

APPENDIX C
PLANS AND STRATEGIES

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APPENDIX C PLANS AND STRATEGIES

C.1 INTRODUCTION

The following sections provide a synopsis of the plans and strategies identified in the Mohave County Wind Farm Project Environmental Impact Statement (EIS) as contributing documentation to the decision-making process. Most of these supplemental plans, some of which include additional mitigation measures, are appended to the Plan of Development. The plans and strategies available when the Final EIS was published and discussed below can be viewed at the Bureau of Land Management's (BLM's) web site for the project: www.blm.gov/az/st/en/prog/energy/wind/mohave.html. The Plan of Development, with appendices, will be incorporated by reference in the Records of Decision and attached to right-of-way grants if the project is approved. Implementation of the plans and strategies will be required if the Project is approved, and therefore commitments identified in this appendix may be identified in the future tense to indicate what will be required. If the Project is not approved, the plans and strategies outlined in this appendix would not be implemented.

C.2 PLAN OF DEVELOPMENT

The Mohave County Wind Farm Project Plan of Development (POD) activities and plans are described in detail in Chapter 2 of the Environmental Impact Statement (EIS), and therefore the development and project description is not repeated in this section. The POD is included as a supporting document for the Final EIS, and will be submitted to the Bureau of Reclamation (BLM) and the Bureau of Reclamation (Reclamation) to fulfill one of the National Environmental Policy Act (NEPA) requirements for the project. The POD includes a several plans as attachments. The POD is a living document that is updated periodically; the POD will provide supporting documentation for any right-of-way grants that may be issued.

C.2.1 Transportation and Traffic Plan

The Transportation and Traffic (T&T) Plan provides a summary of the manner in which transportation to the site will be managed; estimated transport vehicle trips; construction vehicle and equipment type, quantity, and weight; and load weights. The numbers included in the T&T plan are based on reasonable assumptions and may vary based on actual construction or operations practices.

C.2.1.1 Routes to the Site

BP Wind Energy has limited control over what routes are used outside the Project Area and develops traffic and transportation plans from the exit off federal interstates or from local rail yards. US 93 runs adjacent to the site and exists as a four-lane divided highway with a posted speed of 65 miles per hour. The roadway is centered within a 400-foot-wide right of way, and northbound and southbound travel lanes are separated by an 80-foot-wide depressed median. In general, site visibility along US 93 is good and the pavement is in good condition, with a recent driving surface overlay on the northbound lanes. The single access to the project site would be from US 93 near Milepost 22 onto an existing east-side turnout that is a minimally improved BLM road that provides access to the gravel pit in Detrital Wash. The existing driveway turn-out into the project is steep and has degraded pavement; therefore, it will be reconstructed with this project.

If any equipment or turbine components are shipped by rail, it is assumed they will be unloaded at rail yards in the vicinity of either Las Vegas or Kingman. By either rail or road transport, turbine components and equipment will use US 93 for final transportation to the site.

C.2.1.2 Equipment to be Transported and Transport Requirements

The origin of turbine components, equipment, and materials is not known at this time. The general categories of items transported include turbine components, facility and construction equipment, and facility and construction material. Further details on the transportation of the turbine components, facility and construction equipment, and facility and construction materials are provided in the following sections.

C.2.1.2.1 Turbine Components

Turbine components generally are described in three sections: blades, towers, and the nacelle. The weights and dimensions for all these components vary depending on the vendor.

The turbine components transportation requirements will generally govern the road design and access design. The length of the components (especially the blades and tower sections) generally results in a requirement of a 150-foot turning radius for all turns and a maximum of a 6-inch hump or dip per 50 foot stretch of road. Nacelles (the section of the turbine at the top of the tower) including the rotor hub are shipped in various configurations. Dimensions for nacelles can vary, but do not typically exceed dimensions of a standard construction trailer.

The weight of the turbine components generally results in a requirement for grades on public roads not to exceed 8 percent and Maximum Load Class (MLC) ratings of 20 tons per axle or greater (MLC ratings are generally only an issue on local roads). Based on state specific transport requirement for oversized loads (which most of the turbine components are) lead and trail flag vehicles may be required, and possibly police escort vehicles (depending on the requirements of each state).

C.2.1.2.2 Facility and Construction Equipment

Other than turbines, the major equipment for the facility include the main step-up transformers, pad mounted transformers, substation equipment, and substation control building. Major construction equipment includes turbine installation cranes, turbine offloading cranes, earthmoving equipment, trenching equipment, and miscellaneous cranes, forklifts, and lifting equipment.

The majority of the facility and construction equipment will use standard transport vehicles and therefore will not have special transport requirements. The main step up transformer(s) generally are permitted loads due to the weight of the transformer. The large turbine installation cranes are transported to the site in pieces and assembled on site; accordingly there are generally no special transport requirements for the turbine installation cranes.

C.2.1.2.3 Facility and Construction Material

Material for the project includes road aggregate, concrete; rebar steel, underground electrical conductor and fiber optic cable, grounding cable, transmission poles, transmission wire, and materials for the operations and maintenance building. The majority of the facility and construction material will use standard transport vehicles and therefore will not have special transport requirements. Depending on the type of transmission structure used, an oversized vehicle permit may be required to transport them (if a single piece transmission poles over a certain length are used). These loads will have similar transport requirements as the turbine blades. Aggregate loads for the roads and foundation will not have specific transport requirements, but due to the high volume will require dust control measures and a road maintenance program.

C.2.1.3 Estimated Transport Vehicle Trip Counts

During the operations phase of the wind facility (post-construction), it is anticipated that there will be approximately 40 O&M staff, for a daily generation of 30 to 60 trips. Vehicles used by Operations staff will likely be passenger vehicles and light duty trucks.

The estimates below provide construction related trip counts. For estimating purposes, the trip count is based on the number of round trips that transport vehicles will make from the last major highway (US 93) to the main construction area, for the duration of approximately 12 months to 18 months. Trip counts for all transport related vehicles are summarized in Table C-1.

