Appendix Y

CLOSURE, DECOMMISSIONING, AND RECLAMATION PLAN

CLOSURE, DECOMMISSIONING AND RECLAMATION PLAN

Easley Renewable Energy Project

Prepared for

Intersect Power

IP Easley, LLC

a subsidiary of Intersect Power, LLC

Submitted by

Aspen environmental group

August 2023

CONTENTS

LIST OF TABLES

1. INTRODUCTION

The Closure, Decommissioning, and Reclamation Plan (Plan) serves as a guideline document for the facility contractors and other parties involved in a variety of activities related to the decommissioning and closure phase, safety procedures, and reclamation. The reclamation procedures outlined in this document describe the methodologies, monitoring, and reporting requirements for reclaiming the land disturbances associated with the Easley Renewable Energy Project.

This Plan describes the framework for the development of a final Reclamation Plan. The Plan would be updated based on the changing conditions of the Easley Renewable Energy Project. It is intended to be adaptive to changing conditions and technologies over the useful life of the Project, and the federal Authorized Officer(s) would have discretion to update, modify, or change the procedures if warranted due to site conditions or other factors.

The Easley Renewable Energy Project area contains private and federal lands managed by the BLM. The Plan and the procedures and standards outlined herein would apply to both the private and federal lands within the Project area.

2. OBJECTIVE

The Project would operate for a minimum of 30 years and up to 50 years or more years of useful life, at which point the Project would be decommissioned and the land returned to its pre-Project conditions. The Project's decommissioning has the following goals:

1. Remove aboveground structures unless converted to other uses;
2. Remove the underground equipment unless it is determined that it is preferable to abandon them in place to avoid further impacts;
3. Restore the lines and grades in the disturbed area to match the natural gradients of the site;
4. Re-establish native vegetation in the disturbed areas, depending on the local climatic conditions present at the site at the time of decommissioning, and in consultation with the BLM; and
5. Conform to applicable laws, ordinances, regulations, and standards and local/regional plans.

Reclamation objectives emphasize eventual ecosystem reconstruction to maintain a safe and stable landscape and meet the desired outcomes of the land use plan, which means returning the land to a condition approximate to or better than pre-disturbance conditions. For purposes of this Plan, reclamation is defined as the rehabilitation of a disturbed area to make it equal to or closely approximating that which existed before the land was disturbed. Reclamation objectives include initial stabilization and long-term reclamation to ensure biophysical conditions are maintained in the short term to achieve the long-term goals of revegetation and ecosystem reconstruction.

To achieve long-term reclamation, interim reclamation may be necessary to maintain viable, healthy ecosystems until decommissioning. Interim reclamation would likely be used on stabilized areas that may be re-disturbed during operations and maintenance. Interim reclamation goals and objectives include maintaining active topsoil, establishing erosion control measures, and minimizing habitat, visual resource, and forage loss. Final, long-term reclamation would take place post-construction on all surfaces within the Project site that would not be disturbed during operations and maintenance activities. During decommissioning, final, long-term reclamation would take place across the entire Project site, including those areas that had been subject to interim reclamation.

Local effects of global climate change in the Project area are expected to have dramatic consequences on local habitats and, therefore, on the efficacy of restoration efforts. This may impact the ability of the site to be restored to pre-Project conditions and is discussed in more detail in Section 5.2.

3. PROJECT SUMMARY

IP Easley, LLC (Applicant or Proponent), a subsidiary of Intersect Power, LLC, proposes to construct, operate and decommission the Easley Renewable Energy Project (Easley or Project), a utility-scale solar photovoltaic (PV) electrical generating and storage facility, and associated infrastructure to generate and deliver renewable electricity to the statewide electricity transmission grid.

The proposed Project application area is located on approximately 3,735 acres of private and BLM-administered land, in Riverside County north of Desert Center, California (see Figure 1). The Project would generate and store up to 650 megawatts (MW) of renewable electricity via arrays of solar photovoltaic (PV) panels, battery energy storage system (BESS), and appurtenant facilities. A 6.7-mile 500 kilovolt (kV) generation-tie (gen-tie) line would mainly traverse across the Oberon Project site and connect into an approved substation that is under construction on the approved Oberon Renewable Energy Project site, an adjacent solar and energy storage facility owned by Intersect Power. From the Oberon onsite substation, the power generated by the Easley Project would be transmitted to the SCE Red Bluff Substation via the Oberon 500 kV gen-tie line, which is expected to be online by the end of 2023 (see Figure 2).

