *No Impact.* Only a small area of ground disturbance is proposed for the placement of the wind turbine and guy wire anchors. Substantial soil erosion or loss of topsoil is unlikely to occur.

c) *No Impact.* The project is not located on unstable geologic materials and would not have any affect on the stability of the underlying materials or on the underlying materials to potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Onsite or off-site potential landslides, liquefaction or other cyclic strength degradation during seismic events are unlikely.

d) *Less Than Significant Impact.* The existence of substantial areas of expansive and/or corrosive soils has been documented in the project area. The wind turbine will be built in accordance with Uniform Building Code requirements and a geotechnical report, along with soil samples, will be required as part of the building permit process.

e) *No Impact.* The proposed wind turbine will not be served by a septic system.

VII. GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒
c. Be affected by climate change impacts, e.g., sea level rise, increased wildfire dangers, diminishing snow pack and water supplies, etc.?	☐	☐	☐	☒

Environmental Setting

The issue of combating climate change and reducing greenhouse gas emissions (GHG) has been the subject of recent state legislation (AB 32 and SB 375). The Governor's Office of Planning and Research has recommended changes to the California Environmental Quality Act (CEQA) Guidelines, and the environmental checklist which is used for Initial Studies such as this one. The changes to the checklist, which were approved in 2010, are incorporated above in the two questions related to a project's GHG impacts. A third question has been added by Yolo County to consider potential impacts related to climate change's effect on individual projects, such as sea level rise and increased wildfire dangers.

Yolo County has adopted General Plan policies and a Climate Action Plan (CAP) which address these issues. In order to demonstrate project-level compliance with CEQA relevant to GHG emissions and climate change impacts, applications for discretionary projects must demonstrate consistency with the General Plan and CAP. The adopted 2030 Yolo Countywide General Plan contains the following relevant policies and actions:

Policy CO-8.2: Use the development review process to achieve measurable reductions in greenhouse gas emissions.

Action CO-A117: Pursuant to the adopted Climate Action Plan (CAP), the County shall take all feasible measures to reduce its total carbon dioxide equivalent (CO2e) emissions within the unincorporated area (excluding those of other jurisdictions, e.g., UC-Davis, Yocha Dehe Wintun Nation, DQ University, school districts, special districts, reclamation districts, etc.), from 648,252 metric tons (MT) of CO2e in 2008 to 613,651 MT of CO2e by 2020. In addition, the County shall strive to further reduce total CO2e emissions within the unincorporated area to 447,965 MT by 2030. These reductions shall be achieved through the measures and actions provided for in the adopted CAP, including those measures that address the need to adapt to climate change. (implements Policy CO-8.1)

Action CO-A118: Pursuant to and based on the CAP, the following thresholds shall be used for determining the significance of GHG emissions and climate change impacts associated with future projects:

1) Impacts associated with GHG emissions from projects that are consistent with the General Plan and otherwise exempt from CEQA are determined to be less than significant and further CEQA analysis for this area of impact is not required.

2) Impacts associated with GHG emissions from projects that are consistent with the General Plan, fall within the assumptions of the General Plan EIR, consistent with the CAP, and not exempt from CEQA are determined to be less than significant or mitigated to a less-than-significant level, and further CEQA analysis for this area of impact is generally not required.

   To be determined consistent with the CAP, a project must demonstrate that it is included in the growth projections upon which the CAP modeling is based, and that it incorporates applicable strategies and measures from the CAP as binding and enforceable components of the project.

3) Impacts associated with GHG emissions from projects that are not consistent with the General Plan, do not fall within the assumptions of the General Plan EIR, and/or are not consistent with the CAP, and are subject to CEQA review are rebuttably presumed to be significant and further CEQA analysis is required. The applicant must demonstrate to the County's satisfaction how the project will achieve its fair share of the established targets including:

   - Use of alternative design components and/or operational protocols to achieve the required GHG reductions;

   - Use of real, additional, permanent, verifiable and enforceable offsets to achieve required GHG reductions. To the greatest feasible extent, offsets shall be: locally based, project relevant, and consistent with other long term goals of the County;

   The project must also be able to demonstrate that it would not substantially interfere with implementation of CAP strategies, measures, or actions. (implements Policy CO-8.5)

Discussion of Impacts

a) *Less Than Significant Impact.* The proposed project is a single wind turbine. Aside from the approximately 35 truck trips during construction of the turbine, the only vehicular traffic generated by the project would be one to two vehicle trips per year for routine maintenance purposes. Thus, the project would not generate greenhouse gas emissions that will have a significant impact on the environment. The project would have an overall beneficial impact since the clean electricity generated by the project to be used by the adjacent mining operation would reduce the mining operation's use of non-renewable fossil fuels.

b) *No Impact.* The proposed project would not conflict with any applicable plan, policy or regulation adopted to reduce GHG emissions, including the Yolo County Climate Action Plan (CAP) or the numerous policies of Yolo County 2030 General Plan, and would, in fact, help to meet CAP goals.

c) *No Impact.* The proposed wind turbine will not be at significant risk of wildfire dangers or diminishing snow pack or water supplies.

VII.	HAZARDS AND HAZARDOUS MATERIALS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f.	Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion of Impacts

a) *Less Than Significant Impact.* The construction and operation of the proposed project would not result in any new hazardous emissions or materials. There will be no storage of fuel, oil, or other potentially hazardous materials. The construction equipment associated with the project typically uses only a minor amount of hazardous materials, primarily motor vehicle fuels and oils. There is a danger that these materials may be released in accidental spills and result in harm to the environment. As a standard condition of approval, the construction contractor will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), as described below, to ensure that the risk of accidental spills and releases into the environment would be minimal.

a. All construction staging activities will occur within a designated staging area. The staging area will be marked in the field and on the construction plans. All refueling and maintenance activities will occur within the staging area.

b. Any hazardous materials spill will be cleaned up immediately, in accordance with all federal, state, and local regulations. The contractor will be required to develop and implement a toxic materials control and spill response plan to regulate the use of hazardous materials associated with construction. The contractor will be required to:

(1) prevent oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses;
(2) establish a spill-prevention and countermeasure plan before construction that includes strict on-site handling rules to keep construction and maintenance materials out of drainages and waterways;
(3) clean up all spills immediately according to the spill prevention and countermeasure plan, and notify DFG immediately of any spills and cleanup activities;
(4) develop a spill prevention plan that includes the following information:
i. A list of immediate containment response actions and extended response actions if necessary;
ii. A list of responsible agencies to contact in the event of a spill emergency within 24 hours;
iii. A list of spill containment equipment held on site as well as the location of the equipment on site;
iv. Identify a contact and location of a professional clean up company; and
v. Designate an onsite incident commander in the event of an emergency. This person will immediately inform DFG-OSPR in the event of an emergency. The incident commander will have complete control of construction and cleanup activities throughout the emergency and the eventual containment.

c. Provide areas located outside the sensitive wetland areas and ditches for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants; and

d. Remove vehicles from near sensitive wetland areas and ditches before refueling and lubricating.

b) *No Impact.* The routine use of construction equipment and vehicles to and from the site would not create a significant hazard to the public.

c) *No Impact.* See (a) and (b), above. Additionally, the project site is not located within one-quarter mile of an existing or proposed school.

d) *No Impact.* The project site is not located on a site that is included on a list of hazardous materials sites compiled by the Yolo County Environmental Health Division-Hazardous Waste Site Files pursuant to Government Code 65962.5.

e) *Less Than Significant Impact.* The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The Watts-Woodland Airport is approximately four miles to the east. The applicant has received a letter from the Federal Aviation Administration (FAA) indicating a finding by the agency of a "Determination of No Hazard to Air Navigation" (FAA, 2011). The applicant will be required to install lighting on the turbine consistent with FAA requirements (FAA Advisory Circular 70/7460-1 K Change 2 Obstruction Marking and Lighting, white paint/synchronized red lights). Local aircraft sprayers registered with the County have received notice of this IS/MND and as a condition of project approval, the applicant will be required to notify aircraft sprayers registered with the County of the exact location of the proposed tower, as required by Section 8-2.2418.4(e) of the County Code.

f) *Less Than Significant Impact.* See (e), above. Additionally, the project site is not located within the vicinity of any other known private airstrip.

g) *No Impact.* The project would not interfere with any adopted emergency response or evacuation plans.

h) *No Impact.* The project site is not located in a designated Fire Hazard Severity Zone and, therefore, would not be at significant risk from wildland fires. Additionally, the project will be unmanned and will not include any other structures other than the tower.

VIII.	HYDROLOGY AND WATER QUALITY.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or off-site?	☐	☐	☐	☒
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or off-site?	☐	☐	☐	☒
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f.	Otherwise substantially degrade water quality?	☐	☐	☐	☒
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h.	Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	☐	☐	☐	☒
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion of Impacts

a) *Less Than Significant Impact.* As a standard condition of approval, the construction contractor will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), as described above in VII(a), which would reduce potential impacts.

b) *No Impact.* The proposed project would not affect any onsite well and would not deplete groundwater supplies or interfere with groundwater recharge.

c) through f) *No Impact.* The proposed project would not modify any drainage patterns or change absorption rates, or the rate and amount of surface runoff. No additional impacts to water quality are anticipated.

g) *and* h) *No Impact.* The proposed project includes does not include any housing. The project site is not located within the 100-year or 500-year floodplains.

i) *No Impact.* The project site is located down stream of the Indian Valley Reservoir in Lake County and is in the designated Dam Inundation Area. The site is also adjacent to a levee along Cache Creek that could fail and is within the 100 year flood zone. However, the unmanned wind turbine would not expose any individuals to risk from flooding.

j) *No Impact.* The project area is not located near any large bodies of water that would pose a seiche or tsunami hazard. In addition, the project site is not located near any physical or geologic features that would produce a mudflow hazard.

IX.	**LAND USE AND PLANNING.**	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion of Impacts

a) *No Impact.* The project site is located in a rural agricultural area, well outside any established community; therefore, there are no impacts to established communities.

b) *No Impact.* The proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The Yolo County 2030 General Plan encourages the installation of renewable energy technologies in order to promote GHG emission reductions (Policy CO-8.5). The wind turbine project will require approval of a Major Use Permit as described in Yolo County Code Section 8-2.2418 (Small and

Large Wind Energy Systems). The application and proposed design of the project is consistent with the requirements of the Code section.

c) *No Impact.* The project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The Yolo County Habitat Conservation Plan (HCP)/Natural Communities Conservation Plan (NCCP) is in preparation by the Natural Heritage Program.

X.	MINERAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Discussion of Impacts

a) and b) *No impact.* The project area is within an identified area of significant aggregate deposits, as classified by the State Department of Mines and Geology. The turbine will be used to generate electricity to be used by the adjacent mining production facility.

XI.	NOISE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☐	☒
b.	Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c.	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d.	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e.	Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

XI.	NOISE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f.	Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion of Impacts

a) through d) *No Impact.* Yolo County has not adopted a noise ordinance which sets specific noise levels for different zoning districts or for different land uses in the unincorporated area. However, the State of California Department of Health Services developed recommended Community Noise Exposure standards, which are set forth in the State's General Plan Guidelines (2003). These standards are also included in the Yolo County 2030 Countywide General Plan (Yolo County, 2009a) and used to provide guidance for new development projects. The recommended standards provide acceptable ranges of decibel (dB) levels. The noise levels are in the context of Community Noise Equivalent Level (CNEL) measurements, which reflect an averaged noise level over a 24-hour or annual period.

The proposed project is located in a rural agricultural area and there are no sensitive receptors (schools, groups of residences, etc.) in the vicinity. The project site is surrounded by agricultural uses for several miles in each direction. The noise guidelines define 80-85 dB CNEL for outdoor noise level in agricultural areas as "normally acceptable."

The proposed project includes the installation and operation of a 335-foot wind turbine. Construction activities will consist of ground clearing with equipment such as a trucks and bulldozers which will generate noise levels in the range of 85 (trucks) to 88 dBA (dozer) at 50 feet (Yolo County, 2009b). These levels are compared to the noise levels of the existing nearby gravel production facilities which are as high as 98 dBA (rock plant operations). The applicant states that the design specifications for the proposed turbine indicate a maximum noise level at full power capacity of 60 dB. This is measured from the blades and the noise level decreases rapidly as it approaches the ground.

e and f) *No Impact.* The project site is not located within an airport land use plan nor is it within two miles of a public airport, public use airport, or private airstrip.