**Table C-1
Estimated Number of Vehicle Round Trips into the Project Site
(During Total Construction Period)**

Transport Vehicle Category	Expected Number of Round Trips
Turbine Components	2,830
Aggregate and Water	1,300
Concrete Delivery Vehicles	1,300
Mobilization and Demobilization	500
Personnel Transport	50,000 – 75,000
Total	55,930 – 80,930

It is assumed that most workers will take company or personal vehicles (cars and light duty trucks) from their place of residence or temporary residence to the main job site once per day. All workers will receive a traffic route map during orientation and will be encouraged to carpool during orientation. Assumptions include a construction duration at approximately 9 to 12 months (but could last as long as 18 months), with an average of 300 workers onsite daily, with up to 500 workers daily during peak construction. Assuming estimated 52 week construction duration (5 to 6 day work week) with an average of 300 workers on site with an active ride share program, there will be 50,000 to 75,000 round trips for personnel transports.

The project will use on-site concrete mixing and mobile batching plants. Therefore, concrete trucks will make only one round trip per day as they start work and finish work. Assuming ten concrete trucks working over a 26 week period (5 day work week) 1,300 round trips will be required for concrete delivery trucks.

Each mobilization and demobilization activity will require two round trips (for example, the delivery of one construction trailer will require one round trip at the start of the project and one round trip at the conclusion of the project). Based loosely on previous projects it is expected there will be approximately 500 round trips based on mobilization and demobilization activities.

C.2.1.4 Estimated Traffic Congestion

The expected total round trip count of 55,930 to 80,930 over a 12 to 18 month period (as estimated in Section C.2.8.3) results in an average trip count of 215 to 311 trips into and out of the project area per workday. At this level, it is not expected that construction traffic will have an impact to the federal interstates or to the Las Vegas or Kingman areas.

While limited impacts are expected to traffic along the majority of US 93, there will likely be some temporary impact to traffic in the vicinity of the Milepost 22 (the access point to the Mohave County Wind Farm Project) as slow-moving vehicles enter and exit during construction.

C.2.1.5 Proposed Access Improvements

An Encroachment Permit and Traffic Control Permit is required to construct the improvements within the US 93 Right-of-Way. A Class “C” oversize permit is required for oversized transport vehicles and heavy loads. A summary of the proposed improvements on US 93 is provided below:

- A new northbound acceleration lane for oversized vehicles exiting the Project-lane will be striped as a non-travel lane to prohibit use by non-oversized vehicles.
- A new northbound right turn/deceleration lane for regular and oversized vehicles entering the Project.
- A new southbound acceleration lane for oversized vehicles exiting the Project, lane to be constructed within the existing median-lane will be striped as a non-travel lane to prohibit use by non-oversized vehicles.
- Lengthening the existing southbound left turn/deceleration lane into the Project to remove oversized vehicles from the southbound through lanes and accommodate deceleration requirements.
- Widening of the crossover median to allow oversized vehicles to begin their turning movements ahead of the existing intersection, facilitating turning radius requirements of the oversized vehicles and allowing for idling of the oversized vehicles within the median, if necessary, to wait for gaps in oncoming traffic. The widened section of the median will be striped as a non-travel area to prohibit use by non-oversized vehicles. Traffic will be reduced to one lane in each direction while the improvements are constructed. Construction of the access improvements is expected to last approximately 14 to 18 weeks.

During construction of the Project it is anticipated that construction signage and LED advanced warning signs will be utilized ahead of the intersection, and flaggers will likely be used when oversized transport vehicles are entering and exiting the Project. BP Wind Energy would request that the 65 mile per hour speed limit be reduced temporarily to 45 miles per hour during construction in the intersection location.

C.2.2 Mining Plan of Operations

Mine Project Permit Location

The location of the existing mining area is located in northwest Mohave County, Arizona just off mile marker 22 of US 93. The area proposed for these activities is public land administered by the BLM and will be permitted through the BLM to BP Wind Energy. BP Wind Energy will hire a balance of plant contractor (BOP) who will operate the gravel mine and related infrastructure for construction of the proposed wind project. The subject area is in the Detrital Wash, an intermittent stream, located in Section 23, T28N, R21W, Mohave, County, Arizona. Much of the southern portion of Section 23 has been previously mined, and it is anticipated the gravel mine will expanded to the north in Section 23.

Mine Site Activities

Construction activity in the processing area will be on-going during the construction period. The mining project is scheduled to start two weeks after Project construction starts with approximately 180,000 to 210,000 cubic yards of material used. It is anticipated that the mining activities will continue until the

wind power project is completed and in commercial operation. Prior to any mining operations BP Wind Energy will obtain a permit from the Mohave County Flood Control District.

The project will require the mining of sand and gravel from the banks and channel of the Detrital Wash. The depth of the excavation will be limited to approximately 8 feet with 60-foot long tapers (a generally described area of land that gradually thins towards one end, i.e. a conical profile) left in place at both the upstream and downstream ends of the excavated area. Remaining side slopes will be contoured to a neat appearance and left at a 3:1 or flatter slope. The channel of the wash will be mined with scrapers, backhoes, and/or loaders with the material being transported to the processing area, above the ordinary high-water line of the Detrital Wash. The facilities in this area will not require foundations.

There are three water production (pumping) wells currently on the mine site. It is anticipated that the demand for the mining and concrete productions can be satisfied by these existing wells, although the well to be established at the O&M building may provide an additional source of water during the construction phase. Two clay-lined transfer ponds approximately 5 feet deep and 60 feet by 60 feet wide will be constructed (estimated size), at the Materials Source processing site (mining premises). The ponds would be used for storage and recycling of wash water, and used to contain the fine particles washed from the sand. Also, during peak usage, water may be stored in the ponds. When the Materials Source (mining premises) is no longer in use, the ponds would be reclaimed to prior existing conditions to the extent possible.

The entire project site as well as the areas near the overburden stockpiles will be monitored for air quality as required by the Arizona Department of Environmental Quality, Air Quality Division. Refer to the POD Dust and Emissions Control Plan for all the air quality mitigation applicable to mining related activities. It is anticipated that a SWPPP will be required for the mining activities as well as the general grading and construction of the wind farm site. SWPPP(s) for the entire site (including the quarry) will be approved prior to the Notice to Proceed and monitored and revised as necessary throughout the life of the project construction activities.

