

# **Los Esteros Critical Energy Facility, Phase 2 (LECEF)**

Worker Environmental Awareness Program  
Handbook for Biological, Cultural and  
Paleontological Resources,  
and Stormwater Management



2485 Natomas Park Drive  
Sacramento, California 95833

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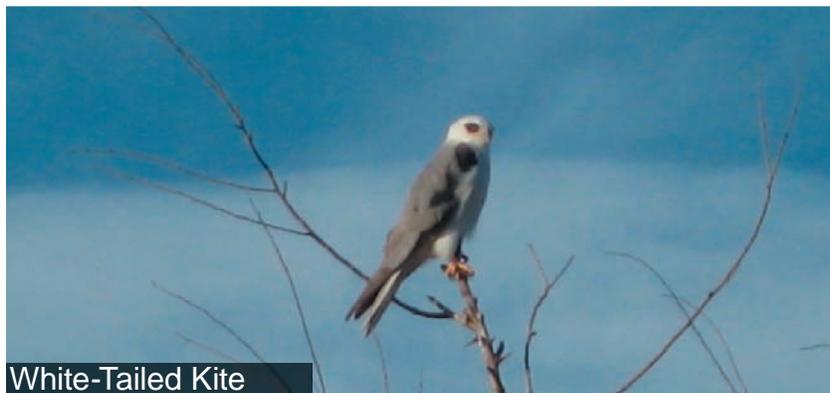
## LECEF Commitment

The Los Esteros Critical Energy Facility, LLC is committed to protecting environmental resources. Such resources have been identified for the Los Esteros Critical Energy Facility Phase 2 (LECEF2) and the project design has been modified to ensure their protection. Protection measures have been developed in order to minimize project impacts. Knowledge and practice of these measures will be the responsibility of all on-site personnel. Violation of these protection measures could result in costly project delays or shutdowns, as well as serious consequences for the responsible individuals.

This handbook provides an overview of the sensitive biological, cultural, and paleontological resources that may affect the LECEF project. It also includes a description of the laws, protection measures, responsibilities, and penalties associated with those resources and this project.

As part of the Worker Environmental Awareness Program (WEAP), let this handbook guide you in understanding your responsibilities, taking the proper precautions on the job, and contacting the appropriate person when you have questions. Remember, the Biological, Cultural, and Paleontological monitors are there to help you. Always ask before you act. With your cooperation, the LECEF project is sure to be a success.

In addition to the authorized monitors, construction supervisors, and specialists identified in the following sections, the California Energy Commission will have a delegated Chief Building Official (CBO) for the project. The role and responsibilities of the CBO is to enforce relevant portions of the power plant license, the California Building Standards Code (CBSC), and other relevant building and health and safety requirements. The CBO has the authority to halt project construction activities, either partially or totally, or take other corrective measures, as appropriate, if the CBO deems that such action is required to ensure compliance with the license, the CBSC, and other relevant building and health and safety requirements.



**White-Tailed Kite**



***Cooperation and communication are key to success.  
Always ask before you act.***

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## Sensitive Biological Resources

The LECEF project site and vicinity include features that provide habitat for protected plants and wildlife. These habitats include seasonal wetlands, marshlands, creeks and rivers (also known as “riparian corridors”), and open areas.

### Nesting and Migratory Birds

The LECEF project site and vicinity supports various nesting opportunities for native **raptors** such as **hawks** and **owls**, **waterfowl**, and **songbirds**. The birds, nests, eggs, and young are all protected under California Fish and Game laws and by the Federal Migratory Bird Treaty Act.

Work areas will be surveyed for nesting birds prior to and during construction. If an active nest is found, the immediate area will be temporarily off limits. **Be sure to get clearance from the Biological Monitor before initiating work in previously undisturbed areas, including gravel pads and equipment yards.**

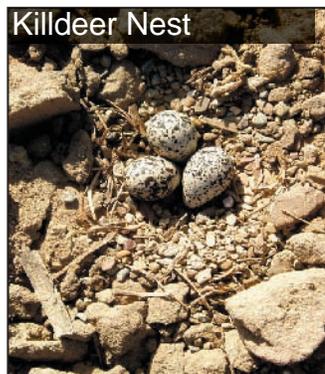
Most birds are busy building nests, laying eggs, and raising young in the early spring through mid-summer.

Not all nests are in trees. Many birds build their nests in human structures and some make nests on the ground or in burrows, such as Burrowing owls, Northern Harriers, and Killdeers. Construction sites can actually provide unlikely nesting opportunities for a variety of bird species.