XII.	POPULATION AND HOUSING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion of Impacts

a) through c) *No Impact.* The proposed project is a wind turbine and would not induce any population growth or displace any existing housing units or people.

XIII.	PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:					
a.	Fire protection?	☐	☐	☐	☒
b.	Police protection?	☐	☐	☐	☒
c.	Schools?	☐	☐	☐	☒
d.	Parks?	☐	☐	☐	☒
e.	Other public facilities?	☐	☐	☐	☒

Discussion of Impacts

a) through e) *No Impact.* The proposed project is a wind turbine which would not be expected to increase the demand for fire and police protection services, schools, parks, or other public facilities and services.

XIV.	RECREATION.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion of Impacts

a) and b) *No Impact.* The proposed project would not affect any existing or future recreational facilities.

XV.	TRANSPORTATION/TRAFFIC.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d.	Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e.	Result in inadequate emergency access?	☐	☐	☐	☒
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion of Impacts

a) and b) *No Impact.* The roadway network within the unincorporated parts of the county is primarily rural in character, serving small communities and agricultural uses through a system of State freeways and highways, county roads (including arterials, collectors and local streets) and private roads. Interstate 80, Interstate 5 and Interstate 505 are the primary transportation corridors extending through the county and serve all of the county's major population centers including Davis, West Sacramento, Winters and Woodland. The construction and maintenance, of the wind turbine would generate a limited number of truck trips (approximately 35 total truck trips during the extended two to three month construction period). This low level of traffic would not exceed the capacity of the existing circulation system nor exceed a level of service standard for any nearby road.

c) *No Impact.* The proposed wind turbine will not result in a change in air traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks.

d) *No Impact*. The proposed project does not incorporate design features that would substantially increase hazards or introduce incompatible uses.

e) *No Impact.* The proposed project would not result in inadequate emergency access. Access to the subject site is from a private driveway off State Highway 16.

f) *No Impact.* The proposed project would not conflict with any adopted policies, plans, or programs supporting alternative transportation.

XVI.	UTILITIES AND SERVICE SYSTEMS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
Would the project:					
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion of Impacts

a) through g) *No Impact.* The proposed project is a single large wind turbine. This facility would not create any new demand for public utilities or public service systems and would not require the construction of any new facilities.

XVII.	MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than significant Impact	No Impact
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☐	☒
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion of Impacts

a) *Less Than Significant.* The proposed wind turbine has the potential to impact several species of special concern, including the Swainson's hawk. Mitigation measures have been included to ensure the potential impacts are reduced to a less than significant level. As analyzed and described in this Initial Study, the project will not reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

b) *No Impact.* Based on the analysis provided in this Initial Study, the project will not have any potential cumulative impacts.

c) *No Impact.* Based on the analysis provided in this Initial Study, the proposed project would not result in environmental effects that could cause adverse effects on human beings, either directly or indirectly. The construction of the wind turbine will comply with all Uniform Building requirements.

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ATTACHMENT F

FINDINGS

ZONE FILE #2011-0039
FOUNDATION WIND/CEMEX USE PERMIT

Upon due consideration of the facts presented in this staff report and at the public hearing for Zone File #2011-0039, the Yolo County Planning Commission finds the following:
(A summary of evidence to support each FINDING is shown in Italics)

California Environmental Quality Act (CEQA) and Guidelines

That the recommended Negative Declaration/Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) and is the appropriate environmental document and level of review for this project.

The environmental document for the project, prepared pursuant to Section 15000 et. seq. of the CEQA Guidelines, provides the necessary proportionate level of analysis for the proposed project, and sufficient information to reasonably ascertain the project's potential environmental effects. The environmental review process has concluded that there will not be a significant effect on the environment as a result of the proposed project.

General Plan

That the proposal is consistent with the Yolo County General Plan as follows:

The Yolo County General Plan designates the subject property as Agriculture (AG).

The project is consistent with the following General Plan Policies:

Community Character Policy CC-1.18: Electric towers, solar power facilities, wind power facilities, communication transmission facilities and/or above ground lines shall be avoided along scenic roadways and routes, to the maximum feasible extent.

Community Character Policy CC-4.1: Reduce dependence upon fossil fuels, extracted underground metals, minerals and other non-renewable resources.

Community Character Policy CC-4.5: Encourage individual and community-based wind and solar energy systems.

Conservation Policy CO-7.1: Encourage conservation of natural gas, oil and electricity, and management of peak loads in existing land uses.

Zoning

That the proposal is consistent with the property's zoning.

The property is zoned Agricultural General (A-1)/Sand and Gravel Combining Zone. The proposed use is consistent with Section 8-2.2418 of the Yolo County Code, which regulates the placement of wind energy structures.

That, as required by Section 8-2.2418.4(3), it is found that the proposed use shall require a Use Permit.

The 335-foot high single wind turbine requires the issuance of a Major Use Permit.

General Use Permit Requirements

That the proposal is consistent with findings required for approval of a Use Permit (Section 8-2.2804 of the Yolo County Code) as follows:

The requested land use is listed as a permitted use in the zoning regulations.

Pursuant to Section 8-2.2418(3) the proposed wind turbine is allowed within the A-1 Zone through the Major Use Permit review and approval process.

The request is essential or desirable to the public comfort and convenience.

The project is a wind turbine that will provide 1.0 megawatt of electrical power to the adjacent CEMEX mining operation. State and federal legislation require local jurisdictions to address the promotion of greenhouse gas emission (GHG) reduction, which is consistent with policies in the Yolo County 2030 Countywide General Plan and Climate Action Plan that call from measurable reductions in GHGs through enhanced reliance on renewable and sustainable energy sources.

The requested land use will not impair the integrity or character of a neighborhood or be detrimental to public health, safety or general welfare.

As evidenced in the Initial Study/Mitigated Negative Declaration, the proposed project will not create a significant effect on the character of the surrounding rural area. The project is located within an active mining area. The closest two rural residences are located 3,000 to 4,000 feet from the project.

