

**WORKER ENVIRONMENTAL
AWARENESS PROGRAM
for the
BLYTHE SOLAR POWER PLANT
(BSPP)**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Introduction	1
WEAP Objectives.....	1
Training Requirements.....	2

Attachments

- A Biological, Cultural, and Paleontological Resources Video Script
- B WEAP PowerPoint Presentation
- C Hard Hat Sticker (Decal)
- D Resources Identification Cards (Species Cards)
- E WEAP Training Sign-in Sheet

This page intentionally left blank.

INTRODUCTION

Solar Millennium LLC's Blythe Solar Power Project (BSPP) is a 1,000-megawatt (MW) nominal solar thermal electricity-generating facility to be constructed on public lands managed by the Bureau of Land Management (BLM) in Riverside County, California. The Project includes installation of four solar power units within an approximately 9,400-acre area near the town of Blythe, California. The Project is committed to avoid, minimize, and compensate for adverse impacts to sensitive resources.

The Presiding Member's Proposed Decision issued by the California Energy Commission (CEC) for the BSPP includes three conditions of certification (BIO-6, CUL-15, and PAL-4) which require the development and implementation of a Workers Environmental Awareness Program (WEAP). In accordance with these conditions, SMLCC has prepared this WEAP for review and approval by the CEC Compliance Project Manager (CPM).

WEAP OBJECTIVES

The purpose of the WEAP is to educate personnel about the existing on-site and surrounding resources and the measures required to protect these resources. With this information, everyone will be equipped to make appropriate decisions in the field to satisfy and achieve compliance with the applicable LORS (laws, ordinances, regulations, & standards).

The WEAP focuses on three environmental issues: Biological Resources, Cultural Resources, and Paleontological Resources. The program highlights known or potentially occurring resources that may be encountered during Project implementation. The program explains measures required to avoid impacts to such resources and the consequences of not complying with protections measures.

Several components make up the overall WEAP; the following items have been prepared for the CEC Compliance Project Manager's review and approval:

- Training video script for biological, cultural, and paleontological resources (Attachment A)
- WEAP PowerPoint presentation (Attachment B)
- Hard hat decal (Attachment C)
- Resources identification cards (Attachment D); and
- Training attendance acknowledgement form (Attachment E).

TRAINING REQUIREMENTS

The WEAP must be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented throughout the life of the Project including site preconstruction, construction, operation, and closure.

Prior to working on the Project, all personnel will view the training video within the first week of their commencing work on the site and sign the training attendance acknowledgement form to indicate that the contents are understood. If the video is not accessible, a PowerPoint presentation (see Attachment B) will be presented. A WEAP decal (Attachment C) will be provided to each trained worker as an acknowledgment of their participation and must be adhered to the worker's hardhat prior to beginning work on-site. A 'take-away' copy of the WEAP training PowerPoint presentation will also be given to each worker, and resource identification cards (Attachment D) will be used for "refresher" training as part of regular tailgate and other personnel meetings. A list of personnel trained will be kept on site and copies of the WEAP sign-in sheets (Attachment E) will be included in the Monthly Compliance Report submitted to the CEC Compliance Project Manager.

ATTACHMENT A

**BIOLOGICAL, CULTURAL, AND PALEONTOLOGICAL
RESOURCES VIDEO SCRIPT**

Biological Resources Script

Good morning, my name is Ray Romero and I am the designated biologist for the Blythe Solar Power Project (BSPP). We are here today to discuss the Project's potential impacts to sensitive biological resources, and the measures to be implemented that will help avoid or minimize adverse impacts to these sensitive resources. During construction and operation of the Blythe Solar Power Project, we all have a commitment to protect the natural environment and today's discussion will give you the information you need to do so.

All project staff, contractor, and subcontractor personnel must be aware of environmental compliance measures associated with the Project. Violation of these protection measures could result in a project delay or complete shutdown of construction. Penalties for an individual caught in violation of these protection measures could include loss of employment, monetary fines, or jail time.

This presentation provides an overview of the sensitive biological resources that may be affected by the Project. It also includes a description of laws, protection measures, responsibilities, and penalties associated with those resources and this Project.

As part of the Worker Environmental Awareness Program, this training is designed to summarize responsibilities and proper precautions on the job, and provide the appropriate contact person when questions arise. A designated biologist and a team of biological monitors will be on site during construction to verify that the Project maintains environmental compliance. You must always seek their advice before taking any action that may endanger sensitive biological resources. Construction and operation of this Project require care and conscientious actions to protect natural resources.

Environmental Laws, Regulations, and Penalties

Many of the biological resources found in the Project area are protected by state and federal laws.

Violation of state and/or federal environmental laws can result in fines as high as \$100,000 and/or up to one year in jail. Consequences can involve Project penalties and penalties for the responsible individual.

Nesting Birds

The BSPP site and vicinity comprise diverse habitats that are home to sensitive and protected plants and animals such as birds, mammals, and reptiles.



During the bird breeding season, various species may choose to nest within the Project disturbance area. Most nesting bird species are protected under the Migratory Bird Treaty Act, and the California Fish and Game Code. When construction activities occur from February 1 through July 31, the Designated Biologist and biological monitors will be conducting surveys for nesting birds. The goal of the surveys is to identify the general location of the nesting sites and to establish a protective buffer zone around the nest. No construction activities will be allowed within the buffer areas. The Designated Biologist and/or biological monitors will monitor the active nests until he/she determines that the nestlings (young birds) have fledged and dispersed. If you see any birds displaying nest building activities please notify the Designated Biologist or biological monitor immediately so that measures can be implemented to discourage further nest building. Remember, once eggs are laid in a nest that nest is protected.

Western Burrowing Owl

Western burrowing owls are a state species of concern protected under the Migratory Bird Treaty Act and the California Fish and Game Code. Burrowing owls are named for the habit of nesting underground. Burrowing owls typically use burrows made by mammals such as kit foxes, ground squirrels, or badgers, but can also use human-made structures such as cement culverts; cement, asphalt, or wood debris piles; openings beneath cement or asphalt pavement, and even desert tortoise burrows.

