

Mailing Address: 4636 Missouri Flat Road Placerville, CA 95667 Phone: 916-616-6393

September 9, 2019

RECEIVED

SEP 1 3 2019

Habitat Conservation Planning Branch California Department of Fish and Wildlife Attention: CESA Permitting Program Post Office Box 944209 Sacramento, CA 94244-2090 HABITAT CONSERVATION PLANNING BRANCH

Subject: Fully Executed Incidental Take Permit for PG&E Burson Road Gas Distribution HPR Replacement #31245971, Incidental Take Permit Number 2081-2018-020-02

Dear sir or madam:

Pacific Gas and Electric Company (PG&E) hereby submits an original copy of the fully executed California Department of Fish and Wildlife (CDFW) Incidental Take Permit (2081(b)) for PG&E Burson Road Gas Distribution HPR Replacement #31245971, Incidental Take Permit Number 2081-2018-020-02.

Please contact me at (916) 616-6393 if you have any questions or need additional information. Thank you.

Sincerely,

Lourraine Corcoran

Senior Terrestrial Biologist

Attachment:

cc:

 Fully Executed CDFW Incidental Take Permit (2081(b)) for PG&E Burson Road Gas Distribution HPR Replacement #31245971, Incidental Take Permit Number 2081-2018-020-02

Jamie Hoffman, Supervisor, Projects South and HCP



California Department of Fish and Wildlife North Central Region 1701 NIMBUS ROAD RANCHO CORDOVA, CA 95670

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SEP 1 3 2019 California Endangered Species Act Incidental Take Permit No. 2081-2018-020-02

HABITAT CONSERVATION PLANNING BRANCH

PG&E BURSON ROAD GAS DISTRIBUTION

Authority: This California Endangered Species Act (CESA) Incidental Take Permit (ITP) is issued by the California Department of Fish and Wildlife (CDFW) pursuant to Fish and Game Code section 2081, subdivisions (b) and (c), and California Code of Regulations, Title 14, section 783.0 et seq. CESA prohibits the take¹ of any species of wildlife designated by the California Fish and Game Commission as an endangered, threatened, or candidate species.² CDFW may authorize the take of any such species by permit if the conditions set forth in Fish and Game Code section 2081, subdivisions (b) and (c) are met. (See Cal. Code Regs., tit. 14, § 783.4).

Permittee:

Pacific Gas & Electric Company

Principal Officer:

Jaime Hoffman

Contact Person:

Lourraine Corcoran, (916) 616-6393

Mailing Address:

4636 Missouri Flat Road Placerville, CA 95667

Effective Date and Expiration Date of this ITP:

This ITP shall be executed in duplicate original form and shall become effective once a duplicate original is acknowledged by signature of the Permittee on the last page of this ITP and returned to CDFW's Habitat Conservation Planning Branch at the address listed in the Notices section of this ITP. Unless renewed by CDFW, this ITP's authorization to take the Covered Species shall expire on **October 31, 2020**.

Notwithstanding the expiration date on the take authorization provided by this ITP, Permittee's obligations pursuant to this ITP do not end until CDFW accepts as complete the Permittee's Final Mitigation Report required by Condition of Approval 4.7 of this ITP.

² The definition of an endangered, threatened, and candidate species for purposes of CESA are found in Fish and Game Code sections 2062, 2067, and 2068, respectively.

Rev. 2015.3.17.

¹Pursuant to Fish and Game Code section 86, "take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (See also *Environmental Protection Information Center v. California Department of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 507 [for purposes of incidental take permitting under Fish and Game Code section 2081, subdivision (b), "'take' ... means to catch, capture or kill"].)

Project Location:

The PG&E Burson Road Gas Distribution Project (Project) is located at three separate locations within the County of Calaveras (See Attachment 1). Location 1 is located at 5757 Carol Lane; approximately 2.5 miles west of Valley Springs; at approximately 38.173449°, -120.872377°. Location 2 is located at 2222 Quail Oaks Road; approximately 2 miles west of Valley Springs; at approximately 38.178947°, -120.867468°. Location 3 is located at 1842 North Ranchero Road; approximately 2 miles east of Valley Springs; at approximately 38.192034°, -120.792095°.

Project Description:

The Project includes replacing three high-pressure regulators (HPR) and three fire valves at three separate locations and deactivating and replacing approximately 880 feet of natural gas distribution line. The deactivated line will be abandoned in place. Installation of new line will be performed through open trench at one location and horizontal directional drill (HDD) at the other two locations.

It is anticipated that the Project's construction will include the use of pickup trucks with trailers, a rubber-tired or steel tracked backhoe or mini excavator, a dump truck, HDD equipment, pavement saw-cutting equipment, soil backfill compaction equipment, and hand tools.

Access, staging and parking will be on existing roads and disturbed/developed areas to the extent possible. Some off-road access and staging will be necessary.

Construction will take approximately six working days at each of the three locations and will take place during daylight hours only. The sequence of Project activities at each site will consist of staging, ground excavation, removal and installation, testing, and restoration.

Work activities at each of the three locations will include the following:

Location 1 – A 5-foot by 5-foot bell hole and an 18-inch wide by 40-foot long by 4-foot deep trench will be excavated, all of which will be backfilled and restored to pre-Project conditions. The only permanent above-ground structures are the HPR valve (approximately 2 feet by 3 feet in size) and the fire valve cover (an approximately 1-foot diameter circle flush with the ground), which replace existing structures of approximately the same size and footprint.

Locations 2 and 3 – Two 5-foot by 5-foot bell holes will be excavated at each location and new 400-foot gas lines will be installed via HDD at a depth of 7 feet or deeper. The bell holes will be backfilled and restored to pre-Project conditions. The only permanent above-ground structures are the HPR valves (approximately 2 feet by 3 feet in size) and the fire valve covers (an approximately 1-foot diameter circle flush with the ground), which replace existing structures of approximately the same size and footprint.

Project activities include foot traffic; on-road and off-road access; vehicle and equipment parking and staging; excavation with a mini excavator, backhoe, or hand tools; horizontal directional drill; removal of old equipment; installation of new equipment; backfill of open excavations; and restoration to pre-Project conditions.

Covered Species Subject to Take Authorization Provided by this ITP:

This ITP covers the following species:

Name CESA Status

California tiger salamander, (Amystoma californiense)

Threatened

1. California tiger salamander (Ambystoma californiense)

Threatened³

This species and only this species is the "Covered Species" for the purposes of this ITP.

Impacts of the Taking on Covered Species:

Project activities and their resulting impacts are expected to result in the incidental take of individuals of the Covered Species. The activities described above expected to result in incidental take of individuals of the Covered Species include foot traffic; on-road and off-road access; vehicle and equipment parking and staging; excavation with a mini excavator, backhoe, or hand tools; horizontal directional drilling; removal of old equipment; installation of new equipment; backfill of open excavations; and restoration to pre-Project conditions (Covered Activities).

Incidental take of individuals of the Covered Species in the form of mortality ("kill") may occur as a result of Covered Activities such as individual Covered Species being crushed by foot traffic; from vehicles driving on or off roads for access, parking, and staging; from excavation with a mini excavator, backhoe, or hand tools into occupied burrows; from the horizontal directional drill piercing occupied burrows; by accidental burial when excavations are backfilled; by injuries sustained during removal and replacement of equipment; or by euthanasia if a Covered Species is injured so severely that it cannot be rehabilitated. Incidental take of individuals of the Covered Species may also occur from the Covered Activities in the form of "capture" of the Covered Species if Covered Species individuals become trapped or injured and need to be relocated. The areas where authorized take of the Covered Species is expected to occur include: a 40-foot by 80-foot area at 5757 Carol Lane (approximately 38.173449°, -120.872377°); a 40-foot by 400-foot area at 2222 Quail Oaks Road (approximately 38.178947°, -120.867468°); and a 40-foot by 400-foot area at North Ranchero Road (approximately 38.192034°, -120.792095) [collectively, the Project Area].

³See Cal. Code Regs. tit. 14 § 670.5, subd. (b)(3)(G).

The Project is expected to cause the temporary loss of 0.81 acres of habitat for the Covered Species. Impacts of the authorized taking also include adverse impacts to the Covered Species related to temporal losses, increased habitat fragmentation and edge effects, and the Project's incremental contribution to cumulative impacts (indirect impacts). These impacts include: stress resulting from noise and vibrations, and from capture, handling, and relocation; long-term effects due to increased pollution; displacement from preferred habitat; and increased vulnerability to predation.

Incidental Take Authorization of Covered Species:

This ITP authorizes incidental take of the Covered Species and only the Covered Species. With respect to incidental take of the Covered Species, CDFW authorizes the Permittee, its employees, contractors, and agents to take Covered Species incidentally in carrying out the Covered Activities, subject to the limitations described in this section and the Conditions of Approval identified below. This ITP does not authorize take of Covered Species from activities outside the scope of the Covered Activities, take of Covered Species outside of the Project Area, take of Covered Species resulting from violation of this ITP, or intentional take of Covered Species except for capture and relocation of Covered Species as authorized by this ITP.

Conditions of Approval:

Unless specified otherwise, the following measures apply to all Covered Activities within the Project Area, including areas used for access, staging, and parking. CDFW's issuance of this ITP and Permittee's authorization to take the Covered Species are subject to Permittee's compliance with and implementation of the following Conditions of Approval:

- 1. Legal Compliance: Permittee shall comply with all applicable federal, state, and local laws in existence on the effective date of this ITP or adopted thereafter.
- 2. ITP Time Frame Compliance: Permittee shall fully implement and adhere to the conditions of this ITP within the time frames set forth below and as set forth in the Mitigation Monitoring and Reporting Program (MMRP), which is included as Attachment 2 to this ITP.

3. General Provisions:

3.1. <u>Designated Representative</u>. Before starting Covered Activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with this ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP.