Fuel Storage

Mining operations will require onsite diesel fuel storage. There will be additional storage requirements for associated lubricant oils, hydraulic oil, coolant, and grease. The fuel steel tank(s) will have an estimated storage capacity of approximately 8,000 to 10,000 gallons. All portable fuel and related other liquids storage tanks will be provided with proper containment in accordance with the project Spill Prevention Control and Countermeasure Plan (SPCC) assembled for the project. The containment requirements will meet the more stringent of local and/or state requirements.

Equipment Parking and Servicing

All equipment will be inspected for soil and debris capable of transporting weed propagules and cleaned if necessary prior to entrance on to the project site in accordance with the project Integrated Reclamation Plan. The project equipment will be serviced in a designated area in the existing processing area. Servicing will consist of routine maintenance of vehicles; major repairs will not be performed on site. Care will be taken to see that no oil, grease or used filters can contaminate the soil. If oil or grease is spilled or leaked from equipment, the contaminated soil will be removed and hauled to Silver State Disposal in Clark County, Nevada, which is an approved hazardous material dump, or a similarly approved facility. Used oil will be pumped into a truck and hauled to a recycling facility in Las Vegas, Nevada or similarly approved facility on an as needed basis.

Emergency Plan for Spills

A SPCC assembled for the overall project will include the mining activities. In the event of a spill or other accidental discharge, the on-site Emergency Coordinator will direct an immediate cleanup and notify the proper authorities.

Portable Scale

A portable scale or weigh belt will be onsite for the duration of mining activities. All materials leaving the pit will be weighed and documented as to the amount and its intended use on the project site. Information will be reported to BLM as required. All scales will be properly calibrated prior to use and at the frequency required by the Arizona Department of Transportation for highway construction.

Reclamation

The processing area is not within the limits of any wash or stream. Post-mining project drainage patterns and volumes will remain essentially the same and pose no threat to adjacent property from increased runoff, sedimentation, stream bed stability or steam flow. Precipitation falling in the pit will be contained where the water will either percolate, evaporate, or be mechanically removed without creating additional runoff. The design and development of the processing area will not create significant drainage flow changes.

Reclamation of the permitted mine site will include leveling or re-contouring to return disturbed areas to as near their pre-mining condition as feasible. Reclamation will be in accordance with the Integrated Reclamation Plan and will commence with the completion of project mining and processing activities at the site, and will consist of the following measures:

1. The completed mining project will be scheduled in Phases. As one Phase is completed, reclamation will begin in that location. Areas mined during previous pit operations, not associated with the Project will not be revisited. Any Project associated mining in areas previously reclaimed will be reclaimed again after cessation of the project oriented activities.
2. All equipment and structures mobilized to the site by BP Wind Energy or the BOP contractor will be removed from the site. The processing and parking areas will be leveled or contoured to closely approximate pre-project grades. Reclamation of the approach to U.S. Highway 93 including the existing cattle guard with all appropriate fencing and access controls will be coordinated with the Arizona Department of Transportation to determine if the improvements should be retained or reclaimed.
3. Overburden will be removed from the stockpile and the area will be re-contoured to match the natural grade and drainage patterns.
4. The re-contoured surface will remain rough and seed mixture, as prescribed by the BLM Kingman Field Office, will be applied. The surface will only be seeded if requested by the BLM Kingman Field Office, and the seed mixture will be as indicated in the Integrated Reclamation Plan. BP Wind Energy or the BOP will contact the Kingman Field Offices before applying this seed mixture and will provide the Kingman Field Office with the tags from the seed bags.

At completion of mining, the pit will be leveled after all equipment and structures have been removed from the site. No structures or equipment brought on-site by BP Wind Energy or the BOP contractor will be left on site after closure of this facility.

C.2.2.1 Flagging Plan

The Flagging Plan provides for the orderly identification of a wide variety of proposed activities in the field using colored plastic ribbon (preferably bio-degradable) or paint, for all activities associated with the construction, operation, maintenance, and termination of the Project within authorized limits. Staking will consist of centerline or boundary of linear facilities with relevant offset direction, right-of-way boundaries, temporary work areas, and environmentally sensitive areas.

Project construction/design sheets will be used by the Contractor to guide placement of stakes and flagging. The Agency(s), and BP Wind Energy/Construction Contractor would agree to color changes and assign additional flagging requirements as needed. This will be coordinated with all involved parties and approved by the Agency(s), before use on the Project.

Flagging will be maintained throughout construction and reclamation until final cleanup and restoration is completed and approved. The stakes and/or lath will then be removed.

C.2.2.2 Blasting Plan

The Final Blasting Plan for the Mohave County Wind Farm would be completed prior to construction if BLM, Reclamation, and Western approve the Project. BP Wind Energy would prepare a detailed blasting plan once the geotechnical investigations are completed. The POD has stipulated that prior to any explosive work beginning, a detailed blasting plan would be developed which would describe the procedures and methods, job hazard analysis, transportation of explosives, communication, securing the area, signage, and inspection procedures. A blasting permit must be issued prior to any blasting. No explosives will be stored on site and the blasting subcontractor or designee will furnish all blasting products. The Final Blasting Plan would also include the safety protocol for the project. This plan including completed insurance bonding requirements, documented proof of the supervisor's blasting qualifications, and documentation from similar project and details must be submitted by the blasting subcontractor to BP Wind Energy for approval (Draft Mohave County Wind Farm Construction Project Blasting Plan, May 2010).

C.2.2.3 Decommissioning Plan

A Draft Decommissioning Plan has been submitted to the BLM and Reclamation to fulfill one of the NEPA requirements for the Project. The terms in the plan will be binding upon the wind farm owner, developer, and any of its successors, assigns, or heirs. Decommissioning procedures involve the physical removal of certain facilities, structures, and components associated with the Project, the disposal of solid and hazardous waste, and identification of physical elements that may remain on the property at the discretion of the participating property owners. Reclamation includes the stabilization or re-vegetation of the project site to minimize erosion and facilitate subsequent land uses as determined by the property owner.