Burrowing owls were observed during biological surveys conducted during the Project's permitting process. Prior to vegetation clearing and during construction of the BSPP, the Designated Biologist and biological monitors will conduct surveys for burrowing owls. Any active owl burrows detected within 500 feet of the Project disturbance area will require a protective buffer zone around the burrow. Construction fencing will be installed at a 250-radius around the active burrow. Signs will be posted in English and Spanish at the fence line indicating no entry or disturbance is permitted within the fenced buffer.



Desert Tortoise

The desert tortoise is an herbivore that is able to live where ground temperatures may exceed 140 degrees Fahrenheit, because of its ability to dig underground burrows and escape the heat. At least 95% of its life is spent in burrows. Desert tortoises are typically dormant mid-November through February, and are usually most active early March through early June and again between September and early November.



Desert tortoises are protected under the Federal Endangered Species Act and the California Endangered Species Act. The California Fish and Game Code states that it is unlawful to sell, purchase, harm, take, possess, transport, or shoot any projectile at a desert tortoise. Any worker caught in violation of this Code could be subject to monetary penalties, jail time, and most likely loss of employment.

Six adult desert tortoises were observed within the survey area, which includes the Project's impact area and surrounding buffer. Potential for desert tortoise on the eastern portion of the

site is lower than the western side where potential is high.



To avoid impacts to desert tortoises, permanent exclusionary fencing will be installed along the permanent perimeter security fence boundaries as Project phases are constructed. During construction of the Project, the Designated Biologist and biological monitors will conduct desert tortoise monitoring prior to any ground-disturbing activities. The Designated Biologist

will be responsible for reporting all desert tortoise observations to the Bureau of Land Management, the California Energy Commission Construction Project Manager, U.S. Fish and Wildlife Service, and California Department of Fish and Game. Please look for desert tortoises under and around vehicles and equipment prior to moving vehicles or equipment. If any desert tortoises are observed within the project area the Designated Biologist or biological monitors must be notified immediately. Do not pick up a desert tortoise for any reason.

American Badger and Desert Kit Fox

20-foot swath beyond the disturbed area, utility corridors, and access roads-The Project area consists of suitable habitat for the American badger and desert kit fox. To avoid direct impacts to these species, a biological monitor will assist the Designated Biologist to conduct pre-construction surveys for American badger and kit fox dens in the Project disturbance area, including a 20-foot swath beyond the disturbed area, utility corridors, and access roads.

If dens are detected, each den will be classified as inactive, potentially active, or definitely active. Inactive dens that would be directly impacted by construction activities will be excavated by hand and backfilled to prevent reuse by American badgers or kit fox.



Special-Status Plants

The project impact area is home to several species of special-status plants that are protected under Federal and State laws. To minimize impacts to these species, a botanist will identify areas that contain special-status plants; these areas will be delineated as environmentally sensitive areas (ESAs) and construction fencing will be installed to minimize impacts. The locations of the sensitive areas will be marked on all construction drawings and construction activities will be directed away from these areas.

Designated Biologist

As the Designated Biologist assigned to the BSPP, it is my job to implement the project's Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and provide direct assistance in avoiding impacts to natural resources. In the event of a noncompliance situation, I have the authority to stop work until a resolution is achieved.

Assisting me will be several biological monitors, who will be on site during earthwork activities. The biological monitors will also have the authority to stop work if any violation of mitigation measures occurs in the project area.

General Work Practices

- All ground disturbances, project vehicles, and equipment will be confined to approved work areas (construction zone limits).
- Use only approved access roads.
- Monitor during construction in areas that have not been fenced to prevent unauthorized impacts.
- Minimize impacts of transmission/pipeline alignments, roads, and staging areas by staying within project limits.
- Avoid using toxic substances that could potentially harm wildlife. Keep fluid spill containment and clean up materials readily available.
- Clean up and report all hazardous material spills immediately.
- Do not litter.
- Do not bring pets, firearms, hunting, or fires on the Project site; they are prohibited.
- Do not discharge water into unapproved areas.
- Do not feed or harass wildlife.
- At no time should any snakes, reptiles, or other wildlife be harmed.
- Minimize noise impacts.
- Direct facility lighting away from sensitive habitat.
- Observe speed limits on dirt access roads of 25 miles per hour or less.
- Implement and maintain erosion control Best Management Practices.

Fire Prevention

- Smoking should be limited to designated smoking areas.
- Cigarette butts and cigars should be disposed of appropriately and not left on the ground or buried.
- Provide fire extinguishers near all welding, soldering, or other sources of ignition.
- Keep fire extinguishers easy to see and reach in case of an emergency.

- Store gasoline and other flammable liquids should be stored in an approved storage facility.

Environmental Impacts and Mitigation Measures

In order to minimizing construction impacts, the following should be observed:

- Open trenches need escape ramps so reptiles, tortoises, and small mammals won't get trapped.
- Ground disturbance should be minimized to lessen the need for restoration.
- Avoid the possible disturbance of nesting birds by staying 500 feet away. Let the biological monitor clear the area before you begin work.
- Stormwater runoff must not contain hazardous waste or debris that could affect biological resources.

In closing, I would like to thank everyone for participating in today's environmental awareness training. If you ever have any questions or concerns, please do not hesitate to contact me directly at (714) 264-6174.

Cultural Resources Script

My name is Rebecca Apple. I am the Cultural Resources Specialist, or CRS, for the Blythe Solar Power Project (Project). The purpose of this training is to inform you of your responsibility to protect any cultural resources within the Project area, in compliance with the California Energy Commission and Bureau of Land Management's Conditions of Certification and Federal and state laws. Cultural resources have been identified in the BSPP Project area, and the Project has been designed to minimize impacts to these resources. However, previously unidentified cultural resources may be exposed during the construction process, and these also require protection. Knowledge and practice of the protective measures that I will discuss today is the responsibility of all on-site personnel. Violation of these protection measures can result in costly Project delays, as well as serious consequences for the responsible individuals. Please remember, the Biological, Cultural, and Paleontological monitors are here to help you. Today, I'm going to talk about:

1. applicable laws and regulations protecting cultural resources;
2. the history of the project area;
3. what cultural resources are, and also show you some examples; and
4. what to do if cultural resources are discovered.