- 3.2. <u>Designated Biologist</u>. Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of a biological monitor (Designated Biologist) before starting Covered Activities. Permittee shall ensure that the Designated Biologist is knowledgeable and experienced in the biology, natural history, collecting, and handling of the Covered Species. The Designated Biologist shall be responsible for monitoring Covered Activities to help minimize and fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat. Permittee shall obtain CDFW approval of the Designated Biologist in writing before starting Covered Activities and shall also obtain approval in advance in writing if the Designated Biologist must be changed.
- 3.3. <u>Designated Biologist Authority</u>. To ensure compliance with the Conditions of Approval of this ITP, the Designated Biologist shall have authority to immediately stop any activity that does not comply with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species.
- 3.4. Education Program. Permittee shall conduct an education program for all persons employed or otherwise working in the Project Area before performing any work. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Permittee shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures.
- 3.5. <u>Construction Monitoring Notebook</u>. The Designated Biologist shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of this ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.
- 3.6. <u>Trash Abatement</u>. Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in animal-proof

- containers and removed at least once a week to avoid attracting opportunistic predators such as crows, coyotes, and feral dogs.
- 3.7. <u>Dust Control</u>. Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Designated Biologist. Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles.
- 3.8. <u>Erosion Control Materials</u>. Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting (erosion control matting) or similar material, in potential Covered Species' habitat.
- 3.9. <u>Delineation of Property Boundaries</u>. Before starting Covered Activities in each Project location, Permittee shall clearly delineate the boundaries of the Project Area with fencing, stakes, or flags. Permittee shall restrict all Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of Covered Activities in that location.
- 3.10. <u>Delineation of Habitat</u>. Permittee shall clearly delineate habitat, potential burrow entrances, and a buffer of at least 20 feet around the potential burrow entrances of the Covered Species within the Project Area with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat.
- 3.11. Project Access. Project-related personnel shall access the Project Area using existing routes or routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to this ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.
- 3.12. <u>Staging Areas</u>. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 3.11 of this ITP.

- 3.13. <u>Hazardous Waste</u>. Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.
- 3.14. <u>CDFW Access</u>. Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in this ITP.
- 3.15. <u>Refuse Removal</u>. Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.

4. Monitoring, Notification and Reporting Provisions:

- 4.1. Notification Before Commencement. The Designated Representative shall notify CDFW 3 business days before starting Covered Activities and shall document compliance with all pre-Project Conditions of Approval before starting Covered Activities.
- 4.2. Notification of Non-compliance. The Designated Representative shall immediately notify CDFW in writing if it determines that the Permittee is not in compliance with any Condition of Approval of this ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in this ITP and/or the MMRP. The Designated Representative shall report any non-compliance with this ITP to CDFW within 24 hours.
- 4.3. Compliance Monitoring. The Designated Biologist shall be on-site daily when Covered Activities occur. The Designated Biologist shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of this ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections, observations of Covered Species and their sign, survey results, and monitoring activities required by this ITP.

- 4.4. Quarterly Compliance Report. The Designated Representative or Designated Biologist shall compile the observation and inspection records identified in Condition of Approval 4.3 into a Quarterly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to the CDFW offices listed in the Notices section of this ITP and via e-mail to CDFW's Regional Representative and Headquarters CESA Program. At the time of this ITP's approval, the CDFW Regional Representative is CESA Desk, (R2CESA@wildlife.ca.gov) and Headquarters CESA Program email is CESA@wildlife.ca.gov. CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.
- 4.5. <u>Annual Status Report</u>. Permittee shall provide CDFW with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of this ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports for that year identified in Condition of Approval 4.4; (2) a general description of the status of the Project Area and Covered Activities, including actual or Projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) an accounting of the number of acres subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance; and (7) information about other Project impacts on the Covered Species.
- 4.6. <u>CNDDB Observations</u>. The Designated Biologist shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDB) within 60 calendar days of the observation and the Designated Biologist shall include copies of the submitted forms with the next Quarterly Compliance Report or ASR, whichever is submitted first relative to the observation.
- 4.7. <u>Final Mitigation Report</u>. No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Designated Biologist shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related

incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of this ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.

4.8. Notification of Take or Injury. Permittee shall immediately notify the Designated Biologist if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Designated Biologist or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (916) 358-2930. The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.

5. Take Minimization Measures:

The following requirements are intended to ensure the minimization of incidental take of Covered Species in the Project Area during Covered Activities. Permittee shall implement and adhere to the following conditions to minimize take of Covered Species:

- 5.1. Work During Dry Weather. Permittee shall limit Covered Activities to periods of dry weather (i.e. less than 30 percent chance of rain forecast by the National Weather Service). Covered Activities may resume 72 hours after the rain ceases, when there is less than 30 percent chance of rain in the 24-hour forecast, and when humidity is below 75 percent. Both rainfall and humidity records shall be kept onsite and are subject to inspection.
- 5.2. Work During Dry Season. Permittee shall limit Covered Activities to the dry season of May 1 through October 31 to the greatest extent possible.
- 5.3. Work During Daylight Hours. Permittee shall limit Covered Activities to 30 minutes after sunrise through 30 minutes prior to sunset.
- 5.4. <u>Avoid Potential Burrows</u>. Permittee shall avoid potential Covered Species burrows, as well as a buffer of at least 20 feet around the potential burrow entrances, to the greatest extent possible. If a potential Covered Species burrow is unavoidable, the Designated Biologist shall excavate the burrow by hand.

- 5.5. Monofilament Netting. Permittee shall prohibit the use of monofilament netting, which poses an entanglement hazard to the Covered Species. Permittee shall inspect and repair monofilament netting used for nesting deterrence to prevent it from reaching ground level where it could become entangled.
- 5.6. <u>Soil Stockpiles.</u> Permittee shall ensure that soil stockpiles are placed where soil will not pass into potential Covered Species breeding pools or into any other "Waters of the State," in accordance with Fish and Game Code section 5650. Permittee shall appropriately protect stockpiles to prevent soil erosion. Permittee shall ensure that stockpiles are not placed over potential Covered Species burrows, unless the burrows have been excavated as described in Condition of Approval 5.4.
- 5.7. Cover Excavations. Permittee shall cover any excavations left overnight or longer with plywood or similar material. The edges of the covering shall be covered with tightly packed dirt in order to prevent Covered Species or other wildlife from crawling under the covering and falling into the excavation. If any excavations cannot be covered tightly enough to exclude Covered Species, Permittee shall instead install escape ramps within the excavations at the end of each workday. Escape ramps shall be built of wooden boards or packed earth and shall have an incline angle of no more than 30°.
- 5.8. Covered Species Encounters. Uninjured Covered Species encountered during construction activities and within Project activity boundaries shall be allowed to move away from the area on their own volition. Capture and relocation of trapped or injured individuals shall be attempted only by the Designated Biologist and in accordance with the instructions provided in Conditions of Approval 5.9, 5.10, and 5.11. Proper species identification must be made prior to any capture or handling. Each time a Covered Species is encountered, the Designated Biologist shall submit a completed CNDDB field survey form to CDFW no more than 30 days after the encounter. For each Covered Species encounter, the Designated Biologist(s) shall record the following documented information: the date, time, and location of each occurrence using Global Positioning System (GPS) technology; the name of the party that actually identified the Covered Species; circumstances of the incident; the general condition and health of each individual; any diagnostic markings, sex, age Juvenile or adult; actions undertaken; and habitat description. This information shall be included in the next Quarterly or Annual Status Report, or Final Mitigation Report, whichever is submitted first relative to the encounter.
- 5.9. <u>Capture and Handling.</u> Covered Species shall be handled using methodology described in the Guide to the Restraint and Handling of Live Amphibians (Attachment 6). If any person discovers a trapped or injured Covered Species in the Project Area, the Designated Biologist(s) shall capture it and place the Covered Species in a dark, clean plastic container of suitable size (e.g., enough room so the animal can move

- freely). The container shall be thoroughly cleaned and disinfected prior to being transported to the Project Area and shall be rinsed with fresh water onsite immediately prior to usage unless doing so would result in injury or death of an individual due to the time delay. The Designated Biologist(s) shall wear sterile gloves while handling Covered Species. The Designated Biologist(s) shall keep the container moist with damp paper towels, soft foam rubber, or soap-free natural or synthetic sponge. Containers used for holding or transporting shall not contain any standing water. The lids of the containers shall have small air holes for ventilation. Sponges shall not be reused and all other housing materials shall be disinfected between occupants. The Designated Biologist(s) shall place only one animal in each plastic container. The Designated Biologist(s) shall keep individual plastic containers containing the Covered Species in an ice chest, and place ice packs on top of the containers to maintain a cool temperature comparable to a refrigerator. The Designated Biologist(s) shall keep the ice chests in a cool, dark, quiet, secure place and release the Covered Species as soon as possible.
- 5.10. Relocation Conditions. Permittee shall develop a Relocation Plan outlining how and where Covered Species will be moved if necessary and submit it to CDFW for approval prior to starting Covered Activities. The Relocation Plan shall identify the relative location and quality of suitable habitat (e.g., breeding, upland, and dispersal habitat) including photographs of the habitat and a description of vegetation present, available upland burrows, and potential barriers for movement. The Designated Biologist(s) shall relocate any Covered Species within the Project Areas impacted by Covered Activities to a suitable burrow system or appropriate breeding pond described in the Relocation Plan, unless otherwise approved in advance by CDFW. The Designated Biologist(s) shall follow the Capture and Handling measures outlined in this ITP.
- 5.11. Covered Species Injury. Permittee shall immediately notify the Designated Biologist(s) if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Designated Biologist(s) will provide initial notification to CDFW by calling the Regional Office. The initial notification shall identify the location, species, and number of animals taken or injured and the ITP tracking number. Following initial notification, Permittee shall send CDFW a written report within two calendar days of the discovery. The report shall include the date and time of the finding or incident, GPS location of the Covered Species, photographs of the location and the Covered Species, explanation as to the cause of take or injury, and any other pertinent information. Injured Covered Species shall be treated or euthanized according to the instructions in the Guide to the Restraint and Handling of Live Amphibians (Attachment 6).
 - 5.11.1. If the Covered Species is found recently deceased, Permittee shall immediately bag the carcass, label it, and preserve it in a freezer. The label shall

include time and date, GPS location, circumstances surrounding death (if known), and ITP number. Permittee shall deliver specimens to the CDFW Wildlife Investigation Lab, Attention: Deana Clifford, 1701 Nimbus Road Suite D, Rancho Cordova, CA, 95670 within two calendar days of the discovery.

