

The Proposed Action will be located entirely within the water treatment facility footprint of the existing SNWA Treatment and Transmission Facility, for which a Final Environmental Impact Statement (FEIS) was completed and a record of decision and right-of-way grant was issued. Therefore, the environmental mitigation measures for the Proposed Action, listed below, include those measures from the FEIS and associated Biological Opinion and Programmatic Agreement that are relevant to the Proposed Action. Further, the measures have been modified, as needed, for the specific activities and site conditions associated with the Proposed Action. The environmental mitigation measures are not intended to contradict federal or local agency rules or requirements; in the event of a potential conflict between a mitigation measure and a federal or local agency rule, regulation, or standard procedure, the agency's requirements will take precedence.

#	Mitigation Measure	Location	Timing	Responsibility	Implementation/Verification
<b>Aesthetics</b>					
1	Design of proposed facilities will be reviewed with Reclamation as appropriate, to ensure that features which minimize visual effects are incorporated as feasible.	Facilities on Federal lands	During project design	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign. Reclamation will have a 30-day review of design submittals for specific facilities.
2	Architectural details will incorporate materials that blend well with the existing environment.	Facilities on Federal lands	During project design	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign.
3	Coloring techniques, such as surface painting or concrete varnishing and/or coloring, will be incorporated as appropriate to blend with the colors of the surrounding environment.	Facilities on Federal lands	During project design	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign and include agreed upon coloring or rock materials.
4	Photovoltaic solar panels will be glare-resistant, which will reduce glare onto surrounding areas.	Facilities on Federal lands	During project design	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign as appropriate.
5	Cut and fill techniques that include rough and feathering cuts will be incorporated as appropriate to minimize visual impacts.	Facilities on Federal lands	Identify techniques during design, incorporate during construction	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign as appropriate.
6	Earthen berms would be used as appropriate to reduce visual impact on viewsheds and adjacent communities.	Facilities on Federal lands	Identify areas for berming during design, install during construction	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign as appropriate. As

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					agreed upon with Reclamation, berming may be included in construction documents.
7	Landscape elements such as retaining existing vegetation will be incorporated as appropriate to minimize visual impacts.	Facilities on Federal lands	During project design	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign as appropriate.
8	Lighting will be limited to basic safety and security requirements, and shielded when possible.	Facilities on Federal lands	During project design	River Mountains Solar, LLC engineer	Engineer will coordinate with Reclamation during study and predesign. Within the City of Henderson, lighting requirements will be approved as part of Architectural Review.
<b>Air Quality</b>					
9	Develop a trip reduction plan to encourage a 1.5 average vehicle ridership or higher for construction employees.	Entire project area	Prior to construction	River Mountains Solar, LLC construction contractor	Preparation of the plan will be required in construction specifications and verified by the construction manager.
10	Maintain all vehicles and equipment in proper tune.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
11	Use Best Available Control Technology on construction equipment including timing retardation and using natural gas-powered construction equipment where possible.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
12	Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas, or water at least twice daily, as needed to maintain effective dust control.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
13	Enclose, cover, water (at least twice daily and as needed), or apply non-toxic	Entire project area	During construction	River Mountains Solar, LLC	This requirement will be included in construction

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	soil binders according to area manufacturers' specifications, to exposed piles (i.e., gravel, sand, dirt) with silt content of 5 percent or greater.			construction contractor	specifications and verified by the construction manager.
14	Water active construction sites and unpaved roads at least twice daily or more frequently as needed to area maintain effective dust control.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
15	As needed to maintain effective dust control, suspend all excavating and grading operations when wind area speeds are excessive.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	The construction contractor will be required to maintain effective dust control, including under high wind conditions. The construction specifications will indicate that, if the construction contractor cannot maintain effective dust control under windy conditions, the contractor shall temporarily suspend excavation and grading operations.
16	All trucks leaving the construction site hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer).	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
17	When there is visible track-out from an unpaved road onto a paved public road, install wheel washers where the vehicles exit and enter onto the paved roads, or wash the undercarriage of trucks and any equipment leaving the site on each trip, or sweep the paved street at the end of each shift with a "Mobil Athey" or similar water spray pick-up broom-type street sweeper.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	Construction manager shall notify the construction contractor as to which measure to use to remove visible track-out, and will verify compliance.