The public lands within the Project solar application area are designated as Development Focus Area (DFA) by the Desert Renewable Energy Conservation Plan (DRECP) and associated Record of Decision (ROD), and thus, have been targeted for renewable energy development. The proposed Project is partially located on federal land under management of the U.S. Bureau of Land Management (BLM) and the BLM is the lead agency under the National Environmental Policy Act (NEPA), 42 U.S.C. section 4321 et seq.

Mass grading would not be conducted on the Project site. Several solar and storage facility locations would require specific ground treatments, but this represents a minority of the ground surface of the facility. Substation, storage container, operations and maintenance (O&M) facility, and internal and external road locations would require mowing, grubbing, grading and compaction. Access to the Project site would be provided from Rice Road/Highway 177 through 5 primary and 3 secondary driveway entrances.

4. PROJECT DECOMMISSIONING AND RECYCLING

The procedures described for Easley Renewable Energy Project's closure and decommissioning are designed to promote public health and safety, environmental protection, and compliance with applicable regulations. As used here, "closure" is synonymous with decommissioning and includes removal of the facilities and materials that were employed to support the operation and maintenance of the solar facility, BESS, and gen-tie line supporting the solar facility. Decommissioning consists of the removal of aboveground and certain belowground facility components, management of excess wastes and materials, and the reclamation of native habitat. Underground conduit and lines would be removed by uncovering trenches and backfilling when finished. Decommissioning is assumed to begin within 1 year after termination of the commercial operation of the solar facility and is assumed to occur in a phased, sequential manner with a similar timeframe as construction (2 years). Upon ultimate decommissioning, a majority of Project components would be suitable for recycling or reuse, and Project decommissioning would be designed to optimize such salvage as circumstances allow and in compliance with all local, State, and federal laws and regulations as they exist at the time of decommissioning. Following removal of the above and belowground Project components, the site would be restored to its pre-solar facility conditions, or such condition as appropriate in accordance with County policy at the time of decommissioning.

The Easley Renewable Energy Project has a minimum of 30 years and up to 50 or more years of useful life; however, depending on economic or other circumstances, the real life of the Project may vary. The activities involved in its closure would depend on the expected future use of the site, as determined by the BLM for public land (e.g., decommissioning for open space habitat would involve returning the land to natural conditions) or depending on landowner preference and negotiations for private land. At the time when the solar facility would not be further used by the public or private utility or power generator, this decommissioning plan would be updated if needed and submitted to the BLM for review and approval.

In general, decommissioning would attempt to maximize the recycling of all facility components. The panels could be sold into a secondary solar PV panel market, if available. The majority of the components of the solar installation are made of materials that can be readily recycled. If the panels can no longer be used in a solar array, the silicon can be recovered, the aluminum resold, and the glass recycled. Other components of the solar installation, such as the tracker structures and mechanical assemblies, can be recycled, as they are made from galvanized steel. Equipment such as drive controllers, inverters, transformers, and switchgear can be either reused or their components recycled. The equipment pads are made from concrete, which can be crushed and recycled. Underground conduit and wire can be removed by uncovering trenches, removing the conduit and wire, and backfilling. The electrical wiring is made from copper and/or aluminum and can be reused or recycled, as well. It is estimated that 100 percent of copper components will be recycled and approximately 50 percent of aluminum and other components would be recycled.

Decommissioning of the aboveground portion of the gen-tie and overhead medium voltage collector lines consists of removal of the overhead conductors and removal of poles (risers). All steel would be recycled, and the overhead structure foundations removed to a depth of at least 2 feet below the ground surface. Aluminum from overhead conductors would be recycled. Procedures would be designed to ensure public health and safety, environmental protection, and compliance with all applicable laws, ordinances, regulations, and standards.