C.2.2.3.1 Decommissioning

In the context of this plan, decommissioning is the act of removing the wind energy system from service. Decommissioning is a step-by-step deconstruction process that involves carefully and safely removing project components, and appropriately salvaging, recycling and disposing of the infrastructure and appurtenant facilities. It includes the physical removal of facility-associated structures and components (including portions of the foundations) from the Project Area. In accordance with the proposed BLM Right of Way Grant and Reclamation Right of Way Grant, if the Project is approved, decommissioning of the Project will include removal of the following infrastructures:

- Aboveground equipment, including towers, concrete pads (does not include entirety of foundations), anchors, guy wires, fences, fixtures, materials, buildings, structures, improvements, and personal property installed by Developer or by its agents, will be removed and recycled or disposed of at approved off-site facilities.
- Where feasible, wind turbines, including blades and towers, will be removed in a manner to allow for refurbishment and resale of each component. Removal will require cranes, construction of temporary crane pads, plus some access road improvements to accommodate large cranes and trucks.
- Foundations will be removed to a depth of three (3) feet below the surface. Structures and debris located below the soil surface will also be removed to a depth of three (3) feet (or such greater depth as required under the applicable authorization) below the surface. All pit holes, trenches or other borings or excavations (but not roads) created during decommissioning will be properly filled and compacted.
- BLM and Reclamation will be consulted to determine if it is desired to remove the cables buried between each turbine, or leave them in place. If it is decided that the cables should be removed, an appropriate technique in use at the time of decommissioning will be used.
- Transformers will be removed from the site.
- Solid waste and hazardous material will be disposed of offsite in accordance with applicable state and federal regulations. Decommissioned gearboxes, transformers, and hydraulic systems will be drained of fluids, put into appropriate containers before dismantling, and then transported and disposed of off-site in accordance with state and federal regulations.

C.2.2.3.2 Reclamation

In the context of this plan, reclamation is the process of restoring lands affected by the Project or its dependent components to a land use condition that satisfies jurisdictional agency requirements. The process may require grading, contouring, decompacting soils, stabilization, re-vegetation, and drainage control. Reclamation of the project will include the following:

- Disturbed on-site soils and vegetation will be reasonably restored to their original condition. Reclamation procedures will be based on site-specific requirements and techniques commonly employed at the time the area is reclaimed. If the land is to be reclaimed to its natural state, reclamation will include re-grading, seedbed preparation, and revegetation with native seeds.
- Following removal of wind project access roads, these roads will be scarified, decompacted, and recontoured as needed to provide a condition that will facilitate revegetation, allow for proper drainage, and prevent erosion. If requested by the jurisdictional agency, the area will be reseeded using an agency approved seed mix.

C.2.2.3.3 Schedule

The wind turbines proposed for use in the Project are expected to be operational for up to 30 years. It is anticipated that as these turbines reach the end of their expected life, technological advances may allow for a repowering where the existing turbines would be replaced with more efficient and cost-effective generators that extends the life of the Project. Many older wind energy facilities have been re-powered by upgrading or replacing existing towers and other infrastructure with more efficient turbines and related equipment.

Should the operation of the Project be terminated, the Developer would provide the County, BLM, and Reclamation with a written Notice of Termination of Operations. The date of the Notice of Termination

of Operations is the Termination Date. The notice will be provided within two years of terminating operation of the system. The Project will be removed in accordance with the terms of existing authorizations with the Agencies.

Decommissioning and reclamation prior to the end of the 30-year life-expectancy of the Project could occur under certain unlikely conditions such as condemnation or the cessation of power generation by the Project.

C.2.2.3.4 Estimated Decommissioning and Reclamation Costs

Total decommissioning and reclamation costs will be offset by the salvage value of towers, turbines and associated facilities that were sold or reused..

C.2.2.3.5 Responsibility

Developer, and its successors or assigns or heirs, would be responsible for decommissioning the facility and all costs associated with decommissioning the Project and associated facilities. Developer will be responsible for ensuring that decommissioning activities occurred in accordance with this plan. Upon completion of decommissioning, the BLM and Reclamation will have the right to review final decommissioning and reclamation to confirm it was consistent with this plan. If decommissioning does not proceed in accordance with this plan, BLM and Reclamation will have the right to enter the property and cause the appropriate abandonment and decommissioning measures as determined by this plan.

C.2.2.3.6 Financial Assurance

BP Wind Energy will provide a performance bond or other similar security to ensure compliance with the terms and conditions of the right-of-way (ROW) authorizations and requirements of applicable regulatory requirements, including reclamation costs. The amount of the required bond will be determined during the ROW authorization process based on site-specific and project-specific factors, including measures identified in this Integrated Reclamation Plan. Financial bonds may also be required for site monitoring and testing authorizations. Financial bonds are implemented in accordance with BLM Wind Energy Development Policy (BLM IM 2009-043).

To determine the amount of financial assurance, Developer will hire an independent engineer to provide an estimate of the salvage value of the towers, turbines, and associated facilities as well as an estimate of the decommissioning reclamation costs for the Project every five years beginning in year 10 of the Project. If the decommissioning and reclamation costs exceed the estimated salvage value of the towers, turbines and associated facilities, Developer will post financial assurance for 1.2 times the difference between the salvage value of the towers, turbines and associated facilities and the decommissioning and reclamation costs.

A bond will be required by BLM and Reclamation to ensure compliance with the terms and conditions of the right-of-way authorization and the requirements of applicable regulatory requirements. The amount of the bond may include potential reclamation and administrative costs to BLM and Reclamation. A minimum bond in the amount of \$10,000 per wind turbine, considering salvage values of turbines and towers, will be required for all wind energy development projects on public lands. The amount of the required bond will be determined during the right-of-way authorization process on the basis of site-specific and project-specific factors. Acceptable bond instruments include cash, cashier's or certified check, certificate or book entry deposits, negotiable U.S. Treasury bonds equal in value to the bond amount, or surety bonds from the approved list of sureties (U.S. Treasury Circular 570) payable to the Bureau of Land Management. A letter of credit is not an acceptable form of bond. All bonds will be periodically reviewed (at least every 5 years) by the BLM authorized officer to ensure adequacy of the bond.

Any surety bond shall be given by a corporate surety authorized to do business in the State of Arizona. The surety bond shall conform to and be subject to the reasonable requirements of the BLM and Reclamation. The BLM and Reclamation reserve the right to reject collateral that is deemed inappropriate or insufficient.