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18	Water unpaved access roads sufficiently to reduce dust, or reduce traffic speeds on unpaved roads to 15 mph or less.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager. The traffic speed on the construction site and unpaved access roads shall not exceed 25 miles per hour (see measure #41).
<b>Biological Resources</b>					
19	River Mountains Solar, LLC will designate a field contact representative responsible for overseeing mitigation compliance and for coordination with the agencies.	Federal lands	During construction	River Mountains Solar, LLC	River Mountains Solar, LLC will designate during pre-construction meetings.
20	The biological monitor(s) will be responsible for determining compliance with mitigation measures as defined by the Biological Opinion or other agreements between River Mountains Solar, LLC and state or Federal agencies. Biological monitors will have the authority to briefly halt construction and maintenance activities that are not in compliance with these agreements or that jeopardize any federally-proposed or -listed species. Construction and maintenance activities will be halted only long enough to remedy the immediate situation and will apply only for the equipment and parties involved in the situation. All actions of noncompliance or conditions of threat to federally-proposed or -listed species will be recorded immediately by the biological monitor and reported to River	Federal lands	During construction	River Mountains Solar, LLC construction contractor and biological monitor(s)	The authority of the biological monitor(s) will be included in construction specifications. The biological monitor(s) will coordinate with the construction manager regarding situations of noncompliance.

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	Mountains Solar, LLC. River Mountains Solar, LLC will immediately report all such actions and conditions to Reclamation, who will then report to the USFWS.				
21	Prior to the initiation of construction, an endangered species education program will be presented to all personnel who will be on site, including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, and all visitors operating a vehicle in the project area. This program will contain information concerning the biology and management of sensitive species, their legal status and occurrence in the project area, the definition of "take" and associated penalties, the measures designed to minimize and mitigate the effects of construction activities, and the means by which employees can help facilitate this process. This program will be developed by the River Mountains Solar, LLC and received, reviewed, and approved by Reclamation, USFWS, and NDOW at least 15 days prior to its initial presentation.	Federal lands	At the start of construction	River Mountains Solar, LLC construction contractor and biological monitor(s)	Requirement to attend the worker education program will be included in construction specifications. Biological monitor(s) will present the program. River Mountains Solar, LLC will continue to use the currently approved worker education program, and does not anticipate requiring any additional agency approval for the program.
22	Survey crew vehicles will remain on existing roads. Off highway vehicle (OHV) travel is prohibited, except in emergency situations or to complete a specific task. If OHV travel is necessary, a qualified biologist will accompany survey crews into the field. OHV travel will be the minimum necessary to complete the task. Tracks made to access	Federal lands	During construction	River Mountains Solar, LLC survey contractor and biological monitor(s)	This requirement will be included in construction specifications, and verified by the construction manager and biological monitor(s).

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	a site will be used to exit the site. Survey crews traveling on foot must have attended the worker education program, but are not required to be accompanied by a biologist.				
23	All areas to be disturbed will be located within fenced areas or have boundaries flagged prior to construction, and all disturbance will be confined to these areas. All employees will be instructed that their activities must be confined to locations within the fenced or flagged areas. Disturbance beyond the actual construction zone is prohibited. Cross-country travel will be the minimum necessary to complete a specific task.	Federal lands	Prior to and during construction	River Mountains Solar, LLC construction contractor and biological monitor(s)	This requirement will be included in construction specifications and verified by the construction manager and biological monitor(s).
24	Specific routes of travel will be approved by Reclamation and marked prior to construction crew arrival. Existing routes of travel will be used whenever possible.	Federal lands	Prior to and during construction	River Mountains Solar, LLC engineer, construction contractor, and biological monitor(s)	Engineer will coordinate with Reclamation to determine routes of travel. Appropriate requirements will be included in construction documents, and verified by the construction manager and biological monitor(s). Calculations of new habitat disturbance will be submitted by River Mountains Solar, LLC to Reclamation in an annual report.
25	Stockpile areas, vehicle turn-arounds, and vehicle service locations will be restricted to the existing fenced area.	Federal lands	Prior to and during construction	River Mountains Solar, LLC engineer, construction contractor, and biological monitor(s)	These locations will be identified in construction documents, and verified by the construction manager and biological monitor(s).
26	Upon removal of project structures, the project area will be restored in	Project area	Project termination	River Mountains Solar, LLC	This requirement will be included in construction

