

# Drought Water Management Plan & Water Conservation Education Program

**674 - Ocotillo Express LLC**

**Ocotillo, CA**

**For submittal to:**  
BLM / Imperial County

**Prepared by:**  
Blattner Energy, Inc.

**September 2011**

# Master Drought Management Water Plan Water Conservation Education Program

## 674 – Ocotillo Express Wind Project

Date: 9-26-11

Name(s): BLM, Imperial County

### RE: Statement of Conformance with MM Water-7 – Master Drought Management Plan / Water Conservation Education Program

Blattner Energy, Inc. (BEI) is knowledgeable of requirements listed in the Water Resource Mitigation Measure Water-7. BEI, on behalf of Ocotillo Express LLC, is hereby providing the County of Imperial and Bureau of Land Management (BLM) that we will implement the following Mitigation Measure (MM) by providing and adhering to the Master Drought Management Plan and Water Conservation Education Program included below.

#### MM No. Water-7

- Develop Master Drought Water Management and Water Conservation Education Programs. Prior to the onset of construction of the OWEF, a master Drought Water Management Program shall be prepared by the Applicant and submitted to the BLM for approval. The Drought Water Management Program shall provide guidelines on how all future water use will be managed during “severe” drought year(s).
- During construction and operation, these measures would go into effect during periods of “severe” drought. Once it is determined that a “severe” drought condition exists, restricted (drought) water usage measures shall remain in effect until it is shown satisfactorily to the BLM that the “severe” drought condition no longer exists. This plan shall include, but is not limited to the following measures:
  - The definition of a “severe” drought year (as defined by the National Oceanic and Atmospheric Administration’s (NOAA) Palmer Drought Severity method or other similarly recognized methodology);
  - Identification of general measures available to reduce water usage for future development (to be refined as needed for each use approved);
  - Identification of specific measures to be applied for landscape watering;
  - Determination of appropriate early triggers to determine when “severe” drought conditions exist and process for initiating additional water conservation measures for [tract] and future development.
- In congruence with the Drought Water Management Program and prior to the onset of construction of the OWEF, the Applicant shall develop and submit to the BLM for approval, a Master Water Conservation Education Program for all future operators and employees for use during drought periods. Such a program shall be developed by an appropriate expert for each on-site activity using water. Once the program is developed, the Applicant shall also include the means by which this information will be disseminated to any future operators of the project. The Drought Water Management Program and Water Conservation Education Program shall be implemented throughout the construction, operation, and decommissioning phases of the OWEF.
- For any year that a “severe drought” state has been recognized, the Applicant shall submit a letter to the BLM by November 1 of that year identifying what measures were implemented



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to conserve water and to provide water conservation education, as well as the effectiveness of such measures.

BEI has provided a Master Drought Water Management Plan and Water Conservation Education Program (below) which outlines our compliance with MM Water-7.

Please contact me at with any questions or concerns.

Regards,

Field Engineer, Blattner Energy, Inc.

CONFIDENTIAL

### INTRODUCTION

This Master Drought Management Plan and Water Conservation Education Program was prepared by Blattner Energy, Inc. (BEI) to define our minimum practices which will be employed on the Ocotillo Wind Express Project to ensure our compliance with MM Water-7.

### PROJECT DESCRIPTION

The Ocotillo Express Wind Project consists of installing 137 Siemens 2.3 MW wind turbine generators (WTG). The project is located approximately 3 miles north / northwest of Ocotillo, CA in Imperial County. The main construction activities on this project will include the following: building project roads, digging foundations, massive foundation concrete pours, trenching of electrical system, and installation of wind turbine generators. In addition to these temporary construction activities, a permanent electrical substation and Operations and Maintenance (O&M) building will also be constructed.

