

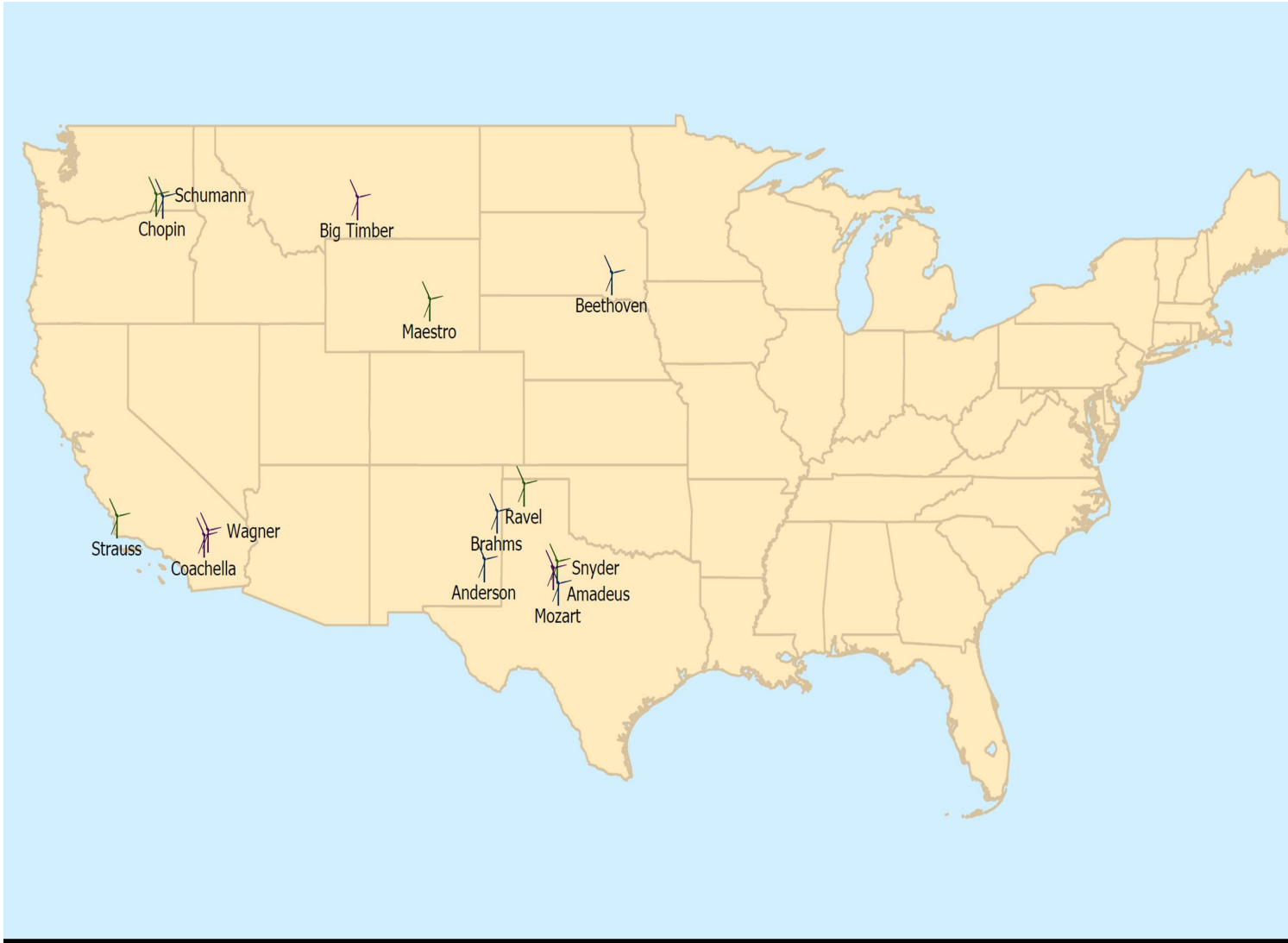
Strauss Wind Energy Project

**Santa Barbara County
Board of Supervisors**

January 28, 2020



BayWa r.e. Wind, LLC



- **Established in 2001**
- **Based in Southern California**
- **14 projects and over 2,000 MW either constructed or at various stages of development**

Nearly 20-Year Strauss Project History

- **March 2001** – First meteorological tower installed confirming strong wind resources
- **September 2002** – First environmental and technical studies initiated
- **July 2007** – Draft EIR released for 65-turbine Lompoc Wind Energy Project (LWEP)
- **September 2008** - Planning Commission approves LWEP
- **February 2009** – Board of Supervisors denies appeal and unanimously approves LWEP. (Later upheld by both the District Court and Court of Appeals)
- **July 2015** – LWEP surrenders CUP and LUP
- **December 2016** – Strauss Wind submits Conditional Use Permit Application and continues all technical studies for the Strauss Wind Energy Project (SWEP)
- **April 2019** – SWEP Draft Supplemental EIR released
- **November 2019** – Planning Commission unanimously approves SWEP EIR and CUP
- **February 2020** - Expected SWEP Construction Start Date
- **November 2020** – Expected SWEP Commercial Operation Date

