



Page 1 of 1
NATIVE ENDANGERED SPECIES RECOVERY
ENDANGERED WILDLIFE

Permit Number: TE87580B-0

Effective: 06/14/2018 Expires: 06/13/2023

Issuing Office:

Department of the Interior
U.S. FISH & WILDLIFE SERVICE
Endangered Species Permit Office
2800 Cottage Way, Suite W-2606
Sacramento, CA 95825-1846
permitsR8ES@fws.gov

Permittee:

**CITY OF COSTA MESA
77 FAIR DRIVE
COSTA MESA, CA 92626
U.S.A.**


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ANGELA PICCO
Date: 2018.07.11
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ENDANGERED SPECIES DIVISION CHIEF

Name and Title of Principal Officer:

BALTAZAR MEJIA - ACTING PRINCIPAL ENGINEER

Authority: Statutes and Regulations: 16 USC 1539(a); 50 CFR 17.22, 50 CFR 13.

Location where authorized activity may be conducted:

ON LANDS SPECIFIED WITHIN THE ATTACHED SPECIAL TERMS AND CONDITIONS

Reporting requirements:

ANNUAL REPORT DUE: 01/31

See permit conditions for reporting requirements

Authorizations and Conditions:

A. General conditions set out in Subpart B of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accordance with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local tribal, or other federal law.

C. Valid for use by permittee named above.

SPECIAL TERMS AND CONDITIONS
City of Costa Mesa

1. Acceptance of this permit serves as evidence that the permittee understands and agrees to abide by the "General Permit Procedures and Permit Regulations for Native Endangered and Threatened Wildlife Species Permits," 50 CFR Part 13, 50 CFR 17.21 and 17.22 (endangered wildlife) and/or 50 CFR 17.31 and 17.32 (threatened wildlife), as applicable found at: <http://www.fws.gov/carlsbad/r8permits/permitprocedures-regulations.htm>
2. The permittee must have all other applicable State and Federal permits prior to the commencement of activities authorized by this permit. In addition, this permit does not authorize access to Federal, Tribal, State, local government, or private lands as it is the responsibility of the permittee to obtain land owner permission prior to commencing permitted activities on such lands.
3. The permittee is authorized to take (conduct habitat restoration and maintenance, collect inoculum, harass by survey, capture, handle, release, and collect adult vouchers) the Riverside fairy shrimp (*Streptocephalus woottoni*) and San Diego fairy shrimp (*Branchinecta sandiegonensis*) (hereafter collectively referred to as listed large branchiopods) in conjunction with the following document:
 - a. *Fairview Park Vernal Pool Restoration and Long Term Maintenance Plan for Vernal Pools 5 and 6, and the Associated Watershed Areas Within the Jurisdiction of the United States Fish and Wildlife Service Pursuant to the Endangered Species Act, Fairview Park, Costa Mesa, California, dated June 8, 2018.*
4. Permitted activities are restricted to the following geographic areas in California:

Fairview Park located in the City of Costa Mesa in Orange County, California.

Notifications to conduct contouring and survey activities at the above authorized locations pursuant to this permit shall be submitted in writing to the Recovery Permit Coordinator at the appropriate Fish and Wildlife Office (FWO) of the U.S. Fish and Wildlife Service (Service) at least 15 days prior to conducting such activities. The appropriate FWO is determined as follows:

Carlsbad Fish and Wildlife Office (CFWO):

2177 Salk Avenue, Suite 250, Carlsbad, California 92008 (telephone: 760-431-9440).
The permit coordinator contact is Stacey Love (stacey_love@fws.gov).

Notifications shall include, as appropriate: (a) an explanation of the purpose of the study and a clear description of methods, including the names of field personnel and the number and dates of surveys; (b) the number of individuals proposed to be captured and/or collected; (c) a map (at a minimum, a 1:24,000 scale U.S. Geological Survey

(USGS) topographical map) depicting the location of the survey site(s); (d) the assessor's parcel number (APN) for the site (if possible); and (e) geographic information system (GIS) data depicting the survey site or global positioning system (GPS) coordinates (if possible). Information may be submitted electronically if pre-arranged with the Recovery Permit Coordinator.

Fifteen (15) days after the Service's receipt of the notification, the permittee may commence activities authorized by this permit unless authorization is denied by the Service. If the permittee is denied authorization to conduct the proposed activities or activities at the requested location(s), including previously authorized sites, a request for reconsideration may be submitted to the Endangered Species Division Chief at the Service's Regional Office for the Pacific Southwest Region (Region 8), 2800 Cottage Way, Room W-2606, Sacramento, California 95825-1846, as provided in 50 CFR 13.29. The procedures specified in 50 CFR 13.29(b) must be followed.

