Web site: http://ezmt.anl.gov E-mail: ezmt@anl.gov

Energy Zones Mapping Tool Newsletter

Webinar Demo: New Data Content and Activities

Tuesday, December 13, at 4pm ET / 3 pm CT / 2 pm MT / 1 pm PT

Use the following link to attend the webinar: https://bluejeans.com/134131319
Audio: 1.866.226.4650, Meeting Id 134131319#

If you have not previously used BlueJeans, we recommend allowing time for the software to install prior to the meeting. Users without administrative access can choose a one-time browser plugin.
After a brief project and interface introduction, the demonstration will highlight:

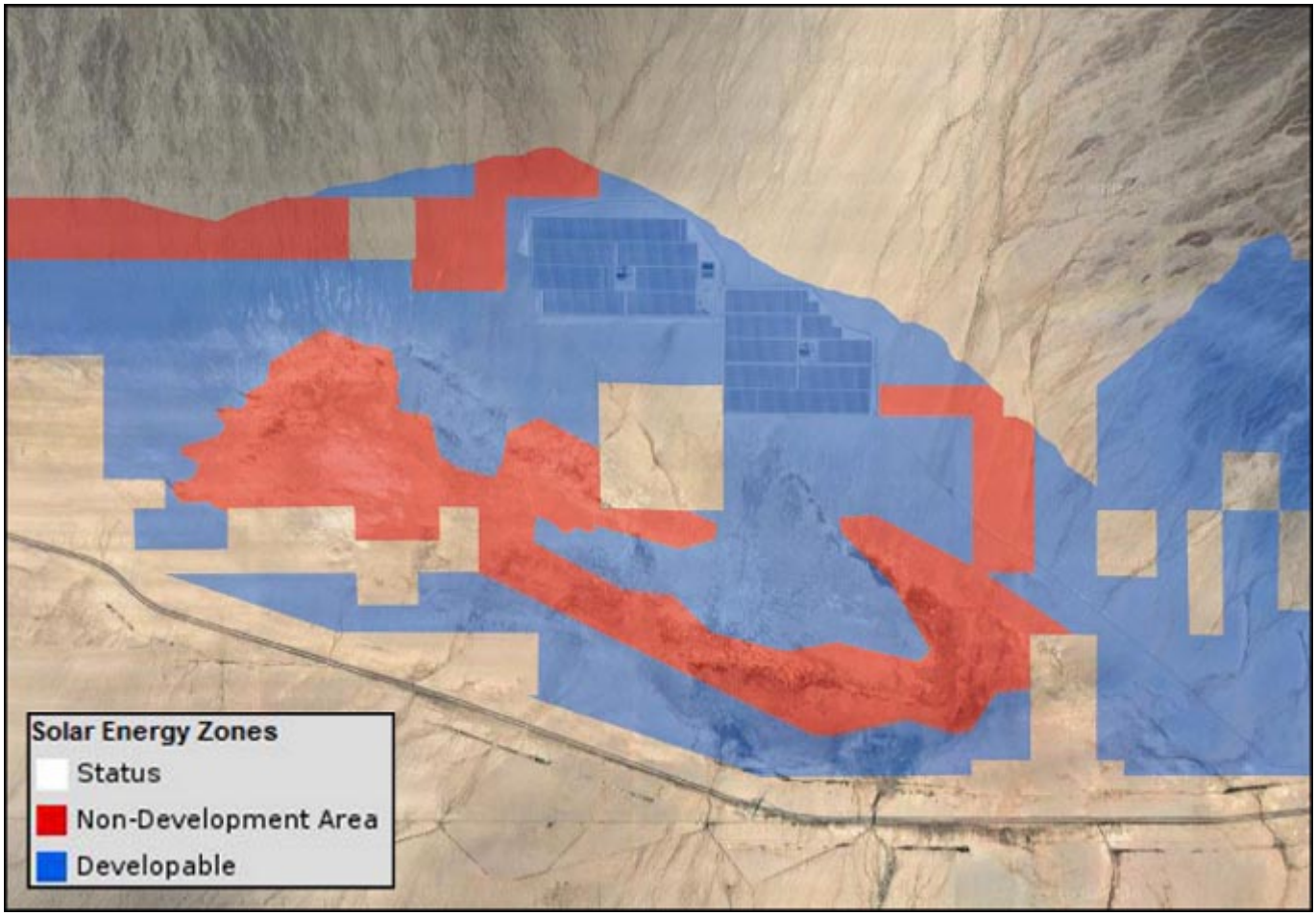
- New water availability, cost, and consumptive use data
- Most notable new mapping layers - added, updated, or extended to the full U.S.
- Examples highlighting solar, wind, and energy corridor analysis in the western U.S.
- Brief overview of new energy/water study for the Eastern Interconnection
- Opportunity for questions or comments from the audience