- 5.12. Covered Species Checks. Before the start of work each morning during construction activities covered by this ITP, the Designated Biologist(s) will check for Covered Species under all vehicles, equipment, materials, all excavated open holes, pumps, and trenches or otherwise suitable locations for Covered Species to hide. If a Covered Species is found, the Designated Biologist(s) will wait for the individual to move unimpeded to a safe location. If the individual is trapped or injured, the Designated Biologist(s) shall move the individual according to the approved Relocation Plan and Conditions of Approval 5.9, 5.10, and 5.11.
- 5.13. Covered Species in Work Area. During all phases of Project construction, if Covered Species is found by any person in the work area before or during Covered Activities, all work that could potentially harm the Covered Species shall stop immediately until the Designated Biologist(s) can relocate the Covered Species following the approved Relocation Plan (see Condition of Approval 5.10). The relocation area(s) shall be identified in the Relocation Plan by the Designated Biologist(s) and are subject to CDFW approval. The Designated Biologist(s) shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDB) within 30 calendar days of the observation and the Designated Biologist(s) shall include copies of the submitted forms with the next Quarterly or Annual Status Report, whichever is submitted first relative to the observation.

6. Habitat Management Land Acquisition and Restoration:

CDFW has determined that permanent protection and perpetual management of compensatory habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result with implementation of the Covered Activities. This determination is based on factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation.

To meet this requirement, the Permittee shall either purchase 0.81 acres of Covered Species credits from a CDFW-approved mitigation or conservation bank (Condition of Approval 6.2) OR shall provide for both the permanent protection and management of 0.81 acres of Habitat Management (HM) lands pursuant to Condition of Approval 6.3 below and the calculation and deposit of the management funds pursuant to Condition of Approval 6.4 below. Permanent protection and funding for perpetual management of compensatory habitat must be complete before starting Covered Activities, or within 18 months of the effective date of this ITP if Security is provided pursuant to Condition of Approval 7 below

for all uncompleted obligations. The Permittee shall also restore on-site 0.81 acres of temporarily impacted Covered Species habitat pursuant to Condition of Approval 6.6 below.

- 6.1. <u>Cost Estimates</u>. CDFW has estimated the cost of acquisition, protection, and perpetual management of the Habitat Mitigation (HM) lands and restoration of temporarily disturbed habitat as follows:
 - 6.1.1. Land acquisition costs for HM lands identified in Condition of Approval 6.3 below, estimated at \$13,090.55/acre for 0.81 acres: \$10,603.35. Land acquisitions costs are estimated using local fair market current value for lands with habitat values meeting mitigation requirements;
 - 6.1.2. Start-up costs for HM lands, including initial site protection and enhancement costs as described in Condition of Approval 6.3.5 below, estimated at \$10,000;
 - 6.1.3. Interim management period funding as described in Condition of Approval 6.3.6 below, estimated at \$6,075.00;
 - 6.1.4. Long-term management funding as described in Condition of Approval 6.4 below, estimated at \$5,000/acre for 0.81 acres: \$4,050.00. Long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management;
 - 6.1.5. Related transaction fees including but not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW as described in Condition of Approval 6.5, estimated at \$4,609.25;
 - 6.1.6. Restoration of on-site temporary effects to Covered Species habitat as described in Condition of Approval 6.6, calculated at \$800.00/acre for 0.81 acres: \$648.00.
- 6.2. <u>Covered Species Credits</u>. Permittee shall purchase 0.81 acres of Covered Species credits from a CDFW-approved mitigation or conservation bank prior to initiating Covered Activities, or no later than 18 months from the issuance of this ITP if Security is provided pursuant to Condition of Approval 7 below.

OR:

6.3. <u>Habitat Acquisition and Protection</u>. To provide for the acquisition and perpetual protection and management of the HM lands, the Permittee shall:

- 6.3.1. Fee Title/Conservation Easement. Transfer fee title to the HM lands to CDFW pursuant to terms approved in writing by CDFW. Alternatively, CDFW, in its sole discretion, may authorize a governmental entity, special district, non-profit organization, for-profit entity, person, or another entity to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended, If CDFW does not hold fee title to the HM lands, CDFW shall act as grantee for a conservation easement over the HM lands or shall, in its sole discretion, approve a non-profit entity, public agency, or Native American tribe to act as grantee for a conservation easement over the HM lands provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3. If CDFW does not hold the conservation easement, CDFW shall be expressly named in the conservation easement as a third-party beneficiary. The Permittee shall obtain CDFW written approval of any conservation easement before its execution or recordation. No conservation easement shall be approved by CDFW unless it complies with Government Code sections 65965-65968, as amended and includes provisions expressly addressing Government Code sections 65966(i) and 65967(e):
- 6.3.2. <u>HM Lands Approval</u>. Obtain CDFW written approval of the HM lands before acquisition and/or transfer of the land by submitting, at least three months before acquisition and/or transfer of the HM lands, a formal Proposed Lands for Acquisition Form (see Attachment 3B) identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the Project's impacts on Covered Species;
- 6.3.3. <u>HM Lands Documentation</u>. Provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents (see Attachment 3A). All documents conveying the HM lands and all conditions of title are subject to the approval of CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services;
- 6.3.4. <u>Land Manager</u>. Designate both an interim and long-term land manager approved by CDFW. The interim and long-term land managers may, but need not, be the same. The interim and/or long-term land managers may be the landowner or another party. Documents related to land management shall identify both the interim and long-term land managers. Permittee shall notify CDFW of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW will also act as both the interim and long-term land manager unless otherwise specified;
- 6.3.5. <u>Start-up Activities</u>. Provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have

been approved by CDFW. Start-up activities include, at a minimum: (1) preparing a final management plan for CDFW approval (see http://www.dfg.ca.gov/habcon/conplan/mitbank/); (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) establishing initial fencing; (5) conducting litter removal; (6) conducting initial habitat restoration or enhancement, if applicable; and (7) installing signage.

- 6.3.6. Interim Management (Initial and Capital). Provide for the interim management of the HM lands. The Permittee shall ensure that the interim land manager implements the interim management of the HM lands as described in the final management plan and conservation easement approved by CDFW. The interim management period shall be a minimum of three years from the date of HM land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, and vegetation and invasive species management. Permittee shall either (1) provide a security to CDFW for a minimum of three years of interim management that the land owner, Permittee, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by CDFW to pay the land manager annually in advance, or (3) establish a short-term enhancement account with CDFW or a CDFW-approved entity for payment to the land manager.
- 6.4. Endowment Fund. If the Permittee will permanently protect and perpetually manage compensatory habitat as described in Condition of Approval 6.3, the Permittee shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this ITP, the conservation easement, and the final management plan approved by CDFW. After obtaining CDFW approval of the HM lands, Permittee shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CDFW-approved fund that provides funds for the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with the management plan(s) required by Condition of Approval 6.3.5. Endowment as used in this ITP shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

After the interim management period, Permittee shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with this ITP, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.

- 6.4.1. Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be either CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended, Permittee shall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or. in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e). Within thirty days of CDFW's receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it determines the proposal does not satisfy the requirements of Fish and Game Code section 2081(b)(4) and. if so, shall provide Permittee with a written explanation of the reasons for its determination. If CDFW does not provide Permittee with a written determination within the thirty-day period, the proposal shall be deemed consistent with section 2081(b)(4);
- 6.4.2. Calculate the Endowment Funds Deposit. After obtaining CDFW written approval of the HM lands, long-term management plan, and Endowment Manager, Permittee shall prepare a Property Analysis Record (PAR) [or PARequivalent analysis (hereinafter "PAR")] to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). The Permittee shall submit to CDFW for review and approval the results of the PAR before transferring funds to the Endowment Manager.
 - 6.4.2.1. <u>Capitalization Rate and Fees</u>. Permittee shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the PAR and adjust for any additional administrative, periodic, or annual fees.
 - 6.4.2.2. Endowment Buffers/Assumptions. Permittee shall include in PAR assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment:

- 6.4.2.2.1. 10 Percent Contingency. A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.
- 6.4.2.2.2. <u>Three Years Delayed Spending</u>. The endowment shall be established assuming spending will not occur for the first three years after full funding.
- 6.4.2.2.3. <u>Non-annualized Expenses</u>. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and CDFW.
- 6.4.3. <u>Transfer Long-term Endowment Funds</u>. Permittee shall transfer the long-term endowment funds to the Endowment Manager upon CDFW approval of the Endowment Deposit Amount identified above. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of the Covered Species but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.
- 6.5. <u>Reimburse CDFW</u>. Permittee shall reimburse CDFW for all reasonable expenses incurred by CDFW such as transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW.
- 6.6. <u>Habitat Restoration</u>. Permittee shall restore on-site the 0.81 acres of Covered Species habitat that will be temporarily disturbed during construction to pre-Project or better conditions by seeding the disturbed areas with locally native grass seed. Permittee shall obtain CDFW's written approval of the seed mix prior to applying it.

7. Performance Security

The Permittee may proceed with Covered Activities only after the Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 6 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows:

7.1. Security Amount. The Security shall be in the amount of \$35,985.60. This amount is based on the cost estimates identified in Condition of Approval 6.1 above.

- 7.2. <u>Security Form</u>. The Security shall be in the form of an irrevocable letter of credit (see Attachment 4) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel.
- 7.3. <u>Security Timeline.</u> The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of this ITP, whichever occurs first.
- 7.4. <u>Security Holder</u>. The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW.
- 7.5. <u>Security Transmittal</u>. If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (see Attachment 5) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other.
- 7.6. <u>Security Drawing</u>. The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that the Permittee has failed to comply with the Conditions of Approval of this ITP.
- 7.7. <u>Security Release</u>. The Security (or any portion of the Security then remaining) shall be released to the Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by:
 - · Written documentation of the acquisition of the HM lands;
 - · Copies of all executed and recorded conservation easements;
 - Written confirmation from the approved Endowment Manager of its receipt of the full Endowment; and
 - · Timely submission of all required reports.