Adequate utilities, access roads, drainage, sanitation, and/or other necessary facilities will be provided.

All necessary infrastructure and utilities will be required of the proposed project. Existing roadways and internal mining roads will serve the project. No other utilities are required for the placement of the wind turbine.

The requested use will serve and support production of agriculture, the agricultural industry, animal husbandry or medicine; or is agriculturally related and not appropriate for location within a city or town; and the requested use, if proposed on prime soils, cannot be reasonably located on lands containing non-prime soils.

Large wind turbines are typically located in rural, remote areas, away from urban centers. The proposed location is on property used for mining. Only 4,000 square feet of land would be disturbed. The proposed wind turbine is a permitted use under the agricultural zoning and will not convert the land to a non-agricultural use.

Specific Wind Energy Use Permit Requirements

That the proposal is consistent with findings required for approval of a Use Permit for a Large Wind Energy System (Section 8-2.2418.5 of the Yolo County Code) as follows:

(a) Large wind energy systems shall comply with subsections (e) through (l) of Section 8-2.2418.4:

(e) Crop Dusting. In the event a wind energy system is proposed to be sited in an agricultural area that may have pest control aircraft operating at low altitudes, the applicant and County shall take reasonable steps to notify and solicit comments from pest control aircraft pilots registered to operate in the county. Wind energy systems shall not be allowed where the Zoning Administrator or Planning Commission determines they would pose a risk for pilots spraying fields.

The wind turbine is located in a mining area that is not subject to pesticide spraying. As part of the notification for the Use Permit public hearing, nearby crop dusters have been notified. A Condition of Approval requires the applicant to notify crop dusters of the coordinates of the approved turbine.

(f) Biological Impacts. Wind energy systems shall not be allowed in locations that would significantly affect habitat for special status protected bird and bat species. To minimize the potential for special status birds and bats to collide with towers/turbines, wind energy systems shall not be located in the following general locations, as mapped or determined by the Natural Diversity Data Base, the Yolo County Natural Heritage Program, or similar programs, unless findings are adopted by the Zoning Administrator or Planning Commission, as described in (4), below:
(1) Within five hundred (500) feet of wetlands, staging areas, wintering areas, bat roosts, or rookeries documented as supporting birds or bats listed as endangered or threatened species under the federal or California Endangered Species Acts; or
(2) Within migratory flyways documented by state or federal agencies; or
(3) Within one thousand (1,000) feet of publicly owned wildlife refuges.
(4) Small wind energy systems may be located in such areas described above in (1), (2), or (3), if discretionary Use Permit review is provided and the Zoning Administrator or Planning Commission adopts findings of fact, after consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service, as appropriate, and consistent with *The California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development*, (October 2007, as amended), that determine installation of a small wind energy system in the proposed location will not have a significant impact on any protected birds and bats. In determining potential impacts, the design of the proposed tower shall be considered, and the use of monopoles, as opposed to lattice or guyed-lattice towers, shall be encouraged.

The proposed single large wind turbine consists of a single monopole with no lattice or guy wires. It is located approximately 370 feet south of Cache Creek. According to the biological report prepared for the Initial Study/Mitigated Negative Declaration (Estep, 2011), two protected bird species, bank swallows and Swainson's hawks, may be affected by the project.

Bank swallows are known to occur in the vicinity of the proposed project and the nearest active nesting colony is approximately one mile east of the proposed turbine location. The average altitude of foraging bank swallows is 15 meters (49 feet) over

open ground up to a maximum of 33 meters (108 feet). The height of the proposed turbine from ground to rotor tip is 38.3 meters (126 feet). This information, along with the current distance to the active colony site, suggests that the potential for collision mortality of bank swallows is very low.

Nesting Swainson's hawks occur in the vicinity of the project and regularly fly at the altitude of the rotor swept area. While there are no reported Swainson's hawk nests in the quarry or in the immediate vicinity of the proposed project, there are at least twenty reported nests within five miles of the project site. According to the Estep report, while the potential for collision-related Swainson's hawk mortality may not reach the level of biological significance, any mortality of a Swainson's hawk from collision with the wind turbine may constitute a take pursuant to the state endangered species act. A mitigation measure and Condition of Approval of the project requires the applicant to consult with DFG pursuant to Section 2080 et seq. of the Fish and Game Code to evaluate the need to provide for incidental take of Swainson's hawk. If DFG requires an incidental take permit as a result of the consultation, the applicant shall obtain the permit prior to commencing operation of the facility.

Additional mitigation measures and Conditions of Approval have also been required to reduce potential impacts to raptor nests, burrowing owls, and elderberry beetle.

(g) Views and scenic corridors. Wind energy systems shall not be located where they would substantially obstruct views of adjacent property owners and shall be placed or constructed below any major ridgeline visible from any designated scenic corridor listed by the state or in the Open Space Element of the County General Plan, unless they are designed to blend in with the surrounding environment in such a manner that they would not have a significant visual impact, as determined by the Zoning Administrator or Planning Commission.

According to the analysis contained in the Initial Study/Mitigated Negative Declaration, the turbine is located in a very rural area heavily disturbed with mining and excavation activities. The photo simulations prepared for the project indicate that the turbine as seen by passing motorists from the nearby roadways (I-505 freeway, State Route 16, and County Road 19) will appear as a very faint white image on the horizon. These roads are between one and two miles from the turbine site.

(h) Slopes. Construction of a wind energy system on any slopes steeper than four to one (4:1) is prohibited.

The project is not located on a steep slope.

(i) Noise. The proposed system shall not generate noise levels exceeding 60 decibels or any existing maximum noise levels applied pursuant to the Noise Element of the General Plan, or noise ordinance, for the applicable zoning district, as measured at the nearest property line, except during short-term events such as utility outages and severe wind storms.

According to the analysis contained in the Initial Study/Mitigated Negative Declaration, the design specifications for the proposed turbine indicate a maximum noise level at full power capacity of 60 dB. This is measured from the blades and the noise level decreases rapidly as it approaches the ground.

(j) Climbing apparatus. Climbing apparatus shall be located at least twelve (12) feet above the ground, and the tower shall be designed to prevent climbing within twelve (12) feet of the ground.

The project does not include any climbing apparatus.