5. Authorized individuals:

Only individuals on the attached List of Authorized Individuals (List) are authorized to conduct activities pursuant to this permit. The List, printed on Service letterhead, may identify special conditions or circumstances under which individuals are authorized to conduct permitted activities and must be retained with these Special Terms and Conditions. Each named individual will be responsible for compliance with the terms and conditions of this permit.

To request changes to the List, the permittee must submit written requests to the Recovery Permit Coordinator at the CFWO at least 30 days prior to the requested effective date. The request must be signed and dated by the permittee and include:

- a. The permit number.
- b. The name of each individual to be appended to the List.
- c. The resume/qualifications statement of each person to be appended to the List, detailing their experience with each species and type of activity for which authorization is requested.
- d. The names, phone numbers and email addresses of a minimum of two references including letters of reference. Letters of reference should address the individual's qualifications for the specific activities to be conducted.
- e. The names of the individuals to be deleted from the List.

Note: This procedure is for personnel changes only. For requests to renew/amend this permit, a complete application must be submitted to the Region 8 office.

6. Taking of listed large branchiopods:

The permittee is authorized to conduct habitat restoration and maintenance, collect inoculum, harass by survey, capture, handle, release, and collect adult vouchers activities for the listed branchiopods specified in condition number 3 above within the geographic boundaries specified above, and the time limitation specified in the permit, provided that:

- a. For habitat restoration and maintenance:
 - i. Contouring, collection and redistribution of inoculum, and trash and debris removal will only be conducted when soils are dry.
 - ii. Inoculum collection from vernal pool 1 will be conducted after contouring of vernal pool 6 is completed. Immediately following collection, inoculum will be hand-broadcast over the surface of vernal pool basin 6, followed by light raking.
 - iii. Maintenance crews may only remove non-native annual grasses while soils are dry and outside the perimeter of vernal pool basins 5 and 6. Maintenance crews may not enter the pool basins, except as described in 7(a)(iv) below.
 - iv. If needed, weeding within vernal pool basins 5 and 6 will be conducted by persons identified on the permit or other supervised personnel provided they are accompanied by persons identified on the permit.
 - v. Removal of non-native upland and invasive aquatic plant species will be performed by hand only within 25 feet of the outer extent of vernal pool basins 5 and 6.
 - vi. Use of herbicides and pesticides is prohibited within the fenced area.
- b. The permittee conducts all surveys in accordance with the approved *Survey Guidelines for the Listed Large Branchiopods* (Guidelines), dated May 31, 2015, unless authorized in advance by the Recovery Permit Coordinator at the appropriate FWO. The current approved survey guidelines can be retrieved at the following address: (http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/es_survey.htm)
- c. As specified in the Guidelines, sampling/collecting of hatched individuals or resting eggs is not authorized at any specific location until the permittee requests approval from the appropriate FWO.
- d. For identification and collection of voucher specimens:

- i. Incidentally captured branchiopods that will not be collected as voucher specimens will be returned in good condition to the feature where they were found as quickly as possible.
- ii. For surveys:
 1. Voucher specimens should be collected from each individual feature sampled during a single wet season. Note that a single feature would include all habitat that is hydrologically connected at the time of sampling and permittees should verify the extent of each surveyed feature to prevent taking duplicate voucher specimens. Additional specimens may be taken from individual features if new cohorts of branchiopods are observed, previously undetected species are found, or at the direction of the CFWO.
 2. The number of voucher specimens authorized to be collected and preserved is limited to no more than 20 hatched individuals of each species from each feature per sampling visit, or less than 50 percent of the estimated subpopulation present in the water column, whichever is the lesser amount. For a standard survey we anticipate that primarily males will be collected for identification, but a sample should include no less than three specimens of either sex, and both male and female taxonomic characteristics shall be observed for proper identification.
 3. With written authorization from the CFWO, once the expected listed branchiopod(s) have been documented within a given feature, surveys may cease for that feature.
 4. With written authorization from the CFWO, a single voucher only of each listed species found within a vernal pool complex (as determined by the FWO) may be taken (e.g., to minimize take where branchiopod numbers are limited).
 5. Multiple similar branchiopod species may occupy the same feature in varying numbers. To increase the detectability of a rare species under these circumstances, where feasible, we recommend that 30 specimens, or less than 50% of the estimated subpopulation present in the water column, whichever is the lesser amount, be retained and preserved for identification during each sampling visit where new cohorts of branchiopods are observed (e.g., within Zone C, *B. lindahli* may occur with *B. lynchi* or *B. sandiegonensis*).
 6. Where multiple species within a genus co-occur, hybridization may be observed. Proper identification of hybrids may require the collection of approximately 10 to 15 additional female specimens