A Killdeer nest for instance is usually little more than a scrape on the ground in a large barren area, making a cleared construction site a perfect nesting opportunity.

Killdeer eggs can be difficult to see but if you notice lots of killdeer activity in an area, or an adult exhibiting its “broken-wing” display, a nest is probably close by.

Like chickens and ducks, after hatching the killdeer chicks are on the move. Like the eggs, the chicks can be difficult to see but they usually stay close to their parents. When threatened, the chicks will freeze making them even more difficult to see and avoid.



*photographs courtesy of Chris Green*

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Other birds, like mourning doves and house finches may build their nests directly in or on site structures or equipment. If you observe birds building nests in equipment or on the ground contact the Biological Monitor immediately.



Except for a limited few, nearly all birds are protected by federal and state laws. Destruction of nests or eggs is a violation of the Migratory Bird Treaty Act and California Fish and Game codes. An offense is considered criminal and can include substantial fines and possible jail time.

The **Western Burrowing Owl**, a California species of special concern, inhabits dry open grasslands and typically nests in small burrows that have been constructed and abandoned by burrowing mammals such as ground squirrels or badgers. Burrowing owls are known to nest and forage immediately west of the project site in the vicinity of the primary access road (Thomas Foon Chew Way). Burrowing owls could also nest onsite in the project's temporary laydown and parking area in any ground squirrel burrows and may opportunistically forage throughout the project area.



Burrowing owls are year-long residents; their breeding season is late February through August. Direct mortality of juvenile and adult burrowing owls has been known to result from destruction, plugging, and flooding of occupied burrows, collisions with motor vehicles and construction equipment, predation by native and domestic animals, exposure to certain insecticides and rodenticides, and shooting. A buffer zone of 160 feet from owl burrows will be maintained during the non-breeding seasons (September 1–January 31). The buffer will be increased to 250 feet during the breeding season (February 1–August 31).

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The **White-tailed Kite** is an example of a protected raptor that might nest near or on the project site in the vicinity of Thomas Foon Chew Way in the City of San Jose bufferlands. The White-Tailed Kite is a white hawk with black shoulder patches. It is a Fully-Protected bird in California- no take is allowed. It hovers while foraging for rodents and other prey. White-tailed Kite have been identified in the project vicinity and hawks may forage on or near the site. If you see an injured hawk or nest report it immediately to the Designated Biologist or Biological Monitor. If a White-tailed Kite nests on or near the project site there will be a 250-foot setback from the nest tree. In the event a raptor nest is identified within the project boundaries orange protective fencing and "KEEP OUT SENSITIVE RESOURCE" signage will be placed around the construction exclusion zone. This protection measure will be used to protect the nests of hawks and other birds.

**Waterfowl** and **migratory birds** such as geese, ducks, herons, shorebirds, and cranes use the Pacific Flyway as a major winter migration route and may be observed utilizing the project site or surrounding areas. If dead or injured animals are found, contact the Designated Biologist, Biological Monitor, Environmental Compliance Manager or your foreman so that the injured or dead animal can be correctly cared for.

Construction and Operation Threats to Nesting and Migratory Birds include:

- Nest destruction, especially of nests on the ground, equipment, or structures
- Burrow destruction - vehicles and heavy machinery
- Direct mortality, such as collision with vehicles
- Disturbance, such as from noisy construction activities within a nest buffer area
- Drive vehicles onsite at the posted speed limit.

*Report nest sites to  
the Biological Monitor.*



**All nests shall be avoided and reported to the Designated Biologist,  
Todd Ellwood at (408) 839-2402 or to the Compliance Manager,  
Allison Bryan at (925) 890-1051**

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## Environmental Laws, Regulations, and Penalties

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

**Federal Endangered Species Act:** Provides protection for federal-listed threatened and endangered plant and animal species. It also prohibits the destruction of habitat critical to their recovery.

**California Endangered Species Act:** Similar to the federal act, it prohibits the take of state-listed endangered and threatened wildlife.

**Migratory Bird Treaty Act:** Prohibits the take of migratory birds. "Take" is defined as to pursue, hunt, take, kill, capture, or harass. This includes eggs, nests, and feathers of any bird, which are fully protected.

**California Fish and Game Codes:** Prohibits take of protected plants and animals in California, and protects areas designated as significant habitat.