(k) Site access and on-site roads. Construction of on-site roads to install and maintain wind energy systems shall be minimized. Temporary access roads used for initial installation shall be regraded and revegetated to a natural/preconstruction condition after completion of installation.

The project will be accessed by existing mining roadways.

(l) Turbine certification. Wind energy system turbines shall be approved by the California Energy Commission or certified by a national program (i.e., National Electrical Code (NEC), American National Standards Institute (ANSI) and Underwriters Laboratories (UL)).

The project is a turbine design that is certified.

(b) Maximum tower and system height. Any system application shall include evidence that the proposed height does not exceed the height recommended by the manufacturer or distributor of the system.

The project will be installed according to the manufacturer's design.

(c) Setbacks. The following setbacks shall be required for large wind energy systems:
(1) The minimum setback from the base of any large wind energy system to any adjacent property line where the adjacent parcels contain less than forty (40) acres shall be equal to two (2) times the overall system's height, or five hundred (500) feet, whichever is less;
(2) The minimum setback from the base of any large wind energy system to any adjacent property line where the adjacent parcels contains more than forty (40) acres shall be equal to one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is less;
(3) The minimum setback from the base of any large wind energy system to any off-site residence(s) on adjacent parcels shall be three (3) times the overall system's height, or seven hundred fifty (750) feet, whichever is less;
(4) The Planning Commission may allow a reduction in the setbacks in (1), (2) or (3), above, not to exceed a minimum setback of one (1) times the overall wind system's height, if a letter of consent from the owner(s) of record of adjacent parcels is filed with the county. The Planning Commission may also allow a reduction or waiver of the setbacks in (1) or (2), above, if the project exterior boundary is a common property line between two (2) or more approved wind energy projects and the property owner of each affected property has filed a letter of consent to the proposed setback reduction with the county.
(5) The minimum setback from the base of any large wind energy system to any on-site residence(s) and accessory structures designed for human occupancy shall be equal to one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is less;
(6) The minimum setback from the base of any large wind energy system to any publicly maintained public highway or street, any public access easement, including any public trail, pedestrian easement, or equestrian easement, or railroad right-of-way, shall be equal to one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is less.

The proposed turbine is located approximately 87 feet from the nearest property line to the east. The distance does not conform with the above requirements that the setback be one and one-half (1.5) times the overall system's height, or five hundred (500) feet, whichever is less. This setback is established to ensure that adjacent property owners are not affected should the turbine fall down. However, the Planning Commission finds that, because the adjacent parcel to the east is also owned by CEMEX, the project applicant, this setback may be decreased.

(d) Wind generator setbacks (spacing) within the project boundary shall be in accordance with accepted industry practices pertaining to the subject machine.

The project is a single turbine only.

(e) Fencing shall be erected for each wind machine or on the perimeter of the total project. Wind project facilities shall be enclosed with a minimum four- (4-) foot-high security fence constructed of four (4) strand barbed wire or materials of a higher quality. Fencing erected on the perimeter of the total project shall include minimum eighteen- (18-) inch by eighteen- (18-) inch signs warning of wind turbine dangers. Such signs shall be located a maximum of three hundred (300) feet apart and at all points of site ingress and egress. Where perimeter fencing is utilized, the Planning Commission may waive this requirement for any portion of the site where unauthorized access is precluded due to topographic conditions.

The project is located within a large active mining area that is in a remote area and is already fenced.

(f) All on-site electrical power lines associated with wind machines shall be installed underground within one hundred fifty (150) feet of a wind turbine and elsewhere when practicable, excepting therefrom "tie-ins" to utility type transmission poles, towers, and lines. However, if project terrain or other factors are found to be unsuitable to accomplish the intent and purpose of this provision, engineered aboveground electrical power lines shall be allowed.

The project includes transmission lines that will be undergrounded.

(g) Colors and finish. Wind energy system components shall have a non-glare/non-reflective finish (e.g., galvanized metal) or color appropriate to the background against which they would be primarily viewed, as determined by the Planning Commission, unless it is not technically possible to do so.

The project includes a non-glare whitish color and finish.

(h) Signals, Lights and Signs. No signals, lights or signs shall be permitted on a wind energy system unless required by the Federal Aviation Administration (FAA). If lighting is required, the County shall review the available lighting alternatives acceptable to the FAA and approve a design that it determines would cause the least impact on surrounding views. However, in documented migratory bird flyways, preference shall be given to white strobe lights operating at the longest interval allowed per FAA requirements.

The wind turbine will be required by the Federal Aviation Administration to include a red flashing light at the top of the tower to increase aviation safety (particularly for crop dusters). Research suggests that light flash duration, rather than color, may be a more critical factor reducing bird collisions. Therefore, the longer the off phase between the flash phase of the light pulses, the less likely the birds are to be attracted to the lighting. A Condition of Approval has been added to ensure the lights operate with the longest allowable off phase.

(i) Noise. Where a sensitive receptor such as a residence, school, church, public library, or other sensitive or highly sensitive land use, as identified in the Noise Element of the County General Plan, is located within one-half (1/2) mile in any direction of a project's exterior boundary, a noise or acoustical analysis shall be prepared by a qualified acoustical consultant prior to the issuance of any Major Use Permit. The report shall address any potential noise impacts on sensitive or highly sensitive land uses, and shall demonstrate that the proposed wind energy development shall comply with the following noise criteria:
(1) Audible noise due to wind turbine operations shall not be created which causes the exterior noise level to exceed forty-five (45) dBA for more than five (5) minutes out of any one- (1-) hour time period, or to exceed fifty (50) dBA for any period of time, when measured within fifty (50) feet of any existing residence, school, hospital, church, or public library.
(2) In the event that noise levels, resulting from a proposed development, exceed the criteria listed above, a waiver to said levels may be granted by the Planning Commission provided that: written consent from the affected property owners has been obtained stating that they are aware of the proposed development and the noise limitations imposed by this code, and that consent is granted to allow noise levels to exceed the maximum limits allowed; and a permanent noise impact easement has been recorded on the affected property.

The turbine is located in an active mining area and the nearest two residences are 3,000 to 4,000 feet away. The design specifications for the proposed turbine indicate a maximum noise level at full power capacity of 60 dB. This is measured from the blades and the noise level decreases rapidly as it approaches the ground.

