

ATTACHMENT 4
MEMORANDUM OF AGREEMENT

**MEMORANDUM OF AGREEMENT
AMONG THE
BUREAU OF LAND MANAGEMENT,
BUREAU OF RECLAMATION, AND
ARIZONA STATE HISTORIC PRESERVATION OFFICER,
AND BY INVITATION
BP WIND ENERGY NORTH AMERICA INC. AND
HUALAPAI TRIBE**

WITH INVITED CONCURRENCE BY THE FOLLOWING CONSULTED PARTIES

**WESTERN AREA POWER ADMINISTRATION,
NATIONAL PARK SERVICE,
COLORADO RIVER INDIAN TRIBES,
FORT MOJAVE INDIAN TRIBE,
HAVASUPAI TRIBE,
KAIBAB-PAIUTE TRIBE,
LAS VEGAS PAIUTE TRIBE,
MOAPA BAND OF PAIUTE INDIANS,
SAN JUAN SOUTHERN PAIUTE TRIBE,
YAVAPAI-APACHE NATION, AND
YAVAPAI-PRESCOTT INDIAN TRIBE**

**REGARDING THE
MOHAVE COUNTY WIND FARM, ARIZONA**

WHEREAS, BP Wind Energy North America Inc. (BP Wind Energy) proposes to construct, operate, and eventually decommission the Mohave County Wind Farm within Township 28 North, Ranges 19, 20, and 21 West and Township 29 North, Ranges 19 and 20 West of the Gila and Salt River Meridian, approximately 40 miles northwest of Kingman, Mohave County, Arizona (see attached Figure 1); and

WHEREAS, the Bureau of Land Management (BLM), as lead Federal land managing agency as authorized by the Federal Land Policy and Management Act of 1976 (Title V, 43 U.S.C. § 1701), must consider issuance of right-of-way grants for constructing, operating, and decommissioning the Mohave County Wind Farm and associated facilities and infrastructure on approximately 38,099 acres (59.5 square miles) of public land administered by BLM and additional rights-of-way for a main access road, electrical distribution line, and temporary water line, as well as use of a permitted and developed aggregate materials source (see attached Figure 2); and

WHEREAS, the Bureau of Reclamation (Reclamation) must consider issuance of a right-of-way grant for developing the Mohave County Wind Farm and associated facilities and infrastructure on approximately 8,960 acres (14.0 square miles) of federal land administered by Reclamation adjacent to the public land administered by BLM (refer to attached Figure 2); and

WHEREAS, BLM has determined that the undertaking (as defined in Stipulation I, below) may have an adverse effect on historic properties, that is sites, districts, buildings, structures, or objects listed in or eligible for listing in the National Register of Historic Places (National Register), and has consulted with

the Arizona State Historic Preservation Officer (SHPO) pursuant to 36 CFR part 800 of the regulations implementing Section 106 of the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470f); and

WHEREAS, SHPO is authorized to enter into this Memorandum of Agreement (MOA) to fulfill its role of advising and assisting Federal agencies in carrying out Section 106 responsibilities under Sections 101 and 106 of the NHPA, as amended, 16 U.S.C. § 407f, and pursuant to regulations implementing Section 106, at 36 CFR part 800.2(c)(1)(i) and 800.6(b); and

WHEREAS, BP Wind Energy is the applicant for a right-of-way grant to construct and operate the proposed Mohave County Wind Farm and will be responsible for implementing many elements of this MOA, BLM has offered BP Wind Energy the opportunity to participate in this MOA as an invited signatory, in accordance with 36 CFR part 800.6(c)(2)(i); and

WHEREAS, BLM has consulted with the Hualapai Tribe and the Area of Potential Effects (APE) is within the aboriginal land of the Hualapai Tribe as determined by the Indian Claims Commission and the Tribe is conducting ethnohistoric research as part of the effort to identify historic properties in the APE, BLM has offered the Hualapai Tribe the opportunity to participate in this MOA as an invited signatory, in accordance with 36 CFR part 800.6(c)(2)(i); and

WHEREAS, the Western Area Power Administration (Western) must consider BP Wind Energy's application for an interconnection with either the Liberty-Mead 345-kilovolt transmission line or the Mead-Phoenix 500-kilovolt transmission line, BLM has offered Western the opportunity to participate in this MOA as a concurring party, in accordance with 36 CFR part 800.6(c)(3); and

WHEREAS, BLM has consulted with the National Park Service (NPS), regarding effects to historic properties within the adjacent Lake Mead National Recreation Area, and has invited NPS to participate in this MOA as a concurring party in accordance with 36 CFR part 800.6(c)(3); and

WHEREAS, BLM has consulted with the Chemehuevi Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Havasupai Tribe, Hopi Tribe, Kaibab Band of Paiute Indians, Las Vegas Paiute Tribe, Moapa Band of Paiute Indians, San Juan Southern Paiute Tribe, Yavapai-Apache Nation, and Yavapai-Scott Indian Tribe, which may attach cultural or religious significance to historic properties in the APE, and has invited the Tribes to participate in this MOA as concurring parties in accordance with 36 CFR part 800.6(c)(3); and

WHEREAS, BLM has used and coordinated the National Environmental Policy Act (NEPA) public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the NHPA pursuant to 36 CFR part 800.2(d)(3); and

WHEREAS, in accordance with 36 CFR part 800.6(a)(1), BLM has notified the Advisory Council on Historic Preservation (Advisory Council) of its adverse effect determination with specified documentation and the Advisory Council has chosen not to participate in the consultation pursuant to 36 CFR part 800.6(a)(1)(iii); and

NOW, THEREFORE, BLM, Reclamation, SHPO, and the other consulting parties agree that the following stipulations shall be implemented in order to take into account the effects of the undertaking on historic properties, and to satisfy all responsibilities under Section 106 of the NHPA.