(e.g., hybrids between *B. lindahli* and *B. sandiegonensis* are more easily identified with female specimens). In Orange and San Diego County, if any variability in the characteristics of *B. lindahli* and *B. sandiegonensis* is observed, those specimens should be scored relative to a morphological hybrid index (Simovich et al. 2013). A revised version of the morphological hybrid index will be made available on the CFWO's website.

Simovich, M., K. Davis, and A. Bohonak. 2013. Landscape homogenization threatens the genetic integrity of the Endangered San Diego fairy shrimp *Branchinecta sandiegonensis* (Branchiopoda: Anostraca). *Journal of Crustacean Biology* 33(5): 730-740.

- e. The permittee will disinfect sampling and field gear as follows:
 - i. Remove mud, snails, algae, and other debris from nets, traps, boots, vehicle tires, and all other surfaces. Rinse cleaned items with sterilized (e.g., boiled or treated) water before leaving each survey site.
 - ii. Boots, nets, traps, hands, etc. will be scrubbed with either a bleach solution (0.5 to 1.0 cup per 1.0 gallon of water), Quat-128™ (1:60), or a 3 to 6 percent sodium hypochlorite solution and thoroughly rinsed clean with water. Equipment will be rinsed clean with water between study sites. Cleaning equipment in the immediate vicinity of aquatic habitats will be avoided (e.g., clean in an area at least 100 feet from aquatic features). Care will be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.
 - iii. In remote locations, clean all equipment as described above upon return to the lab or base camp. Elsewhere, when washing machine facilities are available, remove nets from poles and wash with bleach on the delicates cycle, within a protective mesh laundry bag.
 - iv. Used cleaning materials (liquids, etc.) will be disposed of safely at the lab. Used disposable gloves will be retained for safe disposal in sealed bags.
- 7. Minor deviation from the stipulated terms and conditions may be authorized on a case-by-case basis when approved by the applicable FWO unless an amendment to this permit would be required. Changes that would require an amendment to this recovery permit include but are not limited to changes in study plan or research proposal, location, activity, amount or type of take, or species to be covered by the permit.
- 8. This permit does not cover any activities authorized pursuant to a biological opinion or habitat conservation plan (HCP). All such activities must be authorized by the office that wrote the biological opinion, issued the section 10(a)(1)(B) incidental take permit based

on an HCP, or is the lead field office implementing the HCP. Note also that this permit is not to be construed as meaning that the permittee or other authorized individuals are qualified to conduct activities pursuant to a biological opinion or HCP except insofar as the activities are similar to those authorized in this permit. Their qualifications for activities to be done pursuant to the biological opinion are subject to review and written approval for the specific activities by the office that wrote the biological opinion, issued the section 10(a)(1)(B) incidental take permit based on an HCP, or is the lead field office implementing the HCP.

9. This permit does not authorize take of federally listed species that are not specifically authorized pursuant to this permit. However, the Service acknowledges that incidental take of a co-occurring federally listed species could potentially occur while conducting certain permitted activities for some species. When applicable, the following conditions now apply to all federally listed animals that the permittee is not authorized to take pursuant to this permit, but which may be incidentally sighted, encountered, captured, injured, or killed:
 - a. Each individual authorized pursuant to this permit shall be knowledgeable about potentially co-occurring listed species that may occur throughout the habitats in which permitted activities are conducted. Additionally, individuals must be observant and cautious to the extent practicable in order to minimize take.
 - b. Any federally listed animal that the permittee is not authorized to take pursuant to this permit, but is incidentally captured during the course of conducting authorized activities, shall be released immediately at the point of capture.
 - c. During the course of your permitted activities, if an incidental injury or mortality occurs to a federally listed species not authorized in this permit, the permittee shall follow instructions specified in condition 10 below.
 - d. Any incidental capture, injury or mortality of a federally listed species not authorized in this permit shall be recorded and reported in the annual report submitted pursuant to this permit.
 - e. All incidental encounters, sightings, capture, injury, or mortality of other federally listed species not authorized under this permit shall be recorded and reported in the annual report submitted pursuant to this permit. We request that it also be reported to the California Natural Diversity Database (CNDDB) as specified in condition number 13 below.
10. The number of individuals allowed to be incidentally injured or killed during permitted activities is 5 individuals of each listed large branchiopod species (and an unquantifiable number of eggs) in any calendar year.
 - a. Any incidental injury or killing must be reported within 3 working days to the

Regional Recovery Permit Coordinator (telephone: 760-431-9440) and the Recovery Permit Coordinator at the CFWO.

