

# Water Supply Contingency Plan

**674 - Ocotillo Express LLC**

**Ocotillo, CA**

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

**Prepared by:**

**April 2012**



# Water Supply Contingency Plan

## 674 – Ocotillo Express Wind Project

County of Imperial  
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### **RE: Statement of Conformance with MM No. Water-2 – Develop a Water Supply Contingency Plan for Construction**

Blattner Energy, Inc. (BEI) is knowledgeable of requirements listed in the Mitigation Measure Water-2. BEI, on behalf of Ocotillo Express LLC, is hereby providing the County of Imperial and Bureau of Land Management (BLM) that BEI will implement the following Mitigation Measure (MM) as related to water supply:

#### **MM No. Water-2**

Prior to construction, Applicant shall conduct a groundwater investigation for any groundwater basin(s) potentially affected by construction, operation, and/or decommissioning of the project to determine whether the identified groundwater resource(s) is in overdraft conditions; such investigation may include review of historic groundwater well data, groundwater monitoring, hydrologic modeling, and/or interviews with private well owners. The Applicant shall coordinate groundwater investigation efforts with the applicable RWQCB. No new uses of groundwater resources from overdrafted basins shall be introduced to meet project needs.

If groundwater is to be used during project construction, at least two supply wells shall be identified for project use, a primary supply well and a secondary supply well. The Water Supply Contingency Plan shall identify the well sites, proximity to other active wells, estimated total depth, well screen depth, diameter, estimated yield and water quality, and time required to have the wells drilled, constructed, developed and fully operational (if the wells are to be drilled specifically for the project, as opposed to use of existing wells). If the daily yields of the primary supply well are inadequate or become inadequate to meet the project requirements, the secondary supply well shall be used in order to avoid potential drawdown impacts at wells near the primary. Use of a secondary supply well would not alter the quantity of groundwater pumped for project purposes; the purpose of the secondary supply well would be to avoid potential impacts associated with over-pumping the primary supply well.

The Water Supply Contingency Plan shall specify when the second supply well shall be used, what conditions would trigger necessary use of the second supply well, the person responsible for determining when to utilize the second supply well, and how such use shall be reported. The Environmental Monitor shall verify that the secondary supply well is installed and is capable of producing daily yields sufficient to supplement or replace the primary supply well in meeting construction water demand, as needed.

BEI has provided a Water Supply Contingency Plan (below).

**INTRODUCTION**

This Water Supply Contingency Plan was prepared by Blattner Energy, Inc. (BEI) to define our minimum practices which will be employed on the Ocotillo Wind Express Project to assure that adequate water sources have been identified for construction consumption that the water demands for construction do not have any adverse affects to the existing groundwater basins.

**PROJECT DESCRIPTION**

The Ocotillo Express Wind Project consists of installing 112 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: Construction of a substation and ancillary facilities, constructing an operation and maintenance building, constructing an observation tower, building project roads, digging foundations, massive foundation concrete pours, trenching of electrical system, and the installation of wind turbine generators.

**PRIMARY WATER SUPPLY SOURCE**

A license agreement has been executed between Redacted personal contact information currently owns and maintains certain rights, title and interests in the real property commonly known as the [redacted]. The well has the right to operate and remove water pursuant to a Conditional Use Permit issued by the County of Imperial (see Attachment A). The Groundwater study is included as Attachment B.

BEI has entered into an agreement with Becker that allows BEI to pump and remove water from the well into temporary tanks. Water trucks will be loaded from the temporary tanks for transport to the construction site. BEI will maintain the well, pump, generator and all other equipment required. The agreement with Becker allows BEI to remove water up to 150 acre/ft. The estimated total yield for construction purposes is estimated at 110 acre/ft. The maximum water usage at peak construction is anticipated to be approximately 200 mgal/day. See the map depicting the location of the [redacted].

See the excerpt below describing the conditions of the Dixieland Well from Section 3.20 of the FEIS/FEIR (February 2012).

One potential water source for the project is an existing groundwater supply well located at the [redacted] Mine site and operated by Vulcan Materials Company under a CUP issued by Imperial County (Imperial County, 2005). A groundwater investigation was conducted at the Dixieland Mine site in 2005, prior to installation of the well (EMKO, 2005). This investigation is summarized below and referenced as applicable in Section 4.19.

The Dixieland Mine groundwater well is located more than 12 miles east of the community of Ocotillo, along the eastern border of the Coyote Wells Valley Groundwater Basin (this aquifer is discussed above; see "Ocotillo-Coyote Wells Sole Source Aquifer"). The eastern portion of the Coyote Wells Valley Groundwater Basin consists primarily of Tertiary marine sediments which typically contain saline water with TDS levels of 1,000 mg/L or greater. Groundwater modeling studies indicate that flow in this basin generally occurs from the northwest to the southeast. The high-TDS saline water within the Tertiary marine sediments (which underlie Quaternary Alluvium) flows both southward and eastward from the Ocotillo area. However, groundwater modeling studies have shown that the fresh water in the Quaternary Alluvium in the western part of the Coyote Wells Valley Groundwater Basin (where the proposed OWEF is located) does not flow into the eastern portion of the basin (where the [redacted] well is located), but remains within the Ocotillo-Coyote Wells SSA. (EMKO, 2005).