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	accordance with Reclamation requirements.			construction contractor and biological monitor(s)	specifications and verified by the construction manager and biological monitor(s).
27	Herbicides shall not be used on the project area, access roads, or fence lines unless approved in writing by the USFWS.	Federal lands	During construction	River Mountains Solar, LLC construction contractor	If there would be any construction areas where topsoil removal or project excavations are not required, they will be designated in documents. The construction specifications will specify that herbicides shall not be used unless pre-approved by the USFWS. Construction manager will verify compliance.
28	During the construction period, all equipment will be stored in designated areas previously approved by the Reclamation.	Federal lands	During construction	River Mountains Solar, LLC engineer and construction contractor	Engineer will coordinate with the Reclamation to determine contractor staging area(s). This location(s) will be designated in the construction documents, and verified by the construction manager.
29	Equipment and materials storage will be located in previously disturbed areas.	Federal lands	During construction	River Mountains Solar, LLC engineer and construction contractor	Engineer will coordinate with Reclamation to determine contractor staging area(s). This location(s) will be designated in the construction documents, and verified by the construction manager.
30	A maximum speed limit of 25 miles per hour will be maintained while on the construction site, unpaved access roads, and storage areas. This effort will reduce dust.	Federal lands	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications. The speed on unpaved roads may be further reduced to 15 miles per hour, as needed to maintain dust control (see measure #18).

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					Construction manager will verify compliance.
31	Trash and food items will be disposed of promptly in predator-proof containers with re-sealable lids. Trash includes, but is not limited to, cigarettes, cigars, gum wrappers, tissue, cans, paper, and bags. Trash containers will be removed regularly (at least once per week). This effort will reduce the attractiveness of the area to opportunistic predators such as desert kit fox, coyotes, and common ravens. Further, all personnel working for the Proposed Action will not feed or water any wildlife during the course of normal construction and facility operations (this information will be included in the worker education program).	Federal lands	During construction	River Mountains Solar, LLC construction contractor and biological monitor(s)	The construction specifications will require the construction contractor to prepare and implement a Trash Abatement Plan. Construction manager and biological monitor(s) will verify compliance. This information will be included in the worker education program.
32	Any construction refuse, including, but not limited to, broken parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, boxes, and welding rods will be removed from the site each day and disposed of properly.	Federal lands	During construction	River Mountains Solar, LLC construction contractor and biological monitor(s)	The requirement to regularly dispose of all rubbish and waste materials will be included in the construction specifications and Trash Abatement Plan, and verified by the construction manager and biological monitor(s).
33	Any fuel or hazardous waste leaks or spills will be stopped or repaired immediately and cleaned up at the time of occurrence. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.	Federal lands	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications, and verified by the construction manager.
34	All fuel or hazardous waste leaks, spills, or releases will be reported immediately to the River Mountains Solar, LLC and Reclamation.	Federal lands	During construction	River Mountains Solar, LLC construction contractor	SNWA has coordinated with Federal agencies regarding spill notification contacts and procedures. In accordance with



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					current agreements, Reclamation will be notified in the event of any spill greater than 25 gallons, 10 cubic feet and greater of soil contamination, or surface sheen on water. The construction manager will verify compliance
35	Contaminated soil will be removed and disposed of at an appropriate facility. If spills occur in a maintenance yard, they will be cleaned up after construction is complete.	Federal lands	During construction	River Mountains Solar, LLC construction contractor	The construction specifications will require clean-up at the time of occurrence, in accordance with local codes and ordinances governing locations and methods of disposal. Construction manager will verify compliance.
36	Firearms will be prohibited from the project site, except for authorized law enforcement personnel.	Federal lands	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
37	All waste and leftover materials remaining after construction will be removed from the site after project completion.	Federal lands	At the completion of construction	River Mountains Solar, LLC construction contractor	Site cleanup will be included in construction specifications and verified by the construction manager.
38	After construction, disturbed areas will be re-contoured to match its original contours as much as possible.	Federal lands	At the completion of construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
39	After completion of construction, a thorough inspection of the work site will be conducted by the lead biological monitor to determine the extent of compliance with the conditions of the agreements between River Mountains Solar, LLC and Reclamation.	Federal lands	At the completion of construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.