- b. In the event that the number of individuals allowed to be incidentally injured or killed is exceeded during the performance of permitted activities, the permittee must:
 - i. Immediately notify the Regional Recovery Permit Coordinator and the Recovery Permit Coordinator at the CFWO. Within 3 working days, the permittee shall follow-up such verbal notification in writing to each office.
 - ii. With the written notification, the permittee is to provide a report of the circumstances that led to the injury or mortality. A description of the changes in protocols that will be implemented to reduce the likelihood of such injury or mortality from happening again should be included, if appropriate. A copy of this report shall also be sent to the California Department of Fish and Wildlife (CDFW), Attention: Permitting Biologist, Wildlife Branch, 1812 Ninth Street, Sacramento, California 95811 (telephone: 916-445-3764).
 - c. Dead specimens and/or appropriate parts of dead specimens that are incidentally taken pursuant to this section shall be preserved in accordance with standard museum practices. Within 120 days, the preserved specimen(s) shall be properly labeled and deposited with one of the designated repositories specified below. Specimens must be accessioned with complete collecting data. The permittee shall supply the repository with a copy of this permit to validate that the specimens supplied to the museum were taken pursuant to a permit. Collection data (e.g., dates and location) and deposition of carcasses by the permittee must be reported in the subsequent annual report.
- 11. The permittee is authorized to salvage all authorized species' carcasses and provide them to one of the designated repositories within 120 days by following condition number 10.c above. Any specimens salvaged will be documented and specified in the annual report submitted to the appropriate field office.
 - 12. Designated repositories:

The California Academy of Sciences, Golden Gate Park, San Francisco, California; the Los Angeles County Museum of Natural History, Los Angeles, California; the Bohart Museum, University of California, Davis, California or any other institution designated in writing by the appropriate FWO.
 - 13. California Natural Diversity Database forms shall be completed, as appropriate, for each listed species addressed herein and submitted to the Biogeographic Data Branch, CDFW, 1416 9th Street, Suite 1266, Sacramento, California 95814 (also accessible online

at: <https://www.wildlife.ca.gov/Data/CNDDB>). Copies of the form can be obtained from the CDFW at the above address (telephone: 916-322-2493). The appropriate field office will be notified via email when the forms are submitted. This can consist of a one sentence email simply stating the forms were submitted.

14. All reports or other documents that include information gathered under the authority of this permit (e.g., reports prepared by consulting firms for their clients, theses, or scientific journal articles) shall reference this permit number. Copies of such documents shall include a transmittal letter and be provided to the Recovery Permit Coordinator at the appropriate FWO upon their completion. Draft documents, raw/field data, and other information resulting from work conducted under the authority of this permit shall be submitted to the Service upon request.

15. Annual reports:

Two types of annual reports shall be submitted to the Recovery Permit Coordinator at the appropriate FWO by January 31, following each year this permit is in effect as specified below. Note electronic reporting requirements below.

- a. Annual summary report:

In order to track, document, and assess all activities conducted pursuant to this permit, we are requiring an annual summary report be submitted that summarizes all of the activities conducted pursuant to this permit during the previous calendar year. Activities that are continuous (i.e., overlapping in two or more calendar years), must be reported each year the activity is in effect. The annual summary report shall be in the following format to include and not be limited to the following:

- i. Permittee name and number with date of expiration;
- ii. A section listing all authorized activities conducted for each permitted species during the previous calendar year. This information can be in tabular format and should provide a summary of each activity for each species authorized in this permit. This section shall include but not be limited to:
 - A. The name and title of each permitted activity conducted during the previous calendar year (preferably the same title as the reports previously or concurrently being submitted to the Service as specified in condition 15(b) below);
 - B. The specific location of the project site, including the County;