Strauss is Consistent with State and Local Renewable Energy Initiatives

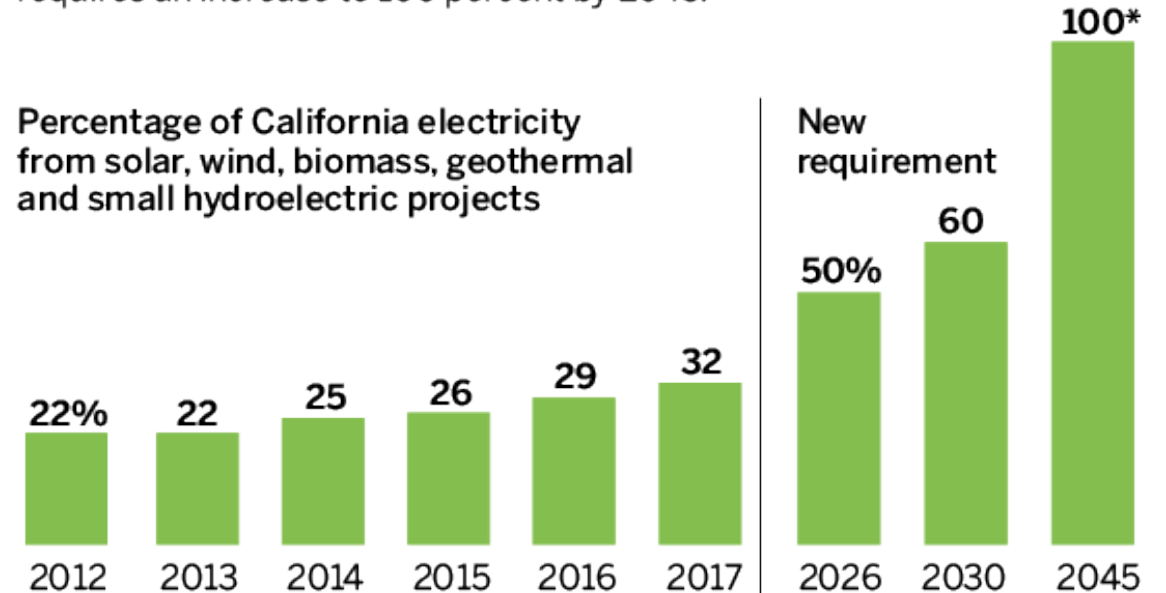
Actions in Santa Barbara County

- 2009 – Approval of “Santa Barbara County Climate Change Guiding Principles”
- 2009 – Unanimous Approval of the Lompoc Wind Energy Project
- 2014 – Unanimous Approval of the 40 MW Cuyama Solar Project
- 2015 – Approval of the Energy and Climate Action Plan (ECAP) calling for approval of utility-scale renewable energy projects
- 2019 – Partnership with Monterey Bay Clean Power
- 2019 – Approval of County's Strategic Energy Plan (SEP)
- 2019 – Unanimous Planning Commission Approval of SWEP

RENEWABLE ENERGY GROWTH IN CALIFORNIA

California receives 32 percent of its electricity from solar, wind and other renewable sources. A new law signed Monday by Gov. Jerry Brown requires an increase to 100 percent by 2045.

Percentage of California electricity from solar, wind, biomass, geothermal and small hydroelectric projects



*"Non-carbon" sources like nuclear and large dams also can provide up to 40 percent.

Source: California Energy Commission

BAY AREA NEWS GROUP

Project Benefits

Over its 30 year life, the clean renewable energy produced by the Strauss Project will avoid the release of approximately 6,000,000 metric tons of CO₂ into the atmosphere. The equivalent of:

14.7 Million

BARRELS OF OIL

- 1969 Santa Barbara oil spill: **100,000 barrels**
- 2015 Refugio oil spill – **3,400 barrels**

1.3 Million

VEHICLES REMOVED FROM ROAD

- **3 times more** than all registered vehicles in Santa Barbara County

3.3 Million

TREES PLANTED

- **15,000 times more** trees than impacted by Strauss Project

Project Benefits

- Generate enough **clean, renewable energy** to power nearly **43,000 homes**, or the equivalent of approximately **1/3 of all housing units in Santa Barbara County**
- Generate an estimated **\$40 million** in tax revenue during its 30-year lifecycle, making it among the **top ten** tax contributors in Santa Barbara County
- Create approximately **150 well-paying construction jobs**, which will include skilled union workers
- Create **5-7 permanent jobs** once operational
- **Increase revenue** to local restaurants, hotels, and other services
- Increase local generation and **grid resilience**
- Provide supplemental income to landowners to **support long-term agricultural operations**

Expert Site Design and Analysis

By the Numbers...