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40	Reclamation shall furnish an annual report to the USFWS by January 31 of each year detailing the amount of habitat disturbed by construction activities associated with the project during the previous calendar year. Habitat disturbance includes, but is not limited to, construction areas, cleared and bladed areas, equipment and materials storage areas, stockpile areas, vehicle turn-arounds, vehicle service locations, and access routes.	Federal lands	Annually, throughout duration of construction	River Mountains Solar, LLC and Reclamation	SNWA will submit an annual report to Reclamation by January 15. Reclamation will prepare and submit annual report to USFWS.
41	The endangered species education program will contain the following information that is specific to banded gila monster: (1) gila monster identification (especially differentiation from chuckwalla and banded gecko), (2) reporting procedures to be implemented in case of gila monster encounters, and (3) potential effects from the bite of the venomous gila monster.	Entire project area	During construction	River Mountains Solar, LLC biological monitor(s)	This information will be included in the worker education program.
42	For birds protected under the Migratory Bird Treaty Act (MBTA), including owls, passerines, and nighthawks, in lieu of avoiding construction activities during the nesting season (generally mid-February through August), performance of a survey by a qualified biologist for determining the presence of active nests, especially those of cryptic and difficult to detect ground-nesting species like the lesser nighthawk, prior to any ground disturbing activities would occur. In the event an active nest (containing eggs or young) is discovered or frequently attended by adult birds, a	Federal lands	Prior to construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.

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	buffer area around the nest appropriate for the species involved would be identified and avoided until young birds have fledged. This measure would be consistent with preventative actions advocated by the U.S. Fish & Wildlife Service concerning MBTA-protected birds. Because bird species can inherently vary in the timing of nesting, as well as responses to localized environmental factors, survey findings beyond seven (7) days age may lose their validity. Should ground disturbance from construction activities not occur within seven days of an all-clear finding, another nesting survey would be performed.				
43	Any occupied banded gila monster burrows found in the construction zone will be examined and excavated. Any banded gila monsters and banded gila monster eggs observed in the project area will be relocated 300 to 1,000 feet into adjacent undisturbed habitat.	Federal lands	During construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.
44	Gila monsters will be moved only by a qualified biologist and solely for the purpose of moving them out of harm's way. Appropriate state permits will be acquired from NDOW prior to handling any live gila monster, gila monster carcass, or gila monster eggs.	Federal lands	During construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.
45	Any gila monsters observed by project workers will be reported immediately to the biological monitor. A report of the sighting will be filed with NDOW. The report will include information on the gila monster's size and condition,	Federal lands	During construction	River Mountains Solar, LLC construction contractor and biological monitor(s)	Construction personnel will be instructed regarding gila monster in the worker education program. Biological monitor(s) will prepare report for NDOW if

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	location, habitat (including plant species), and circumstances under which it was found.				any are encountered.
46	A qualified biologist will also monitor all construction activities within the project area. Any gila monsters found within the previously cleared construction zone will be relocated 300 to 1,000 feet away in suitable undisturbed habitat.	Federal lands	During construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.
47	Chuckwallas will be moved only by a qualified biologist and solely for the purpose of moving them out of harm's way. Appropriate state permits will be acquired from NDOW prior to handling any live chuckwalla, chuckwalla carcass, or chuckwalla eggs.	Federal lands	During construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.
48	Any chuckwallas observed by project workers will be reported immediately to the biological monitor. A report of the sighting will be filed with NDOW. The report will include information on the chuckwalla's size and condition, location, habitat (including plant species), and circumstances under which it was found.	Federal lands	During construction	River Mountains Solar, LLC construction contractor and biological monitor(s)	Construction personnel will be instructed regarding chuckwalla in the worker education program. Biological monitor(s) will prepare report for NDOW per occurrence if any are encountered.
49	A qualified biologist will also monitor all construction activities within the project area. Any chuckwallas found within the previously cleared construction zone will be relocated 300 to 1,000 feet away in suitable undisturbed habitat.	Federal lands	During construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.
50	The worker education program will also cover bighorn sheep sensitivity to disturbance. Temporary and permanent water ponds and roadway puddles	Federal lands	During construction, operation and maintenance	River Mountains Solar, LLC biological monitor(s),	This information will be included in the worker education program. Engineers will coordinate with NDOW as