STIPULATIONS

In coordination with the SHPO and other consulting parties, BLM shall ensure that the following measures are implemented:

Stipulation I. Undertaking and Area of Potential Effects

A. The definition of “undertaking” in 36 CFR part 800.16(y) includes projects requiring a Federal permit, license, or approval. The undertaking (project) covered by this MOA is the Mohave County Wind Farm and all its components, including wind turbines and transformers, electrical collector lines, an interconnection transmission line, substations, a switchyard, access roads, operations and maintenance building, utility/communication lines, and permanent and/or temporary meteorological towers, as well as temporary materials laydown/equipment staging/concrete batch plant areas, water line, and use of a permitted and developed aggregate materials pit. Depending on which alternative is approved for construction, operation, and decommissioning, which transmission line is approved for interconnection with the regional electrical grid, and which model of wind turbine is used, the facilities and their locations would be refined as final engineering designs are prepared.

B. BLM defined the APE for direct construction impacts as the area that could be disturbed by construction, operation, and eventual decommissioning of the project. The alternative that BP Wind Energy proposes to develop would include 203 to 283 wind turbines and related facilities and infrastructure within an area of approximately 47,059 acres, as well as a main access road from U.S. Highway 93 and use of a permitted and developed aggregate material pit along Detrital Wash adjacent to that main access road (refer to attached Figure 2). On the basis of preliminary engineering, it is estimated that the area of ground disturbance could accumulate to approximately 2.3 square miles (1,471 acres) (see attached Table 1). BLM is evaluating two alternatives of the project design that would eliminate some turbines along the north, east, and south sides of the proposed wind farm. Each of those alternatives would involve construction of approximately 153 to 208 turbines and disturb approximately 0.5 square mile (320 acres) less than the project as proposed by BP Wind Energy.

C. BLM defined the APE for indirect visual impacts as an area extending to a distance of 20 miles from the proposed project boundaries (refer to attached Figure 1).

Stipulation II. Consideration of Historic Properties during Final Design

A. Intensive Class III cultural resource surveys for the project covered approximately 16.0 square miles (over 10,000 acres) and identified 10 historic properties that could be adversely affected (see attached Table 2). The attached Figure 3, which is excluded from public disclosure, depicts the locations of those historic properties.

B. The surveys covered the proposed turbine corridors, roads, and other project facilities, and considerable buffer areas around those facility locations because specific locations of the turbines within the corridors and other project facilities have not been precisely determined. In consultation with BLM, BP Wind Energy will complete a detailed assessment of micro-site-specific impacts in conjunction with preparation of final designs and prior to receiving any notice to proceed with construction. As final designs are prepared, BP Wind Energy will work to avoid direct or indirect impacts on historic properties where feasible to do so. In consultation with BLM, BP Wind Energy will complete a detailed assessment of impacts in conjunction with preparation of final designs. The assessment will be reviewed pursuant to Stipulation V.

C. If during final design BP Wind Energy identifies any construction impact zones that extend beyond the areas that were intensively surveyed for cultural resources, BP Wind Energy will arrange, in coordination with BLM, for supplemental Class III inventory to identify and evaluate cultural resources that could be affected. The methods used for supplemental survey and evaluation of National Register eligibility would be consistent with those used for the Class III survey and conducted in accordance with BLM and SHPO standards. Supplemental survey reports would be reported and reviewed pursuant to Stipulation V. BLM will make determinations of National Register eligibility considering comments from the consulting parties.

Stipulation III. Historic Properties Treatment Plan (HPTP)

A. At the direction of BLM, BP Wind Energy shall prepare and implement a Historic Properties Treatment Plan (HPTP) to avoid, reduce, or otherwise resolve adverse effects, if any, to historic properties within the APE for direct construction and indirect visual impacts. The treatment plan shall emphasize avoidance, protection, and long-term monitoring of avoided historic properties; scientific data recovery from unavoidable historic properties, and, as applicable, other measures to reduce or mitigate adverse effects that cannot be avoided. BP Wind Energy shall implement the HPTP only after it is reviewed in accordance with Stipulation V and BLM issues a notice to proceed. At a minimum, the HPTP shall include the following components.