Even if Security is provided, the Permittee must complete the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the effective date of this ITP. CDFW may require the Permittee to provide additional HM lands and/or additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the Permittee does not complete these requirements within the specified timeframe.

Amendment:

This ITP may be amended as provided by California Code of Regulations, Title 14, section 783.6, subdivision (c), and other applicable law. This ITP may be amended without the concurrence of the Permittee as required by law, including if CDFW determines that continued implementation of the Project as authorized under this ITP would jeopardize the continued existence of the Covered Species or where Project changes or changed biological

conditions necessitate an ITP amendment to ensure that all Project-related impacts of the taking to the Covered Species are minimized and fully mitigated.

Stop-Work Order:

CDFW may issue Permittee a written stop-work order requiring Permittee to suspend any Covered Activity for an initial period of up to 25 days to prevent or remedy a violation of this ITP, including but not limited to the failure to comply with reporting or monitoring obligations, or to prevent the unauthorized take of any CESA endangered, threatened, or candidate species. Permittee shall stop work immediately as directed by CDFW upon receipt of any such stop-work order. Upon written notice to Permittee, CDFW may extend any stop-work order issued to Permittee for a period not to exceed 25 additional days. Suspension and revocation of this ITP shall be governed by California Code of Regulations, Title 14, section 783.7, and any other applicable law. Neither the Designated Biologist nor CDFW shall be liable for any costs incurred in complying with stop-work orders.

Compliance with Other Laws:

This ITP sets forth CDFW's requirements for the Permittee to implement the Project pursuant to CESA. This ITP does not necessarily create an entitlement to proceed with the Project. Permittee is responsible for complying with all other applicable federal, state, and local law.

Notices:

The Permittee shall deliver a fully executed duplicate original ITP by registered first class mail or overnight delivery to the following address:

Habitat Conservation Planning Branch California Department of Fish and Wildlife Attention: CESA Permitting Program Post Office Box 944209 Sacramento, CA 94244-2090

Written notices, reports and other communications relating to this ITP shall be delivered to CDFW by registered first class mail at the following address, or at addresses CDFW may subsequently provide the Permittee. Notices, reports, and other communications shall reference the Project name, Permittee, and ITP Number (2081-2018-020-02) in a cover letter and on any other associated documents.

Original cover with attachment(s) to:

Kevin Thomas, Regional Manager c/o CESA Desk California Department of Fish and Wildlife North Central Region

1701 Nimbus Road Rancho Cordova, CA 95670 Telephone (916) 358-2930 Fax (916) 358-2912

and a copy to:

Habitat Conservation Planning Branch | California Department of Fish and Wildlife Attention: CESA Permitting Program Post Office Box 944209 Sacramento, CA 94244-2090

Unless Permittee is notified otherwise, CDFW's Regional Representative for purposes of addressing issues that arise during implementation of this ITP is:

CESA Desk 1701 Nimbus Road Rancho Cordova, CA 95670 Telephone (916) 358-2930 Fax (916) 358-2912

Compliance with CEQA:

CDFW's issuance of this ITP is statutorily exempt from CEQA [California Code of Regulations, title 14, sections 15269 (b) and (c)].

Findings Pursuant to CESA:

These findings are intended to document CDFW's compliance with the specific findings requirements set forth in CESA and related regulations. (Fish & G. Code § 2081, subs. (b)-(c); Cal. Code Regs., tit. 14, §§ 783.4, subds, (a)-(b), 783.5, subd. (c)(2).)

CDFW finds based on substantial evidence in the ITP application, the results of a site visit, consultations, and the administrative record of proceedings, that issuance of this ITP complies and is consistent with the criteria governing the issuance of ITPs pursuant to CESA:

- (1) Take of Covered Species as defined in this ITP will be incidental to the otherwise lawful activities covered under this ITP;
- (2) Impacts of the taking on Covered Species will be minimized and fully mitigated through the implementation of measures required by this ITP and as described in the MMRP. Measures include: (1) permanent habitat protection; (2) establishment of avoidance zones; (3) worker education; and (4) Quarterly Compliance Reports. CDFW evaluated

factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation. Based on this evaluation, CDFW determined that the protection and management in perpetuity of 0.81 acres of compensatory habitat that is contiguous with other protected Covered Species habitat and/or is of higher quality than the habitat being destroyed by the Project, along with the minimization, monitoring, reporting, and funding requirements of this ITP minimizes and fully mitigates the impacts of the taking caused by the Project;

- (3) The take avoidance and mitigation measures required pursuant to the conditions of this ITP and its attachments are roughly proportional in extent to the impacts of the taking authorized by this ITP;
- (4) The measures required by this ITP maintain Permittee's objectives to the greatest extent possible;
- (5) All required measures are capable of successful implementation;
- (6) This ITP is consistent with any regulations adopted pursuant to Fish and Game Code sections 2112 and 2114;
- (7) Permittee has ensured adequate funding to implement the measures required by this ITP as well as for monitoring compliance with, and the effectiveness of, those measures for the Project; and
- (8) Issuance of this ITP will not jeopardize the continued existence of the Covered Species based on the best scientific and other information reasonably available, and this finding includes consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population trends; (2) known threats to the species; and (3) reasonably foreseeable impacts on the species from other related projects and activities. Moreover, CDFW's finding is based, in part, on CDFW's express authority to amend the terms and conditions of this ITP without concurrence of the Permittee as necessary to avoid jeopardy and as required by law.

Attachments:	
ATTACHMENT 2 ATTACHMENT 3A, 3B	Maps of Project Mitigation Monitoring and Reporting Program Habitat Management Lands Checklist; Proposed Lands for Acquisition Form
ATTACHMENT 4 ATTACHMENT 5	Letter of Credit Form Mitigation Payment Transmittal Form Guide to the Restraint and Handling of Live Amphibians
ISSUED BY THE CALIFORNIA D	DEPARTMENT OF FISH AND WILDLIFE
on_ 9/4/2019	
	Kevin Thomas, Regional Manager North Central Region
	ACKNOWLEDGMENT
	at he or she is acting as a duly authorized representative of receipt of this ITP, and (3) agrees on behalf of the Permittee itions
By: Jaime Hoffman	n Date: 9/4/2019
Printed Name:	men Date: 9/4/2019 Ymen Title: Supervisor



Attachment 1

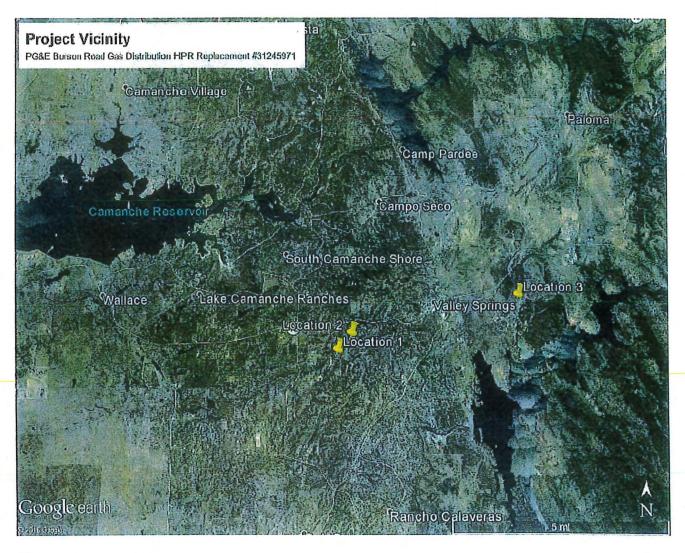


Figure 1. Project Vicinity.





Figure 2. Location 1 Project Area.





Figure 3. Location 2 Project Area.





Figure 4. Location 3 Project Area.

Attachment 2

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) CALIFORNIA ENDANGERED SPECIES ACT

INCIDENTAL TAKE PERMIT NO. 2081-2018-020-02

PERMITTEE:

Pacific Gas & Electric Company

PROJECT:

PG&E Burson Road Gas Distribution

PURPOSE OF THE MMRP

The purpose of the MMRP is to ensure that the impact minimization and mitigation measures required by the Department of Fish and Wildlife (CDFW) for the above-referenced Project are properly implemented, and thereby to ensure compliance with section 2081(b) of the Fish and Game Code and section 21081.6 of the Public Resources Code. A table summarizing the mitigation measures required by CDFW is attached. This table is a tool for use in monitoring and reporting on implementation of mitigation measures, but the descriptions in the table do not supersede the mitigation measures set forth in the California Incidental Take Permit (ITP) and in attachments to the ITP, and the omission of a permit requirement from the attached table does not relieve the Permittee of the obligation to ensure the requirement is performed.

OBLIGATIONS OF PERMITTEE

Mitigation measures must be implemented within the time periods indicated in the table that appears below. Permittee has the primary responsibility for monitoring compliance with all mitigation measures and for reporting to CDFW on the progress in implementing those measures. These monitoring and reporting requirements are set forth in the ITP itself and are summarized at the front of the attached table.

VERIFICATION OF COMPLIANCE, EFFECTIVENESS

CDFW may, at its sole discretion, verify compliance with any mitigation measure or independently assess the effectiveness of any mitigation measure.

1

TABLE OF MITIGATION MEASURES

The following items are identified for each mitigation measure: Mitigation Measure, Source, Implementation Schedule, Responsible Party, and Status/Date/Initials. The Mitigation Measure column summarizes the mitigation requirements of the ITP. The Source column identifies the ITP condition that sets forth the mitigation measure. The Implementation Schedule column shows the date or phase when each mitigation measure will be implemented. The Responsible Party column identifies the person or agency that is primarily responsible for implementing the mitigation measure. The Status/Date/Initials column shall be completed by the Permittee during preparation of each Status Report and the Final Mitigation Report, and must identify the implementation status of each mitigation measure, the date that status was determined, and the initials of the person determining the status.