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	caused by project activities (e.g., dust suppression, solar panel washing, etc), will be avoided, to the extent possible, in order to reduce the attractiveness of the project area or vicinity to bighorn sheep. River Mountains Solar, LLC and NDOW will determine and establish temporary alternative watering sites as needed.			NDOW biologists, and River Mountains Solar, LLC engineer	needed to determine if temporary alternate watering sites are needed and their locations.
51	If any new evidence indicates possible presence of special-status perennial plant species (i.e., yellow and rosy two-tone beardtongue, Beaver Dam breadroot, and white-margined penstemon) and special-status annual plant species (i.e., sticky buckwheat and three-corner milkvetch) in the project area, pre-construction surveys will be conducted in appropriate habitat during the blooming season (i.e., April-May).	Federal lands	Prior to construction	River Mountains Solar, LLC biological monitor(s) and botanist contractor	The project site was previously surveyed and biological research databases were examined. No special-status plant species populations are known or expected to occur in the project area. If any new evidence indicates the contrary, a botanist will conduct a survey.
52	If a special-status plant species population is discovered within or along the project area, the locations will be mapped and flagged for future reference and photographs from a designated location on the map will be taken to establish a permanent photographic record of the population. Information collected on the population will include number of individuals, phenology of the population, and location and density of individuals within the overall boundary of the population. This information would be used in the event that removal and restoration of the population is necessary. This information will also be provided to the Nevada Natural Heritage	Federal lands	Prior to and during construction	River Mountains Solar, LLC botanist contractor	If needed, a botanist will verify compliance and ensure that appropriate information is provided to Nevada Natural Heritage Program.

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	Program on one of their record sheets.				
53	Special-status plant species populations will be avoided if at all possible. Avoidance may be achieved by narrowing of the construction area in the vicinity of special status plant populations, fenced protection areas for plants inside the construction area, or other appropriate measures. If the population will be avoided by fencing, orange construction fencing would be used to include a buffer of 100 feet or more, and signed to inform construction crews to avoid the area. After construction is completed, the orange fencing will be removed.	Federal lands	During construction	River Mountains Solar, LLC biological monitor(s) and construction contractor	If any special status plant species are found within the project area and can be avoided by construction, River Mountains Solar, LLC biological monitor(s) will designate an appropriate avoidance area. Construction contractor will be informed to avoid this designated area.
54	If avoidance of a special-status plant species population is not possible, steps will be taken to remove the population prior to construction and restore it after construction. Salvage of perennial plants will involve digging up and moving individuals. Salvage of annual plants will involve moving and stockpiling the upper soil horizons until construction is completed. Perennial plants will be maintained in a nursery until construction is over and then returned to their original location, or if the original location will be altered considerably, they will be immediately planted into their new location. The soil profile of the annual species will be returned to the original location or a nearby location that closely resembles the original location, both in soil composition and slope aspect, following construction.	Federal lands	Prior to construction	River Mountains Solar, LLC botanists subcontractor	If any special status plant species are relocated, a botanist will ensure compliance.

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55	Replaced populations of special-status plant species will be monitored for five years and a yearly report area will be made to Reclamation and Nevada Division of Forestry. The yearly report will contain photos of the population, the number of individuals present during that particular year, and an assessment of population vigor. At the end of five years, the revegetation effort will be considered successful if there is a population similar in size and character to the original population.	Federal lands	After construction	River Mountains Solar, LLC biological monitor(s)	If needed, the annual report will be submitted to Reclamation and Nevada Division of Forestry.
56	Any cacti or yucca that cannot be avoided by construction activities will be salvaged and transplanted to an adjacent undisturbed location within the project area.	Federal lands	Prior to construction	River Mountains Solar, LLC biological monitor(s)	Biological monitor(s) will ensure compliance.
<b>Cultural Resources</b>					
57	If artifacts are uncovered during construction, all ground-disturbing activities in the area of the find will be temporarily halted or redirected. The Reclamation Regional Archaeologist will be contacted to evaluate the find, determine its significance, and make recommendations regarding additional mitigation. The information will be provided to Reclamation for consultation with SHPO and appropriate Native American group(s), if applicable. Construction in the area of the resource will not resume until the additional mitigation measures have been completed.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
<b>Earth Resources</b>					
58	To the maximum extent feasible, final	Entire project area	During construction	River Mountains	Cut and fill will be designed to