B. Data Recovery Research Design

This plan for recovering and preserving artifacts and information shall include:

1. Descriptions of historic properties or portions of historic properties where treatment will be carried out through scientific investigation;
2. Descriptions of historic properties or portions of historic properties that will be avoided but considered as part of the historic context for the research design;
3. Results of previous relevant research;
4. Research problems or questions to be addressed with an explanation of their relevance and importance within historic contexts, which will include prehistoric and historic Native American use of the White Hills and Detrital Valley;
5. Field and laboratory analysis methods to be used and how they apply to the research goals;
6. Provisions for disseminating research findings to professional peers in a timely manner; and
7. Methods to be used in management of data and collections, including curation of recovered materials and records in accordance with 36 CFR part 79.

C. Monitoring and Discovery Plan

The HPTP shall include a monitoring and discovery plan. The monitoring component will specify procedures for inspection and protection of avoided historic properties during construction and through the life of the project to ensure that they are not damaged. The monitoring component also will include procedures for checking for unanticipated indirect impacts due to factors such as erosion, vandalism that might stem from better vehicle access to currently remote areas, or other factors. The plan will include opportunities for tribal participation or review of the monitoring.

The discovery component of the plan shall specify procedures for evaluating and treating any previously unrecorded archaeological resources that might be identified in conjunction with monitoring

during construction, operation, and decommissioning of the proposed wind farm or that might be discovered by BP Wind Energy personnel or contracted personnel. The discovery plan shall stipulate that BP Wind Energy immediately report discoveries to BLM and implement measures to protect discoveries while they are evaluated. BP Wind Energy shall coordinate with BLM to evaluate the National Register eligibility of any discoveries and to propose treatment. Pursuant to 36 CFR part 800.13(b)(3), BLM shall notify the consulting parties within 48 hours of the discovery to consult on eligibility under the National Register criteria, and if determined eligible, to assess impacts and develop a treatment plan if warranted. BP Wind Energy shall implement the treatment plan agreed to by BLM and SHPO. Once the fieldwork component of the treatment plan is completed, BP Wind Energy shall prepare a preliminary letter report to document any fieldwork and propose a schedule for completing a full report. BLM will distribute the letter report to the consulting parties for review pursuant to Stipulation V, and issue a notice to proceed with additional ground-disturbing activities at the location of the discovery only after BLM determines the letter report is adequate.

Prior studies have found no human burials, funerary objects, sacred objects, or objects of cultural patrimony in the project area, but if such remains or objects are discovered, BP Wind Energy will immediately cease work in the area of the discovery, take steps to protect the discovery, and notify BLM within 24 hours by telephone followed by written confirmation. BLM will address any such discoveries pursuant to a plan of action prepared pursuant to the Native American Graves Protection and Repatriation Act of 1990 (Pub. L.101-601, 25 U.S.C. §3001-3013, 104 Stat. 3048-3058).

D. Cultural Resource Sensitivity Training for Project Personnel

In coordination with BLM, BP Wind Energy will develop and implement cultural resource sensitivity training for personnel working on the wind farm to explain the sensitivity and importance of avoiding damage to cultural resources, and to ensure they understand procedures for reporting and protecting unrecorded archaeological resources or human remains and associated objects that might be discovered. Tribes will be given opportunities to participate in the sensitivity training, which could be delivered in a variety of ways, including training sessions, video programs, or brochures.

E. Public Outreach and Education

A strategy for public outreach education shall be developed to disseminate information to the tribes, students, or general public about the cultural history and cultural resources of the project area, including the results of any scientific investigations. BP Wind Energy will develop the strategy in coordination with BLM, the Hualapai Tribe, and other interested tribes, giving consideration to issues of confidentiality in accordance with Stipulation VII.C.

Stipulation IV. Initiation of Construction Activities

A. BLM and Reclamation may issue a series of notices to proceed with development and construction of the different components of the project. Consideration of cultural resources in issuing notices to proceed shall adhere to the following conditions:

1. If BLM has determined that there are no historic properties within the APE for construction impacts of the applicable project component, notices to proceed could be issued without further consultation.
2. If there are historic properties within the APE for construction impacts of the applicable project component, where adverse effects will be mitigated through avoidance, data recovery treatment, or other means as determined through consultations, BLM shall not issue a notice

to proceed until required avoidance provisions are implemented or a preliminary letter report of data recovery or other treatment has been reviewed pursuant to Stipulation V and determined by BLM to be acceptable.

B. Construction activities authorized by notices to proceed will be subject to the requirements for addressing any unanticipated discoveries pursuant to the monitoring and discovery plan prepared pursuant to Stipulation III.C.

Stipulation V. Reporting and Review

Plans and reports prepared in accordance with this MOA shall be consistent with standards and guidelines identified in Stipulation VII.B. Those documents could include (1) detailed assessment of impacts, (2) HPTP, (3) preliminary letter reports of treatment of historic properties, (4) preliminary letter reports of supplemental surveys, (5) data recovery reports, (6) supplemental survey reports, (7) letter reports of evaluation and proposed treatment of any discoveries, (8) annual reports, and (9) public outreach and education materials. BLM shall forward draft plans, reports, and other documents to the consulting parties for review and notify them of the review period, which shall be 30 calendar days, except for letter reports of supplemental surveys, which shall have a review period of 15 days if the surveys found no archaeological or historical sites. Review periods may be modified if the signatories and invited signatories agree to a shorter or longer period for specific plans, reports, or other documents.