Rev. 2013.1.1

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
BEF	FORE DISTURBING SOIL OR VEGETATION				
1	Before starting Covered Activities, Permittee shall designate a representative (Designater Representative) responsible for communications with CDFW and overseeing compliance the ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall CDFW in writing if a substitute Designated Representative is selected or identified at any during the term of the ITP.	with Condition # 3.1 notify	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Permittee	
2	Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of a biological monitor (Designated Biologist) before starting Covered Activities. Permittee shall ensure that the Designated Biologist is knowledgeable and experienced in the biology, natural history, collecting, and handling of the Covered Species Designated Biologist shall be responsible for monitoring Covered Activities to help minimi fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat. Permittee shall obtain CDFW approval of the Designated Biologist in writing before starting Covered Activities and shall also obtain appin advance in writing if the Designated Biologist must be changed.	cs. The ze and	Before commencing ground- or vegetation-disturbing activities	Permittee	
3	Permittee shall conduct an education program for all persons employed or otherwise work the Project Area before performing any work. The program shall consist of a presentation the Designated Biologist that includes a discussion of the biology and general behavior of Covered Species, information about the distribution and habitat needs of the Covered Spesensitivity of the Covered Species to human activities, its status pursuant to CESA includi legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in the ITP. Permittee shall provide interpretation for non-English species workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wall sized cards or a fact sheet handout containing this information for workers to carry in the Area. Upon completion of the program, employees shall sign a form stating they attended program and understand all protection measures.	from the acies, ng aking et-	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee / Designated Biologist	
4	Permittee shall initiate a trash abatement program before starting Covered Activities and scontinue the program for the duration of the Project. Permittee shall ensure that trash and items are contained in animal-proof containers and removed at least once a week to avoid attracting opportunistic predators such as crows, coyotes, and feral dogs.	food Condition	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
5	Permittee shall implement dust control measures during Covered Activities to facilitate vis for monitoring of the Covered Species by the Designated Biologist. Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles.		Before commencing ground- or vegetation-disturbing activities/	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
6	Before starting Covered Activities in each Project location, Permittee shall clearly delineate the boundaries of the Project Area with fencing, stakes, or flags. Permittee shall restrict all Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of Covered Activities in that location.	ITP Condition # 3.9	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
7	Permittee shall clearly delineate habitat, potential burrow entrances, and a buffer of at least 20 feet around the potential burrow entrances of the Covered Species within the Project Area with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat.	ITP Condition # 3.10	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
8	The Designated Representative shall notify CDFW 3 business days before starting Covered Activities and shall document compliance with all pre-Project Conditions of Approval before starting Covered Activities.	ITP Condition # 4.1	Before commencing ground- or vegetation-disturbing activities	Permittee / Designated Representative	
9	Permittee shall develop a Relocation Plan outlining how and where Covered Species will be moved if necessary and submit it to CDFW for approval prior to starting Covered Activities. The Relocation Plan shall identify the relative location and quality of suitable habitat (e.g., breeding, upland, and dispersal habitat) including photographs of the habitat and a description of vegetation present, available upland burrows, and potential barriers for movement. The Designated Biologist(s) shall relocate any Covered Species within the project areas impacted by Covered Activities to a suitable burrow system or appropriate breeding pond described in the Relocation Plan, unless otherwise approved in advance by CDFW. The Designated Biologist(s) shall follow the Capture and Handling measures outlined in the ITP.	ITP Condition # 5.10	Before commencing ground- or vegetation-disturbing activities / Entire Project	Permittee	
10	If Permittee is not acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall purchase 0.81 acres of Covered Species credits from a CDFW-approved mitigation or conservation bank prior to initiating Covered Activities, or no later than 18 months from the issuance of the ITP if Security is provided pursuant to Condition of Approval 7.	ITP Condition #6.2	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
11	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: To provide for the acquisition and protection of the HM lands, the Permittee shall transfer fee title to the HM lands to CDFW pursuant to terms approved by CDFW. Alternatively, a CDFW-approved non-profit organization qualified pursuant to California Government Code section 65965 or CDFW-approved public agency (collectively "approved entity") may hold fee title or act as grantee for a conservation easement over the HM lands. If an approved entity holds fee title, Permittee shall record a conservation easement in favor of CDFW or a CDFW-approved entity as grantee. If an approved entity holds a conservation easement, CDFW shall be named third-party beneficiary. The Permittee shall obtain CDFW approval of any conservation easement before its recordation.	ITP Condition #6.3.1	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
12	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall obtain CDFW written approval of the HM lands before acquisition and/or transfer of the land by submitting, at least three months before acquisition and/or transfer of the HM lands, a formal Proposed Lands for Acquisition Form (see Attachment 3B) identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the Project's impacts on Covered Species.	Condition #6.3.2	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
13	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents (see Attachment 3A). All documents conveying the HM lands and all conditions of title are subject to the approval of CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services.	Condition #6.3.3	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
14	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall designate both an interim and long-term land manager approved by CDFW. The interim and long-term land managers may, but need not, be the same. The interim and/or long-term land managers may be the landowner or another party. Documents related to land managemer shall identify both the interim and long-term land managers. Permittee shall notify CDFW of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW will also act as both the interim and long-term land manager unless otherwise specified.	Condition #6.3.4	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
15	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have been approved by CDFW. Start-up activities include, at a minimum: (1) preparing a final management plan for CDFW approval (see http://www.dfg.ca.gov/habcon/conplan/mitbank/); (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) establishing initial fencing; (5) conducting litter removal; (6) conducting initial habitat restoration or enhancement, applicable; and (7) installing signage.	Condition #6.3.5	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

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	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
16	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall provide for the interim management of the HM lands. The Permittee shall ensure that the interim land manager implements the interim management of the HM lands as described in the final management plan and conservation easement approved by CDFW. The interim management period shall be a minimum of three years from the date of HM land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, and vegetation and invasive species management. Permittee shall either (1) provide a security to CDFW for the minimum of three years of interim management that the land owner, Permittee, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by CDFW to pay the land manager annually in advance, or (3) establish a short-term enhancement account with CDFW or a CDFW-approved entity for payment to the land manager.	ITP Condition #6.3.6	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
17	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in the ITP, the conservation easement, and the final management plan approved by CDFW. After obtaining CDFW approval of the HM lands, Permittee shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CDFW-approved fund that provides funds for the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with the management plan(s) required by Condition of Approval 6.3.5. Endowment as used in the ITP shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by the ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.	ITP Condition #6.4	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
	After the interim management period, Permittee shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with the ITP, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.				

	Mitigation Measure	So		Implementation Schedule	Responsible Party	Status / Date / Initials
18	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Endowment shall be held by the Endowment Manager, which shall be either CDFW or entity qualified pursuant to Government Code sections 65965-65968, as amended. Pershall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a government special district, nonprofit organization, community foundation, or congressionally charfoundation; (iii) whether the proposed Endowment Manager holds the property or an in the property for conservation purposes as required by Government Code section 6596 or, in the alternative, the basis for finding that the Project qualifies for an exception or, in the alternative, the basis for finding that the Project qualifies for an exception or, in the alternative, the basis for finding that the Project qualifies for an exception or, in the alternative, the basis for finding that the Project qualifies for an exception or, in the alternative, the basis for finding that the Project qualifies for an exception of Government Code section 65968(e). Within thirty days of CDF receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it det the proposal does not satisfy the requirements of Fish and Game Code section 2081(if so, shall provide Permittee with a written explanation of the reasons for its determination of the reasons for its determination of the proposal shall be deemed consistent with Section 2081(b)(4).	or another Permittee #6.4 ental entity, intered interest in 968(b)(1) uraunt to Manager's DFW's etermines (b)(4) and, nation. If	nditions .4.1	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
19	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: obtaining CDFW written approval of the HM lands, long-term management plan, and Endowment Manager, Permittee shall prepare a Property Analysis Record (PAR) [or Fequivalent analysis (hereinafter "PAR")] to calculate the amount of funding necessary the long-term management of the HM lands (Endowment Deposit Amount). The Perm shall submit to CDFW for review and approval the results of the PAR before transferring to the Endowment Manager.	PAR- y to ensure nittee	nditions 4.2	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
20	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall obtain the capitalization rate from the selected Endowment Manager for calculating the PAR and adjust for any additional administrative, periodic, or annual fe	for use in Con	nditions 4.2.1	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
21	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall include in PAR assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment: • A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events. • The endowment shall be established assuming spending will not occur for the first three years after full funding.	ITP Conditions #6.4.2.2	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
	 For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and CDFW. 				
22	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall transfer the long-term endowment funds to the Endowment Manager upon CDFW approval of the Endowment Deposit Amount identified above. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of the Covered Species but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with the ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.	ITP Conditions #6.4.3	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
23	If Permittee is acquiring and protecting habitat pursuant to Condition of Approval 6.3: Permittee shall reimburse CDFW for all reasonable expenses incurred by CDFW such as transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW.	ITP Conditions #6.5	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
24	Permittee shall restore on-site the 0.81 acres of Covered Species habitat that will be temporarily disturbed during construction to pre-project or better conditions by seeding the disturbed areas with locally native grass seed. Permittee shall obtain CDFW's written approval of the seed mix prior to applying it.	ITP Conditions #6.6	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
25	The Permittee may proceed with Covered Activities only after the Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 6 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows: • The Security shall be in the amount of \$35,985.60. This amount is based on the cost estimates identified in Condition of Approval 6.1. • The Security shall be in the form of an irrevocable letter of credit (see Attachment 4) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel. • The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of the ITP, whichever occurs first. • The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW. • If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (see Attachment 5) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other. • The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that the Permittee has failed to comply with the Conditions of Approval of the ITP. • The Security (or any portion of the Security then remaining) shall be released to the Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by: • Written documentation of the acquisition of the HM lands;	ITP Condition # 7	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	Status / Date / Initials
	 Copies of all executed and recorded conservation easements; Written confirmation from the approved Endowment Manager of its receipt of the full Endowment; and Timely submission of all required reports. 	×	,		
	Even if Security is provided, the Permittee must complete the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the effective date of the ITP. CDFW may require the Permittee to provide additional HM lands and/or additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the Permittee does not complete these requirements within the specified timeframe.				
DUI	RING CONSTRUCTION				
26	Permittee shall comply with all applicable federal, state, and local laws in existence on the effective date of the ITP or adopted thereafter.	ITP Condition #1	Entire Project	Permittee	
27	Permittee shall fully implement and adhere to the conditions of the ITP within the time frames set forth in this Mitigation Monitoring and Reporting Program (MMRP).	ITP Condition #2	Entire Project	Permittee	