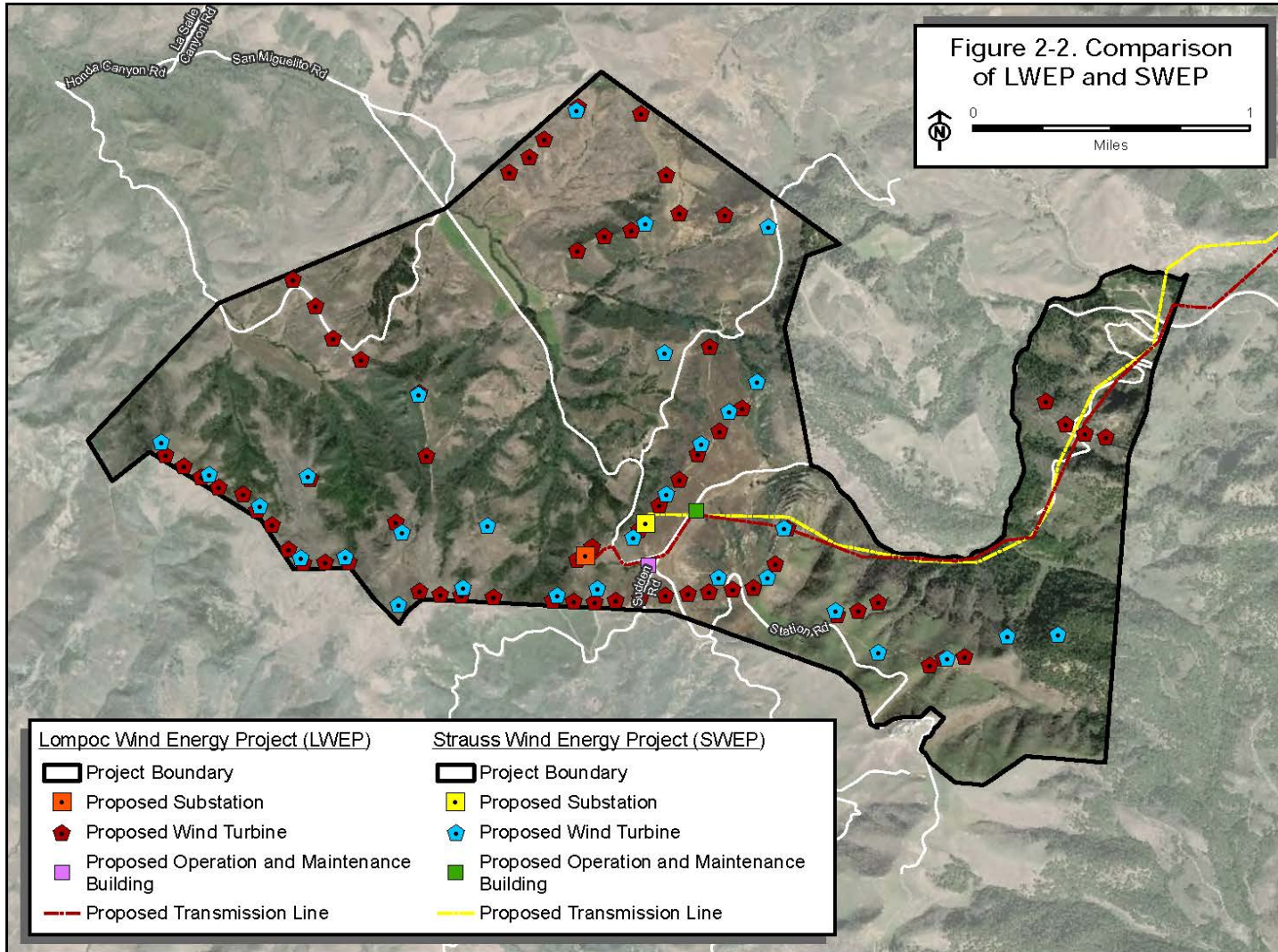
MORE THAN **450** TECHNICAL EXPERTS HAVE WORKED ON THE PROJECT

MORE THAN **300** TECHNICAL STUDIES AND REPORTS HAVE BEEN PREPARED

MORE THAN **25,000** HOURS SPENT

- Biological - avian, bat, sensitive wildlife species and habitat, and plants
- Cultural & Archeological
- Noise
- Visual
- Wind Resources
- Turbine Analysis
- Civil and Electrical Engineering
- Geotechnical
- Hydrology and Groundwater
- Agriculture
- Waters & Wetlands
- Traffic
- Utility systems and Radar
- Fire and Emergency Services
- And Many More.....

Site Design Optimization



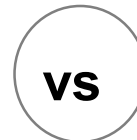
Goals:

- **Reduce** Impacts to Maximum Extent Possible
- **Balance** Multiple Site Constraints
- **Meet** Project Objectives

Number of Turbines

65

Lompoc Wind

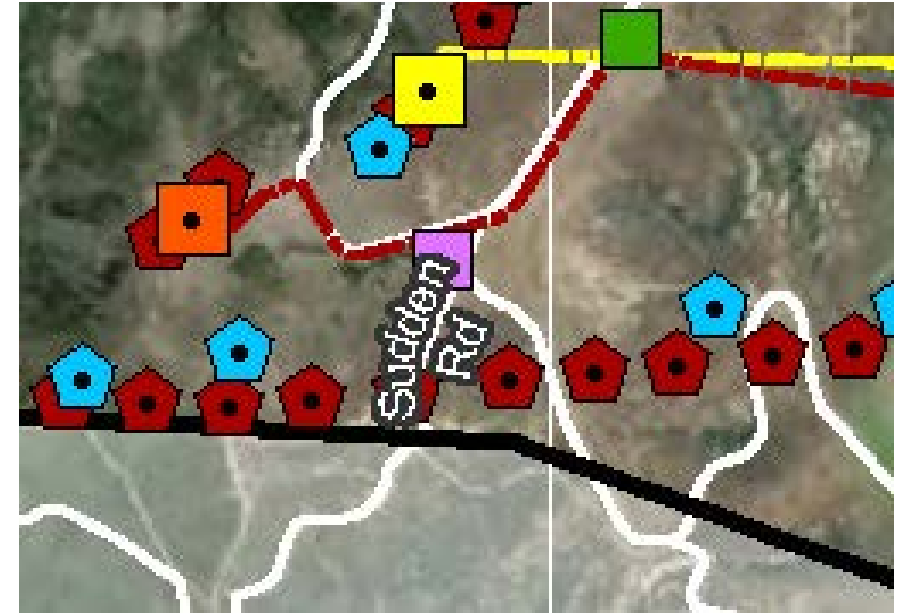
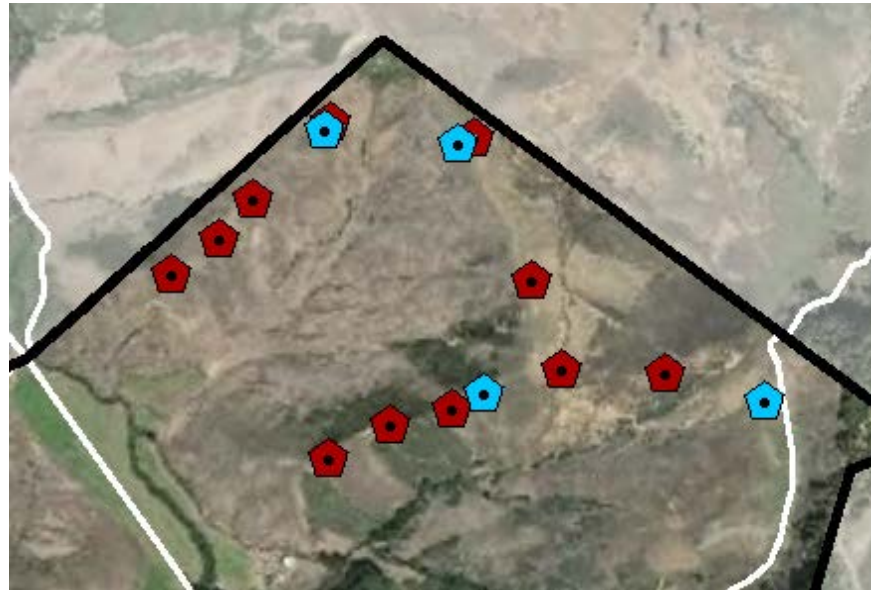