C.3 ENVIRONMENTAL AND CONSTRUCTION COMPLIANCE MONITORING PLAN (ECCMP)

The Agencies require holders of right-of-way (ROW) grants to prepare and fund an environmental construction compliance monitoring program to ensure compliance with the terms, conditions, and stipulations in the Final EIS, Record of Decision (ROD), and Plan of Development (POD).

The overall objective of the ECCMP is to provide direction for the Agency and BP Wind Energy Construction Compliance Monitoring Teams on conducting inspections, and evaluating and documenting compliance with the Project environmental measures and conditions during project construction as they relate to the previous list of plans. After construction and prior to operation, environmental compliance will be addressed in an amendment to the ECCMP to focus on the roles and responsibilities of the operations team.

The Agencies require holders of right-of-way (ROW) grants to prepare and fund an environmental construction compliance monitoring program to ensure compliance with the terms, conditions, and stipulations in the Final EIS, Record of Decision (ROD), grants, and Plan of Development (POD).

The intent of this plan is to address inspecting/monitoring implementation of the requirements found in the Final EIS, ROD and authorizations and their inclusions. This ECCMP includes the following:

- Description of the responsibilities of the Agency Compliance Team including the Authorized Agency Officer (AAO), Agency Compliance Manager (ACM), and Agency Environmental Monitors (AEM)
- Communication protocol between the Agency Compliance Team and the BP Wind Energy Compliance Team including the BP Wind Energy Project Manager (PM), Construction Site Manager (CSM), Compliance Manager (CM), and Environmental Monitors (EM);

This ECCMP also addresses monitoring implementation of requirements of the following plans pertaining to construction that are appended to the POD or FEIS:

- Integrated Reclamation and Noxious Weed Management Plan
- Eagle Conservation Plan/Avian Conservation Strategy
- Bat Conservation Strategy
- Dust Abatement and Emissions Control Plan
- Mining Plan of Operations
- Transportation and Traffic Plan
- Health, Safety, Security, and Environment Plan (including Emergency Response and Waste Management)
- Plan of Development
- Blasting Plan

- Stormwater Pollution Prevention Plan (SWPPP)
- Spill Prevention Control and Countermeasure Plan (SPCC)
- Historic Property Treatment Plan (HPTP)/Cultural Resources Management Plan (CRMP)The overall objective of the ECCMP is to provide direction for the Agency and BP Wind Energy Construction Compliance Monitoring Teams on conducting inspections, and evaluating and documenting compliance with the Project environmental measures and conditions during project construction as they relate to the previous list of plans. After construction and prior to operation, environmental compliance will be addressed in an amendment to this ECCMP to focus on the roles and responsibilities of the operations team.

C.3.1 Compliance Teams Roles and Responsibilities

C.3.1.1 Agency Authority

In the event the Agencies approve the Mohave County Wind Farm Project, ROW grants and the interconnection approval will be issued to BP Wind Energy. The ROW grants and interconnection approval will cover all facilities as well as the switchyard and transmission tie in facility, with the exception of the minerals material site that will require a negotiated sale or competitive bid. BP Wind Energy has filed applications with the BLM for ROW grants pursuant to the Federal Land Policy and Management Act (FLPMA), with Reclamation pursuant to the Act of Congress of June 17, 1902 (32 Stat. 388), the Act of Congress approved August 4, 1939 (53 Stat. 1187), Section 10, and 43 CFR Part 429, and with Western for interconnection approval under Section 211 of the Federal Power Act (18 CFR § 2.20).

C.3.1.2 Agency Compliance Team

All three federal agencies listed (BLM, Reclamation, and Western) may be involved in the construction compliance process depending on the land ownership (BLM or Reclamation) and portion of the Project involved (i.e., Western for the interconnection).

C.3.1.3 Variances

During construction, unforeseen or unavoidable site conditions can result in the need for changes from approved mitigation measures and construction procedures. Additionally, the need for route realignments, extra workspace, or access roads outside of the previously approved construction work area may arise. Changes to previously approved mitigation measure, construction procedures, and construction work areas will be handled in the form of variance requests to be submitted by the applicant and reviewed and approved or denied by the BLM, Reclamation, and/or Western for federal land where federal oversight or jurisdiction exists. The variance process can also be a good mechanism to clarify discrepancies discovered in project material and/or to distribute information to the entire project team. A system of three variance levels (Level 1, 2, and 3) will be used to categorize and process variance requests.

C.3.2 Eagle Conservation Plan and Avian Conservation Strategy

BP Wind Energy created the final Eagle Conservation Plan and Avian Conservation Strategy (ECP/ACS) in order to meet the requirements of BLM Instruction Memorandum 2010-156, which provides direction for compliance under the Bald and Golden Eagle Protection Act (BGEPA; see Section 1.4, Regulatory Framework) and the Migratory Bird Treaty Act (MBTA; see Section 1.4, Regulatory Framework). Instruction Memorandum 2010-156 requires that the ECP be approved by the US Fish and Wildlife Service (USFWS) prior to BLM, Reclamation, and Western Area Power Administration (Western) signing Records of Decision (RODs) at the completion of the NEPA process. The draft ECP/ACS is extensive, and following is a synopsis of the pre-construction planning, construction, operational and post-construction phases including mitigation measures, post-construction mortality monitoring, and

adaptive management mitigation measures. A description of the regulatory framework, previous monitoring and surveying, and assessment of risk is provided in the full text of the ECP/ACS.

In addition to the mitigation measures described in Appendix B of this Final EIS, new utility lines built by BP Wind Energy shall be designed following Avian Power Line Interaction Committee (2006) guidelines to prevent electrocution. In addition, permanent monopole structures are encouraged over lattice tower design, to minimize opportunities for perching and nesting. Phase covers and/or pole caps shall be used on metal poles. Protective covers shall be used for equipment on switch poles if they are located in known raptor use areas (e.g., areas where raptor flights have been documented in field surveys).