**The Clean Water Act:** Oversees protection of jurisdictional wetlands and waterways.

The following agencies have regulatory authority in the area and will also monitor construction activities. They could be on site at any time:

- City and County Officials
- California Energy Commission
- California Department of Fish and Game
- San Francisco Regional Water Quality Control Board
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency



***Stay out of exclusion zones. They protect sensitive habitats.***

***Violation of state and/or federal environmental laws can result in penalties including fines as high as \$100,000 and/or up to one year in jail.***

***Violations can involve corporate and individual penalties.***

***Violations can result in stop work orders and construction delays.***

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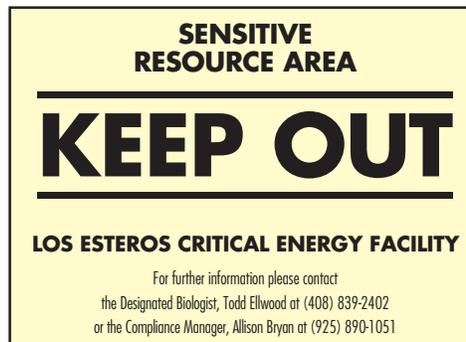
## Environmental Impacts and Mitigation Measures

### Minimizing construction impacts:

- Open trenches must have escape ramps so animals such as frogs, snakes, and squirrels won't get trapped.
- Minimize the need for restoration by minimizing disturbance.
- Avoid the possible disturbance of nesting birds by staying 500 feet away. Have the Biological Monitor clear the area before you begin any and all work.
- Project construction boundaries are positioned to protect wetlands and sensitive biological resources, and must not be crossed at any time.

### Mitigation Measures as Conditions of Certification:

- Biological Monitors must be on site or on call during construction.
- Construction exclusion zones must be clearly marked to protect sensitive habitats. Cyclone, silt, and orange fencing with Keep Out signs mark your access boundaries—be aware of your limits.
- Preconstruction surveys must be conducted by the Biological Monitor prior to all ground disturbances.
- Erosion control and revegetation will be implemented in all construction areas.
- Impacts to biological resources will be monitored and reported to the appropriate agencies.
- During construction, all pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at the construction site overnight shall be thoroughly inspected for wildlife before using or moving the equipment or materials.



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## Designated Biologist and Biological Monitors

The LECEF Designated Biologist is responsible for implementing the project's Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and providing direct assistance in avoiding impacts to natural resources. Any questions related to sensitive biological resources, including the material presented in this handbook, can be answered anytime by either the Designated Biologist or Biological Monitor. **The Designated Biologist has the authority to stop work if activities do not comply with protection measures outlined in the project's BRMIMP.**

### Duties of the Designated Biologist:

- Advise Site Superintendent or Construction Manager on the implementation of the biological resources Conditions of Certification.
- Prepare and supervise the implementation of this WEAP.
- Supervise or conduct monitoring, and other biological resource compliance efforts, including implementation of protection measures.
- Consult with natural resource agencies on potential biological issues and remedial actions.
- Advise project construction workers if there are changes in the environmental protection plans.
- Notify LECEF Staff and the California Energy Commission (CEC) Compliance Project Manager of non-compliance with any condition and the corrective actions taken, and advise the construction and operations manager when to stop and resume construction in sensitive areas.
- Maintain written records for inclusion in Monthly Compliance Reports.
- Submit monthly and annual compliance reports, if necessary, to the CEC.
- Supervise and support the efforts of the Biological Monitor.
- Coordinate with wildlife agencies for compliance of protection measures.

The Biological Monitor will be on-site during earthwork activities and will clear areas before any and all surface disturbance begins. **The Biological Monitor has the authority to stop work if any violation of mitigation measures occurs in the project area.** Mitigation measures for the project are described in the BRMIMP, available for review from the LECEF Environmental Compliance Manager.

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## **Duties of the Biological Monitor:**

- Supervise construction in sensitive habitat areas to monitor compliance with mitigation measures.
- Advise LECEF staff on how best to avoid adverse impacts to biological resources.
- Assist the Site Superintendent in preparing construction zone limits in sensitive habitats—including flagging and signage.
- Immediately notify the Designated Biologist, LECEF staff, and the LECEF Environmental Compliance Manager of non compliance and the corrective actions taken, and advise the construction and operations engineer when to resume construction.
- Notify onsite personnel if there are any changes in the plan.
- Verify that all construction staff have attended the Worker Environmental Awareness Training program, which would be evident by a WEAP hard hat sticker.