4.1. Pre-Decommissioning Activities

Pre-decommissioning activities consist of preparing the site area for dismantling and removal of equipment. These activities include scouting the ROW for remaining residues and products, such as diesel fuel, gasoline, and other materials (to the extent feasible) in order to reduce potential personnel and environmental exposure and to facilitate decommissioning. If found, hazardous material and containers would be rinsed clean, to the extent feasible, and the waste fluid would be collected for off-site disposal in compliance with federal, state, and local requirements and consistent with related project management plans. The Project would maintain electrical power, potable water, and sanitary services for use by decommissioning Project workers on the solar facility.

Prior to commencement of decommissioning, the Project's pre-construction cultural survey records would be consulted, and biological resources surveys may be required. Sensitive cultural and biological resources potentially impacted by decommissioning activities would be avoided to the extent practicable through flagging or temporary fencing. If sensitive resources cannot be avoided, decommissioning would employ the same suite of mitigation measures required for Project construction, including implementation of the Project's cultural resources monitoring plan and biological monitoring plans.

4.2. Decommissioning Plan

Decommissioning activities would include the following:

- Document and establish health and safety procedures.
- Conduct pre-decommissioning activities, including preparation of a final decommissioning and reclamation plan and any pre-decommissioning surveys.
- Dismantle equipment items that are to be sold on the used equipment market.
- Demolish the aboveground structures (dismantling and removal of cables, solar panels, track units, transformers, inverters, substation, distribution lines, O&M buildings, switchyard, etc.) in a phased approach.
- Demolish and remove belowground pole facilities to a depth of 2 feet below the ground surface.
- Remove underground conduit and lines by uncovering trenches and backfilling when finished.
- Remove primary roads (aggregate-based)
- Break up and remove concrete pads and foundations
- Remove septic system and leach field
- Dispose of hazardous materials, hazardous waste, and any contaminated soil to appropriate facilities for treatment/disposal or recycling.
- Upon consultation with appropriate agencies, post-project topography may be minimally graded to match the natural gradient to the extent practical, and disturbance areas reclaimed to the extent practical.

Although various types of decommissioning/demolition equipment would be used to dismantle each type of structure or piece of equipment in the Project ROW, decommissioning and dismantling would proceed according to the following general staging process:

1. Assess existing site conditions, survey the site grounds, and prepare the site for demolition.
2. Dismantle and remove aboveground structures as well as concrete flooring and structures.
3. Remove foundations per agency coordination, consistent with applicable laws, ordinances, regulations, and standards.
4. Excavate and potentially remove soils in disturbed areas, if necessary.
5. Contour and reclaim the site and roads used only for the Easley Renewable Energy Project (per agency coordination and in accordance with applicable laws, ordinances, regulations, and standards), to the extent feasible, while disturbing as little of the other site areas as feasible.

Because the conditions that would affect the decommissioning decision and overall goals for reclamation are uncertain, this Plan would be reviewed at least 12 months prior to the planned permanent closure, and a final Plan would be prepared and submitted to the BLM for approval. The activities and processes described in Section 5.2 for revegetation and reclamation would be updated and incorporated in the Final Plan. However, if an unplanned closure occurs, and a final Plan is not prepared, the relevant processes in this interim Plan would be implemented unless no longer appropriate.

The full extent of removal would depend on the planned use of the ROW following termination of the solar facility. If the ROW is planned to continue use for industrial or commercial purposes, certain infrastructure may remain with the approval of the BLM. If the ROW will not be developed, it would be made available for reversion to open space.

Water from on-site groundwater supply well(s) may be obtained on BLM-administered land, private land, or purchased offsite for the Project.

5. RECLAMATION PLAN

Once removal of all Project equipment is complete, the ROW area would be prepared for reclamation with the intent to minimize dust, erosion, and weed infestations. As described below, appropriate portions of the site may be seeded with a native seed mix. Supplemental irrigation and planting container stock are not currently practical for large-scale projects in the Southern California desert; however, the use of container stock, consisting of the same species noted in the seed mixes below, would be considered as an option in the Plan. Furthermore, advancements in desert restoration may occur over the next few decades and possibly lead to alternative revegetation techniques to be proposed in the Plan. Proper preparation of the soil is imperative for success in the reclamation process. Sufficient rains would allow the best opportunity for seed establishment.