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	site grading will balance cuts and fills to minimize hauling excavated material off-site.			Solar, LLC construction contractor	minimize topographic alteration as feasible, and will be identified in construction documents. Construction manager will verify compliance.
<b>Land Use and Socio-Economics</b>					
59	Submit an application to the City of Henderson for a Conditional Use Permit.	City of Henderson	Prior to construction	River Mountains Solar, LLC	This measure has been completed.
60	Limit the extent of intrusion through the use of onsite Supervisors.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	The construction contractor will have an on-site supervisor, and River Mountains Solar, LLC will have an on-site construction manager.
61	Utilize fencing and/or security measures as appropriate.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	Security requirements are included in construction contractor specifications, which may include fencing as appropriate. Construction manager will verify compliance.
62	Limit access to construction sites to authorized personnel.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement is included in construction specifications. Construction manager will verify compliance.
63	Limit access to facilities to authorized personnel.	Entire project area	During operation	River Mountains Solar, LLC	This requirement will be designated as part of operating procedures.
<b>Noise and Vibration</b>					
64	Noise limits on construction equipment will comply with the noise limits of Reclamation or the local jurisdiction.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in the construction specifications and verified by the construction manager.
65	All construction equipment will be equipped with manufacturer's standard noise control devices (i.e., area mufflers, acoustical lagging, and/or engine	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications. Construction manager will verify



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	enclosures), which will normally achieve compliance with the recommended noise limits if operated conservatively. Conservative operation of the equipment means the operator will take special care not to throttle the engine excessively and will keep engine speed as low as possible. In addition, the operator will not leave the equipment running or idling needlessly, especially when near noise-sensitive land uses.				compliance.
66	Newer equipment will be requested and used, whenever possible. Newer equipment is generally area quieter in operation than older equipment. All construction equipment will be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This request will be included in construction specifications.
67	Heavy, noisier equipment should not come closer than 100 feet to the property line of any noise-sensitive area land use for any length of time, and should avoid coming closer than 200 feet if multiple pieces of equipment are operating simultaneously near the sensitive land use. If such cases are unavoidable, the equipment operator will take special care not to throttle the engine excessively or leave the equipment running needlessly.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
68	The distance between noisy construction-related activities and noise-sensitive land uses will be area maximized. For example, stationary noisy equipment will be located away from construction boundaries that are	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.

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	near noise-sensitive land uses.				
69	Heavy truck routes will be carefully selected to avoid noise-sensitive land uses.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	Engineer will determine truck travel routes in consultation with the local jurisdiction. Appropriate requirements will be included in construction specifications and verified by construction manager.
70	Concrete trucks will perform initial mixing and other activities that require high revving of the truck engine area a minimum of 600 feet from noise-sensitive land uses. Engine revolutions per minute will be kept as low as possible at closer distances	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
71	Electric hand-tools will be used instead of gas-powered, whenever possible.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This request will be included in construction specifications.
72	If generators are required to operate between the hours of 6 p.m. and 7 a.m. when within 600 feet of a noise-sensitive land use, they will be treated with acoustical noise control measures (e.g., mufflers, shrouding, and/or enclosures) so as not to exceed 56 dBA at 50 feet or other appropriate requirements of the local jurisdiction.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager.
73	Temporary noise barriers may be used to protect against excessive noise levels if construction activities (including contractor staging areas) occur in an area closer than 100 feet from noise-sensitive land uses. Noise barriers can be made of plywood, heavy vinyl curtain material, natural or temporary earth berms, or stockpiles of construction material, if	Entire project area	During construction	River Mountains Solar, LLC engineer and construction contractor	River Mountains Solar, LLC engineers will select facility locations and routes to avoid proximity to noise-sensitive land uses. Temporary noise barriers will be installed if determined appropriate by the construction manager.