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Strauss Wind

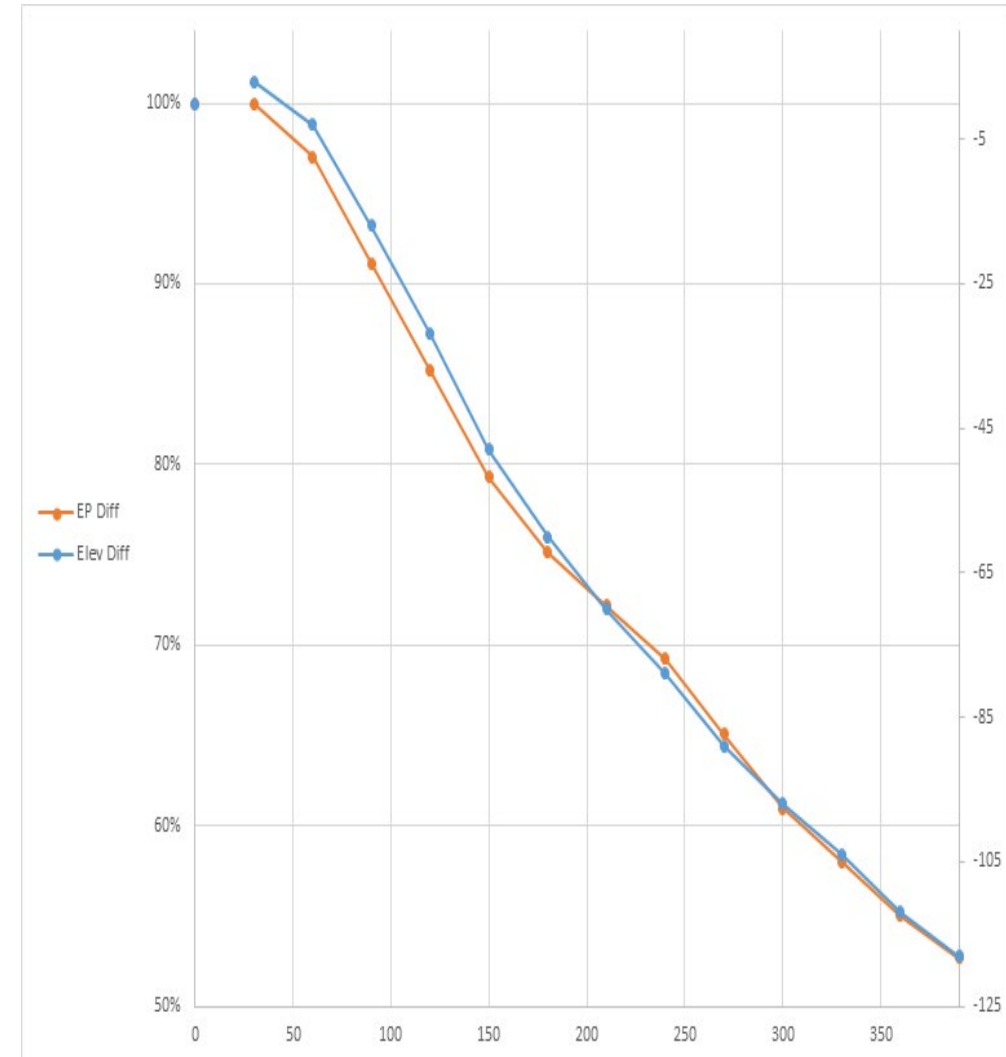
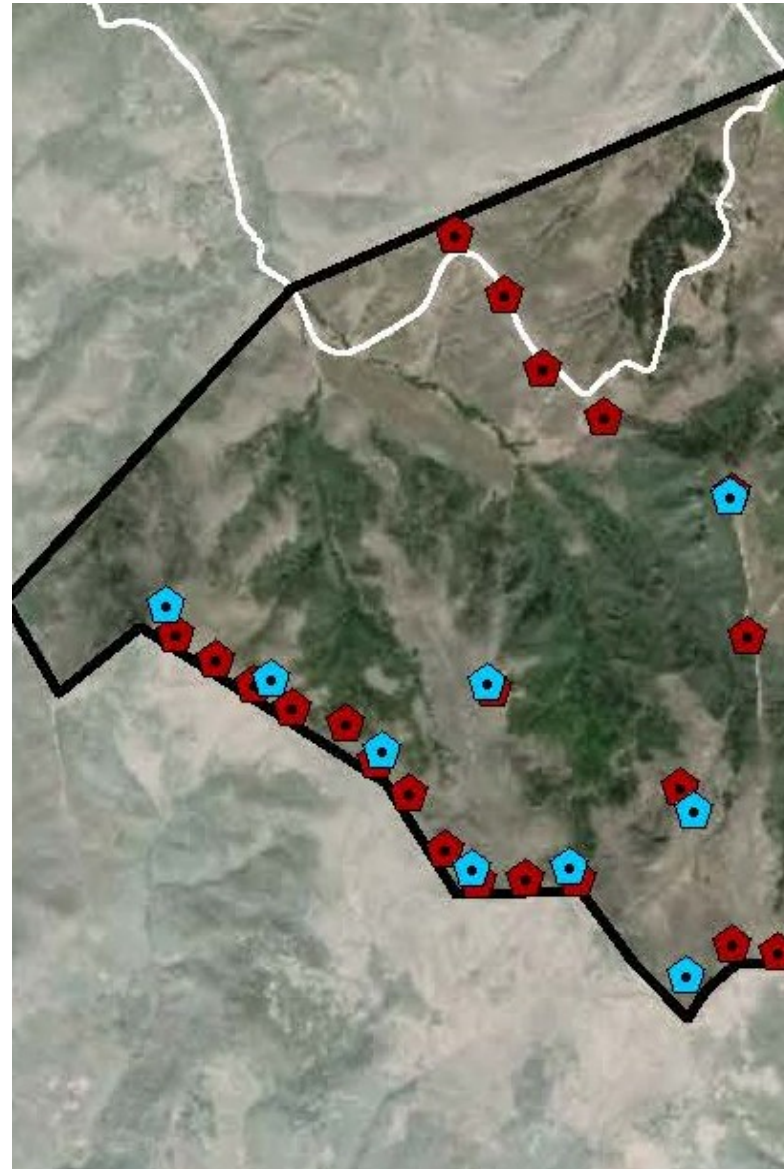
Reduce Impacts and Balance Constraints