- C. The common and scientific names of the listed species for which the permitted activity was conducted;
 - D. Whether or not the species was observed;
 - E. The date and name of the Service office where each individual report(s) have been or will be submitted;
 - F. Whether or not GIS data was submitted; and
 - G. The version of each activity report (draft or final) and the report date. If a draft report was submitted, indicate the reason (ongoing activities; processing/analysis of data, final report in review, final report in progress, etc.) and the anticipated final report finish date.
- iii. Number of individuals incidentally injured and/or killed, including dates, locations, circumstances of take, and depository receiving the preserved specimen(s). If no injuries or mortalities occurred, please state this in writing in your annual summary report.
 - iv. Other pertinent observations made regarding the status or ecology of the species.
 - v. Planned future activities, if authorized under this permit.
 - vi. If no activities were conducted with any or all species authorized under the permit during the previous year within any field office jurisdiction, you must state this in writing in your annual summary report to that field office.
- b. Comprehensive project reports:
- i. For each project-specific activity, the permittee shall submit a comprehensive annual report to the appropriate FWO in the following format:
 - (i) an introduction section addressing reasons and objectives for performing the activity; (ii) a methodology section which includes an overview of the methods used to collect and analyze data and/or perform habitat management; (iii) a results section that provides and summarizes the data collected and areas where habitat management was performed, including information on any other federally listed species detected while conducting activities authorized under this permit; and (iv) a conclusion section that specifically provides recommendations for recovery of the species and any plans for future studies. Activities that are continuous (i.e., overlapping in two or more calendar years), must be reported each

year the activity is in effect to the appropriate FWO. Information may be submitted electronically if pre-arranged with the Recovery Permit Coordinator. The annual report shall include, but not be limited to:

- A. On the cover page of the report, include the title, location, permit number, permittee name, date and time frame of the activity, and date of preparation on the report.
- B. Summary presentations and brief discussions of survey and monitoring results;
- C. Locations sampled or study area(s) delineated on a 7.5 minute U.S. Geological Survey topographic map at 1:24,000 scale. The name of the USGS map identified;
- D. The names of all personnel conducting the activity and associated permit numbers.
- E. The results of all sampling efforts, including the numbers and life stage of each listed species observed, dates of observation, and estimates of population sizes; and
- F. Other pertinent observations made during sampling efforts regarding the status or ecology of the species.

16. Electronic Reporting requirements:

All reports must be submitted electronically. Electronically submitted reports must be sent using the following conditions:

- a. Hard copy reports are no longer accepted.
- b. Each report must be saved as one PDF only. Zipped files, other file formats, and Excel spreadsheets are not accepted. One exception: Statements of no activity may still be sent in the body of an email.
- c. Each report must "stand alone" from any correspondence or transmittal, and must contain the permittee name and permit number at minimum.
- d. Emails are limited to 25 megabytes in size. If emails with attachments exceed this size limitation, please: (1) send the attachments in separate emails (but do not break up individual reports; again, only one PDF per report), or (2) submit them on a DVD or CD. Again, do not zip the file(s) and do not send file formats other than PDF. Links for file download and thumb drives are not accepted.
- e. Unless a report is revised, please send each report only once. Do not send duplicates.
- f. Please only send GIS files if the field office Recovery Permit Coordinator previously arranged for receipt of these data from you.

- g. Please include your recovery permit number in the subject line or body of all emails.
17. Failure to comply with reporting requirements of this permit may result in non-renewal or suspension/revocation of this permit.



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ANGELA PICCO
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Acting Endangered Species Division Chief



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pacific Southwest Region
2800 Cottage Way, Suite W-2606
Sacramento, California 95825-1846

LIST OF AUTHORIZED INDIVIDUALS TE-87580B-0

1. Individual authorized to independently supervise restoration of damaged areas (i.e., reestablish contours) of vernal pools 5 and 6 for listed large branchiopods pursuant to this permit:

Tony Bomkamp.

Other individuals (e.g., grading contractors) may conduct activities pursuant to this permit only under the direct, on-site supervision of an independently authorized individual specified above. For this activity only, "on-site supervision" is defined as an unauthorized person conducting activities within sight of an authorized individual.

2. Individuals authorized to independently conduct wet season surveys and inoculum collection for listed large branchiopods pursuant to this permit:

Kevin Livergood and David Moskovitz.

3. Individual authorized to independently conduct hydrology monitoring for listed large branchiopods pursuant to this permit:

David Moskovitz.

4. Individuals authorized to independently conduct vegetation maintenance and monitoring within vernal pool basins 5 and 6 for listed large branchiopods pursuant to this permit:

Shahrazad Asgari, Tony Bomkamp, Kevin Livergood and David Moskovitz.

Other individuals may conduct activities pursuant to this permit only under the direct, on-site supervision of an independently authorized individual specified above. "On-site supervision" is defined as an unauthorized person conducting activities within 3 meters (9.8 feet) of an authorized individual.

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Acting Endangered Species Division Chief

This List is only valid if it is dated on or after the permit issuance date.