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	available.				
74	Heavy equipment will be operated in a manner to comply with the City of Henderson's noise ordinance and vibration performance standard.	City of Henderson	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications and verified by the construction manager and will be in compliance with the City of Henderson's noise ordinance.
75	The construction contractor will maintain a good-neighbor policy with the community by establishing communication and a good relationship with residents. A noise complaint telephone number will be made available to the communities in the project area so that noise disturbances can be reported. An area with concentrated complaints will be surveyed by a qualified noise and vibration specialist. The results of the noise monitoring survey will be made available to construction management company and contractor(s) so that the need for additional mitigation can be clearly identified and implemented.	Entire project area	During construction	River Mountains Solar, LLC public relations and construction contractor	A phone number where residents can call with questions or concerns is included on the postcard notices sent out as part of the public notification process. If noise complaints are received, additional noise control measures will be implemented.
76	A detailed acoustical analysis will be conducted to determine the noise control measures necessary to meet property boundary noise limits. The noise analysis will include the cumulative effects of all noise sources operating simultaneously and the background noise so that the combined level of project-related noise and background noise meet the noise limits. These noise limits will be achieved through the implementation of properly designed noise control measures such as noise	Entire project area	During design	River Mountains Solar, LLC engineer	River Mountains Solar, LLC engineer will analyze potential noise effects during facility design. Facility designs will include noise control features as appropriate and as required by Reclamation or the local jurisdiction.

#	Mitigation Measure	Location	Timing	Responsibility	Implementation/Verification
	barrier walls, acoustic enclosures, and building treatments.				
<b>Recreation</b>					
77	The Burkholder and River Mountains Loop trails are located adjacent to the project area. For mitigation measures that will be implemented with regard to Recreation, please see Aesthetics, Air Quality, Biological Resources, Noise & Vibration, and Traffic.	Entire project area	During all phases of the project	River Mountains Solar, LLC	Please see Aesthetics, Air Quality, Biological Resources, Noise & Vibration, and Traffic.
<b>Traffic</b>					
78	Develop construction traffic management plans as part of project approval process in consultation with agencies with jurisdiction over potentially affected roadways.	Entire project area	During design	River Mountains Solar, LLC engineer, public relations, and construction contractor	SNWA engineer and public relations will consult with local jurisdiction and concerned nearby owner/occupants as appropriate during project permit and approval process. The construction specifications will require the contractor to comply with the traffic management plan.
79	Work shifts will be scheduled as feasible such that employees approach and depart the work sites during off-peak traffic periods.	Entire project area	During design	River Mountains Solar, LLC engineer, public relations, and construction contractor	Engineer, public relations, and construction contractor will coordinate with the local jurisdiction during project permitting and approval process. Appropriate requirements, which may include shift scheduling, will be included in construction specifications and verified by the construction manager.
80	Employee car-pooling as well as the shuttling of employees between peripheral/off-site parking lots and the work sites will be encouraged.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications, and verified by the construction manager.

#	Mitigation Measure	Location	Timing	Responsibility	Implementation/Verification
81	Material deliveries in the vicinity of major roadway segments and intersections will be scheduled during off-peak periods as feasible.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	This requirement will be included in construction specifications, and verified by the construction manager.
82	Street closures will be limited according to the type of construction and area under construction. Duration of such closures will be developed in conjunction with and approved by local jurisdictions. Residents will be notified at least two weeks in advance of any road closures on their street. Notifications will include the hours of limited access, alternative parking options, and a telephone contact in case any problems occur. Emergency services (fire, police) will also be notified of any road closures at least two weeks in advance.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	The construction specifications will require the contractor to get approval from the proper governmental authority and provide adequate notice prior to any street closure(s). Construction manager will verify compliance
83	Signing and traffic controls will be placed well in advance of the construction area to warn motorists of detour routes available during construction.	Entire project area	During construction	River Mountains Solar, LLC construction contractor	The construction specifications will require the contractor to provide and maintain appropriate traffic control in accordance with Federal Highway Administration standards. Construction manager will verify compliance.
84	The length of the construction "spread" will be reduced where possible to avoid simultaneously impacting two or more major intersections.	Entire project area	During construction	River Mountains Solar, LLC engineer and construction contractor	The construction packages will be designed to avoid simultaneously impacting two or more major intersections as feasible. SNWA engineer will coordinate with local jurisdiction prior to any closures in major intersections. Appropriate requirements will

#	Mitigation Measure	Location	Timing	Responsibility	Implementation/Verification
					be included in construction specifications.
85	Streets will be restored to their pre-construction conditions, including curb and gutter restoration (if disturbed) and the re-establishment of roadway markings.	Entire project area	At completion of construction	River Mountains Solar, LLC construction contractor	The construction specifications will require the contractor to restore streets to preconstruction conditions or local standards as appropriate. Construction manager will verify compliance