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	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
28	To ensure compliance with the Conditions of Approval of the ITP, the Designated Biologist shall have authority to immediately stop any activity that does not comply with the ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species.	ITP Condition # 3.3	Entire Project	Permittee / Designated Biologist	
29	The Designated Biologist shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of the ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.	ITP Condition #3.5	Entire Project	Permittee / Designated Biologist	
30	Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting (erosion control matting) or similar material, in potential Covered Species' habitat.	ITP Condition # 3.8	Entire Project	Permittee	
31	Project-related personnel shall access the Project Area using existing routes or routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to the ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.	ITP Condition # 3.11	Entire Project	Permittee	
32	Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 3.11 of the ITP.	ITP Condition # 3.12	Entire Project	Permittee	
33	Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.	ITP Condition # 3.13	Entire Project	Permittee	
34	Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in the ITP.	ITP Condition # 3.14	Entire Project	Permittee	
35	The Designated Representative shall immediately notify CDFW in writing if it determines that the Permittee is not in compliance with any Condition of Approval of the ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in the ITP and/or the MMRP. The Designated Representative shall report any non-compliance with the ITP to CDFW within 24 hours.	ITP Condition # 4.2	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
36	The Designated Biologist shall be on-site daily when Covered Activities occur. The Designated Biologist shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of the ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections, observations of Covered Species and their sign, survey results, and monitoring activities required by the ITP.	ITP Condition # 4.3	Entire Project	Permittee	
37	The Designated Representative or Designated Biologist shall compile the observation and inspection records identified in Condition of Approval 4.3 into a Quarterly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to the CDFW offices listed in the Notices section of the ITP and via e-mail to CDFW's Regional Representative and Headquarters CESA Program. At the time of the ITP's approval, the CDFW Regional Representative is CESA Desk, (R2CESA@wildlife.ca.gov) and Headquarters CESA Program email is CESA@wildlife.ca.gov. CDFW may at any time increase the timing and number of compliance inspections and reports required under the provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.	ITP Condition # 4.4	Entire Project	Permittee	
38	Permittee shall provide CDFW with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of the ITP and continuing until CDFW accepts the Final Mitigation Report identified in Condition of Approval 4.7. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports for that year identified in Condition of Approval 4.4; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) an accounting of the number of acres subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance; and (7) information about other Project impacts on the Covered Species.	ITP Condition # 4.5	Entire Project	Permittee	
39	The Designated Biologist shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDB) within 60 calendar days of the observation and the Designated Biologist shall include copies of the submitted forms with the next Quarterly Compliance Report or ASR, whichever is submitted first relative to the observation.	ITP Condition # 4.6	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
40	Permittee shall immediately notify the Designated Biologist if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Designated Biologist or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (916) 358-2930. The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.	ITP Condition # 4.8	Entire Project	Permittee	
41	Permittee shall limit Covered Activities to periods of dry weather (i.e. less than 30 percent chance of rain forecast by the National Weather Service). Covered Activities may resume 72 hours after the rain ceases, when there is less than 30 percent chance of rain in the 24-hour forecast, and when humidity is below 75 percent. Both rainfall and humidity records shall be kept onsite and subject to inspection.	ITP Condition # 5.1	Entire Project	Permittee	
42	Permittee shall limit Covered Activities to the dry season of May 1 through October 31 to the greatest extent possible.	ITP Condition # 5.2	Entire Project	Permittee	
43	Permittee shall limit Covered Activities to 30 minutes after sunrise through 30 minutes prior to sunset.	ITP Condition # 5.3	Entire Project	Permittee	
44	Permittee shall avoid potential Covered Species burrows, as well as a buffer of at least 20 feet around the potential burrow entrances, to the greatest extent possible. If a potential Covered Species burrow is unavoidable, the Designated Biologist shall excavate the burrow by hand.	ITP Condition # 5.4	Entire Project	Permittee	
45	Permittee shall prohibit the use of monofilament netting, which poses an entanglement hazard to the Covered Species. Permittee shall inspect and repair monofilament netting used for nesting deterrence to prevent it from reaching ground level where it could entangle.	ITP Condition # 5.5	Entire Project	Permittee	
46	Permittee shall ensure that soil stockpiles are placed where soil will not pass into potential Covered Species breeding pools or into any other "Waters of the State," in accordance with Fish and Game Code section 5650. Permittee shall appropriately protect stockpiles to prevent soil erosion. Permittee shall ensure that stockpiles are not placed over potential Covered Species burrows, unless the burrows have been excavated as described in Condition of Approval 5.4.	ITP Condition # 5.6	Entire Project	Permittee	
47	Permittee shall cover any excavations left overnight or longer with plywood or similar material. The edges of the covering shall be covered with tightly packed dirt in order to prevent Covered Species or other wildlife from crawling under the covering and falling into the excavation. If any excavations cannot be covered tightly enough to exclude Covered Species, Permittee shall instead install escape ramps within the excavations at the end of each workday. Escape ramps shall be built of wooden boards or packed earth and shall have an incline angle of no more than 30°.	ITP Condition # 5.7	Entire Project	Permittee	

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	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
48	Uninjured Covered Species encountered during construction activities and within project activity boundaries shall be allowed to move away from the area on their own volition. Capture and relocation of trapped or injured individuals shall be attempted only by the Designated Biologist and in accordance with the instructions provided in Conditions of Approval 5.9, 5.10, and 5.11. Proper species identification must be made prior to any capture or handling. Each time a Covered Species is encountered, the Designated Biologist shall submit a completed CNDDB field survey form to CDFW no more than 30 days after the encounter. For each Covered Species encounter, the Designated Biologist(s) shall record the following documented information: the date, time, and location of each occurrence using Global Positioning System (GPS) technology; the name of the party that actually identified the Covered Species; circumstances of the incident; the general condition and health of each individual; any diagnostic markings, sex, age Juvenile or adult; actions undertaken; and habitat description. This information shall be included in the next Quarterly or Annual Status Report, or Final Mitigation Report, whichever is submitted first relative to the encounter.	ITP Condition # 5.8	Entire Project	Permittee	
49	Covered Species shall be handled using methodology described in the Guide to the Restraint and Handling of Live Amphibians (Attachment 6). If any person discovers a trapped or injured Covered Species in the project area, the Designated Biologist(s) shall capture it and place the Covered Species in a dark, clean plastic container of suitable size (e.g., enough room so the animal can move freely). The container shall be thoroughly cleaned and disinfected prior to being transported to the project area and shall be rinsed with fresh water onsite immediately prior to usage unless doing so would result in injury or death of an individual due to the time delay. The Designated Biologist(s) shall wear sterile gloves while handling Covered Species. The Designated Biologist(s) shall keep the container moist with damp paper towels, soft foam rubber, or soap-free natural or synthetic sponge. Containers used for holding or transporting shall not contain any standing water. The lids of the containers shall have small air holes for ventilation. Sponges shall not be reused and all other housing materials shall be disinfected between occupants. The Designated Biologist(s) shall place only one animal in each plastic container. The Designated Biologist(s) shall keep individual plastic containers containing the Covered Species in an ice chest, and place ice packs on top of the containers to maintain a cootemperature comparable to a refrigerator. The Designated Biologist(s) shall keep the ice chests in a cool, dark, quiet, secure place and release the Covered Species as soon as possible.	ITP Condition # 5.9	Entire Project	Permittee	
50	Permittee shall immediately notify the Designated Biologist(s) if a Covered Species is taken or injured by a project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the project. The Designated Biologist(s) will provide initial notification to CDFW by calling the Regional Office. The initial notification shall identify the location, species, and number of animals taken or injured and the ITP tracking number. Following initial notification, Permittee shall send CDFW a written report within two calendar days of the discovery. The report shall include the date and time of the finding or incident, GPS location of the Covered Species, photographs of the location and the Covered Species, explanation as to the cause of take or injury, and any other pertinent information. Injured Covered Species shall be treated or euthanized according to the instructions in the Guide to the Restraint and Handling of Live Amphibians (Attachment 6).	ITP Condition # 5.11	Entire Project	Permittee	

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	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
51	If the Covered Species is found recently deceased, Permittee shall immediately bag the carcass, label it, and preserve it in a freezer. The label shall include time and date, GPS location, circumstances surrounding death (if known), and ITP number. Permittee shall deliver specimens to the CDFW Wildlife Investigation Lab, Attention: Deana Clifford, 1701 Nimbus Road Suite D, Rancho Cordova, CA, 95670 within two calendar days of the discovery.	ITP Condition # 5.11.1	Entire Project	Permittee	
52	Before the start of work each morning during construction activities covered by the ITP, the Designated Biologist(s) will check for Covered Species under all vehicles, equipment, materials, all excavated open holes, pumps, and trenches or otherwise suitable locations for Covered Species to hide. If a Covered Species is found, the Designated Biologist(s) will wait for the individual to move unimpeded to a safe location. If the individual is trapped or injured, the Designated Biologist(s) shall move the individual according to the approved Relocation Plan and Conditions of Approval 5.9, 5.10, and 5.11.	ITP Condition # 5.12	Entire Project	Permittee	
53	During all phases of project construction, if Covered Species is found by any person in the work area before or during Covered Activities, all work that could potentially harm the Covered Species shall stop immediately until the Designated Biologist(s) can relocate the Covered Species following the approved Relocation Plan (see Condition of Approval 5.10). The relocation area(s) shall be identified in the Relocation Plan by the Designated Biologist(s) and are subject to CDFW approval. The Designated Biologist(s) shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDB) within 30 calendar days of the observation and the Designated Biologist(s) shall include copies of the submitted forms with the next Quarterly or Annual Status Report, whichever is submitted first relative to the observation.	ITP Condition # 5.13	Entire Project	Permittee	
РО	ST-CONSTRUCTION				
54	Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.	ITP Condition # 3.15	Post-construction	Permittee	
55	No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Designated Biologist shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of the ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.	ITP Condition # 4.7	Post-construction and after completion of mitigation	Permittee	

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ATTACHMENT 3A DEPARTMENT OF FISH AND WILDLIFE HABITAT MANAGEMENT LAND ACQUISITION PACKAGE CHECKLIST FOR PROJECT APPLICANTS

The following checklist is provided to inform you of what documents are necessary to expedite the Department of Fish and Wildlife (CDFW) processing of your Habitat Management Land acquisition proposal. Any land acquisition processing requests which are incomplete when received, will be returned. The Region contact will review and approve the document package and forward it to the Habitat Conservation Planning Branch Senior Land Agent with a request to process the land acquisition for formal acceptance.