Laws Covering Cultural Resources

Cultural resources are protected by Federal, state, and local laws. It is *illegal* for you to collect any cultural objects such as old bottles or arrowheads. These are a few of the laws and regulations that protect cultural resources on a Federal and state level:

- Archaeological Resources Protection Act , or ARPA: This act protects archaeological resources from vandalism and unauthorized collecting on Federal land. Maximum penalties are a fine up to \$250,000 and five years in jail.
- California Public Resources Code (Sections 5097.5, 5097.9, and 5097.99): Under these codes it is a crime to disturb or remove archaeological, historic, or paleontological resources that are located on public lands, and that it is a felony to obtain or possess Native American grave artifacts or human remains. The unlawful and malicious excavation, removal, or destruction of such resources is punishable by up to a \$10,000 fine or both fine and imprisonment.

These codes also discuss the procedures that need to be followed upon the discovery of Native American human remains. It is possible that human burials or cremations may be discovered in the Project area. If this occurs, stop work immediately and notify your supervisor and the Cultural Resources Monitor (CRM). Protect the area from all disturbance, and do not inspect the material yourself. It is a *felony* under California law to disturb Native American burial sites, punishable by imprisonment in state prison.

It is important to realize that violations of the Project's conditions of certification may result in construction delays, fines, jail time, or loss of jobs.

Project History

The Project area has a very long history; Native Americans hunted, fished, and gathered wild plants and seeds in this area before European settlers came here. Overall, people have lived in the California deserts for approximately 12,000 years. When Europeans first arrived, this area fell within the territory of the Native American group known as the Halchidhoma, but other groups such as the Mohave, Quechan, Chemehuevi, and Cahuilla also lived closeby. The Project area and surrounding region also have a rich history of mining, homesteading, and agriculture, and was an important location for military training during World War II and during the 1960s.

Cultural Resources

Cultural resources include both prehistoric and historic artifacts, objects, structures, or locations and areas culturally important to a group of people. Cultural resources are an important part of American heritage and of the state of California.

Cultural resources that may be discovered in the Project area include prehistoric artifacts such as stone tools, grinding stones, stone arrowheads, pottery, animal bones, and marine shells, as well as prehistoric features such as trails, hearths, and rock art. Note that these may look different depending on whether they are found on the ground surface, partly buried, or wholly buried and freshly exposed.

Historic artifacts such as metal cans, glass bottles, ceramic dishes, military hardware, and food remains may also be encountered, as well as historic features such as roads, water lines, building foundations, military fighting positions, tent pad clearings, and trash concentrations.

Stone tools include rocks that have been used as tools to kill or butcher animals or process plants, as well as the materials created by the tool-making process. They can range in size from as small as your fingernail to larger than your two hands put together.

This is an example of:

- A scraper¹ - which was used to process hides or food.
- Here we have a finely shaped biface, or arrowhead. These were used for hunting animals.
- Ground stone tools—like manos and metates, and mortars and pestles—were used to process plant foods. They usually have a smooth surface. This is an example of a hand-sized mano and a large mortar. Metates and mortars were often left upside-down to protect their grinding surfaces. These may appear like ordinary rocks, especially when they are partially buried.
- Native American pottery in California is typically simple, undecorated earthenware.

¹ The specific examples held up for the camera may be revised, depending on availability at the time of filming. Alternately, we can insert the photos from the cultural resources brochure as the examples.

In this area, historic materials over 50 years old—like this glass bottle, ceramic bottle, and square nail—as well as foundations, may be associated with mining supply stations, homesteading, early roadways, or farming. Artifacts associated with military use of the area may include C- or K-ration cans, spent ammunition, or military hardware.

In this region, most of these materials are found on or near the ground surface. However, buried cultural resources may also be encountered during Project construction.

- Midden is discolored soil, often gray-black and greasy feeling; it can contain ash, charcoal, or bone fragments. When midden is found on the surface it is often confined to one area, and stands out as being much darker than the surrounding soil. When it has been buried and is exposed during excavation or grading, it can appear in a sidecut as a distinct layer, or “lens.”
- Bone and shell were used to make tools, beads, and other ornaments. Fragments may also be the remains of meals. Pictured here is a bone awl, which was used to weave baskets and make clothing. Bone found on the surface is usually white, while bone that has been buried will often be tan or yellow in color. Burned bone is dark bluish-gray, and is easily mistaken for small rocks.
- Watch for unusual concentration of rocks, particularly if they seem to form a circular or linear pattern. Small concentrations of rock with sharp breaks or chipping scars, including chert and obsidian (volcanic glass), may also be archaeological remains. Concentrations of burned rocks, either on the surface or exposed by grading, may represent a cooking feature. A rock cairn or pile of stacked rocks may be Native American in origin, or may represent a historic mining claim. Rock concentrations or alignments can occur on the ground surface where they are easily visible, or be buried as clusters of rock that are visible in freshly exposed soil cuts.
- Watch for concentrations of historic-era artifacts, including bottles, cans, glass fragments, ceramic or porcelain fragments, or other artifacts that appear to be at least 50 years old. Historic refuse often differs in appearance from modern trash in its weathered appearance and use of antiquated technologies. For example, sun-colored purple glass, thick glass bottles with cork closures, heavily rusted metal objects, and cans opened without the use of a modern can opener may be of historic age. Sometimes these artifacts are encountered during excavation or grading as a dense, distinct concentration of trash. These buried concentrations may represent a privy (outhouse pit) or trash pit.

One or more CRM will be on site during all earth-disturbing activities in native soils. The CRS, alternate CRS, and CRMs have the authority to stop work if cultural resources are discovered or threatened, or if compliance measures are violated. These specialists will work with the construction supervisor to determine whether work can continue elsewhere.

We will also have a Native American monitor on site to assist in monitoring construction activities and help protect Native American cultural heritage in the Project area.

What to Do if Cultural Resources Are Discovered

There are four steps you should take if you find a cultural resource or anything that you think could be a cultural resource:

- First, **stop work** in the immediate area.
- Second, **do not touch it**, move it, or disturb it in any way. The reason for this is that the way that it is positioned in the ground provides data vitally important to archaeologists.
- Third, **mark the area with flagging** to make sure no one else working in the area disturbs the find.
- Fourth, **immediately contact a CRM or your supervisor**. The CRM or CRS will examine the find, document and evaluate it, and inform your supervisor when it is OK to resume work in the area.

PLEASE REMEMBER:

You are part of our compliance team and we need your help in protecting California's cultural heritage.