Any consulting party that fails to comment within the review period shall be considered to have concurred with the report. BLM shall consider comments received within the review period and consult with reviewers as necessary to resolve any differences or disagreements. BLM shall ensure that all comments are responded to or reports are revised in response to review comments, as appropriate. BLM shall ensure that copies of final plans and reports are provided to the consulting parties.

If BLM determines that comments on any plans, reports, or other documents required are so substantial that a revised draft is warranted, BLM will direct BP Wind Energy to prepare a revised draft and BLM will distribute the revised draft and provide an additional 30 days (or 15 days for preliminary letter reports of supplemental surveys that identify no archaeological or historical sites) for review.

Stipulation VI. Annual Review of Memorandum of Agreement Implementation

Each year following the execution of this MOA until it expires or is terminated, BP Wind Energy, in coordination with BLM, shall prepare a summary annual report of work undertaken pursuant to this MOA. Annual reports shall summarize accomplishments, including documentation of the implementation and results of monitoring. The annual reports also shall discuss any problems encountered, identify any disputes and objections, and outline a schedule of planned activities for the coming year. BP Wind Energy shall submit the annual reports to BLM within 1 month of the anniversary of the effective date of this MOA, and BLM will distribute the annual reports to the consulting parties for review pursuant to Stipulation V. If any concerns lead to disputes, they shall be addressed pursuant to Stipulation XI.

Stipulation VII. Standards

A. Professional Qualifications:

1. All actions prescribed by this MOA that involve the identification, evaluation, analysis, recordation, treatment, monitoring, and disposition of historic properties and that involve the reporting and documentation of such actions in the form of reports, forms or other records,

shall be carried out by or under the direct supervision of a person or persons meeting at a minimum, the *Secretary of the Interior's Professional Qualifications Standards* for archaeology, history, or architectural history, as appropriate (48 Federal Register 44738-44739). Nothing in this stipulation precludes any party qualified under the terms of this paragraph from using the services of properly supervised persons who do not meet the *Secretary of the Interior's Professional Qualifications Standards*.

2. All archaeological investigations on federal land managed by BLM and Reclamation will be performed in accordance with permits issued by the agency having jurisdiction. Excavation and removal of any archaeological materials from federal land would be done pursuant to permits issued by BLM or Reclamation in accordance with the Archaeological Resources Project Act of 1979, as amended (16 U.S.C. § 470aa-470mm).

B. Reporting and Documentation Standards:

1. Plans and reports prepared pursuant to this MOA shall conform in every reasonable extent with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (http://www.nps.gov/history/local-law/arch_stnds_0.htm), and applicable standards and guidelines established by BLM and Arizona SHPO.
2. The HPTP shall be consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR part 68), the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (http://www.nps.gov/history/local-law/arch_stnds_0.htm), and the Advisory Council's 1980 publication *Treatment of Archaeological Properties: A Handbook*.

C. Confidentiality

As may be requested by an Indian tribe during consultation, BLM and Reclamation will strive to maintain confidentiality of sensitive information regarding historic properties to which an Indian tribe attaches religious or cultural significance. The consulting parties acknowledge, however, that any documents or records that BLM or Reclamation has in its possession are subject to the Freedom of Information Act (FOIA) 5 U.S.C. § 552 et seq., and its exemptions, as applicable. As such, FOIA requests for particular records and/or documents will be determined on a case-by-case basis. In the event that a FOIA request is received for records or documents that relate to a historic property to which an Indian tribe attaches religious or cultural significance and that contain information that the Federal agency is authorized to withhold from disclosure by other statutes including the NHPA, 16 U.S.C. § 470w-3, and the Archaeological Resources Protection Act, 16 U.S.C. § 470hh, then, prior to making a determination in response to such a FOIA request not to withhold particular records and/or documents from disclosure, the Federal agency will consult with such tribe.

Stipulation VIII. Curation

BLM shall ensure that all collected materials and records resulting from implementation of the HPTP are curated in Arizona in accordance with 36 CFR part 79, except for any human remains and cultural objects repatriated pursuant to the Native American Graves Protection and Repatriation Act.

Stipulation IX. Funding

BP Wind Energy shall bear the expense of preparation and implementation of the HPTP including identification, evaluation, and treatment of all historic properties determined by BLM to be directly or

indirectly affected by project activities. Such costs could include, but not be limited to any required supplemental cultural resource survey, pre-fieldwork planning, fieldwork, post-fieldwork analyses and related research, protection and treatment of discoveries, report preparation, and curation, as well as cultural resource sensitivity training for project workers, public outreach and education, and any other deliverables identified by the HPTP.

Stipulation X. Amendment of this Memorandum of Agreement

This MOA may be amended when such an amendment is agreed to in writing by all signatories and invited signatories following consultation with concurring parties. The amendment will be effective on the date BLM files a copy with the Advisory Council signed by all signatories and invited signatories.