(j) A toll-free telephone number shall be maintained for each wind energy project and shall be distributed to surrounding property owners to facilitate the reporting of noise irregularities and equipment malfunctions.

A Condition of Approval has been added to ensure compliance with this requirement.

(k) Fire Protection. Any Major Use Permit issued for a large wind energy system project shall include fire control and prevention measures stated in the Conditions of Approval which may include, but are not limited to, the following:
(1) Areas to be cleared of vegetation and maintained as a fire/fuel break as long as the wind system is in operation, such as thirty (30) feet around the periphery of the system base and around all buildings (access driveways and roads that completely surround the project may satisfy this requirement); and ten (10) radius feet around all transformers.
(2) All buildings or equipment enclosures of substantial size containing control panels, switching equipment, or transmission equipment, without regular human occupancy, shall be equipped with an automatic fire extinguishing system of a Halon or dry chemical type, as approved by the applicable Fire Department.
(3) Service vehicles assigned to regular maintenance or construction at the wind energy system shall be equipped with a portable fire extinguisher of a 4A40 BC rating.
(4) All motor driven equipment shall be equipped with approved spark arrestors.

A Condition of Approval has been added to ensure compliance with this requirement.

(l) Erosion and Sediment Control. Any Major Use Permit issued for a large wind energy system project shall include erosion and sediment control measures stated in the Conditions of Approval which may include, but are not limited to, necessary re-soiling, proposed plant species, proposed plant density and percentage of ground coverage, the methods and rates of application, sediment collection facilities. The soil erosion and sedimentation control plan shall be consistent with the

applicable requirements of the California Regional Water Quality Control Board pertaining to the preparation and approval of Storm Water Pollution Prevention Plans.

A Condition of Approval has been added to ensure compliance with this requirement.

(m) Monitoring. Upon reasonable notice, county officials or their designated representatives may enter a lot on which a large wind energy system permit has been granted for the purpose of monitoring noise environmental impacts, and other impacts which may arise. Twenty-four hours advance notice shall be deemed reasonable notice.

A Condition of Approval has been added to ensure compliance with this requirement.

(n) Building, engineering, and electrical codes. The system shall comply with the California Building Code and be certified by a professional mechanical, structural, or civil engineer licensed by the state. A wet stamp shall be required.

A Condition of Approval has been added to ensure compliance with this requirement.

That the proposal is consistent with abandonment and financial surety requirements of Section 8-2.2418.7 of the Yolo County Code) as follows:

(a) A large wind energy system that ceases to produce electricity on a continuous basis for twelve months shall be considered abandoned. Facilities deemed by the county to be unsafe and facilities erected in violation of this section shall also be subject to this Section 8-2.2418.7. The code enforcement officer or any other employee of the Planning and Public Works Department shall have the right to request documentation and/or affidavits from the system owner/operator regarding the system's usage, shall make a determination as to the date of abandonment or the date on which other violation(s) occurred.
(b) Upon a determination of abandonment or other violation(s), the county shall send a notice hereof to the owner/operator, indicating that the responsible party shall remove the wind energy system and all associated facilities, and remediate the site to its approximate original condition within ninety (90) days of notice by the county, unless the county determines that the facilities must be removed in a shorter period to protect public safety. Alternatively, if the violation(s) can be addressed by means short of removing the wind energy system and restoring of the site, the county may advise the owner/operator of such alternative means of resolving the violation(s).
(c) In the event that the responsible parties have failed to remove the wind energy system and/or restore the facility site or otherwise resolve the violation(s) within the specified time period, the county may remove the wind energy system and restore the site and may thereafter initiate judicial proceedings or take any other steps authorized by law against the responsible parties to recover costs associated with the removal of structures deemed a public hazard.
(d) Financial Surety. Prior to the issuance of a building permit authorizing installation of a large wind energy system, the applicant shall provide a demolition surety in a form and amount deemed by the county to be sufficient to remove and dispose of the wind energy system and restore the site to its approximate preconstruction condition. The county shall draw upon this surety in the event the responsible party fails to act in accordance with the provisions of this section within ninety (90) days of termination of operations, or upon determination by the county that the wind energy system is unsafe, has been abandoned, or is in violation of this chapter. The surety shall remain in effect until the wind energy system is removed.

A Condition of Approval has been added to ensure compliance with this requirement.

ATTACHMENT G

CONDITIONS OF APPROVAL

ZONE FILE #2011-0039
CEMEX/FOUNDATION WIND USE PERMIT

ON-GOING OR OPERATIONAL CONDITIONS OF APPROVAL:

PLANNING DIVISION - PPW (530) 666-8036

1. The project shall be developed in compliance with all adopted Conditions of Approval approved for Zone File #2011-0039. The applicant shall be responsible for all costs associated with implementing the Conditions of Approval as contained herein.

2. Development of the site, including installation and/or placement of structures, shall be as described in this staff report for this Use Permit (ZF #2011-0039). Installation of one wind turbine and associated underground transmission line shall be limited to the specific area of the property as shown in Attachment B.

3. Any minor modification or expansion of the proposed use shall be consistent with the purpose and intent of this Use Permit, and shall be approved through Site Plan Review or an amendment to this Use Permit, as determined by the Director of Planning and Public Works. The site shall be operated in a manner consistent with the project's approval.

4. This Use Permit shall commence within one year from the date of the Planning Commission's approval or said permit shall be null and void. However, the Planning Director may grant an extension of time for up to one year if the request for a time extension is found to be consistent with the intent of the original approval.

5. Assessment of fees under Public Resources Code Section 21089, and as defined by Fish and Game Code Section 711.4 will be required. The fees ($2,044 plus a $50 Recorder fee) are payable by the project applicant upon filing of the Notice of Determination by the lead agency, within five working days of approval of this project by the Planning Commission.

6. The project is required to comply with recommendations from the National Agricultural Aviation Association for increasing visibility to aircraft pilots. Research suggests that light flash duration, rather than color, may be a more critical factor reducing bird collisions. Therefore, the longer the off phase between the flash phase of the light pulses, the less likely the birds are to be attracted to the lighting. The lighting shall be installed to ensure the lights operate with the longest allowable off phase.