Also, please show respect for any Native American monitors and their rich cultural heritage.

If you think you see an artifact, let your supervisor and the CRM/CRS know.

Do not inspect, pick up, or pocket any artifacts.

Please remember, once a prehistoric or historic object, structure, or place has been destroyed, it can never be replaced.

Paleontological Resources Script

My name is Cara Corsetti, and I am the Paleontological Resources Specialist for the Blythe Solar Power Project (Project). We are here today to discuss the Project's potential impacts to nonrenewable paleontological resources and the measures to be implemented that will help avoid or minimize adverse impacts to fossil resources. My job is help you stay in compliance with the paleontological Conditions of Certification set forth by the California Energy Commission for this Project.

This training will be conducted at least weekly for all project managers, construction supervisors, foremen, and general workers who are involved with or operate ground disturbing equipment or tools. Participation in this training is required prior to an excavation in sensitive paleontological areas.

Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to explain the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains.

The construction of the Project will require ground disturbances within geologic sediments that have a demonstrated potential to yield significant fossil resources. In the vicinity of the Project area, fossilized remains of large mammals such as mammoth, camel, horse, and llama; small mammals such as pocket mouse and gopher; turtles; invertebrates; and petrified wood have been recovered from within the same sediments that will be impacted during construction activities.

During ground disturbing activities you may find:

- Bone
- Tusk material
- Turtle carapace (shell)
- Teeth
- Shells
- Petrified wood or plant material

Environmental Laws, Regulations, and Penalties

Fossils are protected by Federal, state, and local laws and agency guidelines across the country. Unauthorized collecting or disturbing of fossils is illegal and can result in fines and imprisonment. If you collect or even disturb a fossil within the Project area, it may result in construction delays, fines, jail time, or loss of your job.

The following are laws, regulations and codes that affect paleontological resources in the Project area:

National Environmental Policy Act: Recognizes the continuing responsibility of the Federal government to “preserve important historic, cultural, and natural aspects of our national heritage ...”

Paleontological Resources Preservation Act: Sets forth regulations and provisions pertaining to paleontological resources on all federally administered lands and affirms the authority of the U.S. Bureau of Land Management policies already in place.

Federal Land Management and Policy Act: Does not refer specifically to fossils; however, “significant fossils” are understood and recognized in policy as scientific resources. Permits that authorize the collection of significant fossils for scientific purposes are issued under its authority.

American Antiquities Act of 1906: Establishes a penalty for disturbing or excavating any historic or prehistoric ruin or monument or object of antiquity on Federal lands as a maximum fine of \$500 or 90 days in jail.

National Historic Preservation Act of 1966: Provides for the survey, recovery, and preservation of significant paleontological data when such data may be destroyed or lost due to a Federal, federally licensed, or federally funded project.

Code of Federal Regulations Title 43: Prohibits, without a permit, the collection of scientific resources, including vertebrate fossils. Also prohibits the use of fossils found on Federal lands for commercial purposes.

Paleontological Resource Specialist

As the designated Paleontological Resource Specialist, I am responsible for verifying implementation of the Project’s Paleontological Resources Monitoring and Mitigation Plan (PRMMP) and providing direct assistance in avoiding impacts to fossil resources.

My duties include:

- Advising BSPP construction and operations managers on the implementation of the paleontological resources Conditions of Certification.
- Supervising, conducting and coordinating the implementation of the PRMMP.
- Notifying BSPP construction and operation managers and the CEC Compliance Project Manager (CPM) of any non-compliance with any paleontological resources condition of certification.
- Responding directly to inquiries of the CPM regarding paleontological resource issues.
- Maintaining written records for inclusion in the Monthly Compliance Report and the Annual Compliance Report.

- Supervising and supporting the efforts of the Paleontological Resource Monitors (PRMs).
- Coordinating with resource agencies for compliance of protection measures.

Paleontological Resource Monitors

There will be a PRM on site to respond to discoveries that are made during the course of ground disturbances within the Project area. Paleontological resource monitoring will take place where (1) construction activities will disturb previously undisturbed sediment that is determined to have a high paleontological resource potential (paleontological sensitivity), and (2) in areas where the depth of prior disturbance is determined to be shallower than the planned depth of excavation. Areas where sediment will be buried but not otherwise disturbed, if any, will not be monitored.

In the event that a fossil resource is discovered, the PRM has the authority to halt or redirect work until the significance of the find is determined. If the fossil is determined to be significant, the PRM will collect the material and associated data (which might include bulk matrix samples). Once the area is cleared by the Paleontological Resource Specialist, the Environmental Compliance Manager will notify construction supervisors that the area is available to continue construction activities.

Your Responsibility

There are four steps you should take if you find a fossil or anything that you think could be a fossil:

- First, **stop work** in the immediate area (20-foot radius).
- Second, **do not touch it**, move it, or disturb it in any way. The reason for this is that the way that it is positioned in the ground provides data vitally important to paleontologists.
- Third, **mark the area with flagging** to make sure no one else working in the area disturbs the fossil.
- Fourth, **immediately contact a PRM and your supervisor**. The PRM will examine the fossil remains and contact the Paleontological Resource Specialist to make a determination of whether or not the material is scientifically significant. If it is, then the material will be collected along with the associated data. Your supervisor will be informed when it is OK to resume work in the area.

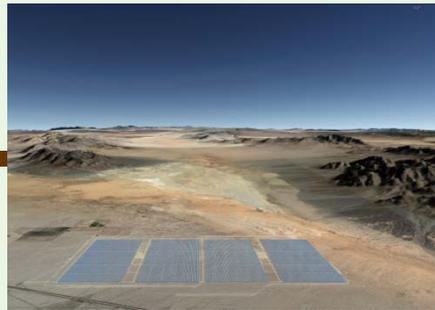
I would like to thank everyone for participating in this environmental awareness training, and if you ever have any questions please do not hesitate to contact me directly at 626-240-0587.

ATTACHMENT B

WEAP POWERPOINT PRESENTATION

BLYTHE SOLAR POWER PLANT PROJECT

Worker Environmental Awareness Program



BLYTHE SOLAR POWER PLANT PROJECT

The BSPP Project site and vicinity are composed of diverse habitats where sensitive biological, cultural, and paleontological resources exist.