### WATER SUPPLY SOURCES

*The primary water supply source will be the. The secondary source will be.*

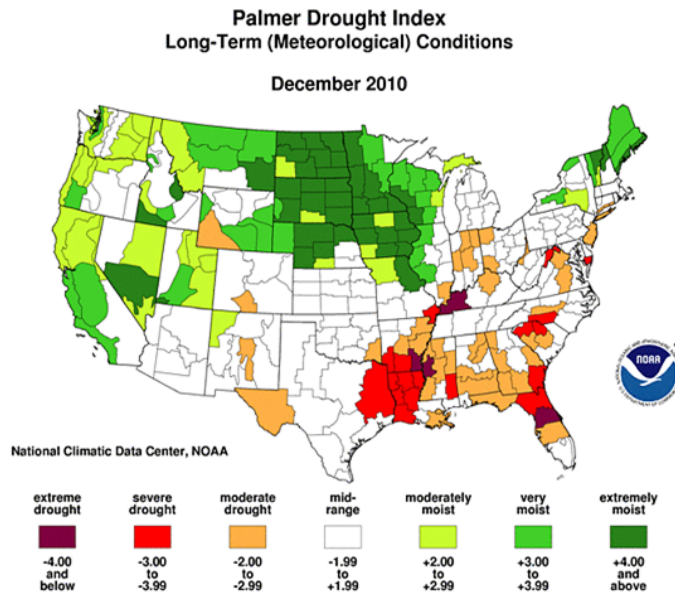
### MASTER DROUGHT WATER MANGEMENT PLAN

#### Drought Identification and Reporting Procedures

The following steps will be taken as part of the drought identification and drought reporting procedures:

1. Monitoring NOAA website monthly during construction and quarterly during operations for Palmer Drought Index (PDI) updates. Monitoring the NOAA website more frequently may be required if local media or BLM indicates that a drought condition may exist. Since the project is located in the desert, no specific early triggers are identified beyond NOAA website and general media. BEI will be responsible for monitoring and maintaining documentation.

<http://www.ncdc.noaa.gov/oa/climate/research/prelim/drought/pdiimage.html>



2. Blattner Energy, Inc will implement Master Drought Water Management Plan when PDI falls to -3.00 or lower (indicating severe drought conditions). The Master Drought Water Management Plan includes the following controls:
3. Dust control practices shall be supplemented with a tackifier to limit the amount of water required for daily dust suppression
4. The mitigation measure put into effect for severe drought conditions shall be lifted when the PDI, according to NOAA, returns to -2.00 or greater.
5. The third-party environmental monitor shall report the conservations measure put into place to BLM by November 1st of any year that severe or extreme drought condition exist.

## WATER CONSERVATION EDUCATION PROGRAM

The following water conservations measures will be presented to new employees and subcontractors during site specific safety orientation program during both construction and regular operations. In addition, a permanent poster-sized guidance pamphlet will be shown in common employee areas.

### Construction Water Conservation Measures

Water use during construction includes water used for concrete mixing, dust suppression, soil compaction for roadway construction and foundation backfill, sanitation, and human consumption. The water quantity for each construction activity ranges widely with dust control and soil compaction representing the largest component and sanitation and human consumption represent the lowest component of total water use.

Potential construction water conservation measures:

- Use car-pooling to minimize water needed for wheel washing vehicles
- Cover water containers and water trucks when not in use to minimize evaporation
- Cover soil stockpiles or treat with magnesium chloride (MgCl) or other palliative to minimize need for water as dust control.

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- Restrict speed limit to minimize need for water as dust control and/or increase the effective life of the MgCl, acrylic polymer or other palliative.
- Use vertical mulch to stabilize temporary disturbance areas that require water for restoration/re-vegetation.
- Install drought notification signs in common work areas to remind employees to conserve water and follow the conservation measures.

#### Operation and Maintenance Water Conservation Measures

Water use during operation is significantly less than needed for construction. Water is not required for operation of the wind energy facility, but is needed for occasional dust suppression during road repair, sanitation, and human consumption.

The final approved DWM plan shall be posted in-frame at the O&M facility for view by current and future operators. In addition, the BLM shall maintain the recorded document at the El Centro Field office with the other mitigation requirement that the project is subject to.

Potential operations facility water conservation measures:

- Install modern, commercially and financially feasible water conservation appliances and devices.
- Adhere to commercial water use reductions applicable to City of El Centro during declared water shortages.  
<http://www.cityofelcentro.org/cm/index.asp?m=1&page=33>
- Ration water availability for showers.
- Limit road work that might require dust suppression to night to minimize evaporation.
  - Cover water trucks when not in use
  - Restrict speed limit
- Utilize MgCl, acrylic polymer or other palliative prior to extensive maintenance activities that might require dust suppression.
- Install drought notification signs in entrances, parking areas, and common work areas to remind employees to conserve water and follow the conservation measures.

#### Home/individual water conservation measures

Because water conservation efforts should not stop at the work place, the following home water conservations are provided to workers to implement at home. These conservation measures were developed by the City of San Diego and were adopted from the pamphlet 24 Ways to Save Hundreds of Gallons per Week (<http://www.sandiego.gov/water/pdf/conservation/waystosavewater.pdf> ).