5.1. Goals and Success Standards

Reclamation success is defined by the progression of vegetation and soils toward preconstruction conditions, to the extent practicable. The reclamation would be considered successful when:

- Total vegetative cover and relative cover of native and nonnative plant species within restored lands is similar to that observed in reference areas in the immediate site vicinity (e.g., within two standard deviations of the mean of total vegetative cover, relative cover for each vascular plant species, and relative cover of native vascular plant species compared to all vegetation present).
- Soil surface is stabilized to reduce dust and erosion to a degree at or below natural background levels and to reduce cover of non-native plants.

The Project Owner at the time of closure would be responsible for monitoring reclamation efforts for the Project. Reclamation success would be evaluated by the BLM by comparing Project-affected treatment sites with control site conditions in terms of desirable species density and cover and reduction of Project contrast compared to the landscape surrounding the ROW. Reclamation of treatment sites would be considered successful if each site is within a specified percentage of the mean native species density and cover of the control site and the specified percentage of sensitive plants are re-established in each area of disturbance affecting sensitive plants. The BLM would establish acceptable reclamation success standard percentages in accordance with this Plan. Control sites would be representative areas that exhibit the same target plant community located adjacent to or near the project-affected treatment sites. The establishment of control sites in undisturbed communities would allow for comparison of reclamation progress of the treatment site against the control site.

Reclamation success is highly dependent on vegetation community type, natural (unassisted) recovery potential, environmental conditions, avoidance of further disturbance, and proper implementation of reclamation actions. If the final monitoring report concludes that typical environmental conditions, proper implementation of reclamation actions, and lack of disturbance is evident, reclamation success would be based on a trend toward the desirable vegetation cover and density for each community type and the number of sensitive plants that occupy each area of disturbance affecting sensitive plants.

If these conditions are not evident by the final monitoring report, adaptive management and/or remedial actions may be required by the BLM. Target percentages (to be determined by the BLM) of desirable vegetation cover (amount of vegetation canopy per unit) and desirable species density (number of plant species per unit) for reclamation success would be evaluated relative to control plot conditions, typically adjacent to the ROW. Target percentages of sensitive plants for reclamation success would be evaluated based on the numbers of sensitive plants, measured by stem count, that occupied the areas of disturbance prior to disturbance that are re-established in each area of disturbance affecting sensitive

plants. Percentage of vegetation cover, species density, and sensitive plants would be based on the quantitative data collected from the control plot for each monitoring site.

5.2. Revegetation

The ROW consists of three natural vegetation communities: Sonoran creosote bush scrub, salt bush scrub and desert dry wash woodland, and one distinct natural habitat type: desert pavement. Although mass grading is not proposed, construction of the Project may result in soil compaction, a decrease in total vegetative cover, or a change in species composition. In addition, local impacts of global climate change are expected to substantially affect the native habitats surrounding the Project area as modeled by climate prediction algorithms (CalAdapt, 2018).[1] Finally, groundwater drawdown activities outside of the Project Owner's control may result in unsuitable conditions for the survival of native plant species. Therefore, the maintenance of pre-Project native vegetation may not be possible due to extreme heat, drought, and other conditions outside of the Project Owner's control. Following decommissioning, revegetation with native species would be implemented where feasible in areas of disturbance within the ROW and roads. However, only ROW areas exclusive to the IP Easley, LLC, grant would be revegetated. If other Grantees within the Easley Project area have ongoing uses for the solar facility, BESS, gen-tie line, medium voltage lines, road facilities, or areas of the Easley ROW beyond the life of the IP Easley, LLC, grant or any extension thereof, the BLM would release the Project Owner at the time of further obligations to revegetate these ROW areas. A Restoration Ecologist would determine which of these areas are overly compacted and require decompaction following decommissioning. Site preparation measures prior to reclamation work will be determined on a site-by-site basis, based on the advantages and disadvantages of soil treatment or site preparation methods to restore natural contours, protect the site from erosion damage by wind or water, and maximize likelihood of vegetation recovery The Restoration Ecologist may prescribe either no treatment, limited treatment using hand tools, light harrowing or disking with a tractor, or deeper disking or ripping, depending on specific circumstances. Where soil decompaction is implemented, follow-up measures to control dust and erosion would also be prescribed. During the revegetation process, the Restoration Ecologist would prescribe remedial measures, if necessary, where feasible in consideration of climatic and groundwater conditions at the time.