- Avian / Raptor Use
- Cultural Resources
- Gaviota Tarplant
- El Segundo Blue Butterfly
- Waters & Wetlands
- Native Grasslands
- Engineering
- Geotechnical



Reduce Impacts, Balance Constraints, and Meet Project Objectives

- Avian / Raptor Use
- Cultural Resources
- Gaviota Tarplant
- El Segundo Blue Butterfly
- Waters & Wetlands
- Native Grasslands
- Engineering
- Geotechnical



Impacts to oak trees have been reduced by nearly 90%

Diameter Range (in.)	Total	Percentage of Total Impacts
1-5.9	107	48%
6-11.9	36	16%
12-17.9	34	16%
18-23.9	20	8%
24-29.9	12	5%
30+	16	7%
	225	100%

Of the nearly **10,000** oak trees identified during surveys, **225** trees are expected to be impacted or approximately **2%**

Nearly **half** of the trees impacted have trunk diameters of **less than 6"**

1,750

**ORIGINAL
STRAUSS
PROPOSAL**

607

DRAFT EIR

225

FINAL EIR



**REDUCTION IN
IMPACT TO
OAK TREES**

 **Approximately 75% of oaks impacted are similar in size those below**



Gaviota tarplant impacts minimized and conservation maximized

- Over **1500** hours spent by qualified botanists inventorying approximately 3,000 acres
- Alternative work areas, pad locations, access roads, and design modifications were evaluated to **minimize** impacts
- As Strauss **refined** the project design in coordination with expert botanists, on-site **conservation** areas were established outside of impact areas
- Of the nearly **3,000** acre project site, **150** acres are impacted by the project, of which, less than **30** acres consist of occupied Gaviota tarplant habitat, or **1%** of the total project site.
- **All** occupied habitat and occurrences of Gaviota tarplant outside of the grading footprint will be **preserved in perpetuity** subject to detailed long-term management and monitoring plan.

