DOCKETED	
Docket Number:	19-IEPR-07
Project Title:	Electricity Sector
TN #:	229912
Document Title:	Using Available Data to Identify Offshore Wind Energy Areas
Description:	Presentation by Jaime Jahncke, Point Blue Conservation Science
Filer:	Raquel Kravitz
Organization:	Point Blue Conservation Science
Submitter Role:	Public
Submission Date:	10/1/2019 3:58:23 PM
Docketed Date:	10/1/2019

Using Available Data to Identify Offshore Wind Energy Areas

Jaime Jahncke, Cotton Rockwood, Leo Salas and Nadav Nur
October 3, 2019

Point Blue
Conservation science
for a healthy planet

Stakeholders Need

- Transparent and objective analysis to identify siting locations
- Research to identify key data gaps
- Ability to update models with new data to inform managers
- Explicit incorporation and presentation of uncertainty

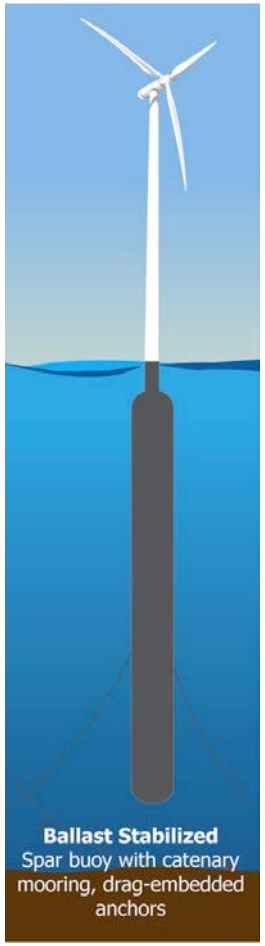
Goal

To **promote transparent and objective decision-making** around the selection of locations and types of renewable energy development.

Point Blue

Background

There are ~700 data layers to inform energy siting that need to be synthesized



Point Blue

Objectives

1. **Identify suitable locations** for marine renewable energy siting using existing body of information compiled in ‘Data Basin’,

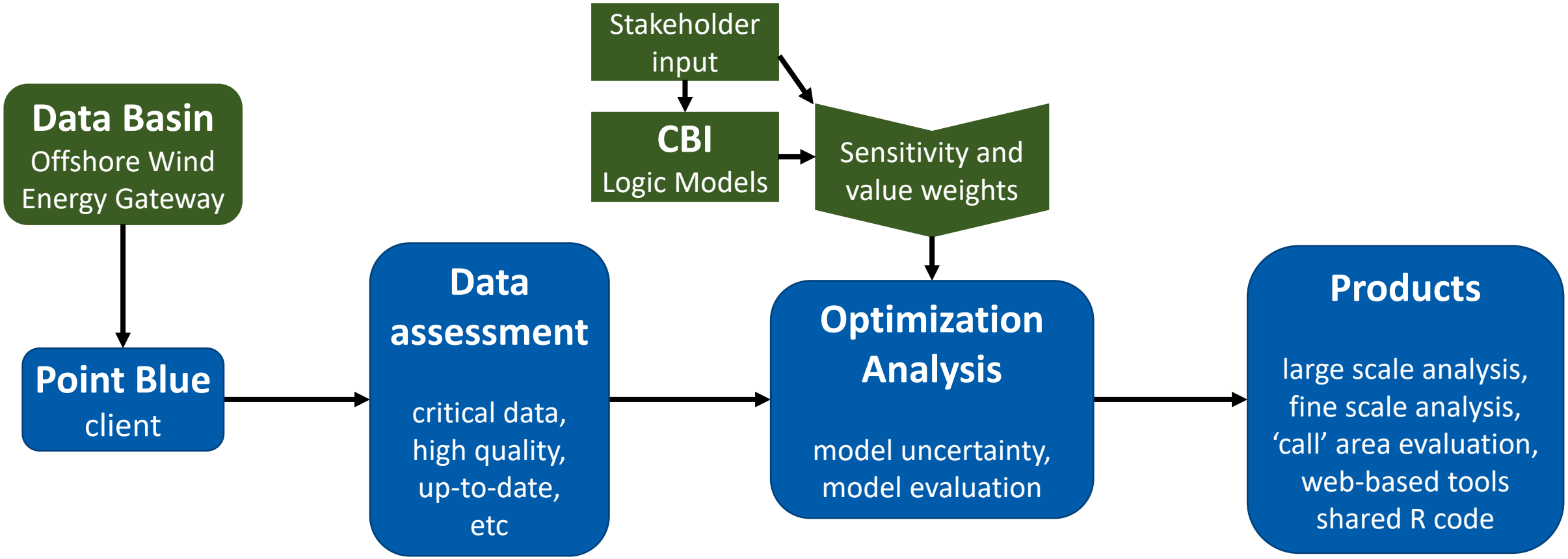
2. Provide the foundation for lease selection by **identifying data priorities and gaps, and evaluating conflicts and trade-offs.**