GENERAL WORK PRACTICES

- Confine all ground disturbances, project vehicles, and equipment to approved work areas (construction zone limits).
- Use only approved access roads.
- Keep fluid spill containment and clean up materials readily available.
- Clean up and report all hazardous material spills immediately.
- Do not litter.
- Do not bring pets, firearms, hunting, or fires onto the Project site; they are prohibited.
- Do not discharge water into unapproved areas.
- Do not feed or harass wildlife.
- Observe speed limits on dirt access roads of or less than 25 miles per hour.
- Implement and maintain erosion control best management practices

DESERT TORTOISE

- This species is protected under the Federal Endangered Species Act of 1973 and the California Endangered Species Act of 1984, California Fish and Game Code Section 2050-2098.
- Install exclusionary fencing prior to vegetation removal.
- Conduct clearance surveys within Project impact area.
- Monitor area during construction activities.



NESTING RAPTORS

- This species is protected under the Migratory Bird Treaty Act and the California Fish and Game Code Sections 3503, 3503.5, and 3513.
- During February 1 through July 31, location of any nest sites will be identified.
- A protective buffer zone around any nest site will be established.
- No construction will be allowed in buffer zone.

BURROWING OWLS

- This species is protected under the Migratory Bird Treaty Act and the California Fish and Game Code Sections 3503, 3503.5, and 3513.
- If an active burrowing owl burrow is within 500 feet of the Project disturbance area, then a non-disturbance buffer will be established.
- Fencing shall be installed at a 250-foot radius from the occupied burrow to create a non-disturbance buffer around the burrow (February - August).

Or

- Fencing will be installed at 160-foot radius (September – January).
- “No Entry” signs will be posted in English and Spanish at the fence line.



AMERICAN BADGER AND DESERT KIT FOX

- These species are protected under the California Fish and Game Code Section 4150.
- Preconstruction surveys for badger and kit fox dens in the Project disturbance area will be conducted, including a 20-foot swath beyond the disturbed area, utility corridors, and access roads.
- After verification that a den is unoccupied, it will be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped.
- Bureau of Land Management approval may be required prior to release of badgers on public lands.



SPECIAL-STATUS PLANT IMPACT AVOIDANCE AND MINIMIZATION MEASURES

Objective:

To protect all special-status plants outside of the Project disturbance area and within 100 feet of the Project disturbance area from accidental and indirect impacts during construction, operation, and closure of the project.

Requirements:

- A Designated Botanist will oversee compliance and train biological monitors.
- Site designs have been modified to reduce impacts to special-status plants.
- Environmental Sensitive Areas (ESAs) will be established where special-status plants occur.

RESOURCE MONITORS

DESIGNATED BIOLOGIST

- Issue a Stop Work order in the event of a noncompliance situation until a resolution is achieved.
- Advise the Project owner's construction and operations managers on the implementation of the biological resources conditions of certification.
- Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions.
- Notify the Project owner and the construction project manager (CPM) of any noncompliance with any biological resources condition of certification.
- Respond directly to inquiries of the CPM regarding biological resource issues.
- Maintain written records for inclusion in the Monthly Compliance Report and the Annual Compliance Report.
- Coordinate with resource agencies for compliance of protection measures.

BIOLOGICAL MONITORS

- Biological Monitors will be on site during earthwork activities and will clear areas before any and all ground disturbance begins.
- The Biological Monitors have the authority to stop work if any violation of mitigation measures occurs in the Project area.

FEDERAL AND STATE LAWS

- **Federal Endangered Species Act:** Provides protection for federally listed threatened and endangered plant and animal species. It also prohibits the destruction of habitat critical to these species' recovery.
- **California Endangered Species Act:** Similar to the Federal act, it prohibits the take (hunt, pursue, catch, capture, or kill) of state-listed endangered and threatened wildlife.
- **Migratory Bird Treaty Act:** Prohibits the take or possession of migratory birds, eggs, and parts.
- **California Fish and Game Code:** Prohibits take (hunt, pursue, capture, or kill) of protected plants and animals in California, and protects areas designated as significant habitat.
- **Clean Water Act:** Oversees protection of jurisdictional wetlands and waterways.

Violation of State and/or Federal environmental laws can result in fines as high as \$100,000 and/or up to 1 year in jail. Violations can involve corporate penalties as well as individual penalties for the person responsible for the violation.

CULTURAL RESOURCES

Cultural resources include prehistoric and historic sites, structures, and objects, as well as the location's historic events and areas that are important to a group of people. Once a prehistoric or historic object or site has been destroyed, it can never be replaced. Part of these resources' value lies in their location relative to other finds; for that reason, moving this material without professional oversight must be avoided.

BLYTHE SOLAR POWER PLANT PROJECT

SETTING

Native American people lived in California's desert region as early as 12,000 years ago, mainly near lakes and major rivers, hunting game, fishing, and gathering wild plants and seeds. These desert dwellers situated their villages and camps near water sources, and they learned to make pottery around 800 years ago. The majority of the prehistoric archaeological materials found in the project area date to the Late Prehistoric and Protohistoric periods (A.D. 500 to about A.D. 1850). Most of the sites in this area contain simple stone tools and tool-making debris, along with fragments of broken pottery. Additionally, trails, hearths, rock alignments, rock art sites, and other ceremonial sites are known in this area. Some of these continued to be used after Europeans arrived, and even to the present day.

Several Native American culture groups lived in the vicinity of the project area when Europeans first arrived. These groups include the Mohave, Halchidhoma, Quechan, and Chemehuevi along the lower Colorado River, and the Cahuilla in the deserts and mountains west of the project.

European exploration of the region began in the sixteenth century, but sustained settlement of the region did not occur until the mid-1800s. The first Americans to arrive in sizeable numbers were prospectors looking for the next big gold strike, and mining has been a consistent activity in the Colorado Desert from the 1800s to the present. Around the project area, manganese and gypsum mining were particularly intense during the initial years of World Wars I and II. The passage of the Homestead Act in 1862 and the Desert Land Act of 1877 opened areas of public land to private citizens who were interested in developing the land for agriculture or livestock. From 1942 to 1944, the project area was located within the U.S. Army's Desert Training Center, an enormous area where troops were trained for the coming fight in North Africa in desert combat through large maneuvers and live-fire exercises.