2,000

APPROX. TOTAL ACRES IN CONSERVATION

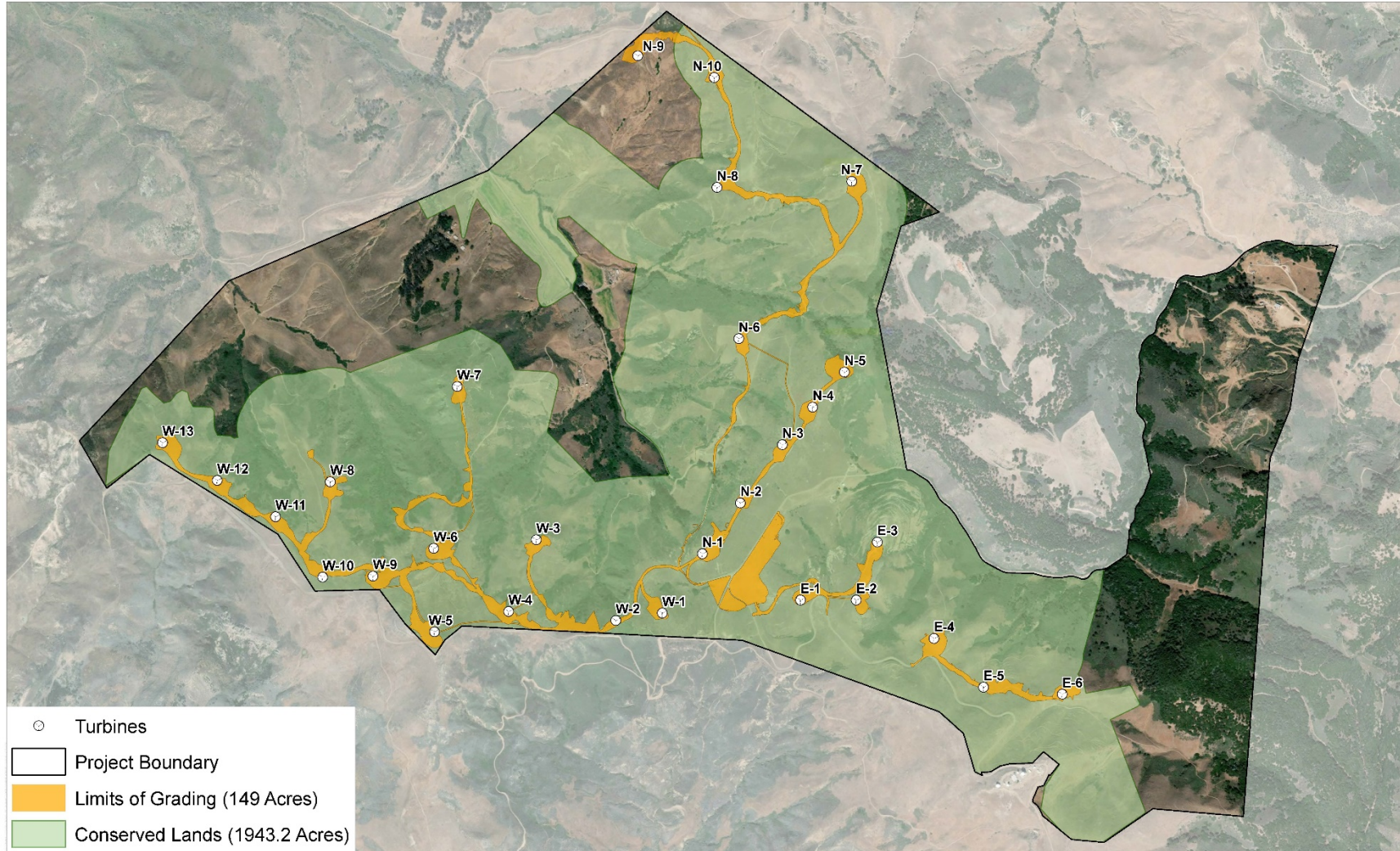
672

ACRES OF GAVIOTA TARPLANT DESIGNATED CRITICAL HABITAT CONSERVED

5,811,337

INDIVIDUAL GAVIOTA TARPLANT PLANTS CONSERVED

Commitment to long-term resource protection



SOURCE: DigitalGlobe 2018



Conserved Lands
Strauss Wind Energy Project

Strauss Wind Project

- **Doubles the renewable energy production in the County**
- **Property sited**
- **Subject to 20 years of rigorous data collection and project design**
- **Minimizes impacts and balances constraints to maximum extent**
- **Adherence to rigorous mitigation and monitoring program**
- **Ensuring long-term preservation of resources and agricultural uses**
- **Ready for Construction**

A few of the Strauss Supporters



SIERRA CLUB



Community Environmental Council



The Chamber OF THE SANTA BARBARA REGION
Helping Business Succeed Since 1899



Clean Coalition
Making Clean Local Energy Accessible Now



CAUSE
Central Coast Alliance United for A Sustainable Economy

LWV LEAGUE OF WOMEN VOTERS[®] OF SANTA BARBARA



CALPIRG
Standing Up To Powerful Interests

LWV LEAGUE OF WOMEN VOTERS[®] OF SANTA MARIA VALLEY

LOACOM

SANTA BARBARA MUSEUM of NATURAL HISTORY

SANTA BARBARA MUSEUM of NATURAL HISTORY
SEA CENTER

WORLD BUSINESS ACADEMY

THE CLIMATE MOBILIZATION
SANTA BARBARA COUNTY

GOO!
Get Oil Out

SANTA BARBARA STANDING ROCK COALITION



The Climate Reality Project
SANTA BARBARA, CA CHAPTER

GOLETA
CHAMBER OF COMMERCE



Mercury Press INTERNATIONAL



NUCLEAR AGE PEACE FOUNDATION

Committed to a world free of nuclear weapons

EXPLORE **LOMPOC**
explorelom poc.com



BUELLTON
CHAMBER OF COMMERCE SINCE 1956

LIVE OAK UNITARIAN UNIVERSALIST CONGREGATION of GOLETA

AIA
Santa Barbara



SureStay PLUS HOTEL
by BEST WESTERN



Hilton Garden Inn
Lompoc

Santa Barbara Permaculture Network
local to global, an educational non-profit since 2000.

San Luis Obispo **COASTKEEPER**



Daniel Duke

Vice President – Development
duke@baywa-re.com



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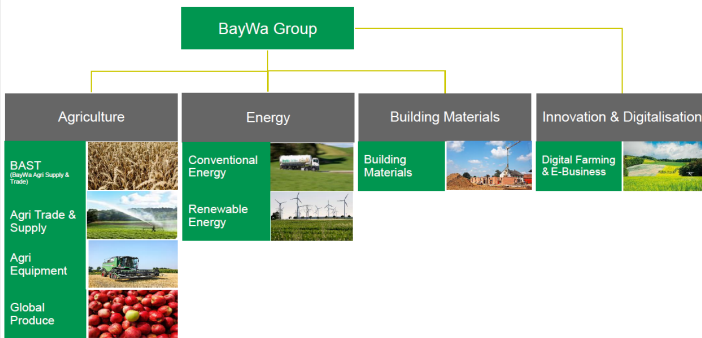


BayWa r.e. Global

The BayWa Group Segment Breakdown



OUR STRUCTURE



BayWa AG, Investor Relations

May 2018

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Energy Segment

Sustainable Solutions for a Brighter Future



OUR BUSINESS IN 2017 € 3.6 bn Revenues 2,079 Employees 22% of Group Revenues



- Organised into the business units of **Conventional Energy** and **Renewable Energy**
- Conventional Energy encompasses **energy-related services** as well as the sale of **wood pellets, fossil-based heating materials, fuels, lubricants and AdBlue**
- Renewable energy activities are bundled in the holding company **BayWa r.e. renewable energy**
- Position as a project developer and trader in the areas of **solar, wind** and **biomass** energy
- Largest independent solar trader in Germany**

Conventional Energy

Logistics, Sales, Trade, Service, Petrol Stations

- Heating contracting
- Wood pellets
- Heating oil
- Fuels
- AdBlue
- Lubricants

Renewable Energy

Trade, Project Development & Financing, Consulting, Service

- Solar energy
- Wind energy
- Biomass energy

BayWa AG, Investor Relations

May 2018

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Energy Segment

BayWa r.e. renewable energy



OUR SUCCESS



- Full supplier** for the renewable energies business
- Presence in the most important markets in **Europe** as well as **Australia, North America and Southeast Asia**
- About **2 GW capacity** added to the grid (wind farms, solar parks and biogas facilities)
- Project rights for **4.6 GW of wind and solar energy** secured
- Technical and commercial operation** of solar and wind farms with an output of more than **4.5 GW**
- Trading of PV-components: more than **1,680 MWP** of solar modules sold
- Premium provider of **green electricity** and **green gas** as well as **contracting solutions**; more than **5.6 TWh** Biomethane traded