## **Your Responsibility**

- All site workers must attend the Worker Environmental Awareness Training program and be given a WEAP hard hat sticker to be worn on their hard hat at all times.
- All personnel, equipment, and vehicles are to remain inside the project boundary fence or in designated parking areas.
- If any animals (including snakes) are present in your work area, temporarily stop work and notify the Designated Biologist, Biological Monitor or LECEF Environmental Compliance Manager, to have it removed.
- If wildlife is accidentally harmed, immediately notify the Biological Monitor.
- Do not handle wildlife.
- Do not feed or disturb wildlife.
- Fill out a Wildlife Observation form (in Environmental Compliance Manager's trailer and safety training trailer) for all wildlife observed on the site—live, injured, or dead.



***Remember: The Designated Biologist and Monitors have the authority to stop work if construction activities are non-compliant.***

## Wildlife Observation Form

It is the responsibility of all personnel to complete a wildlife observation form whenever they encounter an injured animal or an animal nest, burrow, or other animal sign onsite that requires displacement. These forms will be available in the Environmental Compliance Manager's trailer and the safety training trailer. Sightings will also be reported to the Biological Monitor. The monitor will assist you if you have any questions about completing these forms.

Figure G-1. Wildlife Observation Form

**WILDLIFE OBSERVATION FORM**  
To Record Animals Found In LECEF Plant Project Area  
To be filled out by personnel who find active nest sites and burrows, dens, and dead or injured wildlife, or other biological resources during daily construction activities.

Name of employee: \_\_\_\_\_

Date: \_\_\_\_\_

Location of observation: \_\_\_\_\_

Wildlife species: \_\_\_\_\_

Condition of wildlife:  Alive  Dead

Possible cause of injury or death: \_\_\_\_\_

Where is the animal currently? \_\_\_\_\_

Is the resource in danger of project (or other) impacts? \_\_\_\_\_

Comments: \_\_\_\_\_

Please contact the Designated Biologist for questions and to report any wildlife, nest, or den in the project area that could be disturbed. The Designated Biologist will advise personnel on measures required by California Department of Fish and Game (CDFG) and United States Fish and Wildlife Service (USFWS) to protect fish, wildlife and vegetation from construction impacts.

**DESIGNATED BIOLOGIST**  
Todd Ellwood: (408) 839-2402

**BIOLOGICAL FIELD MONITORS**  
Rick Crowe: Cell (916) 296-5525 Office (916) 286-0416  
Dan Williams: Cell (916) 943-8247 Office (916) 286-0229  
Victor Leighton: Cell (916) 425-7862 Office (916) 286-0415

CH2MHILL - 2485 Natomas Park Drive, Suite 600, Sacramento, California 95833 - (916) 920-0300

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## General Work Practices

- Stay in approved work areas (construction zone limits).
- Use only approved access roads and do not exceed the speed limit of 15 miles per hour along the primary access road (Thomas Foon Chew Way).
- Keep out of designated exclusion areas.
- Inspect open trenches for wildlife each morning before starting work.
- Do not litter.
- No pets, firearms or hunting allowed on the project site or in the project area.
- No fires.
- Smoke only in authorized cleared areas.
- Do not feed or disturb wildlife.
- Clean up and report all hazardous material spills immediately.
- Do not discharge water into unapproved areas.
- Protect waterways and storm drains by implementing protective measures, such as silt fencing.
- Report wildlife observations to the Designated Biologist, Biological Monitor or LECEF Environmental Compliance Manager.
- Report trapped, injured, or dead wildlife to the Designated Biologist, Biological Monitor or LECEF Environmental Compliance Manager, and record the specifics on a Wildlife Observation Form. Forms are available in the Environmental Compliance Manager's trailer.
- Keep fluid spill containment and clean up materials readily available.



**Remember: Always ask before you act.**

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## Cultural Resources

Any trace of past human activity greater than 50 years old may be an important cultural resource. Places or sites where these traces occur are a part of a proud heritage that belongs to all of us. In the Santa Clara County area, there are archaeological remains that represent over 11,000 years of Native American prehistory and continue until 1769, when Spanish settlement occurred in California. Historical archaeological features, deposits, and architectural structural resources may also be found in the area. Significant cultural resources represent historical events, engineering achievements, and art or architecture styles that define what Americans have experienced. Ethnographic resources are also cultural resources and they may include traditional plant gathering areas, shrines and ceremonial areas, cemeteries, natural landscape features, and ethnic structures or districts. Because these achievements define what we are and affect what we become, the past belongs to us all and we all have a responsibility to help preserve significant cultural resources.