3. **Examine offshore wind “call” areas** identified by BOEM and additional candidate areas for potential development.

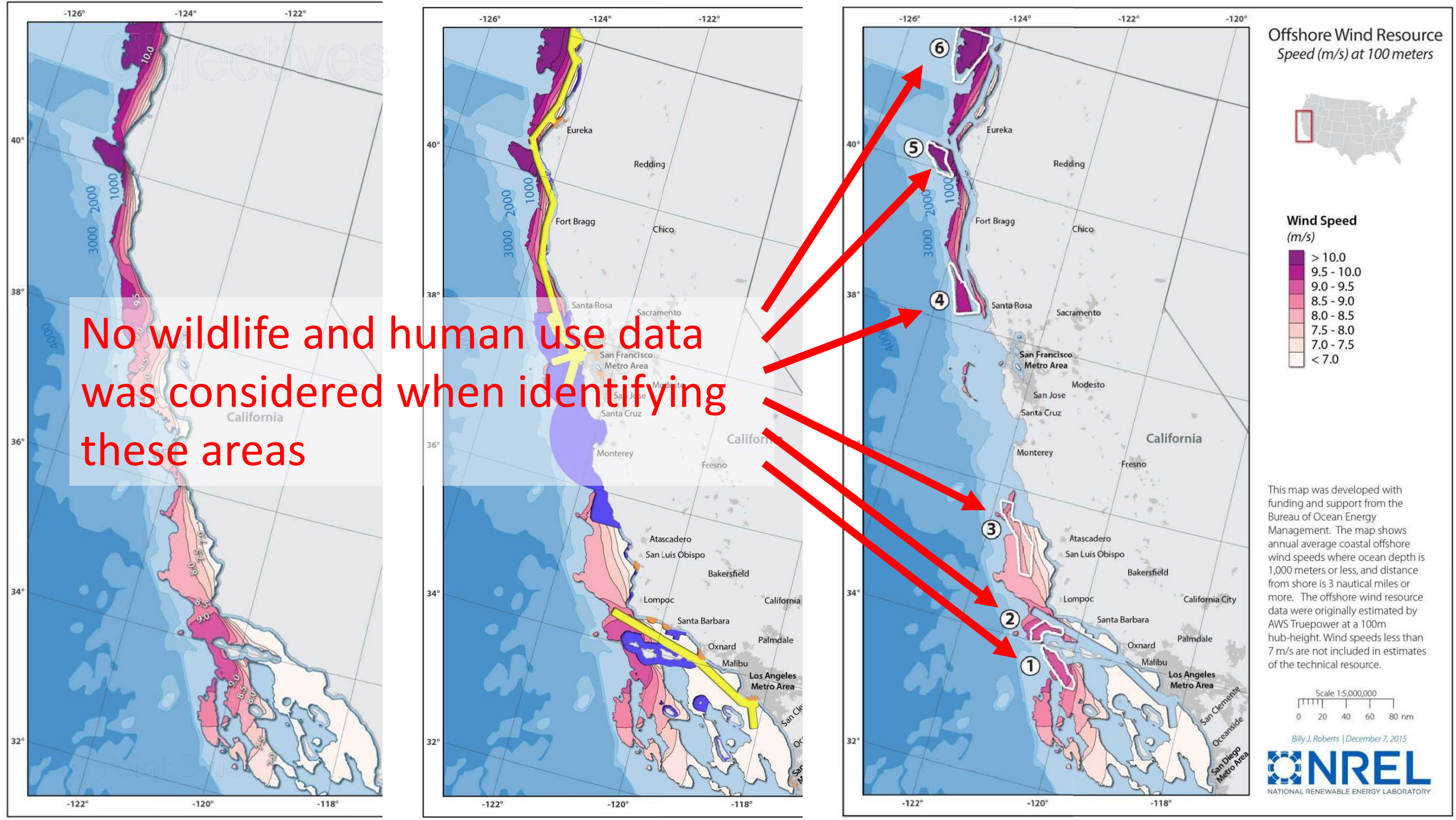
4. **Disseminate results** of data quality and spatial optimization analysis to agency managers, industry, and other stakeholders.