The investigation conducted prior to construction of the Dixieland Mine well indicated that geologic units at the site are characterized by sand from zero to three feet bgs, red clay from three to 120 feet bgs, clean gravel from 120 to 200 feet bgs, and red clay from 200 to the total depth of the borehole at 240 feet bgs. A test well at the site measured depth to water at 60 ft bgs; the well was pumped for two hours at a rate of 225 to 235 gpm, after which the water level was again measured at 60 feet bgs. The test well was then pumped at approximately 230 gpm for 24 hours, after which the static water level was measured at 47 feet bgs. Additional pumping indicated that the water level did not decline more than about one foot during pumping. (EMKO, 2005).

The nearest groundwater wells to the Dixieland Mine site are located eight to twelve miles to the west and upgradient from the Dixieland Mine site. The pumping of 200 afy of water from the supply well is understood to have little to no effect on these or other upgradient wells. There are no naturally-occurring surface waters in the vicinity of the supply well, and man-made surface waters comprised of the Imperial Lakes development and IID's West Side Canal have no measurable interaction with local groundwater due to the presence of more than 100 feet of clay between the ground surface and the gravel aquifer at 120 feet bgs which supplies the Dixieland Mine well. (EMKO, 2005).

The existing Dixieland Mine groundwater supply well is capable of producing at least 325 to 350 gpm, with very little drawdown in the surrounding aquifer (EMKO, 2005). This production rate is more than adequate to meet the 200 afy of withdrawal authorized by the CUP (EMKO, 2005 ). If the Dixieland Mine well is used to provide water for the project, the existing CUP would be amended by Imperial County to allow for use of the water at the proposed OWEF site (Pattern, 2011).

## **PRIMARY WATER SUPPLY SOURCE MONITORING AND STATEMENT OF UNDERSTANDING**

As stated in condition S-4 of CUP #05-0034, the water extracted from the groundwater well is to be utilized for on-site uses only. In order for BEI to utilize the Dixieland Mine well as a water source for the project, the existing CUP will need to be amended by Imperial County to allow for use of the water for the OWEF project. Therefore until the CUP is amended by Imperial County, the Dixieland Mine source is not be utilized and the secondary water supply source will be utilized (see discussion below).

BEI will maintain a meter to record all water removed from the well for construction to determine daily usage and total usage. The meter readings will be completed on a regular basis and be available upon request to BLM and/or Imperial County. In addition, BEI will use the existing meter used by the county to monitor Becker's water usage for determining daily usage and total usage.

## **SECONDARY WATER SUPPLY SOURCE**

The City of Brawley has confirmed that the City can provide water for construction. See Attachment C . The water will be collected from a hydrant as shown on Exhibit 2. The City of Brawley was considered a secondary water supply source in Section 3.20 of the FEIS/FEIR (February 2012).

See the excerpt below from Section 3.20 of the EIS/EIR:

The City of Brawley, located approximately 45 miles northeast of the community of Ocotillo, has provided written confirmation to the project Applicant that the City is able to provide up to 250,000 gallons of water per day, or approximately 0.76 acre-feet per day, for the period commencing December 2011 through December 2012 (City of Brawley, 2011); this is a peak pumpage rate and it is anticipated that the actual daily quantity of water provided by the City of

Brawley for the project would fluctuate, and would total a quantity agreed upon between the Applicant and the City of Brawley in a written contract that would be finalized prior to the onset of project construction, if this source is used to meet the project’s water supply requirements. City of Brawley water would be provided as treated municipal wastewater from the city’s water treatment plant, which has existing capacity to treat 16,800 afy of water and an anticipated capability of expanding to 33,600 afy (City of Brawley, 2010). The City of Brawley completed an Urban Water Management Plan (UWMP) in 2010; in accordance with California Water Code §10612(b), the UWMP includes assessment of current demands and supplies over a 20-year planning horizon and considers various drought scenarios. The Brawley water source is east of the project site, with a travel distance for water trucks of approximately 39 miles one way.

### **SECONDARY WATER SUPPLY SOURCE MONITORING**

A meter will be installed and maintained by BEI prior to removing water from the hydrant. The meter will be left in place on the hydrant and daily usage will be recorded. Total usage will be reconciled with the City of Brawley on a monthly basis and be made available to Imperial County and/or BLM upon request.

### **CONTINGENCY PLAN**

The secondary water supply source will be utilized in the event the primary water source daily yields become inadequate to meet project requirements. Additionally, the secondary water supply source shall be used in the event the total yield of the primary source reaches the contractual maximum allowance of 150 ac-ft and/or to reduce potential impacts associated with over-pumping the primary supply well. The condition of the well and triggers for the contingency plan will be monitored by BEI and Becker:

In the event the secondary water source is required for use, BLM will be notified 48-hours prior to using the secondary source.

### **EXHIBIT 1 – PRIMARY SOURCE - DIXIELAND WELL - MAP**