BayWa AG, Investor Relations

May 2018

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BayWa r.e. in numbers

Countries we are based in

20

MW installed worldwide

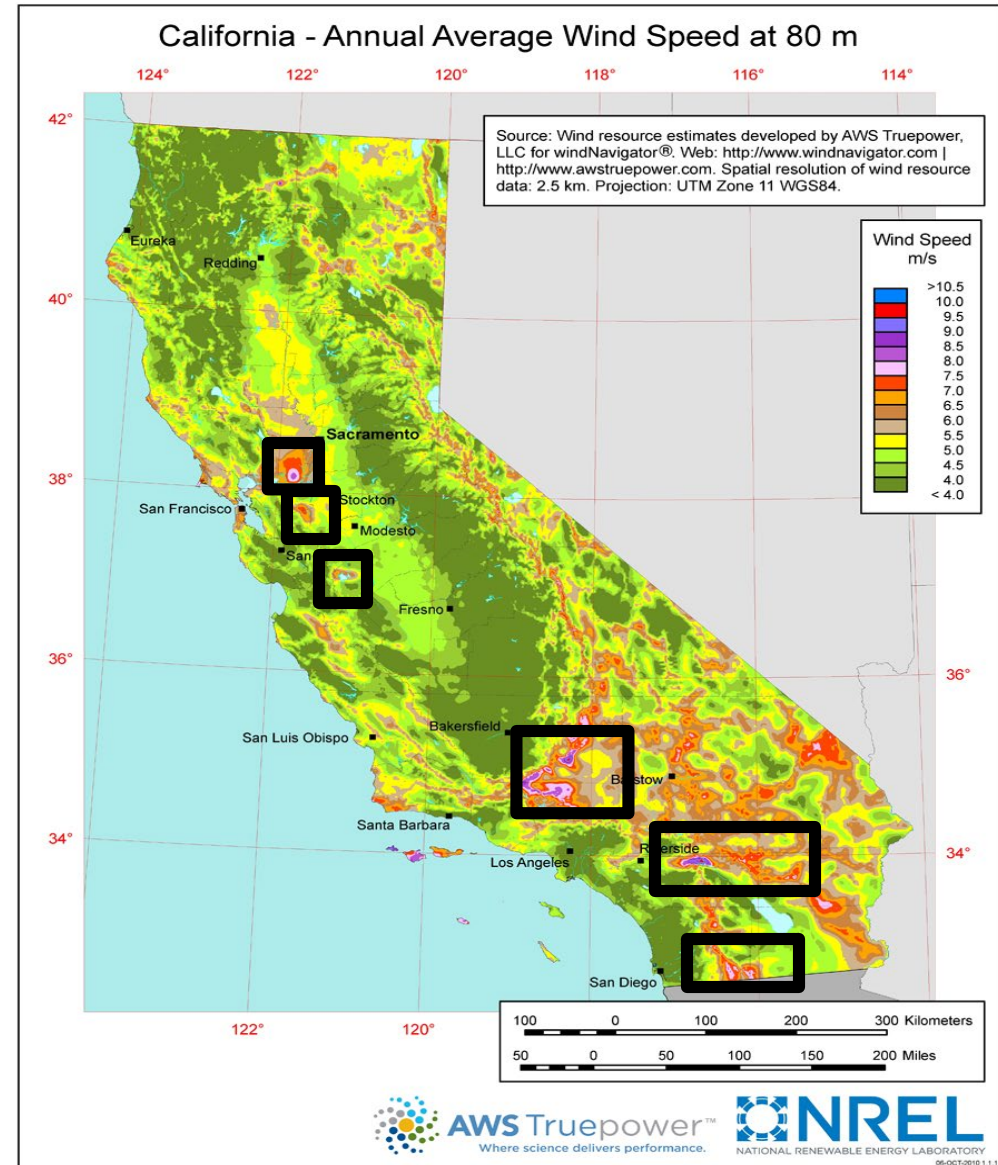
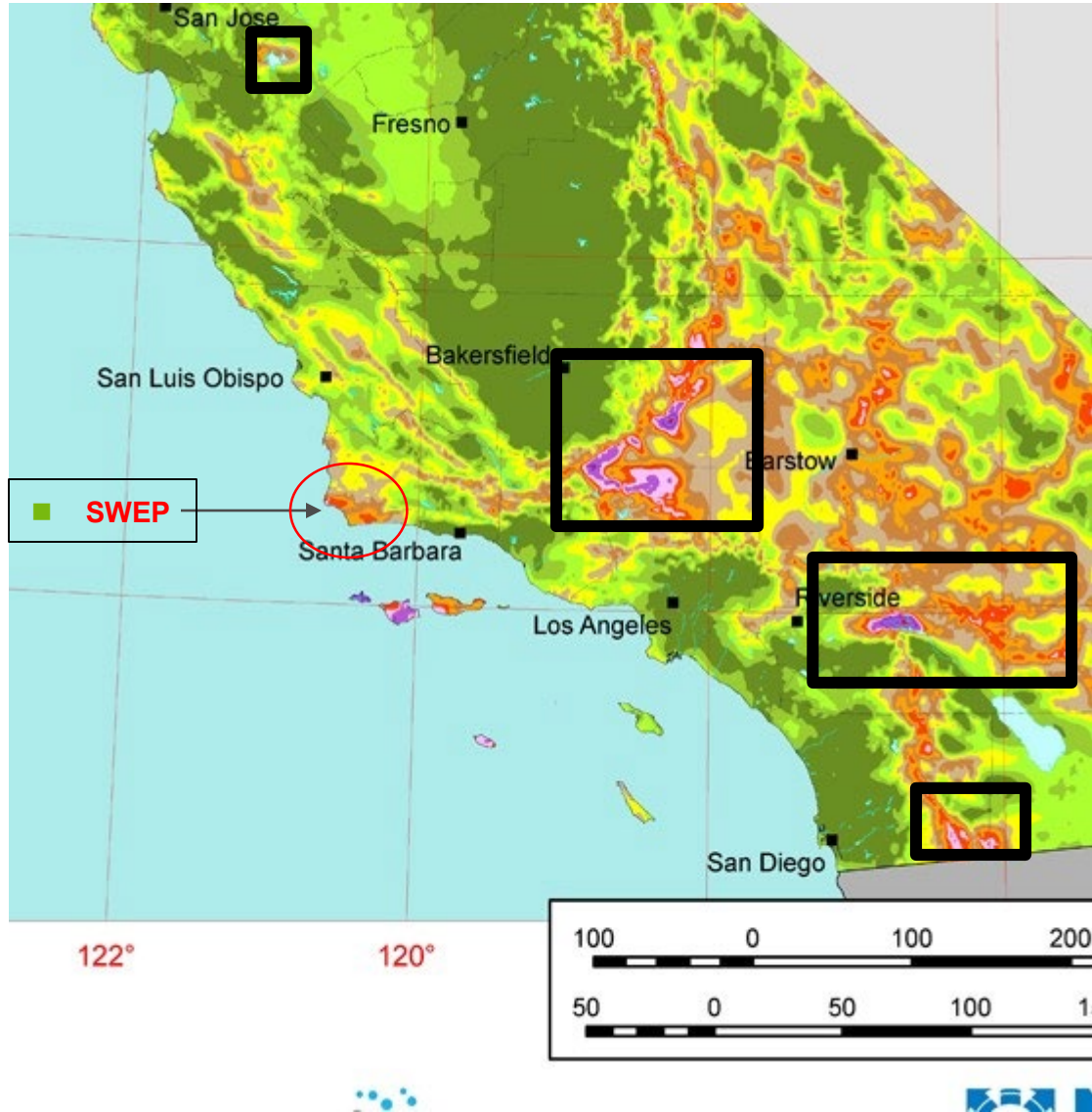