Archaeological and historical sites are a non-renewable resource. Though we are always creating new cultural resources for people of the future to interpret or preserve for posterity, historical and archaeological sites, once destroyed, cannot be recreated.

Archaeological remains are often so fragmentary that it is possible to scrape, dig, or bulldoze right through a buried site without realizing it. Here's what to look for:

- Discolored soil, particularly gray-black soil with a “greasy” feel to it, in an area of lighter colored soils.
- Any animal or human bone. The proper treatment of Native American graves is of great concern. Possession of artifacts or human remains from a Native American grave is a felony (PRC 5097.99).
- A thin layer, or series of layers, particularly dark layers containing charcoal or ash, in an excavation side wall.
- Shell, freshwater or marine, or shell artifacts
- Any unusual concentration of rocks, particularly if they seem to form a pattern (such as a campfire).
- A concentration of small pieces of broken rock, particularly obsidian or chert with sharp edges.
- A concentration of historic-era trash, including bottles, broken glass, broken ceramic, bone, and metal pieces.
- A concentration of brick, concrete, or mortared stone that might indicate a structural foundation.

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The kinds of cultural resources that may be discovered at the LECEF project site include prehistoric artifacts such as grinding stones, arrowheads, and stone flakes, and historic artifacts such as glass bottles, metal objects, animal bones, and building foundations. Human skeletons may also be exposed.

## Cultural Resources Monitors

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

## Examples of Cultural Resources

The following are examples of cultural resources that could be uncovered in the project area. The first seven examples are all stone tools shaped for specific functions.

The first example is a small **hammer stone**. Hammer stones were used for a wide range of tasks and may show wear at one or both ends.



**Hammer Stone**



**Flaked Cobble**

**Flaked cobbles** were used for scraping, digging, or cutting. They can occur in a variety of shapes and sizes with a smooth end for holding.

**Scrapers** had a variety of uses including preparing animal skins, shaping wood, or preparing food. Depending on their function, scrapers come in many shapes and sizes.



**Scraper**



**Lithic Debitage**

Lithic debitage is the waste material produced during the manufacture of flaked stone tools such as knives and projectile points. Debitage may be found in a variety of shapes and sizes, often as a concentration of small flakes of stone.



**Flaked Knives**

**Flaked knives** are very distinctive and easily identified by shape and flaking pattern. Flaked knives can be found in a large number of shapes and sizes.

**Projectile Points** are also very distinctive, and are commonly referred to as arrowheads. Projectile points can range in size from one to six inches long and several inches wide.



**Arrowheads**



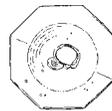
**Mortar and Pestle**

The **Mortar** and **Pestle** were used together as a grinding tool. They were used to prepare foods, pigments, medicines, and potions.

Historic artifacts that may be present include glass bottles, bone, ceramics, metal cans and other metal objects, including wire, nails, and building hardware, as well as the remains of former building foundations and underground utilities.



**Medicine Bottle**



**Glass Ink Bottle**  
*Clear glass octagonal ink bottle  
early 20th century*



**Glass Milk Bottle**  
*One quart milk bottle  
Hester Dairy, San Jose, CA  
circa 1935*

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## Your Responsibility

**If a Cultural Resources Monitor is present when a cultural resource is exposed, he or she will direct you to stop work at the location of the “find.”** The Cultural Resource Specialist and Cultural Resource Monitors have the authority to halt construction in the area of a Discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the Cultural Resource Specialist. Stopping construction in the vicinity of an archaeological find is an important condition of the project's license from the CEC and one with which we expect you to comply. Work may be stopped or redirected for only a few minutes, or it may be shut down for an extended period of time, depending on what is found.

**If a Cultural Resources Monitor is not present when a cultural resource is found, it is your responsibility to stop work and notify your supervisor and the Cultural Resource Specialist or Cultural Resource Monitor.** Work shall not resume until the construction supervisor and the Cultural Resource Specialist determine how to redirect the halted work.

It is illegal for you to collect any objects, including old bottles, 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. In addition, the deliberate destruction and removal of cultural resources on private land is prohibited under the conditions of the project's license from the CEC.