Stipulation XI. Dispute Resolution

A. Should any signatory, invited signatory, or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, BLM shall consult with the party to resolve the objection.

B. If BLM determines that such objection cannot be resolved, BLM shall:

1. Notify the SHPO of the objection and solicit the SHPO's advice.
2. Forward all documentation relevant to the dispute, including BLM's proposed resolution, to the Advisory Council. The Advisory Council shall provide BLM with its advice on the resolution of the objection within 30 days of receiving adequate documentation. If the Advisory Council does not provide its advice regarding the dispute within the 30-day period, BLM may make a final decision on the dispute and proceed accordingly.
3. Prior to reaching a final decision, BLM shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories, invited signatories, and concurring parties to the MOA, and provide them and the Advisory Council with a copy of such written response.
4. BLM's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute will remain unchanged.

Stipulation XII. Review of Public Objections

If a member of the public should object to any measure being implemented under this MOA, BLM will take the objection into account and consult as needed with the objecting party and the signatories and invited signatories to resolve the objection.

Stipulation XIII. Requirements for Arizona State Historic Preservation Office Participation

A. Conflict of Interest

This MOA is subject to cancellation by the state under A.R.S. § 38-511 if any person with responsibility for implementing the MOA on behalf of the state is an employee or consultant of BP Wind Energy at any time while the MOA or any extension of the MOA is in effect.

B. Non-availability of Funds

This MOA shall be subject to available funding, and nothing in this MOA shall bind the state and federal parties to expenditures in excess of funds appropriated and allocated for the purposes outlined in this MOA.

C. Records

The parties agree that this MOA does not involve the furnishing of goods, equipment, labor, materials, or services to the State of Arizona or any of its agencies, boards, commissions, or departments, and therefore that A.R.S. §§ 35-214 and 35-215 do not apply.

D. Arbitration

The parties agree to utilize any non-binding arbitration that is required under applicable court rules.

E. Non-Discrimination

In accordance with A.R.S. § 41-1 461, any contractor working under this MOA shall provide equal employment opportunities for all persons, regardless of race, color, creed, religion, sex, age, national origin, disability or political affiliation, and shall comply with the Americans with Disabilities Act.

F. Applicable Law

This MOA shall be governed by and construed in accordance with the laws of the State of Arizona and any applicable Federal law.

G. This MOA may be executed in counterparts each of which shall be deemed an original and all together shall constitute one and the same instrument.

Stipulation XIV. Termination of this Memorandum of Agreement

A. If any signatory or invited signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment in accordance with Stipulation X. If within 30 days (or other time period agreed to by all signatories and invited signatories) an amendment that will satisfactorily address resolution of adverse effects cannot be developed, any signatory or invited signatory may terminate the MOA upon written notification to the other signatories.

B. If the MOA is terminated, BLM must either:

1. Execute an MOA pursuant to 36 CFR part 800.6 or
2. Request, take into account, and respond to the comments of the Advisory Council under 36 CFR part 800.7 prior to work continuing on the undertaking.

BLM shall notify the signatories and invited signatories as to the course of action that BLM will pursue.

Stipulation XV. Duration of this Memorandum of Agreement

This MOA will remain in force during construction, operation, and decommissioning of the Mohave County Wind Farm.



EXECUTION OF THIS MOA BY BLM, RECLAMATION, AND ARIZONA SHPO, AND IMPLEMENTATION OF THE MOA TERMS ARE EVIDENCE THAT BLM HAS TAKEN INTO ACCOUNT THE EFFECTS OF THIS UNDERTAKING ON HISTORIC PROPERTIES AND AFFORDED THE ADVISORY COUNCIL AN OPPORTUNITY TO COMMENT.

SIGNATORIES:

Bureau of Land Management, Kingman Field Office

By: *Robert A. Sanchez* Date: *12-18-2012*
Title: *Field Mgr.*

Bureau of Reclamation, Lower Colorado Region

By: *[Signature]* Date: *12/19/2012*
Title: *Acting Resource Management Office Chief*

Arizona State Historic Preservation Office

By: *James W. Garrison* Date: *20 NOVEMBER 2012*
Title: *AZSHPO*

INVITED SIGNATORIES:

BP Wind Energy North America Inc.

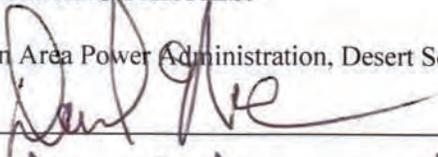
By: *[Signature]* Date: *11/15/12*
Title: *SUP*

Hualapai Tribe

By: *Sherry J. Cook* Date: *12/5/12*
Title: *Chairwoman*

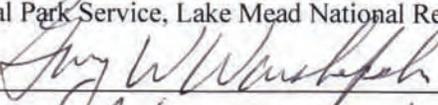
CONCURRING PARTIES:

Western Area Power Administration, Desert Southwest Region

By:  Date: 1/7/13

Title: Regional Manager, Desert Southwest Region

National Park Service, Lake Mead National Recreation Area

By:  Date: 11/29/12

Title: Acting Superintendent

Colorado River Indian Tribes

By: _____ Date: _____

Title: _____

Fort Mojave Indian Tribe

By: _____ Date: _____

Title: _____

Havasupai Tribe

By: _____ Date: _____

Title: _____

Kaibab-Paiute Tribe

By: _____ Date: _____

Title: _____

Las Vegas Paiute Tribe

By: _____ Date: _____

Title: _____

Moapa Band of Paiute Indians

By: _____ Date: _____

Title: _____

San Juan Southern Paiute Tribe

By: _____ Date: _____

Title: _____

Yavapai-Apache Nation

By: _____ Date: _____

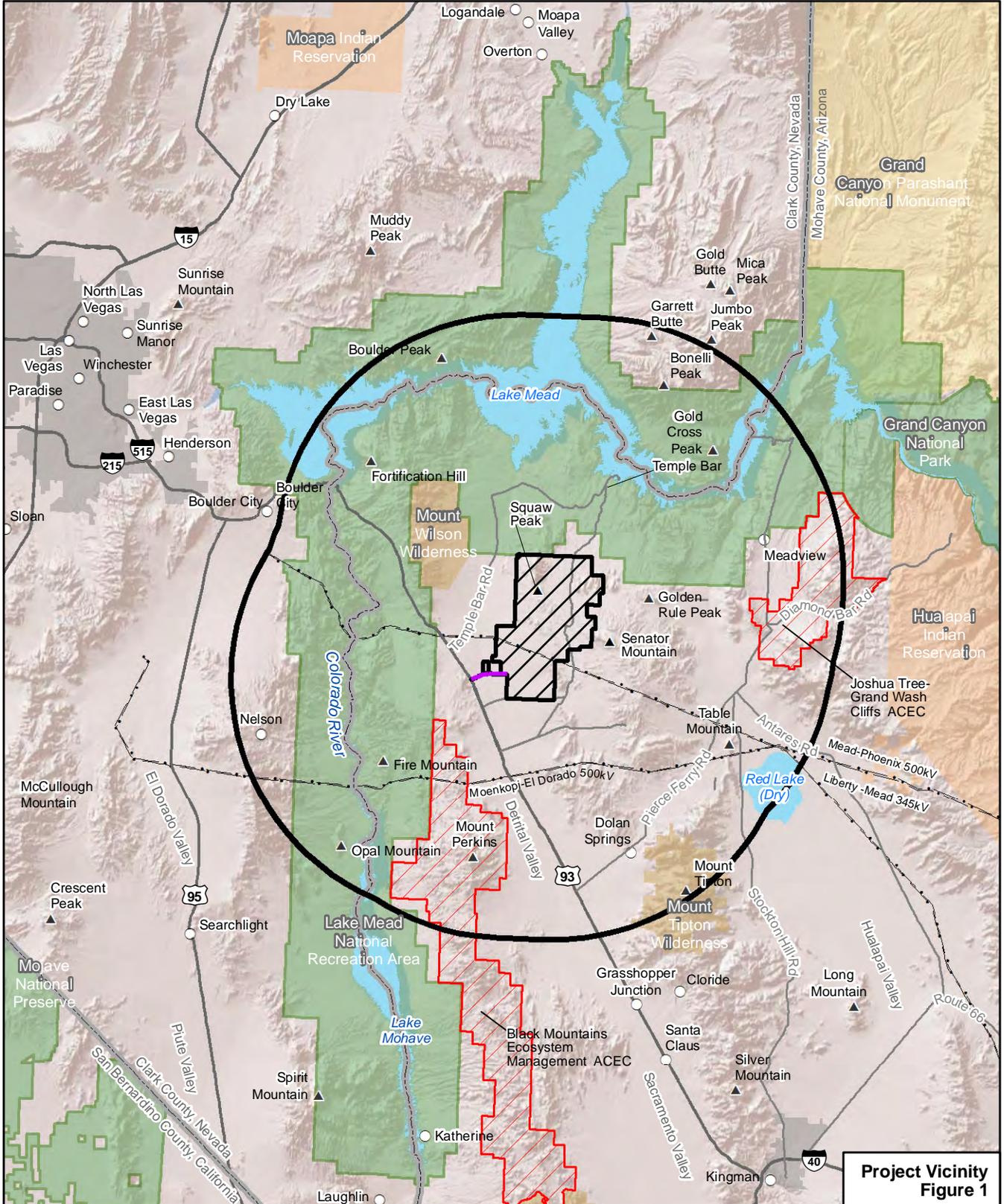
Title: _____

Yavapai-Prescott Indian Tribe

By: _____ Date: _____

Title: _____

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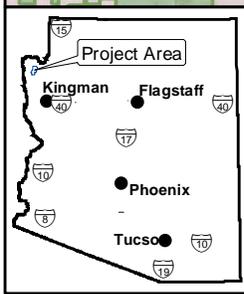
Project Vicinity Figure 1