5.2.1. Supplemental Seeding

Large areas that require seeding (e.g., areas that were subject to grading or disturbed during removal of infrastructure) would be either hydroseeded using a two-stage hydroseed application method, imprinted, drill seeded, or alternative methods deemed effective by the Project Owner and BLM. Preventive measures would be implemented to avoid damage to adjacent desirable vegetation (i.e., spraying and covering plants with mulch, damaging plants with hoses). Seeding would be performed in the fall prior to the onset of rains to optimize potential for plant germination and establishment.

5.2.2. Plant Species Selection

Two different vegetation types occur within the impacted areas within the ROW. Seed palettes for the dominant vegetation types are presented in Tables 1 and 2. The species included in the seed mix are based on the species found as identified in the Project's Biological Resources Technical Report. The amount of seed required would be based on the pure live seed, percent purity, local climatic conditions, and percent germination data available at the time seeding is required. The seed would be from genetically appropriate sources within the ecoregion and certified weed free. Prior to ordering the seed, the Restoration Ecologist would: (1) obtain up-to-date pure live seed, percent purity, and percent

[1] https://cal-adapt.org/tools/extreme-heat/

germination data from the seed supplier; (2) make any needed adjustments to the species composition of the lists; and (3) determine how many pounds per acre of each species would be installed.

At the time of Easley Renewable Energy Project closure and final reclamation, recommendations for species may change due to seed availability, climate change, or other factors. The seed mixes provide the main recommended plant species and several optional species that could be applied, depending on availability. The installed seed palette would be documented within the as-built report and annual monitoring reports. In the event that species essential to the composition of the habitat type to be seeded (i.e., dominant or co-dominant species) are not available, those species would be custom-collected by a qualified seed supplier, if available, and taken from a local area near the project site to be determined prior to decommissioning activities. Because seed production is unpredictable in a desert environment, seed collection may need to start well in advance of the start of reclamation once a seed collection permit is in place. Commercial sources for selected species would be allowable if the germplasm source is from within the same ecoregion provisional seed zone as the Project site. Seeding rates may also need to be increased due to granivore predation. To deter granivore predation, sterile grain seed may be applied prior to application of the native seed mixes.

Table 1. Revegetation Seed Mix Palette for the Sonoran Creosote Bush Scrub

Scientific Name	Common Name	Pounds of Pure Live Seed/Acre
Ambrosia dumosa	White bursage	2.0
Ambrosia salsola	Cheesebush	2.5
Encelia farinosa	Brittlebush	2.0
Geraea canescens[1]	Desert sunflower	1.5
Hilaria rigida1	Big galleta grass	0.75
Larrea tridentata	Creosote bush	3.0
Lupinus arizonicus	Arizona lupine	1.5
Plantago ovata	California plantain	5.0

1 - Optional plant depending on availability at time of seed application.

Table 2. Revegetation Seed Mix Palette for the Desert Dry Wash Woodland

Scientific Name	Common Name	Pounds of Pure Live Seed/Acre
Senegalia greggii[1]	Native cat's claw	1.0
Ambrosia dumosa	White bursage	2.0
Ambrosia salsola	Cheesebush	2.5
Encelia farinose	Brittlebush	2.0
Hilaria rigida	Big galleta grass	0.75
Larrea tridentata	Creosote bush	3.0
Lupinus arizonicus	Arizona lupine	1.5
Olneya tesota	Ironwood	1.0
Parkinsonia florida[1]	Blue palo verde	1.0
Plantago ovata	California plantain	5.0

1 - Optional plant depending on availability at time of seed application.

6. MONITORING AND MAINTENANCE

This Plan requires reclamation monitoring to evaluate success of reclaimed areas associated with the Project facilities, identify the need for adaptive management measures, and make a final determination regarding reclamation success to release IP Easley from further monitoring and reclamation actions.