New Data Added to EZMT or Extended to Entire United States

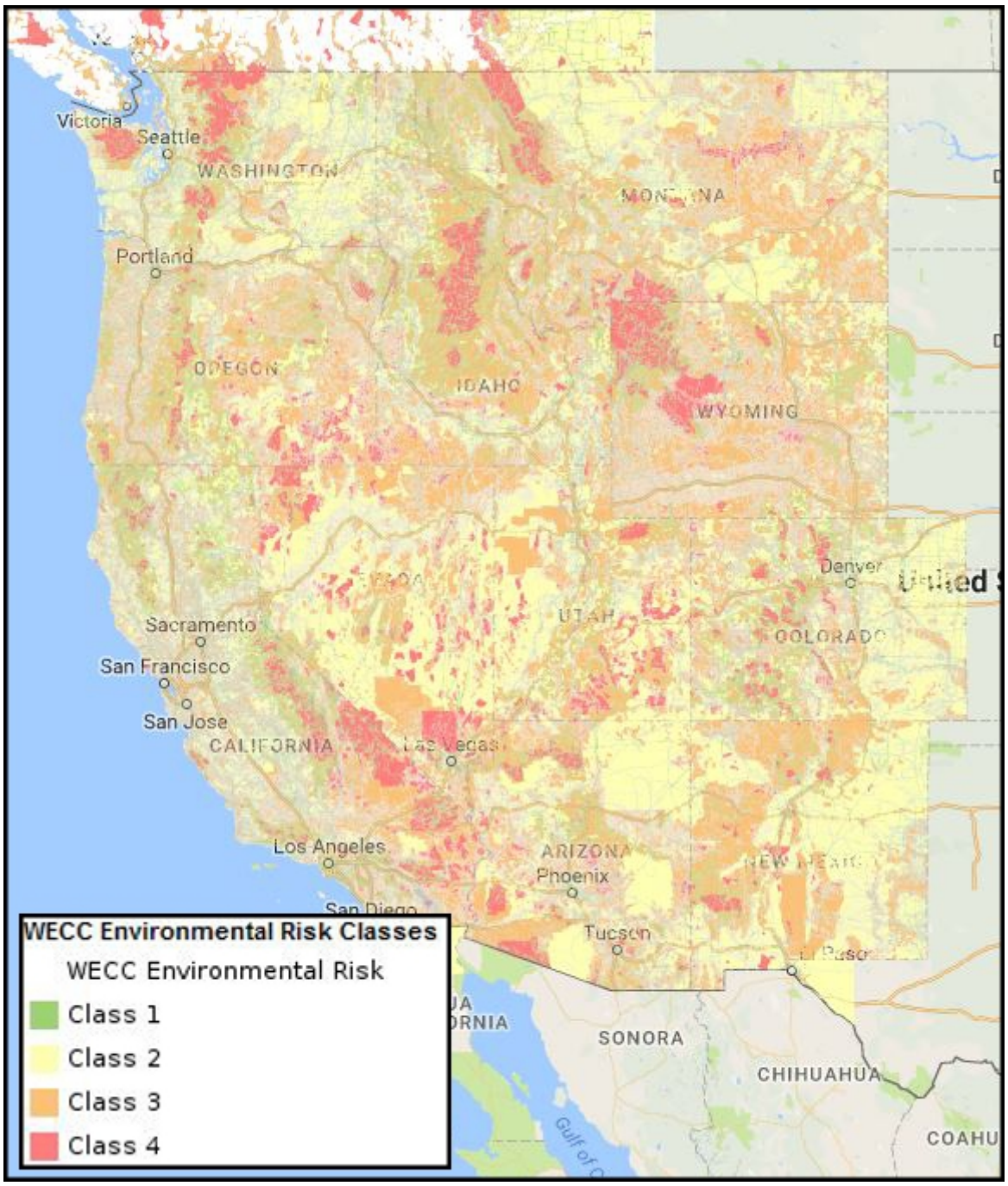
Many layers have recently been added to the EZMT catalog or have been extended to cover the entire United States. Categories of data include:

- Boundary - 4 layers
- Cadastre - 2 layers
- Climate - 3 layers
- Demographics - 3 layers
- Ecology - 10 layers
- Environmental Hazards - 3 layers
- Geology - 6 layers
- Hydrography - 21 layers
- Improvement - 3 layers
- Land status - 2 layers
- Transportation - 5 layers
- Utilities - 2 layers

A full list of new and extended layers can be seen in the recent news items on the EZMT homepage. A few examples are shown below.



Solar Energy Development within the Riverside East Solar Energy Zone in California

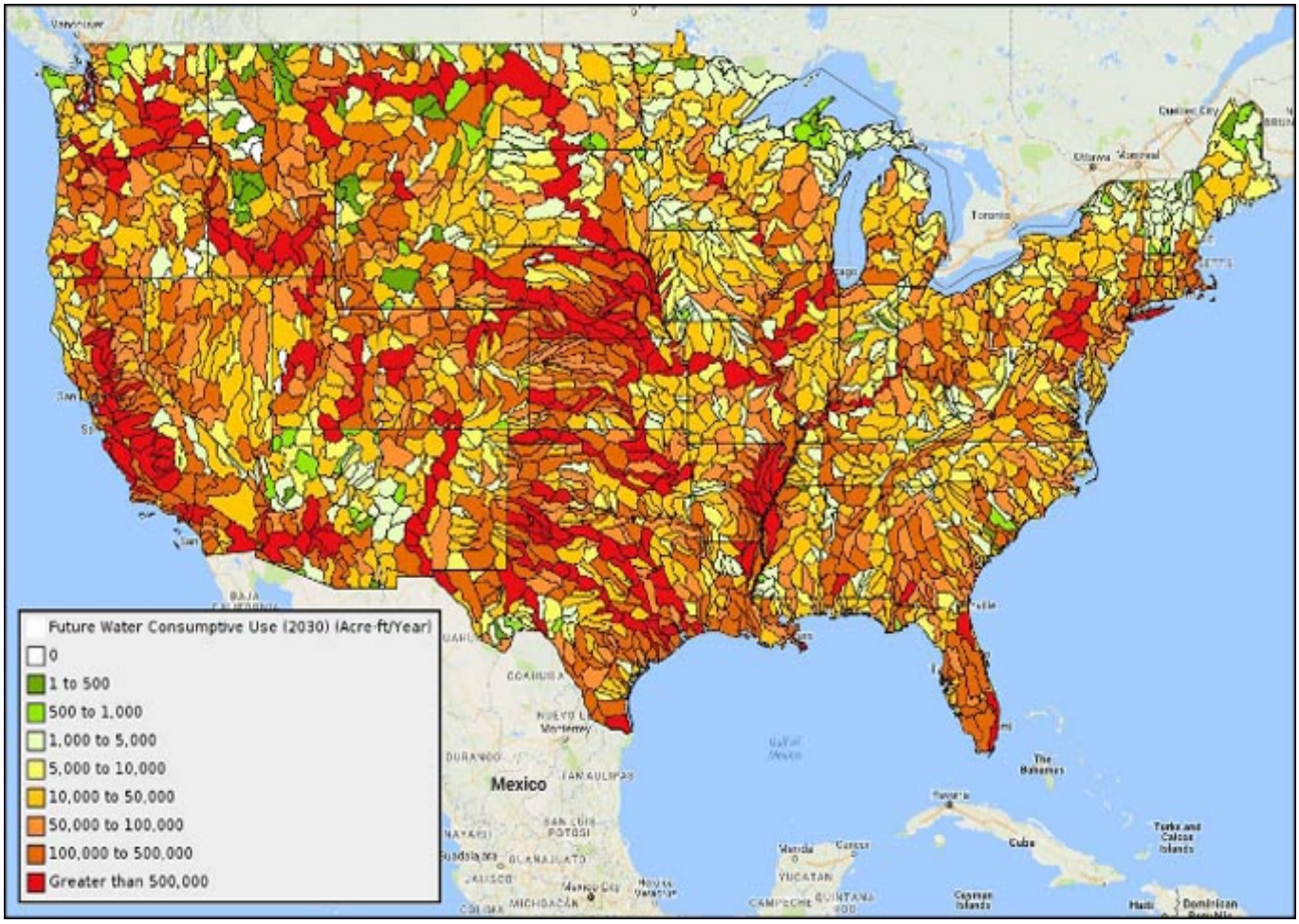