CULTURAL RESOURCE MONITORS

The project will have Cultural Resources Monitors on-site during ground disturbance, including earth-moving activities, clearing, grading, drilling, and trenching. The Cultural Resources Monitor will observe activities involving native soil disturbance in areas where buried cultural resources may exist. It is the monitor's responsibility to evaluate any cultural resources discovered during construction activities.

The Cultural Resources Monitors have the authority to stop work on the project if any important cultural resources are discovered.

A Native American monitor will also be on-site to assist in monitoring construction activities and help protect the Native American cultural heritage in the project area.

EXAMPLES OF CULTURAL RESOURCES

The kinds of cultural resources that may be discovered in the project area include prehistoric artifacts and features, as well as historic artifacts and structures that are more than 50 years old. Archaeological remains often take the form of soil discoloration, accumulations of rock or burned bone, or even concentrations of trash. Note that these may look different depending on whether they are found on the ground surface, partly buried, or wholly buried and freshly exposed.

- An area of **discolored soil**, often gray-black and greasy to the touch; this soil may contain ash, charcoal, or bone fragments. This type of soil is called midden; when it occurs on the surface it is often confined to one area, and stands out as being distinctly darker than the surrounding soil. When midden has been buried and is exposed during excavation or grading it often appears in a sidecut as a distinct layer, or “lens.”
- An unusual **concentration of rocks**, particularly if they seem to form a circular or linear pattern. Small concentrations of rock with sharp breaks or chipping scars, including chert and obsidian (volcanic glass), may also be archaeological remains. Concentrations of burned rocks may represent a cooking feature. A rock cairn or pile of stacked rocks may be Native American in origin, or may represent a historic mining claim. Rock concentrations or alignments can occur on the ground surface where they are easily visible, or be buried as clusters of rock that are visible in freshly exposed soil cuts.
- An unusual **rock clearing** on the ground surface, particularly those that form circular, square, or linear patterns. These may represent foot trails or encampments, either prehistoric or historic in age.
- Any **bone**, whether it appears to be from a human or an animal. It is a felony to remove or possess Native American remains or grave artifacts (PRC 5097.99). Small, burned bone fragments, either in a concentration or scattered on the surface, may represent a cremation.
- A concentration of **historic-era trash**, including bottles, cans, glass fragments, ceramic or porcelain fragments, or other artifacts that appear to be at least 50 years old. Sometimes these are encountered during excavation or grading as a dense, distinct concentration of trash. These buried concentrations may represent a privy (outhouse pit) or trash pit.
- Structural **foundations**, including concrete slabs or concentrations of brick, concrete, or mortared stone.
- **Fortified positions** constructed during military training exercises, including shallow, dug-out depressions surrounded by low earthen berms, or low walls of stacked stones. These may be accompanied by military cans or bullet shells.

BLYTHE SOLAR POWER PLANT PROJECT

EXAMPLES OF CULTURAL RESOURCES

- Native American **pottery** in California is typically simple, undecorated earthenware. Pottery is usually found as sherds, or small fragments. If these are small they can be easily mistaken for rocks, especially when partially buried.
- Hammerstones** were used mainly to make stone tools and show signs of impact damage, such as crushed edges.
- Cores** are the rocks used to make stone tools. Cores were struck with hammerstones to produce flakes (see below) that could then be used to make tools. Cores have many angular sides from the removal of flakes.
- Flakes** are thin, sharp pieces of stone with a smooth face. They were created by the act of making stone tools and could be used for butchering animals or processing plants, like a disposable razor blade.
- Stone **scrapers** were used for preparing animal skins, shaping wood or bone, or processing food. They come in many shapes and sizes but typically have a faceted surface and angular sides.
- Bifaces** are easily identified by their pointed, tear-drop shape. They were used as knives, spear points, and arrowheads. They range in size from 1 to 6 inches long and can be several inches wide and often have notches or a narrowed end where they were attached to handles or arrow shafts.
- Manos and metates** were used to make flour from hard seeds. The seeds were crushed between a hand-sized mano and the larger metate. **Mortars and pestles** were used to mash acorns and other foods, powder pigments, and prepare medicines. Materials were placed between the handheld, rod-like pestle and the bowl-shaped mortar. Worn ground stone artifacts usually have smooth grinding surfaces. Large pieces of ground stone such as metates and mortars were often left upside-down to protect their grinding surfaces. These may appear like ordinary rocks, especially when they are partially buried.
- Bone and shell** were used to make tools, beads, and other ornaments. Fragments may also be the remains of meals. Pictured here is a bone awl, which was used to weave baskets and make clothing. Bone found on the surface is usually white, while bone that has been buried will often be tan or yellow in color. Burned bone is dark bluish-gray, and is easily mistaken for small rocks.
- Historic artifacts** date to the period of time after Native Americans came into contact with European cultures. They include old glass bottles; ceramics; metal cans; wire; nails; building hardware; tools used for farming, ranching, or mining; and old building foundations. Artifacts associated with military use of the area may include C- or K-ration tins, spent ammunition, or military hardware.

EXAMPLES OF CULTURAL RESOURCES



Native American Pottery



Biface (Arrowhead)



Flake



Hammerstone



Core



Scraper

EXAMPLES OF CULTURAL RESOURCES



Metate and Mano



Mortar and Pestle



Bone awl



Historic Artifacts



Hearth with Ash Layer, exposed during excavation



Historic Trash Deposit, exposed during excavation

LAWS AND REGULATIONS

The Project falls under the jurisdiction of two agencies, the California Energy Commission (CEC) and the Bureau of Land Management (BLM). These agencies require the enforcement of relevant state and federal laws, as well as their own regulations and protocols, including the Conditions of Certification. The following state and federal laws and regulations affect the management of cultural resources:

- **Archaeological Resources Protection Act (ARPA):** This act protects archaeological resources from vandalism and unauthorized collecting on federal land; maximum penalties are a fine up to \$250,000 and five years in jail.
- **National Historic Preservation Act (NHPA):** This act establishes a program for the preservation of historic properties, and requires federal agencies to take in to account the effects of projects on historic properties.
- **California Environmental Quality Act (CEQA):** Under this act, agencies are responsible for determining whether a project may have a significant effect on historical and archaeological resources. If a project will cause damage to a unique archaeological resource, the agency may require that reasonable efforts be taken to preserve these resources in place or provide mitigation measures.
- **California Public Resources Code (Sections 5097.5, 5097.9, and 5097.99):** These codes establish that it is a misdemeanor to disturb or remove archaeological, historic, or paleontological resources located on public lands without authorization, and that it is a felony to obtain or possess Native American artifacts or human remains taken from a grave or cairn. These codes also discuss the procedures that need to be followed upon the discovery of Native American human remains.