Point Blue

Approach

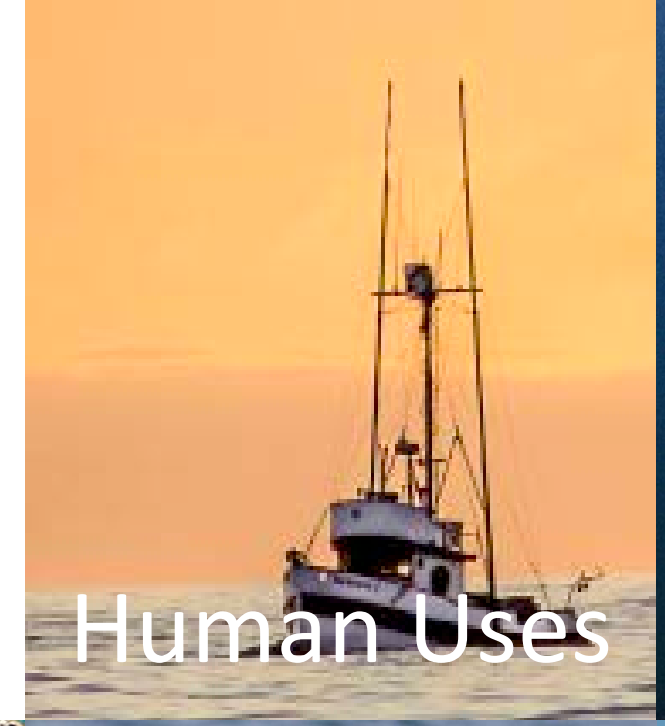


Point Blue


Objectives
No wildlife and human use data was considered when identifying these areas
Offshore Wind Resource
Speed (m/s) at 100 meters
Wind Speed
(m/s)
> 10.0
9.5 - 10.0
9.0 - 9.5
8.5 - 9.0
8.0 - 8.5
7.5 - 8.0
7.0 - 7.5
< 7.0
This map was developed with funding and support from the Bureau of Ocean Energy Management. The map shows annual average coastal offshore wind speeds where ocean depth is 1,000 meters or less, and distance from shore is 3 nautical miles or more. The offshore wind resource data were originally estimated by AWS Truepower at a 100m hub-height. Wind speeds less than 7 m/s are not included in estimates of the technical resource.
Scale 1:5,000,000
0 20 40 60 80 nm
Billy J. Roberts | December 7, 2015
NREL
NATIONAL RENEWABLE ENERGY LABORATORY
Eureka
Redding
Fort Bragg
Chico
Santa Rosa
Sacramento
San Francisco Metro Area
Modesto
San Jose
Santa Cruz
Monterey
Fresno
Atascadero
San Luis Obispo
Bakersfield
Lompoc
California City
Santa Barbara
Oxnard
Palmdale
Malibu
Los Angeles Metro Area
San Clemente
Oceanside
San Diego Metro Area
California
1
2
3
4
5
6

What is Critical Data?

Define “key science-based datasets” in the context of the project.



Deliverables

Large scale analysis

Maps identifying locations along the west coast that maximize energy production and minimize potential environmental impacts and conflicts with human use.

Point Blue

Deliverables

Fine scale analysis and ‘Call’ area evaluation

Maps showing data availability and report evaluating the data types, quality, resolution and extent of time series available in main identified sites from large scale analysis and ‘call’ areas identified by BOEM.

Point Blue

Outcome

Recommendations on offshore wind energy siting guided by and based on a comprehensive and transparent analysis of data included in the California Offshore Wind Energy Gateway.

Analysis includes: 1) **quantification of impacts** to habitats, species and ocean uses, 2) **accounts for offshore energy potential** in a statistically rigorous framework derived from the perspectives of multiple stakeholders, 3) **provides explicit measures of uncertainty** and risks through transparent analysis.

Point Blue


Point Blue
Conservation
Science
Thank You
OCEAN
PROTECTION
COUNCIL
GORDON AND BETTY
MOORE
FOUNDATION
THE David & Lucile Packard Foundation