6.1. Reporting

Quarterly reports would be provided to document restoration efforts to date. Preparing quarterly reports would provide an opportunity for the Restoration Ecologist and Designated Biologists to identify and correct any problems that arise with all aspects of the restoration activities. The quarterly reports would include a description of the existing condition of each of the revegetated areas and any change in conditions from the previous visit. Annual monitoring reports are required to evaluate monitoring results to determine whether performance standards are being achieved. All weed management activities would be reported in annual monitoring reports prepared for the ROW and would include the dates of surveys and treatment activities, personnel conducting these activities, locations and approximate numbers of weeds treated (including maps), treatment methods, and disposal methods. The applied seed mix palette would be documented within the annual monitoring reports.

Annual monitoring reports would be provided for up to 5 years, with the possibility of up to an additional 5 years, if reclamation performance standards are not met. The vegetation management, habitat revegetation, and invasive species management reports would document the progress of management activities. The annual reports would be submitted to the BLM and would, at a minimum, include:

- A summary of the quarterly monitoring;
- A summary of all weed management activities performed during the year, including the treatment method, and duration, location, and time of treatment;
- An assessment of whether the performance standard for having less than a 10 percent increase of weed species or overall weed cover than the adjacent habitat would be achieved by the end of year three and proposed remedial measures if necessary;
- A description of the existing condition of each of the revegetated areas, including descriptions of vegetation composition and weed species and any change in conditions from the previous visit to the site;
- A summary of the qualitative and quantitative monitoring data collected, with a focus on plant species included in the applied seed mix;
- Cover of weeds within the revegetation areas relative to adjacent reference areas;
- A description of the maintenance activities (including weed removal activities within the revegetation areas) and dates of when they were conducted;
- Descriptions of any wildlife observed, including special-status species or their sign, within the revegetation areas;
- A discussion of problems encountered and any adaptive or remedial measures implemented;
- A figure identifying habitat types, sampling locations, photo station locations, etc., as appropriate;
- Photo documentation at permanent photo stations;
- Yearly precipitation data;
- Any field memos from the monitoring site visits;

- Recommended remedial measures, if necessary, to support the desired native plant species within the Project ROW; and
- An assessment of whether revegetation efforts are considered successful and if the performance standards have been or would be achieved during the course of the initial 5-year monitoring period.

Adaptive management measures may be taken to determine appropriate remedial actions based on monitoring observations for sites that have not demonstrated a trend toward reclamation success. If required, implementation of remedial actions would be determined by the BLM based on the monitoring data and annual report to be submitted for up to 5 years following decommissioning. After 5 years of monitoring, a final report would be submitted to the BLM summarizing monitoring data, observations, and the overall trend toward successful reclamation for each vegetation community.

Areas with sensitive plant occurrences affected by Project activities would be monitored to determine whether the sensitive plants are recolonizing the site, whether soils are stable or erosion is occurring, and whether weeds are present. If needed, a site-specific treatment plan to encourage establishment of the sensitive plants and other desired vegetation, stabilize soils, and address weeds in these areas would be provided by the Project Owner/Contractor(s) or Restoration Ecologist for review and approval by the respective BLM's Authorized Officer or its designated representatives.

The Project Owner at the time of closure would be released from further reclamation and monitoring after the report and annual monitoring data are submitted to the BLM documenting that reclamation success criteria have been met and the BLM has accepted the report. However, reclamation in soils with low moisture and high salt content or areas with sensitive plant occurrences may take longer than 5 years to reestablish satisfactory vegetative cover, and the Project Owner would maintain responsibility for monitoring for these additional areas. If after the initial 5-year monitoring period has expired, the BLM determines success criteria have not been met and overall trend toward reclamation success after the additional monitoring and potentially further remedial action would be required until a trend toward reclamation success can be determined.

6.2. Monitoring Requirements

The monitoring practices include standard techniques for monitoring sites and data collection, as well as the quantitative (numerical) and qualitative (descriptive) measures to be used in monitoring reclamation success. Specific monitoring requirements, including the site-specific data analysis protocol, would be developed by the Reclamation Subcontractor(s) in cooperation with the BLM prior to start of reclamation activities. This would allow the BLM to make more accurate conclusions pertaining to reclamation success based on site-specific conditions, such as biotic community and climatic conditions, once reclamation has been completed.