PROTOCOL FOR CULTURAL DISCOVERIES

A Cultural Resource Monitor (CRM) will be on-site to respond to discoveries that are made during the course of ground disturbances within the Project area. In the event that a cultural resource is discovered, the CRM will have the authority to halt or redirect work until the significance of the find is determined. Stopping construction in the vicinity of an archaeological find is an important rule under the project's Conditions of Certification. We expect you to comply. Work may be stopped for only a few minutes, or it may be shut down for an extended period of time, depending on what is found.

There are four steps you should take if you find a cultural resource or anything that you think could be a cultural resource:

- First, **stop work** in the immediate area.
- Second, **do not touch it**, move it, or disturb it in any way. The reason for this is that the way that it is positioned in the ground provides data vitally important to archaeologists.
- Third, **mark the area with flagging** to make sure no one else working in the area disturbs the find.
- Fourth, **immediately contact your supervisor AND a Cultural Resource Monitor**. The archaeologist will examine the find, document and evaluate it, and inform your supervisor when it is OK to resume work in the area.

Only authorized personnel may handle cultural resources. If you have any questions about these procedures, please ask your Supervisor or Cultural Resources Monitor for more information.

CONSEQUENCES OF NON-COMPLIANCE

- The deliberate destruction or removal of cultural resources on federal land is prohibited under ARPA. An ARPA conviction could be as much as a \$250,000.00 fine and five years' imprisonment.
- It is illegal for you to collect any objects, including old bottles, arrowheads, etc., from public land, according to the California Public Resources Code (sections 5097.5 and 5097.9).
- Disturbing Native American burial sites is a felony under California Public Resources Code Section 5097.99.
- Violations of the project's Conditions of Certification may result in construction delays, fines, jail time, or loss of your job.

PALEONTOLOGICAL RESOURCES

Paleontology is defined as a multidisciplinary science that combines elements of geology, biology, chemistry and physics in an effort to understand the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. **These include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains.** The fossil record is the only evidence that life on earth has existed for more than 3.6 billion years. Fossils are considered nonrenewable resources because the organisms they represent no longer exist. Thus, once destroyed, a fossil can never be replaced.

Project construction will require ground disturbances within geologic sediments that have a demonstrated potential to yield significant fossil resources.

EXAMPLES OF PALEONTOLOGICAL RESOURCES

Construction of the Project will require ground disturbances within geologic sediments that have a demonstrated potential to yield significant fossil resources. In the vicinity of the Project area, fossilized remains of mammals such as mammoth, camel, horse and llama; small mammals such as pocket mouse and gopher; turtles; invertebrates; and petrified wood have been recovered from within the same sediments that will be impacted during construction activities.

During ground disturbing activities you may find:

- Bone
- Tusk fragments
- Turtle carapace
- Teeth
- Shells
- Petrified wood or plant material

EXAMPLES OF PALEONTOLOGICAL RESOURCES



Miscellaneous small vertebrate bones



Turtle carapace

EXAMPLES OF PALEONTOLOGICAL RESOURCES



Fossil leaves



Petrified Wood

EXAMPLES OF PALEONTOLOGICAL RESOURCES



Fossil Invertebrates



Scattered Fossil Bone (Mammoth)

EXAMPLES OF PALEONTOLOGICAL RESOURCES



Ostrea conchaphila
(Ostreidae)



Bursa californica
(Bursidae)



Agropecten ventricosus
(Pectinidae)

EXAMPLES OF PALEONTOLOGICAL RESOURCES



Fossil Tusk Fragments



CM



Pocket Gopher (*Thomomys bottae*) Femurs and Humeri

EXAMPLES OF PALEONTOLOGICAL RESOURCES



Hare (*Lepus*) Tibia



CM



Horse (*Equidae*) Tooth



Mule Deer
(*Odocoileus hemionus*)
Lower Second Premolar

FEDERAL AND STATE LAWS

Fossils are limited, nonrenewable resources afforded protections under various laws, ordinances, and regulations. Paleontological resources for the Project are protected under the California Energy Commission license for the BSPP, under the following laws and regulations:

- **National Environmental Policy Act:** Recognizes the continuing responsibility of the Federal Government to “preserve important historic, cultural, and natural aspects of our national heritage ...”
- **Paleontological Resources Preservation Act:** Sets forth regulations and provisions pertaining to paleontological resources on all federally administered lands and affirms the authority of BLM policies already in place.
- **Federal Land Management and Policy Act:** Does not refer specifically to fossils; however, “significant fossils” are understood and recognized in policy as scientific resources. Permits that authorize the collection of significant fossils for scientific purposes are issued under its authority.
- **American Antiquities Act of 1906:** Establishes a penalty for disturbing or excavating any historic or prehistoric ruin or monument or object of antiquity on federal lands as a maximum fine of \$500 or 90 days in jail.
- **National Historic Preservation Act of 1966:** Provides for the survey, recovery, and preservation of significant paleontological data when such data may be destroyed or lost due to a federal, federally licensed, or federally funded project.
- **Code of Federal Regulations Title 43:** Prohibits, without a permit, the collection of scientific resources, including vertebrate fossils. Also prohibits the use of fossils found on federal lands for commercial purposes.

PROTOCOLS FOR PALEONTOLOGICAL DISCOVERIES

There will be a Paleontological Resource Monitor (PRM) on-site to respond to discoveries that are made during the course of ground disturbances within the BSPP area. In the event that a fossil resource is discovered, the PRM will have the authority to halt or redirect work until the significance of the find is determined. Once the fossil resource is salvaged and the locality information collected, the PRM will notify the Environmental Inspector (EI), and the EI will notify the construction supervisor that the area is clear for work to resume.

