

RECLAMATION


Managing Water in the West

Finding Of No Significant Impact

Genetic Investigation of Listed Vernal Pool Plants and their Communities, Merced County

FONSI 17-8-MP

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Background

Bureau of Reclamation (Reclamation) proposes to provide \$389,831 to University of California, Merced (UC Merced) through the Central Valley Project Conservation Program (CVPCP). Staff from UC Merced will conduct field surveys and develop methods for identifying vernal pool plants from environmental DNA in soil samples. In addition, they will examine genetic variability in three federally listed vernal pool plant species, Colusa grass (*Neostapfia colusana*), San Joaquin Orcutt grass (*Orcuttia inaequalis*), and hairy Orcutt grass (*O. pilosa*), and perform a detailed population genetic investigation of Colusa grass to describe its genomic diversity. The data collected would be used to improve vernal pool plant species richness estimates, develop genetic markers for the observed vernal pool plant species, and understand the population genetics of those species.

The CVPCP program helps Reclamation mitigate past impacts of Reclamation's Central Valley Project (CVP) on threatened and endangered species, and help minimize future impacts. The UC Merced project contributes to the CVPCP objectives and helps Reclamation meet its commitments to the conservation and recovery of listed species impacted by the CVP. The project was identified by the Sacramento Field Office of the U.S. Fish and Wildlife Service as a priority action for the CVPCP in that the topic reflects the most current evaluation of research needs for federally listed vernal pool plant species that is complimentary to other on-going conservation actions within the Central Valley. The research will provide information to be used during surveys and for other purposes to identify critical habitat conservation and restoration activities leading to the improvement of vernal pool plant populations, particularly those listed as endangered or threatened under the Endangered Species Act.

Alternatives Including the Proposed Action

No Action

Under the no action alternative, Reclamation would not provide \$389,831 to UC Merced to conduct field surveys and develop eDNA sampling methods for vernal pool plant species. UC Merced would be required to obtain the funds from other public or private sources to conduct this research. If alternative funding cannot be secured, the Proposed Action would not move forward.

Proposed Action

Reclamation would provide \$389,831 to UC Merced to conduct field surveys and develop eDNA sampling methods for vernal pool plant species. UC Merced would complete the following tasks:

- Task 1 - Conduct vernal pool plant surveys and soil sampling
- Task 2 – Identify species and determine species diversity in the vernal pools
- Task 3 – Compare results between surveys and soil samples
- Task 4 - Develop single nucleotide polymorphism (SNP) markers for target species

Findings

Based on the attached environmental assessment (EA), Reclamation finds that the Proposed Action is not a major Federal action that will significantly affect the quality of the human environment. The attached EA describes the existing environmental resources in the Proposed Action area and evaluates the effects of the No Action and Proposed Action alternatives on the resources. This EA was prepared in accordance with NEPA, Council on Environmental Quality regulations (40 CFR 1500-1508), and Department of the Interior Regulations (43 CFR Part 46). Effects on several environmental resources were examined and found to be absent or minor. That analysis is provided in the attached EA, and the analysis in the EA is hereby incorporated by reference.

Following are the reasons why the impacts of the proposed action are not significant:

1. The proposed action has no potential to affect historic properties (40 CFR 1508.27(b)(8)).
2. The proposed action will not affect any Indian Trust Assets (512 DM 2, Policy Memorandum dated December 15, 1993).
3. The proposed action is not on Federal land and does not impede use of sacred sites (EO 13007 and 512 DM 3).
4. Implementing the proposed action will not disproportionately affect minorities or low-income populations and communities (EO 12898).
5. UC Merced staff are authorized individuals on the U.S. Fish and Wildlife Service, Region 8 recovery permit for Colusa grass, hairy Orcutt grass, San Joaquin Orcutt grass, and vernal pool branchiopods under Section 10(a)(1)(a) of the Endangered Species Act (ESA), 16 U.S.C. §1531 *et seq.* Take, as prohibited under Section 9 of the ESA, has been exempted through the Section 10 permits, and the proposed action would not exceed take from what was previously authorized via the Federal Recovery Permits.
6. The proposed action will not significantly impact natural resources and unique geographical characteristics such as historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order (EO) 11990); flood plains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (40 CFR 1508.27(b)(3) and 43 CFR 46.215(b)).
7. The proposed action will not have possible effects on the human environment that are highly uncertain or involve unique or unknown risks (40 CFR 1508.27(b)(5)).
8. The proposed action will neither establish a precedent for future actions with significant effects

9. There is no potential for the effects to be considered highly controversial (40 CFR 1508.27(b)(4)).
10. The proposed action will not have significant cumulative impacts (40 CFR 1508.27(b)(7)).
11. The proposed action will not violate federal, state, tribal or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10)).