The following state and federal laws and regulations affect the management of cultural resources:

- Archaeological Resources Protection Act
- National Historic Preservation Act
- California Environmental Quality Act
- California Public Resources Code (Sections 5097.5, 5097.9, and 5097.99)

Violations of these regulations can result in federal indictment, and are punishable by civil and criminal penalties, including both fines and/or imprisonment, and could result in the revocation of project certifications, and shutdown of the project at the direction of the appropriate state agency.

Only authorized personnel may handle cultural resources. Notify the Cultural Resources Monitor or Site Superintendent if you think you may have found a cultural resource. Do not touch or move the object.

If you have any questions about these procedures, please ask your Site Superintendent or Cultural Resources Monitor for more information.

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## Paleontological Resources

Along with the project's commitments to cultural and biological resources, the Conditions of Certification of the California Energy Commission require everyone on this project to watch out for and avoid impacts to Paleontological Resources, or fossils. LECEF is committed to adhering to the rules regarding paleontological resources monitoring and mitigation during construction.

Paleontological resources, or fossils, are the remains of prehistoric plants and animals. Fossils include animal bones and teeth, and plant remains such as logs and even prehistoric leaf litter. Fossils also include such things as ancient burrows and tracks, and even very small remains such as the bones of birds and rodents, and even seeds.

Paleontological resources are protected by State and Federal Laws, and it is a violation of those laws to disturb fossils except in the course of their scientifically controlled recovery, or to collect fossils without proper authorization.

Fossils have been found nearby, and because of that this project includes a paleontological resources protection program. As part of that program a designated Paleontological Resources Specialist (PRS) will be available for field activities. If a potential fossil is discovered, the PRS will evaluate it to determine whether or not it is a fossil. **Like the Cultural Resources Monitor, the Paleontological Resources Specialist will have the authority to stop or redirect work in the immediate vicinity of a fossil find until it is properly recorded and recovered.**

### Examples of Paleontological Resources

It's important that you be able to recognize fossils. Scientifically significant fossils take all shapes and sizes: Here we see the track of an extinct trilobite preserved in mica-rich shale with a trilobite fossil of about the right size. These animals went extinct some 270 million years ago.



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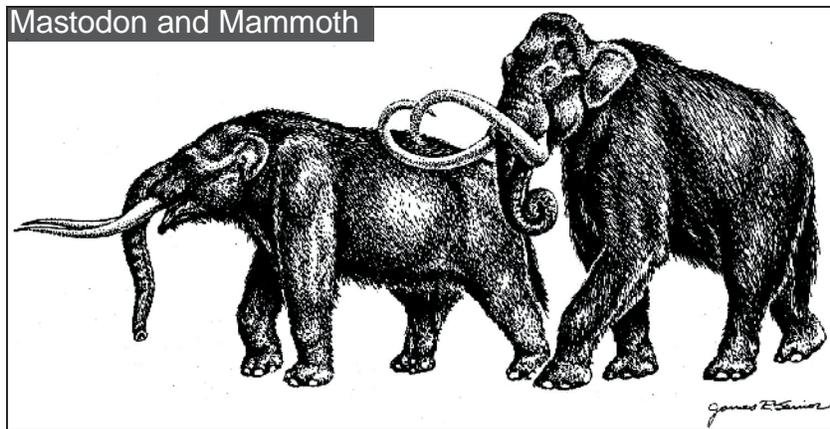
And here we have two ammonites, which were squids living in shells, recovered from rocks laid down when the ocean covered most of California, up to about 65 million years ago when they went extinct.



Fossils are non-renewable resources because they represent life and environments that no longer exist. If they're destroyed or taken without proper, scientifically controlled collection the detailed evidence of that past life is lost forever. It doesn't help if the fossil is in somebody's private collection because scientists won't know that, and won't have access to it for study. When properly collected, fossils provide important scientific evidence not only of the types of animals or plants of the distant past, but also data on past environments, climate change and past extinction events.

As important scientific and educational resources, fossils are protected by State and Federal law. It's those laws that require all of us to specifically watch for and take steps to protect fossils during excavations for the LECEF. The laws protecting fossils are specific: NO individual can disturb fossils except in the course of their scientific investigation and controlled recovery. So we need to take care during excavations to identify and protect any fossils that may be uncovered until they are examined and removed by a qualified paleontologist.

Important fossils have been found in the area. The remains of Ice Age animals and plants were included in the sediment washed out of the surrounding hills and deposited in the valley. For example, mammoth and perhaps mastodon lived in the Santa Clara Valley during the last Ice Age. The mastodon is the shorter, stockier "elephantid" to the left in the illustration below; the mammoth is to the right.