There are four steps you should take if you find a fossil or anything that you think could be a fossil:

- First, **stop work** in the immediate area (20 foot radius).
- Second, **do not touch it**, move it, or disturb it in any way. The reason for this is that the way that it is positioned in the ground provides vitally important data to paleontologists.
- Third, **mark the area with flagging** to make sure no one else working in the area disturbs the fossil.
- Fourth, **immediately contact a Paleontological Resource Monitor and the construction foreman or your supervisor**. The paleontologist will examine the fossil remains, document them and collect them, and inform your supervisor when it is OK to resume work in the area.

Scientifically important fossils could be found in any project excavation, no matter how deep, and can be difficult to distinguish from modern remains, so you should contact a project paleontologist if you find any sub-surface bones, plant remains, or other potential fossils.

CONSEQUENCES OF NON-COMPLIANCE

Fossils are protected by federal, state and local laws and agency guidelines across the country. Unauthorized collecting or disturbing of fossils is illegal, and can result in fines and imprisonment. If you collect or even disturb a fossil within the BSPP area, it can result in a work stoppage, and you will lose your job.

ATTACHMENT C

HARD HAT STICKER (DECAL)

Environmental Awareness



**Blythe Solar
Power Plant**

ATTACHMENT D

**RESOURCES IDENTIFICATION CARDS
(SPECIES CARDS)**

BLYTHE SOLAR POWER PROJECT SPECIES AWARENESS



Mojave desert tortoise
Gopherus agassizii

USFWS Threatened
CDFG Threatened

Mojave desert tortoise

The desert tortoise is an herbivore that may attain a length of 9 to 15 inches in upper shell (carapace) length. The species is able to live where ground temperatures may exceed 140 degrees Fahrenheit, because of its ability to dig underground burrows and escape the heat. At least 95% of its life is spent in burrows. Desert tortoises are typically dormant November through February, and are usually most active early March through early June and again between September and early November.

HABITAT

Desert tortoises are widely distributed throughout the Mojave and Sonoran deserts of southeastern California, southern Nevada, and south through Arizona into Mexico. The species generally occurs below 4,000 feet elevation in firm but not hard ground, usually in soft sandy loams and loamy sands to allow for burrow construction.

BREEDING SEASON

Courting and copulation typically occurs in late summer and early fall. Nests are often dug near the burrow opening early in the season, and farther inside late in the season. Some nests are dug away from the burrow, usually under a shrub. Females lay eggs in May, June and July. The number of eggs varies from 4-8 white, hard-shelled eggs in a clutch; a tortoise can produce 2 to 3 clutches in a season. After laying, the female leaves the nest and the soil temperatures support growth of the embryos. Incubation periods of 90 to 120 days are typical. Only a few eggs out of every hundred hatchlings actually make it to adulthood.

PROTECTION MEASURES

Parking and storage areas shall occur within desert tortoise exclusionary fencing. Any materials stored one or more nights must be inspected for desert tortoise prior to moving. Do not touch, harass, or harm any desert tortoise found on the Project. Contact the Designated Biologist if a desert tortoise is encountered.

**BLYTHE
SOLAR POWER PROJECT
SPECIES AWARENESS**



Western Burrowing Owl
Athene cunicularia

CDFG Species of Special Concern

Western Burrowing Owl

The western burrowing owl is a small ground-dwelling owl with a round head, white eyebrows, yellow eyes, and long stilt-like legs. They measure 9 to 11 inches in height. The adult is boldly spotted and barred, with males paler in color and proportionately larger in size than females.

HABITAT

Burrowing owls are found in open dry grasslands, agricultural and range lands, and desert habitats associated with burrowing animals. The owl commonly perches on top of mounds outside its burrow or a nearby fence post.

BREEDING SEASON

March through August, with peak activity in April and May.

PROTECTION MEASURES

Preconstruction surveys will be conducted prior to initial construction activities. A 250-foot radius non-disturbance buffer will be established for active burrows. No entry or disturbance is permitted within the buffer. A Designated Biologist or Biological Monitor will monitor construction activities to determine impacts, if any, on active burrows.

**BLYTHE
SOLAR POWER PROJECT
SPECIES AWARENESS**



Mojave Fringe-toed Lizard
Uma scoparia

CDFG Species of Special Concern

Mojave Fringe-toed Lizard

Mojave fringe-toed Lizard is a medium-sized, flat-bodied, smooth-skinned lizard 2 3/4 to 4 1/5 inches long from snout to vent. The tail is about the same length as the body. Color is white or grayish, with a contrasting pattern of black blotches and eye-like spots. The underside is pale with black bars on the underside of the tail. Males have a conspicuous black spot on the sides of the belly, dark crescent-shaped lines on the throat, and enlarged postanal scales.

HABITAT

Mojave fringed-toed lizard occurs from the Mojave Desert north to the southern end of Death Valley National Monument and east into Arizona. Its elevational range is 90-900 meters. This locally common lizard inhabits fine, loose, windblown sand of dunes, flats, river banks and washes. They prefer areas sparsely vegetated with creosote bush, mesquite, croton, burroweed, or other scrubby growth.

BREEDING SEASON

Lizards emerge from aestivation sites in April and breeding occurs through July. Females lay between 2-5 eggs in sandy hummocks, and hatchlings appear in September.

PROTECTION MEASURES

Limit ground disturbance to areas that have been environmentally cleared. Do not harass or harm any wildlife species found on the project. Notify the Designated Biologist or Biological Monitor of any wildlife observations.

ATTACHMENT E

WEAP TRAINING SIGN-IN SHEET

Certification of Completion Worker Environmental Awareness Program Blythe Solar Power Project (09-AFC-6)

This is to acknowledge these individuals have completed a mandatory California Energy Commission-approved Worker Environmental Awareness Program (WEAP). The WEAP includes pertinent information on cultural, paleontological, and biological resources for all personnel (that is, construction supervisors, crews, and plant operators) working on site or at related facilities. By signing below, the participant indicates that he/she understands and shall abide by the guidelines set forth in the program materials. Include this completed form in the Monthly Compliance Report.

No.	Employee Name	Title/Company	Signature
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			

Cultural Trainer: _____ Signature: _____ Date: ___/___/___

Paleo Trainer: _____ Signature: _____ Date: ___/___/___

Biological Trainer: _____ Signature: _____ Date: ___/___/___