C.3.2.1 Post-Construction Mortality Monitoring

At the start of operation, the Mohave County Wind Farm Project will begin participating in the Wildlife Incident Reporting System (WIRS), which will be implemented for the life of the Project. The WIRS is currently in use at other BP Wind Energy facilities for this purpose. The WIRS is a protocol designed to provide a means of recording avian and bat species found in the Project area by Project staff, thereby increasing the understanding of wind turbine and wildlife interactions.

C.3.2.2 Mitigation and Adaptive Management

Through consultation among AGFD, USFWS, BLM, Reclamation, Western, and BP Wind Energy concerning causes of eagle fatalities in Arizona, it was decided that mitigation would focus on developing a roadside carcass removal plan. Vehicle collisions have been identified as a cause of eagle fatalities by a variety of sources, and data from AGFD show that 21 percent of recorded incidental fatalities collected by AGFD from 2000-2011 were due to vehicle collisions. Longer-term records by AGFD indicate that from 1997-2012, approximately 35 percent of eagle fatalities were due to vehicle collisions.

C.3.2.2.1 Adaptive Management for Carcass Removal Mitigation

Once the carcass removal program has begun, the rate of carcass occurrence within the target area can be estimated from the number and locations of carcasses encountered and relocated under the program. Once carcass removal is underway, the percentage of carcasses discovered during surveys that have eagles associated with them will be recorded, and a subset of relocated carcasses will be monitored using remote cameras or other means to validate the estimate of the percentage of carcasses that are used by eagles in the target area.

Road surveys for carcasses and cameras deployed to monitor the use of carcasses by eagles will also permit validation of the number of eagles per carcass within the target area. Carcasses removed from roadways will be moved to the nearest reasonable location away from the road, and a subset will be monitored using remote cameras. Timing and frequency of carcass removal may be adjusted to specific seasons or months if additional data on roadside fatalities and eagle use suggest an increased benefit at other times of year or an increased benefit to an altered search frequency. Recognizing the multiple sources of uncertainty in the two-year mitigation option, BP Wind Energy will adaptively manage this mitigation strategy by evaluating its effectiveness after this initial two-year period.

C.3.2.2.2 Adaptive Management for Compensatory Mitigation

BP Wind Energy will execute a carcass removal program as a compensatory mitigation measure. BP Wind Energy recognizes that there is uncertainty associated with take and compensatory mitigation, which can be adaptively managed.

C.3.2.2.3 Mitigation and Adaptive Management for Non-eagle Bird Species

BP Wind Energy will implement mitigation for non-eagle bird species if either an annual or a turbine-specific threshold is crossed. Thresholds will be based on the mean and variance of fatality rates found in the western U.S.

C.3.2.3 Reporting

An annual post-construction fatality monitoring report will be prepared to summarize non-eagle and eagle fatalities (if any) associated with operations of the Project. This report will include a detailed summary of the methods; results from carcass searches, carcass persistence trials, and searcher efficiency trials; an estimate of fatalities on a per turbine and per megawatt basis; and a discussions of the results in the context of adaptive management thresholds. This report will be provided to USFWS, AGFD, BLM, and Reclamation for review.

C.3.2.4 Decommissioning

The Project is anticipated to have a lifetime of up to 30 years after which it may no longer be cost-effective to continue operations. The Project will then be decommissioned, and the existing equipment removed.

C.3.3 Bat Conservation Strategy

BP Wind Energy developed the final Bat Conservation Strategy (BCS) to fulfill a requirement set forth by BLM as the lead agency under NEPA. The BCS includes information consistent with the USFWS Land-based Wind Energy Guidelines (USFWS 2012), which notes preparation of a BCS is optional for the applicant unless federally listed bat species will be affected or if it is required by another regulatory agency. The BCS summarizes the environmental conditions at the Project in the context of the results from bat studies that have been conducted in order to develop an assessment of potential impacts to bats, provides avoidance and minimization elements, summarizes a post-construction fatality monitoring protocol, and describes an adaptive management strategy.

C.3.3.1 Post-Construction Mortality Monitoring

BP Wind Energy will conduct two years of standardized post-construction fatality monitoring of the Project. Based on these results, additional spatial or temporal fatality monitoring may be conducted if the initial results indicate higher than expected rates of fatality. BP Wind Energy will also conduct incidental monitoring for the life of the Project as part of their WIRS.

The objective of post-construction fatality monitoring is to estimate the number of bat fatalities that occur at the Project. Detailed descriptions of the type of standardized monitoring performed are provided in the BCS. The objective of fatality monitoring is to provide a means of recording bat species found dead or injured in the Project Area, thereby increasing the understanding of wind turbine and wildlife interactions. WIRS provides a set of standardized instructions for BP Wind Energy personnel to follow in response to wildlife incidents in the Project Area.

C.3.3.2 Mitigation and Adaptive Management

BP Wind Energy will implement mitigation for bats if either an annual or a turbine-specific threshold is crossed. BP Wind Energy is committed to avoiding and minimizing losses of bats at the Project and incorporates the threshold approach to respond to unforeseen fatality events, first and foremost by identifying and correcting problems onsite and, as a last resort, through operational mitigation.

BP Wind Energy will proactively review post-construction fatality monitoring data to identify threshold exceedances quickly regardless of when in the reporting cycle they occur. This in turn will enable a swift response by BP Wind Energy in terms of assessment of the issue, determination of corrective measures, and communication with resource agencies.

C.3.3.3 Reporting

An annual post-construction fatality monitoring report will be prepared to summarize bat fatalities (if any) associated with operations of the Project. This report will include a detailed summary of the methods; results from carcass searches, carcass persistence trials, and searcher efficiency trials; an estimate of fatalities (both for all bat species and the BLM Sensitive/AGFD Species of Greatest Conservation Need Tier 1A and 1B subgroup if conditions are met) on a per turbine and per megawatt basis; and a discussions of the results in the context of adaptive management thresholds. This report will be provided to AGFD, BLM, and Reclamation for review.

C.3.3.4 Decommissioning

The Project is anticipated to have a lifetime of up to 30 years after which it may no longer be cost-effective to continue operations. The Project will then be decommissioned, and the existing equipment removed.

C.3.4 Dust and Emissions Control Plan

It is the responsibility of Proponent's construction contractors (Contractor) working with a third party contracted as the Agency(s) Compliance Team to ensure the Dust and Emissions Control Plan (Plan) is implemented.