The specific location of monitoring sites associated with these different activities in key areas would be identified, reviewed, and approved by the BLM. Once monitoring sites have been approved, the Project Owner/Contractor(s) or Reclamation Subcontractor(s) would establish the sites in the field and collect baseline data for subsequent post-reclamation monitoring. For disturbed areas affecting sensitive plants, at minimum, photos from permanent photo plots, individual counts of sensitive plants in the affected areas, and weed presence and treatment data would be collected and reported annually in the Reclamation Monitoring Report with an evaluation of whether recolonization is occurring.

6.3. Route Monitoring

A general field review of the entire ROW, where accessible by vehicle, would be conducted in conjunction with annual site monitoring. The intent of this review is to document overall recovery conditions

associated with the development of the Project and assess visual and land-use resources rehabilitation. Conditions to be observed may include areas of dead preserved plants, the establishment of noxious weed populations in the ROW or along access roads, and/or significantly eroded soils. In lieu of establishing transects, documentation may include establishing single photo-points at agreed-upon locations with the BLM, estimating area or plant populations affected, and/or recording the apparent cause or remediation efforts required. Site locations may be documented by global positioning system coordinates or the gen-tie line structure number.

Rehabilitation of visual impacts can be evaluated by conducting a contrast analysis of the constructed towers in relation to the surrounding landscape. Each annual visit would be used to assess designated route monitoring locations and document new locations where appropriate.

6.4. Site Monitoring

Preliminary site monitoring locations would be established within the ROW and temporary disturbance areas based on Project engineering data. Monitoring sites would be selected for the vegetation communities traversed by the Project.

- Paired (treatment and control) monitoring site(s) shall be selected for the combination of each vegetation community based on the size of the community's affected area.
- Transect site selection would be prioritized to include areas near sensitive plant species, Critical Habitat areas, and locations with high visual resource values.
- At least one pair of monitoring sites shall be in each area of disturbance affecting sensitive plants.
- Where possible, site monitoring locations would meet more than one of these selection criteria, and the number of sites would be determined by the BLM.

Once monitoring site locations are finalized, photographs would be taken: (1) prior to any decommissioning disturbance, (2) when initial reclamation efforts have been completed, and (3) during each yearly monitoring visit.

Plots would be examined annually, and a variety of vegetation data would be collected, including quantitative and descriptive information. Reclamation monitoring sites also would assess noxious and invasive weed establishment that may require remedial actions, such as removal or treatment. However, it should be noted that monitoring for known noxious weed locations may occur independently of reclamation monitoring, as outlined in the Integrated Weed Management Plan. Reclamation monitoring also would include the consideration of erosion control as a key indicator to measure the trend toward reclamation success (where applicable), and remedial actions may be taken in conjunction with monitoring efforts to control erosion, as recommended by the BLM. These remedial actions also would follow requirements as stipulated in the Project Dust Control Plan.

7. DATA COLLECTION

Reclamation monitoring would include both qualitative (descriptive) and quantitative (numerical) data collection at the designated monitoring sites approved by the BLM. Quantitative monitoring would document the trend and degree of change at each site, and qualitative monitoring would detect the initiation of change and changes resulting from environmental conditions, such as precipitation, allowing for a record of change over time.

Reclamation monitoring for the Project would use vegetation as the main indicator of recovery, but observations of soil conditions also would be collected and considered when assessing progress toward functionality. Measurements and descriptions would be accompanied by photographs that would be used to help document the status of recovery at all monitoring sites. Sampling points would be located

and mapped according to global positioning system coordinates. Photographic reference points would be the primary method of qualitative monitoring for the Easley Renewable Energy Project. A protocol for taking photographs and a standardized data-recording form would be developed by the BLM to ensure consistency of monitoring. Qualitative (descriptive) and quantitative (numerical) information that would be gathered during general route monitoring and site monitoring are described in detail below.

7.1. Qualitative Information

Qualitative data collection would occur annually for both route and site monitoring. The goal of qualitative monitoring is to document site conditions and assess the need for remedial actions to ensure sites are progressing toward the success standard established by the BLM. Qualitative evaluations conducted at predetermined monitoring sites during monitoring would serve as representative indicators for similarly disturbed areas in the same vegetation community. These site evaluations would then serve as a baseline when conducting general overall route surveys for the remainder of the treated areas in that vegetation community. Any outstanding or non-Project-related disturbances that could affect reclamation also would be described during the general route monitoring. Recovery from disturbance activities, such as clearing and grading in the semi-arid and arid climatic zones, typically does not occur in a short amount of time, and it is for this reason the monitoring plan would assess the trend toward reclamation success standards outlined above.