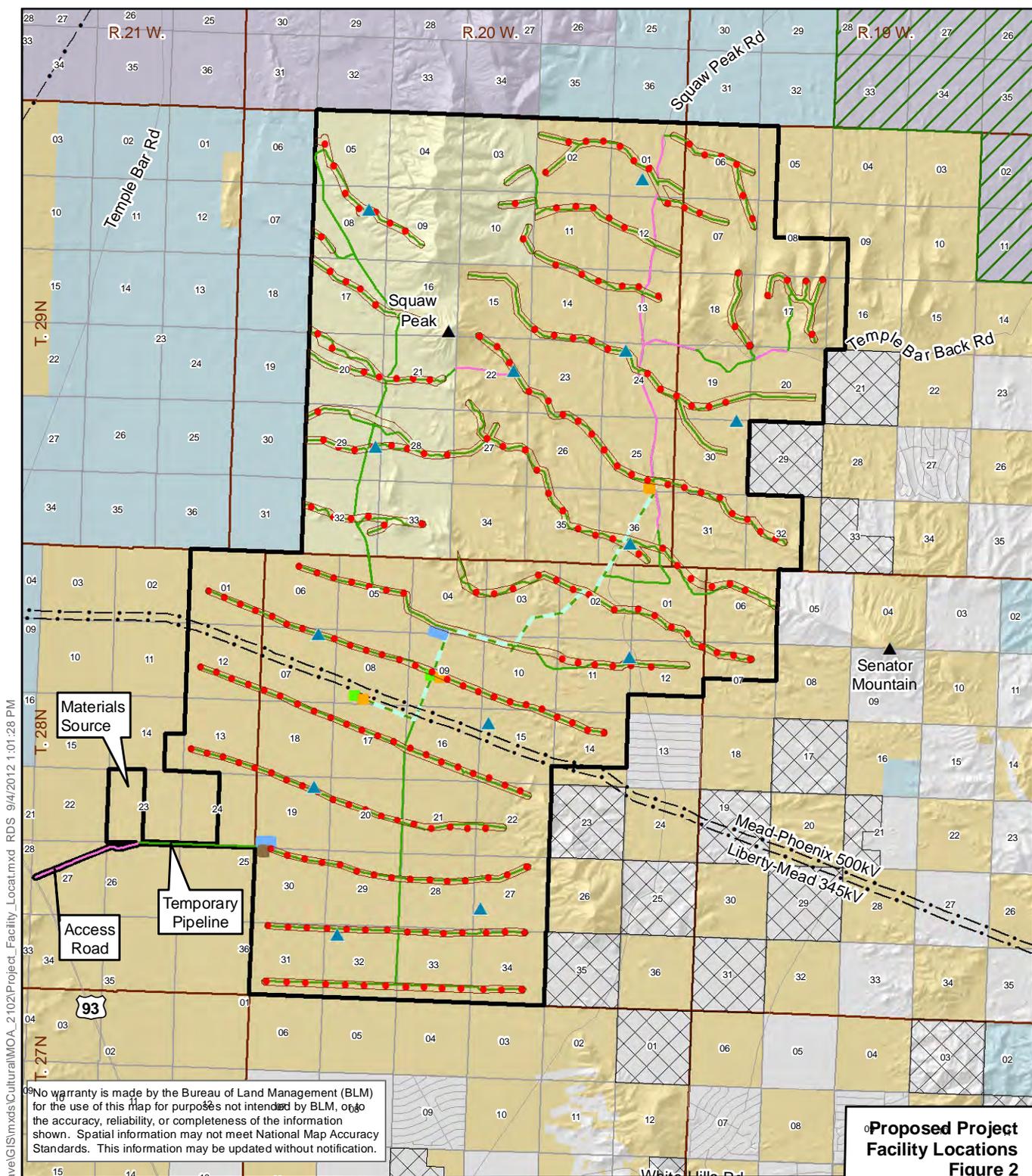
Base Map Sources: Arizona State Land Department, Arizona State Land Information System data purchase 1997-2008 ADOT; Geographic Information Systems for Transportation, data transfer 2009 BLM 2009, BLM Kingman, AZ Field Office, data transfer 2009; ESRI 2008, data included in software purchase 2009, USGS 2009, <http://seamless.usgs.gov>, USGS_EDC_Elev_SRTM, SRTM_Relief_1

Mohave County Wind Farm Project

Legend

-  Mohave County Wind Farm Project Area
-  BLM Area of Critical Environmental Concern (ACEC)
-  Proposed Main Access Road
-  Existing Transmission Line
-  Area of Potential Effects for Visual Impacts (20-mile-buffer)





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No warranty is made by the Bureau of Land Management (BLM) for the use of this map for purposes not intended by BLM, or to the accuracy, reliability, or completeness of the information shown. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

Base Map Source: BLM 2009-2010, ALRIS 2007-2008, ESRI 2008, NHD 2008, Project Area Boundary and Facilities: BP Wind, Energy North America 2011
 Transmission Lines Source: Platts, A Division of the McGraw-Hill Companies, Inc. - POWERmap (Platts analytical database: 2009)

Proposed Project Facility Locations
Figure 2

Mohave County Wind Farm Project

Legend

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> Mohave County Wind Farm Project Area ▲ Existing Temporary Met Tower ● Potential Turbine Location Turbine Corridor Proposed Facility Access Corridor Facility Access Corridor (Existing) Operations and Maintenance Building Laydown/Staging Area | <ul style="list-style-type: none"> Substation Switchyard Transmission Line Surface Management Bureau of Land Management National Park Service Bureau of Reclamation State Trust Land Private Land | <ul style="list-style-type: none"> Planned Development Community National Park Service Proposed Wilderness Township and Range Boundary Section Boundary Existing Transmission Line Wash Road ▲ Mountain Summit |
|--|--|--|

Assumption: Turbine layout represents a 2.3MW turbine or other turbine with a 113-meter rotor diameter.