BP Wind Energy is committed to work within the parameters of all federal, state and local environmental protection policies and regulations at all project locations. In the event of a conflict within the coordination of requirements of applicable promulgated standards, the stricter of those laws will be applied and enforced.

C.3.4.1 Dust Monitoring Guidelines

Dust generating operation shall not allow visible fugitive dust emissions to exceed 40 percent opacity for greater than 10 seconds for all construction vehicles. Visible dust crossing any property line would be considered excessive when it is observed for longer than 30 seconds over a cumulative six minute period.

Trained third party environmental monitors would be onsite daily to monitor dust levels and make recommendations as needed to ensure air quality standards and compliance requirements are met. All of the third party environmental monitors' findings would be reported to the onsite Agency Compliance Manager.

C.3.4.2 Recommended Best Management Practices

Abatement techniques include preventing the creation of fugitive dust, binding dust particles together, and reducing wind speed at ground level. Trucks transporting mineral materials for road construction would be covered with tarps. Dust abatement efforts shall be monitored and recorded during the storm water inspection conducted on a weekly basis and after rain events.

C.3.4.3 Water

Throughout the duration of the Project construction phase, BP Wind Energy anticipates employing at least four 3,000-gallon (or larger) water trucks for dust suppression and control. This will be one of the

primary methods of dust control. Additional water trucks as needed would be employed during peak construction activities when evaporation rates are highest. Water trucks would operate the full length of the shift(s) so that fugitive dust emissions do not interfere or significantly impact the surrounding environment, Project construction activities, or adjacent public and private properties. BP Wind Energy would apply water so that the surface is visibly moist on trafficked roads and in the areas where work is taking place. Water for the dust control would be obtained from three existing production wells at the Materials Source production site or from the well to be established to support the O&M building. It is anticipated that all dust control water needs would be filled by these wells, but additional water, if required, would be transported via water trucks to the project site.

C.3.4.4 Chemical Dust Suppressant Methods

BP Wind Energy recognizes that extreme conditions may require additional dust control methods. BP Wind Energy may employ the use of an BLM, Reclamation, or State of Arizona approved dust palliative applied using the admix method and/or to the surface of gravel access roads at the application rate and frequency specified by the manufacturer along constructed roads, where required.

C.3.4.5 Stabilization

BP Wind Energy would take preventative measures to limit dust from disturbed soils. Disturbed surface areas would be controlled via construction sequencing and clearing would be kept to a minimum width within the corridors.

C.3.4.6 Additional Dust Control Measures

BP Wind Energy would implement a Project traffic control plan that would enforce speed limits designed to keep dust creation at a low level as possible. Typically, those Project site speed limits would be 25 mph or less on all Project access roads. Construction activities would be monitored and if dust levels exceed acceptable standards, adaptive management would be employed, which could include watering travel surfaces and/or lowering these speed limits incrementally until dust is reduced. Additionally, earth moving activity would be minimized and vehicle speeds reduced if sustained winds exceed 22 mph or if gusts exceed 30 mph.

C.3.5 Health, Safety, Security and Environment (HSSE) Plan

The Health, Safety, Security and Environment (HSSE) Plan provides the framework for communicating specific policies and demonstrating management's commitment to an HSSE culture that has, as its goal, No Accidents, No Harm to People and No Damage to the Environment. This requirement would apply internally and externally as appropriate to other stakeholders of the Project. BP Wind Energy is fully committed to a program of responsible management in all areas of health, safety and the environment. Every Contractor company is empowered and expected to adhere to the requirements of this plan at a minimum.

Compliance with federal, state, and local safety regulations as well as the safety and training requirements of the contractor and BP Wind Energy is mandatory on this Project. Specifically, compliance with 29 CFR 1926 (Safety and Health Regulations for Construction) is required unless the written safety policies and procedures of the contractor or sub-contractor are more stringent, in which case the most stringent shall apply. Subcontract personnel are to comply with the intent of this plan in implementing their safety program on-site. This does not relieve subcontractors from their responsibility to address any specific hazards not identified in this plan.

The contractor will be responsible for the actions and work performed by their Subcontractors on the Project Site. The contractor is responsible for implementing the HSSE Policy and the contractor's

comprehensive safety program will be enforced for its employees and the employees of its subcontractors while on the Project Site or to ensure that the individual subcontractor's program equals or exceeds BP Wind Energy's HSSE Policy. The HSSE Plan provides guidance for 36 elements associated with construction activities, and requires that in day-to-day operations, all work on the Project Site utilizes and conforms to the HSSE Policy. As described in the HSSE's Health and Safety Statement, all project employees, contractors and visitors must be committed to conducting themselves in a safe and responsible manner. Every employee and Contractor has the responsibility to follow established safety, health and environmental requirements as well as enforcing accident prevention procedures within their function of responsibility.

C.3.6 Integrated Reclamation Plan

The Integrated Reclamation Plan contains a vegetation reclamation, habitat restoration, Native Plant Management Plan, and a Noxious and Invasive Weed Management Plan. This Integrated Reclamation Plan (Plan) describes the framework for reclamation, habitat restoration, native plant management, and noxious and invasive weed control. The focus of the Integrated Reclamation Plan is to restore areas that have been impacted by construction, operation and maintenance, and decommissioning. The reclamation procedures describe the methodologies, monitoring, and reporting requirements for reclaiming disturbances associated with the Project. The terms of this Integrated Reclamation Plan will be applied to the project facilities located on BLM and Reclamation administered lands should the Project be approved, and will be overseen by the BLM and Reclamation Authorized Officers (Authorized Officers).

The Integrated Reclamation Plan is intended to be adaptive to changing conditions and technologies, and the BLM and Reclamation would have discretion to update, modify, or change the procedures should it be deemed warranted due to site conditions or other factors. The revegetation standard for vegetation cover in reclaimed areas of 70 percent of background native vegetation cover applies on both BLM- and Reclamation-administered lands. This reclamation success standard will be used to assess whether the reclamation requirements are being met. This plan is consistent with the Project Stormwater Pollution Prevention Plan (SWPPP), which includes criteria for final stabilization requirements per Arizona Department of Environmental Quality (ADEQ) Arizona Pollutant Discharge Elimination System (AZPDES) requirements (ADEQ 2013). In accordance with these requirements, reclaimed vegetation should have a uniform vegetation cover with a density of 70 percent of the native background vegetation cover on all disturbed areas not covered by structures.