To:	
From:	Regional Manager, Region Name
rom.	Project Applicant
Phone:	
Tracking	g#:
	CDFW assigned permit or agreement #
Project 1	Name:
Enclosed	l is the complete package for the 🔲 Conservation Easement OR 🔲 Grant Deed
Docume	nts in this package include:
	Fully executed, approved as to form Conservation Easement Deed or Grant Deed with legal description stamped by a licensed surveyor. Date executed:
	Proposed Lands for Acquisition Form (PLFAF)
	Phase I Environmental Site Assessment Report Date on report:(An existing report may be used, but it must be less than two years old.)
	Preliminary Title Report(s) for subject property is enclosed and has been reviewed for Encumbrances, including severed mineral estates, and other easements. The title report must be less than six months old when final processing is conducted. Included are additional documents:
	document(s) to support title exceptions
	document(s) to explain title encumbrances
	a plot or map of easements/encumbrances on the property
	Policy of Title Insurance (an existing title policy is not acceptable)
	County Assessor Parcel Map(s) for subject property
	Site Location Map (Site location with property boundaries outline on a USGS 1:24,000 scale topo)
	Final Permit or Agreement (or other appropriate instrument) Type of agreement: Bank Agreement Mitigation Agreement
	PermitOther:
	Final Management Plan (if required prior to finalizing permit or agreement or if this package is
	for a Grant Deed)
	Biological Resources Report
	Draft Summary of Transactions hard copy electronic copy (both are required)

CALIFORNIA FISH & WILDLIFE

ATTACHMENT 3B

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE PROPOSED LANDS FOR ACQUISITION FORM ("PLFAF")

Facsimile:			Date:	
Facsimile: FROM:	TO:	-		
Applicant proposes that the following parcel(s) of land be considered for approval by the California Department of Fish and Wildlife as suitable for purposes of habitat management ands to compensate the adverse environmental impacts of the Project: Section(s)				
Applicant proposes that the following parcel(s) of land be considered for approval by the California Department of Fish and Wildlife as suitable for purposes of habitat management ands to compensate the adverse environmental impacts of the Project: Section(s)	FROM			
California Department of Fish and Wildlife as suitable for purposes of habitat management ands to compensate the adverse environmental impacts of the Project: Section(s)				
Current Legal Owner(s), of the surface and mineral estates, include Assessor's Parcel Number(s): General Description of Location of Parcel(s): Land Value: \$ For Region Use Only APPROVED By: DATE: Regional Manager's Signature Region: Region:	Califor	nia Department of Fish and Wildlife as sui	table for purposes of habitat	
Seneral Description of Location of Parcel(s): Land Value: \$ For Region Use Only APPROVED By: DATE: REJECTED Regional Manager's Signature Region: Region:	Section 1	n(s) <u>Township</u> <u>Ran</u>	ge <u>County</u> <u>Ac</u>	eres
General Description of Location of Parcel(s): Land Value: \$ For Region Use Only APPROVED By: DATE: Regional Manager's Signature Region: Region:		er(s):		
Land Value: \$ For Region Use Only APPROVED By: DATE: Regional Manager's Signature REJECTED Region:	Genera			
APPROVED By: DATE: REJECTED Regional Manager's Signature				
APPROVED By: DATE: Regional Manager's Signature REJECTED Region:	₋and \	/alue: \$		
Regional Manager's Signature REJECTED Region:	or Re	egion Use Only		
Explanation:		Regional Manager's Signa	ture DATE:	
	Explar	nation:		



CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE PROPOSED LANDS FOR ACQUISITION FORM ("PLFAF") Attachment 3B

TO: Reg		resentative			Date		
Facs	simile:	1					
FROM:							
. 1							
California De	epartment		Vildlife as sui	itable for _l	purposes of h	or approval by nabitat manag t:	
Section(s)		Township	Rar	<u>nge</u>	County	<u>Acres</u>	
	al Owner(s), of the surfa	ace and mine	eral estate	s, include As	sessor's Parc	el
Number(s):		s), of the surfa		eral estate	s, include As	sessor's Parc	el
Number(s):				eral estate	s, include As	sessor's Parc	el
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General Des	scription o \$ Use Only	of Location of I	Parcel(s):			sessor's Parc	el
General Des Land Value:	\$ Use Only	By:Regiona	Parcel(s):	nature	DATE:		el
General Des Land Value: For Region I APPROVED REJECTED	\$ Use Only	of Location of I	Parcel(s):	nature	DATE:		el

Attachment 4 IRREVOCABLE STANDBY LETTER OF CREDIT NO. [number]

Issue Date: [date]

Beneficiary:

Department of Fish and Game 1416 Ninth Street, 12th Floor Sacramento, CA 95814

Attn: HCPB Mitigation Account Coordinator

Amount: U.S. \$[dollar number] [(dollar amount)]

Expiry: [Date] at our counters

Dear Sirs:

- At the request and on the instruction of our customer, [name of applicant]
 ("Applicant"), we, [name of bank] ("Issuer"), hereby establish in favor of the
 beneficiary, the California Department of Fish and Game ("Department"), this
 irrevocable standby letter of credit ("Credit") in the principal sum of U.S. \$[dollar
 number] [(dollar amount)] ("Principal Sum").
- We are informed this Credit is and has been established for the benefit of the Department pursuant to the terms of the incidental take permit for the [name of project] issued by the Department to the Applicant on [date] (No. [number]) ("Permit").
- 3. We are further informed that pursuant to the Permit, the Applicant has agreed to complete certain mitigation requirements, as set forth in Conditions [*numbers*] in the Permit ("Mitigation Requirements").
- 4. We are finally informed that this Credit is intended by the Department and the Applicant to serve as a security device for the performance by the Applicant of the Mitigation Requirements.
- 5. The Department shall be entitled to draw upon this Credit only by presentation of a duly executed Certificate for Drawing ("Certificate") in the same form as Attachment A, which is attached hereto, at our office located at [name and address of bank].
- 6. The Certificate shall be completed and signed by an "Authorized Representative" of the Department as defined in paragraph 12 below. Presentation by the Department of a completed Certificate may be made in person or by registered mail, return receipt requested, or by overnight courier.

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- 7. Upon presentation of a duly executed Certificate as above provided, payment shall be made to the Department, or to the account of the Department, in immediately available funds, as the Department shall specify.
- 8. If a demand for payment does not conform to the terms and conditions of this Credit, we shall give the Department prompt notice that the demand for payment was not effected in accordance with the terms and conditions of this Credit, state the reasons therefore, and await further instruction.
- 9. Upon being notified that the demand for payment was not effected in conformity with the Credit, the Department may correct any such non-conforming demand for payment under the terms and conditions stated herein.
- 10. All drawings under this Credit shall be paid with our funds. Each drawing honored by us hereunder shall reduce, *pro tanto*, the Principal Sum. By paying to the Department an amount demanded in accordance herewith, we make no representations as to the correctness of the amount demanded.
- 11. This Credit will be cancelled upon receipt by us of Certificate of Cancellation, which: (i) shall be in the form of Attachment B, which is attached hereto, and (ii) shall be completed and signed by an Authorized Representative of the Department, as defined in paragraph 12 below.
- 12. An "Authorized Representative" shall mean either the Director of the Department of Fish and Game, the General Counsel of the Department of Fish and Game, or a Regional Manager of the Department of Fish and Game.
- 13. This Credit shall be automatically extended without amendment for additional periods of one year from the present or any future expiration date hereof, unless at least sixty (60) days prior to any such date, we notify the Department in writing by registered mail, return receipt requested, or by overnight courier that we elect not to consider this Credit extended for any such period.
- 14. Communications with respect to this Credit shall be in writing and addressed to us at [name and address of bank], specifically referring upon such writing to this credit by number. The address for notices with respect to this Credit shall be: (i) for the Department: Department of Fish and Game, Habitat Conservation Planning Branch, 1416 Ninth Street, 12th Floor, Sacramento, California 95814-2090 Attn: HCPB Mitigation Account Coordinator; and (ii) for the Applicant: [name and address of Applicant].
- 15. This Credit may not be transferred.

- 16. This Credit is subject to the International Standby Practices 1998 ("ISP 98"). As to matters not covered by the ISP 98 and to the extent not inconsistent with the ISP 98, this credit shall be governed by and construed in accordance with the Uniform Commercial Code, Article 5 of the State of California.
- 17. This Credit shall, if not cancelled, expire on [expiration date], or any extended expiration date.
- 18. We hereby agree with the Department that documents presented in compliance with the terms of this Credit will be duly honored upon presentation, as specified herein.
- 19. This Credit sets forth in full the terms of our undertaking. Such undertaking shall not in any way be modified, amended or amplified by reference to any document or instrument referred to herein or in which this Credit is referred to or to which this Credit relates and any such reference shall not be deemed to incorporate herein by reference any document or instrument.