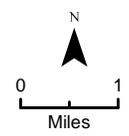


Table 1. Estimated Maximum Extent of Disturbance¹

Project Components²	Estimated Maximum Area of Disturbance	Acres
maximum of 283 wind turbines	1.85 to 2.50 acres each depending on model used	561
maximum of 26 permanent and/or temporary meteorological towers	1.6 acres each	42
2 temporary materials laydown/equipment storage/batch plant areas	10 acres each	20
2 electrical substations	5 acres each	10
an electrical switchyard for interconnect with the Liberty-Mead 345-kilovolt transmission line or Mead-Phoenix 500-kilovolt transmission line	about 900 by 1,500 feet for 500-kilovolt substation; about 12 acres of disturbance for 345-kilovolt substation	37
up to 5 miles (8 kilometers) of interconnect transmission line	8 structures per mile, radius of 100 feet per structure	29
improvement of up to 4.5 miles (7.2 kilometers) of existing roads for access and buried or overhead electrical collector, communication, and utility lines (facility corridor)	56 feet wide (20 feet assumed to be disturbed), 4.4 acres of disturbance per mile	20
development of up to 110 miles (177.0 kilometers) of new access roads and buried or overhead electrical collector, electrical distribution, communication, and utility lines as well as a temporary water line (facility corridor)	56 feet wide, 6.8 acres of disturbance per mile	747
operations and maintenance building	up to 5 acres	5
	total potential ground disturbance	1,471
	square miles	2.3

NOTES: ¹The estimates are based on preliminary engineering and will be refined as final designs are prepared.

²An aggregate source also would be used but it was previously permitted and developed by others.

Table 2. Potential Impacts on Historic Properties¹

Site Number, Name	Affiliation, Age	Site Type	Features, Artifact Counts	Site Size	Preliminary Assessment of Impact
1 AZ F:3:25(ASM)	aboriginal	toolstone collecting and knapping	Features: 1 anvil stone (embedded boulder), Artifacts = 25	less than 0.1 acre	along Temple Bar Back Road that would be used as a facility corridor but likely to be avoided
2 AZ F:3:26(ASM)	aboriginal	toolstone collecting and knapping	Features: none Artifacts: 37	0.1 acre	along Squaw Peak Road that would be used as a facility corridor but likely to be avoided
3 AZ F:3:31(ASM)	aboriginal, Archaic	toolstone collecting and knapping	Features: 1 knapping station Artifacts: 3,000 (estimated)	20.0 acres	in turbine corridor, probable adverse effect depending on tower and access road placement
4 AZ F:3:32(ASM)	aboriginal	toolstone collecting and knapping	Features: none Artifacts: 3,000 (estimated)	2.1 acres	in turbine corridor, possible adverse effect depending on tower and access road placement
5 AZ F:3:33(ASM)	aboriginal	toolstone collecting and knapping	Features: 9 knapping stations Artifacts: 113	1.1 acres	in turbine corridor, possible adverse effect depending on tower and access road placement
6 AZ F:3:34(ASM)	aboriginal	toolstone collecting and knapping	Features: none Artifacts: 7,000 (estimated)	1.5 acres	in turbine corridor, possible adverse effect depending on tower and access road placement
7 AZ F:3:35(ASM)	aboriginal	toolstone collecting and knapping	Features: none Artifacts: 2,000 (estimated)	0.7 acre	in turbine corridor, possible adverse effect depending on tower and access road placement
8 AZ F:3:36(ASM)	aboriginal	toolstone collecting and knapping	Features: 5 knapping stations Artifacts: 199	0.8 acre	in turbine corridor, possible adverse effect depending on tower and access road placement
9 AZ F:3:37(ASM)	aboriginal	toolstone collecting and knapping	Features: none Artifacts 8,000 (estimated)	2.3 acres	in turbine corridor, possible adverse effect depending on tower and access road placement
10 AZ F:3:43(ASM) Stone's Ferry Road	Euro-American, late 19th century	historical road with campsites and artifacts	Features: 3 possible campsites Artifacts: scattered along the road	11.5 miles long, 0.1 mile surveyed	crossed by proposed main access road; probably no adverse effect

NOTE: ¹ All sites have been evaluated as eligible for the National Register of Historic Places under Criterion D for their potential to yield important information. Ongoing consultation could determine that these sites are eligible under additional criteria.

Cooperating Agencies



Bureau of Reclamation • Western Area Power Administration • National Park Service
Arizona Game and Fish Department • Hualapai Tribe • Mohave County