Reclamation success may be assessed by the presence or condition of certain site characteristics that encourage recruitment of native vegetation. Reclamation actions of a given site, if implemented successfully, are anticipated to contribute to the stabilization of soils, seedling or seedbank recruitment, and avoidance of the establishment of noxious weeds. Lack of erosion at a site provides evidence that soils have been adequately stabilized, while natural recruitment and/or reproduction indicates important functional processes are in place that initiate regeneration, such as pollination and seed dispersal. Noxious weeds could potentially compete with native perennial species, and relatively high abundances can have negative effects on site conditions. Evidence of animal use also is used as an indicator that habitat conditions have been reclaimed; however, grazing can negatively affect reclamation success if unmanaged. Patterns of established vegetation help to determine whether large bare areas are indicative of site conditions or simply a result of the patchiness of surrounding vegetation. Each of these site characteristics would help determine trends that relate to reclamation success. Once recruitment conditions have been met, established vegetation is anticipated to contribute to the maintenance and functionality of the community to ensure continued success after monitoring has concluded.

7.2. Quantitative Information

Desirable vegetation cover would be numerically measured on those treatment sites, as identified with the BLM, during the third and fifth growing seasons (or sooner if deemed appropriate) to determine if there is a trend toward reclamation success based on comparison of the control transect for each site. Quantitative assessment during the third year would provide enough time for vegetation establishment of the affected areas based on climatic trends for the area. Trends toward reclamation success, as well as remedial actions (if needed), would be identified during the third year. Quantitative monitoring in year five would allow any remedial actions or climatic events to discernibly affect treated areas. Density monitoring records the number of plants per unit of area. This technique is sensitive to changes in the vegetation community caused by climatic conditions and resource uses and provides useful information on seedling emergence, survival, and mortality.

Not all plant species present would be monitored. Monitoring would focus on indicator perennial species as determined by control site observations of the adjacent plant community. Species density would

be evaluated by comparing the total number of indicator species in the treatment site to that of the control site. Other plant species would be inventoried, but densities would not be evaluated. Vegetation cover monitoring records the coverage of vegetation canopy per unit of area. Density and cover data, along with other biometrics, would be recorded on standard field data sheets to be developed by the Reclamation Contractor and approved by the BLM.

8. ADAPTIVE MANAGEMENT AND SITE RELEASE

The BLM requires an adaptive management approach designed to allow frequent review and feedback on the progress of reclamation implemented as a part of monitoring activities for the Project. Adaptive management greatly increases the potential for reclamation success by providing early detection of problems and the opportunity to implement remedial actions to address these problems. Effective monitoring is an essential element of adaptive management because it provides reliable feedback on the effects of reclamation actions. Adaptive management actions may be recommended on a case-by-case basis where feasible, and as determined by the BLM, during the 5-year monitoring time frame.

If it has been determined that adaptive measures are necessary, monitoring data (both qualitative and quantitative) would provide information on reclamation components that are deficient, such as desirable vegetation cover, soil compaction, or lack of natural surface material. Based on this information, appropriate reclamation actions may include measures such as supplemental seeding, mulching, and additional weed and/or erosion control measures. Recommendations also could include waiting to determine if favorable germination/establishment conditions are expected. All adaptive management actions would be subject to the review and approval of the BLM. The Contractor(s) and Reclamation Subcontractor(s) would use all reasonable methods to help the Easley Project Owner at the time of closure ensure reclamation is progressing toward the success standards identified above. It is possible some sites would be incapable of supporting adequate vegetation to progress toward the success standards due to conflicting land management and environmental limitations not associated with the Easley Renewable Energy Project. For instance, reclamation may fail in areas with unmanaged off-highway vehicle (OHV) access, grazing of domestic livestock, natural disasters, such as fire or flooding, and construction of other utility projects. If reclamation failure on federally managed lands is determined by the BLM or BLM-approved Environmental Compliance Inspection Contractor to be caused by these conditions, neither the Project Owner, nor any of its contractors or subcontractors, would be held responsible for continued reclamation and monitoring of these sites.