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From studies of the geology of the site we know that there are areas underlain by sediment that may contain fossils such as these vertebrae of the extinct North American camel. That's why the California Energy Commission requires a paleontological resource specialist to be available during excavations that will disturb sediments with fossil potential. But we need your help as well.



Be on the lookout for anything that looks strange or different- a bone, or a log, or other remain that is just out of place or is shaped strangely. These need to be brought to the attention of either the archaeological monitor or to your construction supervisor. What you find may be a fossil that will need to be recovered properly to avoid violating laws protecting it.



If it doesn't look like a rock, it may not be a rock, and it might be a fossil. For example, even though it looks like a discarded peach pit, this is actually a fossil walnut that is about 700,000 years old, and it came from mud that looks much like some of the sediment in the project area.

When they are covered with dirt, fossils are never as obvious as these specimens. Here we have a shoulder blade of the extinct North American camel.



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## **What To Do if a Fossil Discovery is Made**

It is important to remember that, like the Cultural Resources Monitor, the Paleontological Resource Specialist has the authority to direct that excavations stop near any fossil find. If you think you've discovered something, the first thing you should do is stake off the site of the find for heavy-equipment avoidance as well as for the safety of the crew investigating the discovery. Then the project paleontologist will determine whether something scientifically significant has actually been found. If so, the avoidance barrier will stay up until the find is scientifically recovered, while excavation work can continue in other areas away from the find.

Do not congregate near the find or impede the scientists investigating the find in any way—they're working to get it out of the way as quickly as possible while recovering its scientific values as required by law.

To repeat: construction excavations can continue elsewhere while the fossil find is assessed and removed. Depending on the nature of the sediment, steps might also be taken to remove and save a sample of the dirt for later screening for small bones and teeth. After scientific recovery is completed, the avoidance barrier will be taken down and you or your supervisor will be informed that you may resume work there. The delay while recovery takes place will be kept as short as possible to scientifically recover the fossil find.

So if you think you've found a fossil, leave it where it is, contact the archaeological monitor or your construction supervisor and divert construction activities away from the find. If an archaeological monitor is not immediately available, stake and flag it yourself in such a way that others will know not to enter that area. Use construction avoidance fencing, or lathe and construction avoidance tape, to create an exclusion zone where the fossil find can be protected until removed, and where the paleontologists can work to clear the find without having to worry about heavy equipment.

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## Your Responsibility

LECEF is committed to the protection of fossil resources. **Remember: it is your duty to help with this protection effort.** If you think you have found a fossil, stop work in the immediate area and notify the Environmental Compliance Manager and/or the Archaeological Resources Monitor so that your “find” can be evaluated as quickly as possible.

The following state and federal laws and regulations affect the management of paleontological resources:

- Federal Antiquities Act of 1906
- California Environmental Quality Act
- California Public Resources Code (Sections 5097.5 and 5097.9)

Violation of these regulations is punishable by civil and criminal penalties, including both fines and/or imprisonment, and could result in the revocation of project certification and shut-down of the project at the direction of the appropriate state agency.

## Conclusion

There is the potential for anyone involved with the excavation at the LECEF site or its natural gas pipeline to find paleontological resources. These resources have considerable value to us all and once removed, that value is diminished. Protect yourself, your supervisor, and your company from legal and financial liability by reporting all possible finds of historic and prehistoric remains.

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## Stormwater Management

Polluted runoff can negatively impact birds, aquatic life, livestock, recreation, pipe systems, navigation in waterways, and sources of drinking water. The primary stormwater pollutant at construction sites is excess sediment. At the national level, the U.S. EPA states that 40% of all U.S. waters are not fishable or swimmable, and has identified sediment from construction sites as the #1 non-point source pollutant. Sediment also transports other pollutants such as pesticides, metals, and oils and greases.



National Pollutant Discharge Elimination System General Permit Order No. 2009-0009-DWQ, also known as the Construction General Permit, regulates discharges of pollutants in stormwater discharges to waters of the U.S. from construction sites that disturb one or more acres of land surface. It is illegal to pollute local waterways, and fines and criminal charges are becoming more common. Members of regulatory agencies with jurisdiction over stormwater discharges from a construction site, such as the Regional Water Quality Control Board, can arrive at the site unannounced at any time to inspect all areas for compliance with the Construction General Permit.