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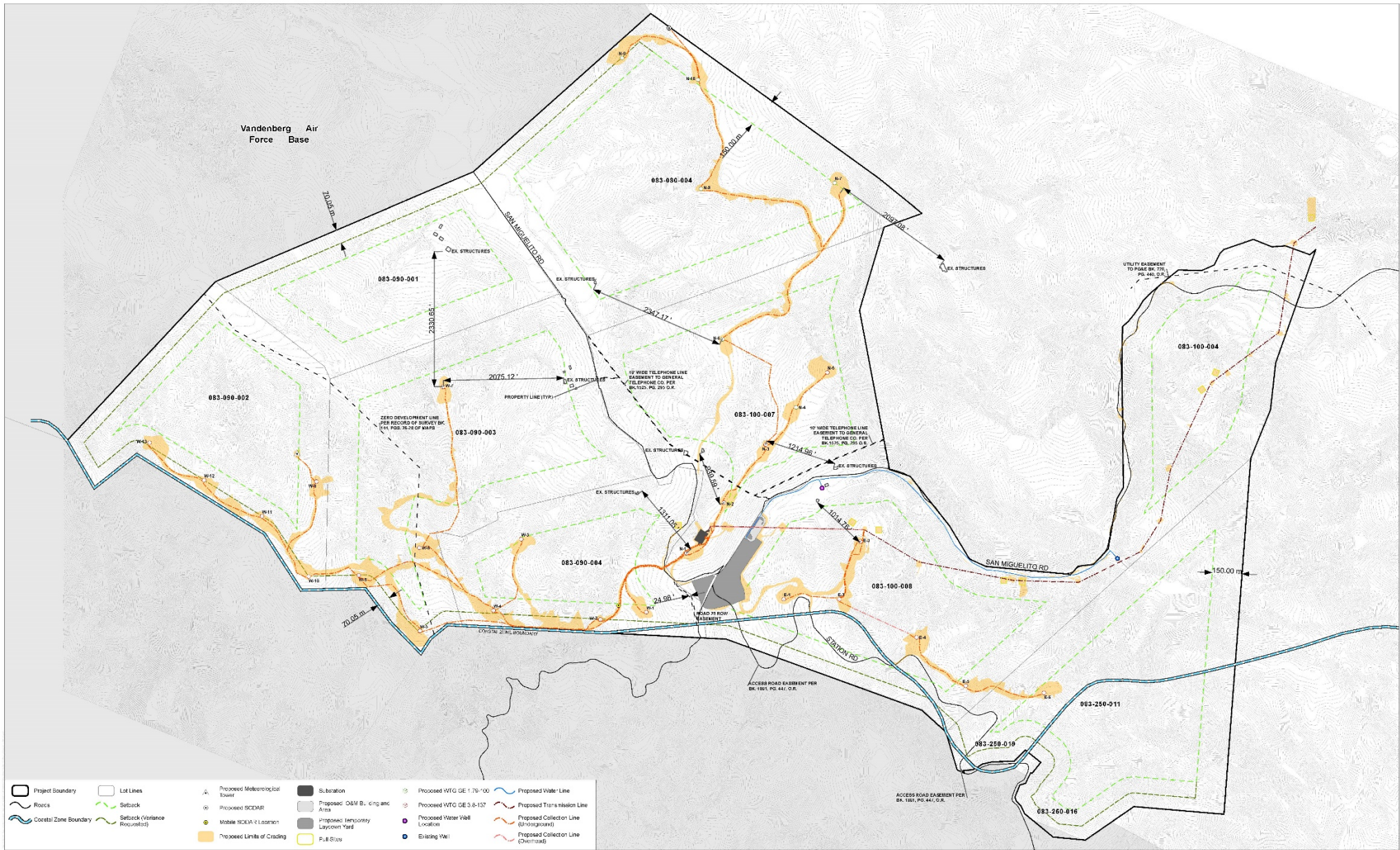
MW managed worldwide

7000



California Wind Resource Areas





SOURCE: BayWa 2019

SITE PLAN

EXHIBIT A
Site Plan (11/08/2019)



Strauss Wind Energy Project