Bv:		
Name:		

[Name of bank]

ATTACHMENT A

IRREVOCABLE STANDBY LETTER OF CREDIT NO. [number] CERTIFICATE FOR DRAWING

To:
[Name and address of bank]
Re: Incidental Take Permit No. [permit number]
The undersigned, a duly Authorized Representative of the Department of Fish and Game ("Department"), as defined in paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:
 [Insert one of the following statements: "In the opinion of the Department, the Applicant has failed to complete the Mitigation Requirements referenced in
paragraph 3 of the Credit." or "As set forth in paragraph 13, the Issuer has informed the Department that the Credit will not be extended and the Applicant has not provided the Department with an equivalent security approved by the Department to replace the Credit."]
The undersigned is authorized under the terms of the Credit to present this Certificate as the sole means of demanding payment on the Credit.
 The Department is therefore making a drawing under the Credit in amount of U.S. \$
4. The amount demanded does not exceed the Principal Sum of the Credit.
Therefore, the Department has executed and delivered this Certificate as of theday of,
CALIFORNIA DEPARTMENT OF FISH AND GAME
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[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]"]

ATTACHMENT B

IRREVOCABLE LETTER OF CREDIT NO. [number] CERTIFICATE FOR CANCELLATION

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[Name of bank and address]

Re: Incidental Take Permit No. [permit number]

The undersigned, a duly Authorized Representative of the California Department of Fish and Game ("Department"), as defined in the paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

- 1. [Insert one of the following statements: "The Applicant has presented documentary evidence of full compliance with the Mitigation Requirements referenced in paragraph 3 of the Credit." or "The natural expiration of this Credit has occurred."]
- 2. The Department therefore requests the cancellation of the Credit.

	epartment has executed and delivered this Certificate for Cancellation ay of,
CALIFORNIA DI	EPARTMENT OF FISH AND GAME
BY:	
-	he following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL NME OF REGIONAL OFFICE"!

Attachment 6

Guide to the Restraint and Handling of Live Amphibians

Citation:

Green, D. E. 2001. Restraint and handling of live amphibians. Amphibian Research and Monitoring Initiative Standard Operating Procedure, No. 100. National Wildlife Health Center.

STANDARD OPERATING PROCEDURE ARMI SOP No. 100 Revised, 16 February 2001

I. PURPOSE:

Provide guidelines for humane handling of amphibians so that injury and distress to the amphibian are minimized.

II. SCOPE:

These guidelines apply to larvae and tadpoles, as well as adult frogs, toads, salamanders and neotenes. Because of their anatomically different and very delicate skin, tadpoles and larvae must be handled differently than post-metamorphic amphibians.

III. EQUIPMENT and SUPPLIES:

- a. Standard capture equipment (seine nets, dip nets, minnow traps)
- b. Clear plastic bags (half liter or full liter size)

IV. BACKGROUND:

There are three main hazards associated with handling live amphibians: two to the amphibian and one to the handler. To amphibians, the main dangers of being handled are skin damage that could result in secondary skin infections, and bone and muscle injuries caused by struggling when being held. For the handler, the main danger comes from toxic skin secretions produced by some amphibians (in the USA, this is mostly newts and the introduced giant/marine toad).

Tadpoles and larvae have thin delicate skin that is very easily damaged by the slightest

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handling. The skin of larvae lacks keratin and has fewer cell layers than adult amphibian skin. Therefore, direct contact handling of tadpoles and larvae is to be avoided; instead, these amphibian stages are examined through clear flexible plastic bags containing water. Although the skin of adult (post-metamorphic) amphibians has keratin and is less delicate than larval skin, their skin is still much more delicate than the skin of reptiles, birds and mammals. Rough handling of adult amphibians can easily result in skin abrasions, small tears, punctures, erosions and ulcers; normally, minor skin wounds heal quickly, but if contaminants, sewage or high levels of microorganisms are present in the pond or other environment, then wound infections are possible.

Frogs and Toads: All amphibians can be expected to struggle following capture. For anurans, there is a danger that vigorous kicking with the hind limbs can cause joint dislocations or a broken (fractured) back; broken backs are a well-documented and major problem in another species that moves by hopping--rabbits. Therefore, proper restraint of anurans, first and foremost involves inhibiting their ability to kick.

Salamanders: For salamanders, there are three major dangers associated with handling: 1) loss (automizing) of the tail, 2) damage to the very delicate external gills (in neotenes), and 3) back injury during whip-like thrashing movements.

V. METHODS OF PHYSICAL RESTRAINT:

- a. Anurans: Medium and large size frogs and toads (those about 5 grams and larger) should be grasped around the waist with the hind limbs fully extended. The animal should not be allowed to bend (flex) its hip and knee joints, since this would allow it to kick.
- b. Caudates: Medium and large size salamanders (those about 5 grams and larger) should be grasped in the middle of the body between the forelimbs and hind limbs. Larval and neotenic salamanders should never be grasped around the head or neck, because the gills can be easily damaged. Under no circumstances should salamanders be grasped by the tail or picked up by the tail.
- c. Larvae: All larvae (including tadpoles) should be handled with nets or scoops. For examinations, the larvae should be placed in a clear plastic bag with a mild

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amount of water. Alternatively, larvae may be sedated with an anesthetic and examined in a dish or bowl of water. As much as possible, larvae should be examined only while they are in water. Larvae should not be grasped with bare hands.

VI. MISHAPS:

- a. Skin wounds: If an amphibian suffers a skin wound during handling, it is recommended that the wound be sprayed with the over-the-counter product, Bactine® (See the SOP on Toe Clipping of Frogs and Toads, NWHC ACUC Protocol 2001-004). All other topical antiseptics and disinfectants (sprays and ointments) are CONTRAINDICATED in amphibians. If possible, the animal should then be released on land rather than into water, since the antiseptic spray would be quickly washed off in water.
- b. Broken back: If a frog or toad suffers a broken back during capture or handling, it should be promptly euthanized. It would be inhumane to release such a crippled animal. An animal with a broken back will have serious damage to the spinal cord and should show almost immediate paralysis of the hind limbs and tail. Recommended methods of humane euthanasia include (see NWHC ACUC Protocol 1999-009, Methods of Euthanasia):
 - i. Pithing
 - ii. Overdosing in anesthetic solutions of MS222 or benzocaine iii. Application of a benzocaine-based topical ointment (as used by humans to relieve toothaches) to the top or the head and dorsum of the body.
- c. Broken leg: If a major bone of a limb is broken during capture or handling, the animal should be euthanized or taken to a wildlife rehabilitation center or veterinarian for treatment. A broken leg bone typically is recognized as an abnormal bend in the leg where there is no joint; other signs of a broken leg bone are protrusion of a bone fragment through the skin, inability of the animal to move a limb or position a leg in its normal resting posture. After treatment, amphibians with broken bones might be given to a zoo or placed in a captive breeding program. Only if the injured amphibian is kept isolated from all other fish, amphibians and reptiles (e.g., in a separate cage) during treatment, can it later be considered for release at the point of capture. Injuries to digits (toes and

fingers) generally are not life threatening; if the skin of the injured toe also is wounded, then treatment with Bactine® prior to immediate release is acceptable. If a toe bone is broken and protruding through the skin, the affected toe may be amputated just proximal to the site of the fracture, the stump should be sprayed with Bactine®, and the animal may be released.

- d. Automized tail: If a salamander automizes (detaches) its tail during capture or handling, the stump should be treated (sprayed) with Bactine®; the salamander can then be promptly released.
- e. Crushing injuries to head and body: Amphibians that have serious injuries to skin, muscles and bones should be promptly euthanized. Crushing injuries that are limited to a limb or tail will require treatment at a wildlife rehabilitation center or a veterinary clinic; alternatively, the animal may be euthanized, but it would be inhumane to release a seriously injured amphibian.
- f. Snout abrasions: Amphibians that are held in glass or clear plastic containers may jump headfirst into the glass, or may rub their snout against the container in attempts to burrow out. If amphibians are held for more than an hour in a clear container (bottle, aquarium, etc.), they should be examined for evidence of skin injury at the tip of the snout and elsewhere around the head prior to release. If abrasions are detected, they should be sprayed with Bactine® prior to release.
- g. Toxic skin secretions: All amphibians have glands in their skin that secrete a vast number of chemicals; some of which are merely noxious and repellant-like, while others may cause skin or eye irritation, and some may actually kill. The poison-dart frogs of Central America are an example of a frog with toxic secretions that can kill a human. Among the native amphibians of the United States, the two amphibians of greatest concern are giant toads (also called cane toads, marine toads, aga toads; *Bufo marinus*) and western newts of the genus *Taricha*. Giant toads secrete a potent white mucoid substance from their parotid glands (large warts just behind the eyes) that affects the heart, but it is not absorbed through the intact human skin; however, the toxin is readily absorbed through the eyes and mouth. Hence, the best way to prevent poisoning is to carefully avoid rubbing the eyes or putting fingers in the mouth after handling a giant toad. If skin secretions of giant toads contact the eye or mouth, then flush promptly with generous amounts of clean fresh water or contact lens wetting

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> solution, and then seek emergency care at a clinic or hospital if stinging or numbness of the eye or mouth develops. Newts of the genus, Taricha, also secrete toxins from their skin; it is presumed that the entire body of these newts secretes toxins (newts and other salamanders do not have parotid glands). Their skin secretions are very irritating to the eyes and mouth. Temporary blindness (lasting about 24 hrs) has been reported by field biologists that handled newts and then rubbed their eyes. If sensations of blurred vision, or burning or stinging of the eyes occur after handling any genus or species of newt, wash the eyes with copious amounts of fresh clean water (or contact lens wetting solutions) and promptly seek medical care. Persons with newt skin secretions in their eyes are advised not to drive a vehicle or operate other dangerous or heavy equipment. Finally, it is possible that other amphibian species in the USA besides giant toads and newts, could produce skin secretions that are irritants to the eyes. Furthermore, amphibians may carry some bacteria in their intestines and feces that are human pathogens, such as the bacteria, Salmonella and Leptospira. Hence, it is always best to practice good personal hygiene after handling any amphibian (namely, thoroughly wash your hands with soap and water).

VII. CITED LITERATURE:

1. MARTIN, D., and H. HONG. 1991. The use of Bactine® in the treatment of open wounds and other lesions in captive anurans. Herpetol Rev 22: 21.