7. Areas to be cleared of vegetation and maintained as a fire/fuel break as long as the wind system is in operation, such as thirty (30) feet around the periphery of the system base and around all buildings (access driveways and roads that completely surround the project may satisfy this requirement); and ten (10) radius feet around all transformers. All buildings or equipment enclosures of substantial size containing control panels, switching equipment, or transmission equipment, without regular human occupancy, shall be equipped with an automatic fire extinguishing system of a Halon or dry chemical type, as approved by the

applicable Fire Department. Service vehicles assigned to regular maintenance or construction at the wind energy system shall be equipped with a portable fire extinguisher of a 4A40 BC rating. All motor driven equipment shall be equipped with approved spark arrestors.

8. Except for a single red-flashing aviation warning light installed on the top of the tower, no exterior lighting shall be provided as part of this project.

9. A toll-free telephone number shall be maintained for each wind energy project and shall be distributed to surrounding property owners to facilitate the reporting of noise irregularities and equipment malfunctions.

10. The applicant shall comply with the abandonment and financial surety requirements of Section 8-2.2814.7 of the Yolo County Code as summarized below:

    (a) A large wind energy system that ceases to produce electricity on a continuous basis for twelve months shall be considered abandoned. Facilities deemed by the county to be unsafe and facilities erected in violation of this section shall also be subject to this Section 8-2.2418.7.
    (b) Upon a determination of abandonment or other violation(s), the county shall send a notice hereof to the owner/operator, indicating that the responsible party shall remove the wind energy system and all associated facilities, and remediate the site to its approximate original condition within ninety (90) days of notice by the county, unless the county determines that the facilities must be removed in a shorter period to protect public safety.
    (c) In the event that the responsible parties have failed to remove the wind energy system and/or restore the facility site or otherwise resolve the violation(s) within the specified time period, the county may remove the wind energy system and restore the site and may thereafter initiate judicial proceedings or take any other steps authorized by law against the responsible parties to recover costs associated with the removal of structures deemed a public hazard.
    (d) Financial Surety. Prior to the issuance of a building permit authorizing installation of a large wind energy system, the applicant shall provide a demolition surety in a form and amount deemed by the county to be sufficient to remove and dispose of the wind energy system and restore the site to its approximate preconstruction condition. The county shall draw upon this surety in the event the responsible party fails to act in accordance with the provisions of this section within ninety (90) days of termination of operations, or upon determination by the county that the wind energy system is unsafe, has been abandoned, or is in violation of this chapter. The surety shall remain in effect until the wind energy system is removed.

ENVIRONMENTAL HEALTH DIVISION - (530) 666-8646

11. The applicant shall submit a hazardous materials business plan and inventory for review and approval by Yolo County Environmental Health Division by the time hazardous materials and/or hazardous wastes are present in reportable quantities on-site, at the facility. Reportable quantities are amounts of hazardous materials that equal or exceed 500 pounds, 55 gallons, 200 cubic feet of gas, or any quantity of hazardous waste.

COUNTY COUNSEL - (530) 666-8172

12. In accordance with Yolo County Code Section 8-2.2415, the applicant shall agree to indemnify, defend, and hold harmless the county or its agents, officers and employees from any claim, action, or proceeding (including damage, attorney fees, and court cost awards)

13. against the County or its agents, officers, or employees to attach, set aside, void, or annul an approval of the county, advisory agency, appeal board, or legislative body concerning the permit or entitlement when such action is brought within the applicable statute of limitations.

    The county shall promptly notify the applicant of any claim, action or proceeding and that the county cooperates fully in the defense. If the county fails to promptly notify the applicant of any claim, action, or proceeding, or if the county fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify, or hold the county harmless as to that action.

    The county may require that the applicant post a bond in an amount determined to be sufficient to satisfy the above indemnification and defense obligation.

14. Failure to comply with the Conditions of Approval as approved by the Yolo County Planning Commission may result in the following actions:
    - non-issuance of future building permits;
    - legal action.

PRIOR TO LAND DISTURBANCE OR ISSUANCE OF BUILDING PERMITS:

PLANNING DIVISION—PPW (530) 666-8036

15. Construction details shall be included in construction drawings, submitted concurrent with the building permit application, and are subject to review and approval by the Director of the Planning and Public Works Department.

16. During construction, all disturbed soils and unpaved roads shall be adequately watered to keep soil moist to provide dust control, and comply with YSAQMD requirements listed below.

17. The applicant shall submit verification to the Planning Division from the lighting manufacturer that the turbine's red light operates with the longest allowable off-phase.

18. Applicant shall notify all agricultural aircraft sprayers that are registered with the Yolo County Agricultural Commissioner of the exact location of the approved turbine (a list may be obtained from the Agricultural Commissioner). This correspondence shall include the longitude and latitude of the tower location, an aerial photograph of the tower location, and a general vicinity map. Applicant shall provide a signed statement that this condition has been satisfied, along with a copy of the mailing list, to the Planning Division.

19. Upon reasonable notice, county officials or their designated representatives may enter a lot on which a large wind energy system permit has been granted for the purpose of monitoring noise environmental impacts, and other impacts which may arise. Twenty-four hours advance notice shall be deemed reasonable notice.

PUBLIC WORKS DIVISION - PPW (530) 666-8811

20. Construction disturbance of one acre or more shall require a Storm Water Pollution Prevention Plan (SWPPP). Any Major Use Permit issued for a large wind energy system project shall include erosion and sediment control measures stated in the Conditions of Approval which may include, but are not limited to, necessary re-soiling, proposed plant species, proposed plant density and percentage of ground coverage, the methods and rates of application, sediment collection facilities. The soil erosion and sedimentation control plan shall be

consistent with the applicable requirements of the California Regional Water Quality Control Board pertaining to the preparation and approval of Storm Water Pollution Prevention Plans.

BUILDING DIVISION - PPW (530) 666-8775

21. All building plans shall be submitted to the Planning and Public Works Department for review and approval in accordance with County Building Standards prior to the commencement of any construction. If applicable, the applicant shall obtain the necessary building permits prior to installation of equipment. New installation shall meet State of California minimum code requirements for fire, life, and safety standards. The system shall comply with the California Building Code and be certified by a professional mechanical, structural, or civil engineer licensed by the state. A wet stamp shall be required.