### The Stormwater Pollution Prevention Plan

A Stormwater Pollution Prevention Plan, also known as a SWPPP, was developed to address the construction activities associated with the LECEF project and identify Best Management Practices (BMPs), for stormwater pollution prevention. Adherence by you to the BMPs is required in order to keep the project site in compliance with applicable regulations and prevent the levying of fines or even an Immediate Cease and Desist Order.

The Site Supervisor has primary responsibility for the implementation, inspection, and maintenance of the BMPs identified in the SWPPP. BMPs implemented on-site include controls for erosion, sedimentation, tracking, wind erosion, non-stormwater discharges, and waste management.

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## Best Management Practices

Erosion control, also referred to as soil stabilization, is a source control measure that is designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Erosion control BMPs protect the soil surface by covering or binding soil particles. Examples of erosion controls are the use of mulch or geotextiles.

- Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. Examples of sediment controls are the use of silt fence or fiber rolls.



- Tracking controls prevent sediment and other loose construction materials from being tracked off the project site. An example of a tracking control is the use of a stabilized construction entrance or exit.

- Dust erosion control measures, such as watering the disturbed areas at the construction site, are implemented to minimize the wind-blown loss of soil from the site.
- Non-stormwater control measures address the storage, use, and disposal of materials such as vehicle fluids and curing compounds.
- Waste management controls manage the various waste streams generated from construction activities, such as the disposal of excess concrete.



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## **Worker Responsibilities**

At the job site, you can assist in the effort to prevent pollutant-laden stormwater from discharging off-site by:

- Installing fencing to protect sensitive resources and limit construction areas in coordination with the Site Supervisor and Biological Monitor. Respect the boundaries of these fenced areas, and only open or remove them upon direction of the Site Supervisor and Biological Monitor.
- Installing fiber rolls, silt fence, covers on stockpiled materials, and other BMPs as directed by the Site Supervisor.
- Only moving, adjusting, or removing BMPs in coordination with the Site Supervisor.
- Immediately contacting the Site Supervisor if you see fiber rolls, silt fence, or other BMPs in need of maintenance or repair.

To minimize dust:

- Drive vehicles onsite at the posted speed limit.
- Use the stabilized construction entrances/exits to prevent dirt on tires from being tracked-out onto public or paved roads.
- Inspect equipment vehicle tires and wash as necessary to be free of dust prior to entering paved roadways.
- Sweep or vacuum tracked dirt from paved roads daily and as directed by the Air Quality Construction Mitigation Manager.
- Water the project site as directed by the Site Supervisor to control dust associated with vehicle traffic and construction activities.
- Cover and berm stockpiles of loose construction materials, such as soil, that are not actively being used.

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To minimize the potential of a release of pollutants into stormwater:

- Use the designated concrete washout area, material storage areas, and vehicle maintenance and fueling areas as specified in the SWPPP.
- Walk, drive, and park only in designated areas and paths.
- Inspect your vehicles and equipment daily for leaks, and report leaks to the Site Supervisor.
- Refuel equipment or vehicles only in designated areas.
- Use drip pans or absorbent pads for all vehicle and equipment maintenance activities that involve grease, oil, solvents or other vehicle fluids.
- Wash equipment and vehicles only in designated areas. When feasible, wash them off-site.
- Store all materials only in their designated areas.
- Put all waste materials only in their respective designated containers.
- Close disposal containers, including trash bins, at the end of every business day and during a rain event.
- Use the designated concrete washout area when needing to wash out concrete trucks or dispose of Portland Cement Concrete or Asphalt Concrete waste.
- Park paving equipment over plastic when not in use.
- Check with the Site Supervisor before you discharge groundwater or any wastewater.
- Report leaks, spills or discovery of contaminated soil immediately to the Site Supervisor. Implement clean-up procedures as directed.

To help with the detection of pollutants in stormwater:

- Immediately report any dirty water or sedimentation or discharge of pollutants leaving the project site to the Site Supervisor.
- Immediately report the discovery of any debris in water areas to the Site Supervisor.

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## Contact Personnel

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### Biological Monitors

**Designated Biologist/Biological Monitor**, Todd Ellwood  
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**Biological Field Monitor**, Victor Leighton  
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### Cultural Resources Specialist and Monitor

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**Cultural Resources Monitor**, Natalie Lawson  
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### Paleontological Resources Monitor

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**Paleontological Resources Monitor**, Jaspal Saini  
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# Los Esteros Critical Energy Facility