Seed Mixture

Seed mixtures will be used to establish species diversity, composition, and ground cover appropriate for each desired plant community. Only approved, certified weed-free, tested pure live seeds will be used. The seed mixture selection will consider commercial availability and price, growth form, seasonal variety, and prevailing dominant and locally adapted species.

During surface-disturbing activities, topsoil will be separated and handled differently than other soil layers. Topsoil will be salvaged during construction to use for site preparation and support future reclamation efforts. Components of soil management will include soil handling, landscape reconstruction, and surface runoff and erosion control. Placement of stockpiles will be planned to minimize disturbance during interim and final reclamation. Topsoil stockpiles for linear features (e.g., roads, collector lines) will be stored adjacent to the disturbed area on native soil and if stored for longer than 6 months will be seeded with the approved seed mixture. Soil and vegetation stockpiles will be stored within the limits of the staked disturbance area. Vegetation removed during construction can be stockpiled along with topsoil to provide erosion protection, maintain natural inocula, and incorporate native seeds and organic matter.

Monitoring and Contingency Measures

Successful reclamation and revegetation requires performance monitoring. Performance monitoring evaluates the temporal condition of the effort, to determine the potential for success, and to determine if remediation is required. The purpose of monitoring is to evaluate the long-term soil stability, vegetative cover and density, habitat quality, and levels of noxious and invasive weeds in the areas disturbed during construction operation and maintenance or decommissioning activities.

Reclaimed Area Monitoring

BP Wind Energy will annually inspect and review the condition of disturbed areas associated with the Project. BP Wind Energy or their representative will assess the success and effectiveness of reclamation efforts, noxious and invasive weed control, and based on discussion with the Authorized Officers recommend adaptive management measures, if necessary. However, prior to implementation of adaptive management measures, the Authorized Officers, or their designee would provide written approval.

Monitoring of any area disturbed by construction, operations and maintenance, or decommissioning activities will be conducted in the fall (September) until the area has met reclamation success. Monitoring reclaimed areas would begin during the first growing season following construction. The growing season will be defined by documented growth cycle species planted during reclamation. Monitoring times and conditions may vary from year-to-year if there is a change in the noxious weed or invasive species established within the Project Area.

C.3.6.1 Native Plant Management Plan

BLM guidance regarding native plant management are contained in the KFO Proposed Resource Management Plan and Final Environmental Impact Statement (BLM 1993). The RMP management objectives allow for the salvage of vegetation where vegetation will be destined for destruction because of surface disturbance, provided salvage does not disturb special status species. The silverleaf sunray (*Enceliopsis argophylla*) is the only BLM sensitive plant species potentially occurring in the project vicinity (BLM 2013). The silverleaf sunray has been documented about 1 mile west of the Project Area (BLM 2013) where it is known to occur on gypsum soils in Township 29N; Range 21W.

Sixteen salvage restricted species have been documented in or near the Project Area. Other cactus and succulents potentially occurring in the Project Area, will be identified during pre-disturbance site characterization and will be protected as either highly safeguarded, salvage restricted, or harvest restricted species. A complete list of protected Arizona native plant species is maintained by the Arizona Department of Agriculture (Arizona Department of Agriculture 2012).

C.3.6.2 Invasive Weed Management Plan

Weed management for this Project will be conducted using an Integrated Pest Management approach, balancing cost, effectiveness, and environmental risk in selecting the best treatment(s) to use for any given target species at any given location. BLM Manual Section 9015 Integrated Weed Management (BLM 1992), will be used as a reference. Methods that may be implemented as part of the weed management effort include (1) prevention (including revegetation of disturbed areas), (2) manual control, and (3) chemical control. For optimum results, multiple methods will likely need to be implemented either in concert, or over time.

Incidental observations during baseline biological surveys indicated infestations of non-native plant species that included Sahara mustard (*Brassica tournefortii*), red brome (*Bromus rubens*), and cheat grass (*Bromus tectorum*) within the Project Area. Records of invasive plants available from the Southwest Exotic Plant Information Clearinghouse (USGS 2007) indicate that these three species along with

Mediterranean grass (*Schismus barbatus*), Russian thistle (*Salsola tragus*), and red-stem filaree (*Erodium cicutarium*) are common, with numerous records in the valleys surrounding the Project Area. Salt cedar (*Tamarix* sp.), Malta star thistle (*Centaurea melitensis*), and Bermuda grass (*Cynodon dactylon*) have been recorded along or near the southern shore of Lake Mead (NPS 2010c). Malta star thistle and Puncturevine (*Tribulus terrestris*) may also occur within the ROW along US 93 in the Project Area vicinity, and has the potential to be spread to and within the Project Area. None of these species are listed as noxious weeds by the State of Arizona or the Federal government.

Noxious Weed and Invasive Plant Species Monitoring

The purpose of monitoring during operation and maintenance and decommissioning activities will be to determine if noxious weed or invasive plant species populations identified during pre-disturbance surveys have increased in density or spread as a result of the Project activities or if new noxious weed or invasive plant species are present that were not previously detected. Monitoring would begin during the first growing season following construction which will be defined by the growth cycle of the noxious weed or invasive plant species documented during pre-construction surveys. Monitoring duration, season, and conditions may vary from year-to year.

Monitoring will apply to all areas disturbed or used by the Project activities during construction, operations and maintenance, and decommissioning. Semi-annual weed monitoring will be conducted in accordance with the KFO recommendations to detect the presence of species and conduct effective treatment to control species. A memorandum summarizing observations and recommendations will be provided to the Authorized Officers following each monitoring event. Monitoring will focus on (1) areas where weed species have previously been observed and/or treated; (2) reclaimed areas, and (3) along roadways and access. Any areas where a spread of noxious or invasive weeds is noted will be further evaluated for the need for remedial action and additional treatment. The Authorized Officers will be notified and GPS points and photos will be taken of infested areas.