WECC Environmental Risk Classification from the Western Electricity Coordination Council

Wind Turbines at the Alta Wind Energy Center in California (USGS Energy Resources Program)

New Water Availability, Cost, and Consumptive Use Data

New data from Sandia National Laboratories have been added, including areas of concern, and estimated current and future consumptive water use, availability, and cost.



Future Water Consumptive Use (2030) in Acre-ft/Year

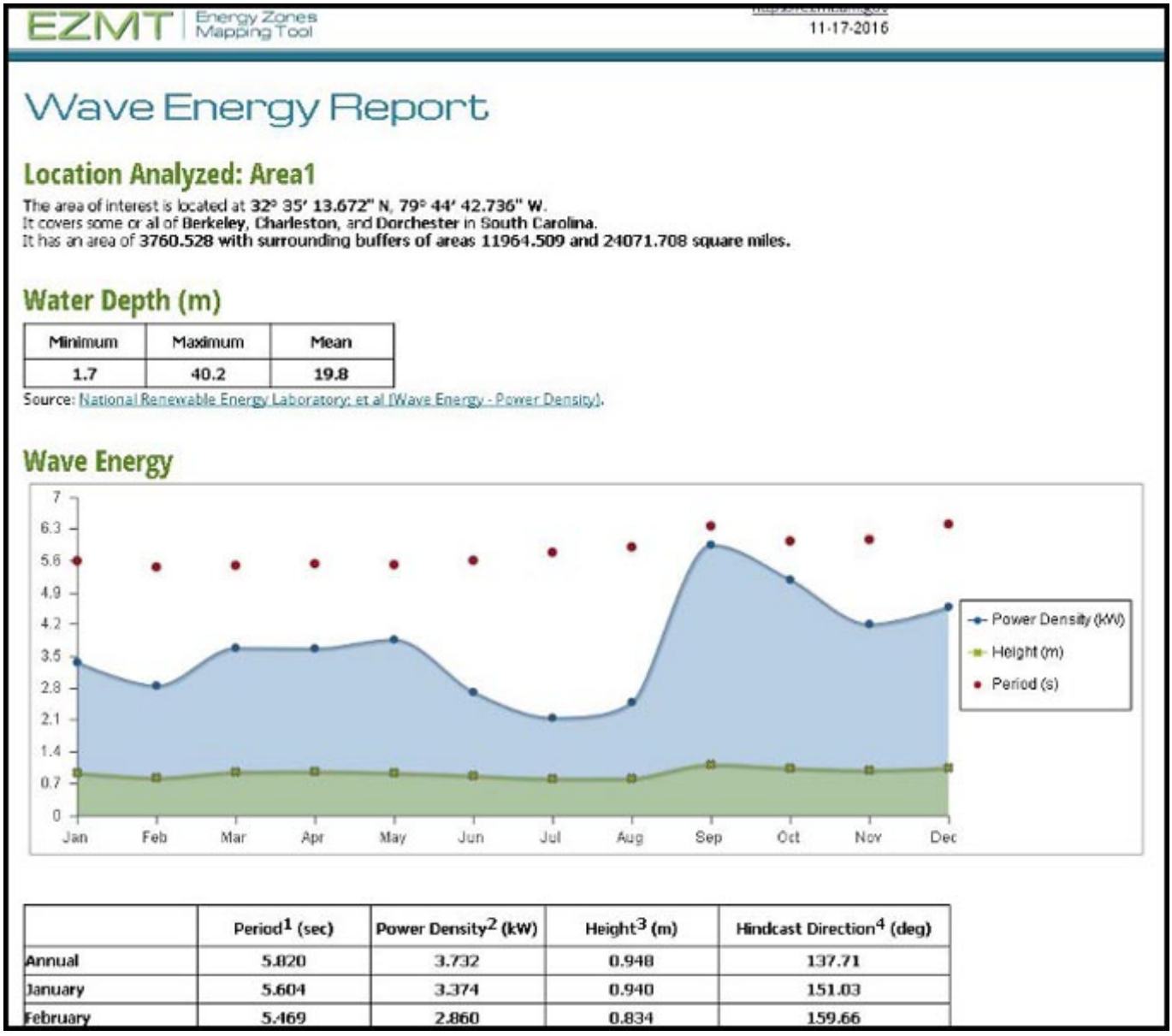
The following seventeen layers are now available for the U.S.:

- Water Area of Concern - Groundwater
- Water Area of Concern - Surface Water
- Water Area of Concern - Surface Water Area of Concern
- Water Availability - Appropriated Surface Water
- Water Availability - Brackish Groundwater
- Water Availability - Fresh Groundwater
- Water Availability - Fresh Surface Water
- Water Availability - Municipal Wastewater
- Water Cost - Appropriated Surface Water
- Water Cost - Brackish Water
- Water Cost - Fresh Groundwater
- Water Cost - Fresh Surface Water
- Water Cost - Municipal Wastewater
- Water Use - Change in Consumption (All Sources)
- Water Use - Change in Consumption (Current to 2030)
- Water Use - Current Consumption
- Water Use - Fresh Sources Minus Change in Consumptive Use
- Water Use - Future Consumption (2030)

In the News

The U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy recently announced the winner of the Wave Energy Prize, a competition focused on the development of new technology to reduce the cost of wave energy. More than 50 percent of the U.S. population lives within 50 miles of coastlines and wave energy has the potential to deliver renewable energy to those communities.

The EZMT has capabilities that can assist with evaluating locations for wave energy potential, including map layers for water depth, significant wave height, power density, and energy period. Also, the EZMT Wave Energy Report is useful for studying the suitability of wave energy technology in specific zones.



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11-17-2016

Wave Energy Report

Location Analyzed: Area1

The area of interest is located at **32° 35' 13.672" N, 79° 44' 42.736" W.**
It covers some or all of **Berkeley, Charleston, and Dorchester** in **South Carolina.**
It has an area of **3760.528 with surrounding buffers of areas 11964.509 and 24071.708 square miles.**

Water Depth (m)

Minimum	Maximum	Mean
1.7	40.2	19.8

Source: National Renewable Energy Laboratory; et al (Wave Energy - Power Density).

Wave Energy

	Period[1] (sec)	Power Density[2] (kW)	Height[3] (m)	Hindcast Direction[4] (deg)
Annual	5.020	3.732	0.948	137.71
January	5.604	3.374	0.940	151.03
February	5.469	2.860	0.834	159.66

Sample Excerpt of Wave Energy Report

This message was sent to registered users of the Energy Zones Mapping Tool (http://ezmt.anl.gov) who indicated in their profile they are interested in e-mail updates. If you are no longer interested you can log in and change this preference by using the Profile option under the My Account menu at the top right of the home page, or e-mail ezmt@anl.gov with a request to unsubscribe to the updates.