22. The applicant will be required to provide structural calculations for meeting wind and seismic design standards in accordance with all applicable Uniform Building Codes and Yolo County Code requirements.

23. The applicant shall pay all appropriate fees prior to the issuance of Building Permits, including but not limited to the Woodland Joint Unified School District, Willow Oak Fire District, and County facility fees.

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT - (530) 757-3650

24. Visible emissions from stationary diesel-powered equipment are not allowed to exceed 40 percent opacity for more than three minutes in any one-hour, as regulated under District Rule 2.3, Ringelmann Chart.

25. Portable diesel fueled equipment greater than 50 horsepower, such as generators or pumps, must be registered with either the Air Resources Board's (ARB's) Portable Equipment Registration Program (PERP) (http://www.arb.ca.gov/perp/perp.htm) or with the District.

26. Architectural coatings and solvents used at the project site shall be compliant with District Rule 2.14, Architectural Coatings.

27. All stationary equipment, other than internal combustion engines less than 50 horsepower, emitting air pollutants controlled under District Rules and Regulations require an Authority to Construct (ATC) and Permit to Operate (PTO) from the District.

28. In order to reduce construction-related air pollutants, the following best management practices will be required at the project site to control dust:
    - All construction areas shall be watered as needed.
    - All trucks hauling soil, sand, or other loose materials shall be covered or required to maintain at least two feet of freeboard.
    - Unpaved access roads, parking areas, and staging areas shall be paved, watered, or treated with a non-toxic soil stabilizer, as needed.
    - Exposed stockpiles shall be covered, watered, or treated with a non-toxic soil stabilizer, as needed.
    - Traffic speeds on unpaved access roads shall be limited to 15 miles per hour.
    - Any visible soil material that is carried onto adjacent public streets shall be swept with water sweepers, as needed.

Mitigation Measures

29. Mitigation Measure BIO-1: Swainson's Hawk and White-tailed Kite. If construction is scheduled to occur between March 15 and September 15, prior to construction activity, a qualified biologist should conduct a survey to determine the presence/absence of Swainson's hawk and white-tailed kite nests within 0.25 miles of the project site. This survey is not required if construction occurs during the non-breeding season (September 16 to March 14).

    If an active Swainson's hawk or white-tailed kite nest is found during preconstruction surveys, establish a no-disturbance set-back to avoid nest abandonment. The size of the set-back should be determined based on the ambient noise and disturbance levels, line of sight to the nest, and other relevant site-specific factors. Because of the high levels of existing disturbances on the quarry property, unless it is within approximately 500 feet or appears particularly vulnerable, it is unlikely to be disturbed by construction activities. A site assessment should be conducted by a qualified biologist along with quarry personnel and if necessary, DFG staff, to determine the appropriate set-back distance.

30. Mitigation Measure BIO-2: Burrowing Owl. Prior to construction at any time of the year, a qualified biologist should conduct a survey to determine the presence/absence of active burrowing owl nesting or wintering burrows within 500-feet of all ground disturbance (staging area, turbine pad, access road, and power line corridor).

    If an active burrowing owl nesting burrow is located during preconstruction surveys, establish a no-disturbance set-back to avoid removal or disturbance to the burrow. Maintain a set-back of at least 100 feet from active breeding burrow until after young have fledged. This distance is less than that recommended in the DFG guidelines (California Department of Fish and Game 1995) due to the very high levels of existing noise, truck traffic, and other disturbances associated with aggregate mining. If an active wintering burrow is within the footprint of the turbine pad, staging area, access road, or power line corridor, either adjust the footprint to avoid direct disturbance to the burrow or remove the winter burrow by installing one-way doors to allow owls to escape and then collapse the burrow according to DFG guidelines (California Department of Fish and Game 1994). This also requires consultation and approval from DFG.

31. Mitigation Measure BIO-3: Valley Elderberry Longhorn Beetle. Prior to construction at any time of the year, a qualified biologist should conduct a survey to determine the presence/absence of elderberry shrubs within 100-feet of all ground disturbance (staging area, turbine pad, access road, and power line corridor).

    For complete avoidance of an elderberry shrub that meets the USFWS definition of potentially occupied VELB habitat (i.e., stems measuring 1.0 inch or greater in diameter at ground level), maintain a 100-foot set-back from any project component (USFWS 1999). Identify the location of the shrub by installing a temporary fence around the shrub. With approval from the USFWS, the set-back can be reduced to 20 feet from the dripline of the shrub as long as other protective measures (e.g., signage, worker training, etc.) and restoration and maintenance of the site are applied according to the USFWS guidance (USFWS 1999). If avoidance is not possible, consultation with the USFWS may be required pursuant to Section 10 of the federal endangered species act. Through preparation of a low-effect habitat conservation plan, the project will be permitted to relocate the shrub out of the construction area. Other mitigation may also be necessary according to USFWS guidelines (USFWS 1999).

32. Mitigation Measure BIO-4: Due to the low potential for a collision-related injury or mortality, the applicant shall consult with DFG pursuant to Section 2080 et seq. of the Fish and Game Code to evaluate the need to provide for incidental take of Swainson's hawk. If DFG requires an

incidental take permit as a result of the consultation, the applicant shall obtain the permit prior to commencing operation of the facility. The applicant shall comply with all terms and conditions of the incidental take permit, including but not limited to the performance of any monitoring surveys and compensation for documented fatalities, during the operation of the facility.

33. Mitigation Measure CUL-1:Prior to the issuance of any grading or building permits for the proposed wind turbine, the applicant shall submit a report from a qualified archeologist that analyzes the potential for encountering archeological resources at the turbine location and the along the route of the underground power lines. If the potential for encountering archeological resources is determined by the report to be high or significant, appropriate measures to avoid or lessen the potential impacts, such as employing an on-site monitor during grading and excavation activities, shall be implemented as a condition of grading or building permit approval.

34. Mitigation Measure CUL-2: (a) Implement Mitigation Measure CUL-1, above.
(b) Section 7050.5 of the California Health and Safety Code states that, when human remains are discovered, no further site disturbance shall occur until the county coroner has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours.