

## Notice of Exemption

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**To:** Office of Planning and Research  
P.O. Box 3044, 1400 Tenth Street, Rm. 113  
Sacramento, CA 95812-3044

**From:** California Department of Fish and Wildlife  
Habitat Conservation Planning Branch  
Native Plant Program  
P.O. Box 944209  
Sacramento, CA 94244-2090

**Project Title:** Assessing Impacts of Lethal Drought on *Lupinus nipomensis* Development and Survival (Project)

**Project Location:** The Project will occur in Humboldt County at the California Polytechnic State University, Humboldt (Cal Poly Humboldt) Greenhouses for Forestry, Fire, and Rangeland Management located in Arcata, California (40.87360, -124.07712).

**Project Description:** The California Department of Fish and Wildlife is issuing a permit to Dr. Justin Luong (Permit No. 2081(a)-24-005-RP) pursuant to Fish and Game Code section 2081(a) for a project to test the impacts of intensifying drought on soil moisture, and its effect on growth, development, and survival of Nipomo Mesa lupine (*Lupinus nipomensis*). The Project aims to determine how Nipomo Mesa lupine responds to lethal drought to inform recovery efforts and adaptive management strategies for increased frequency of droughts and heatwaves projected in California. Approximately 200 total individuals will be grown under standard greenhouse conditions. Germinating plants will be irrigated and fertilized as needed for approximately 4-6 weeks until mature leaves develop. Following the initial growth period, an individual trait assessment under saturated soil water holding capacity conditions will be conducted. Soil moisture will be monitored using soil probes and a leaf gas exchange analyzer will be used to determine stomatal conductance. As soil moisture is decreased under experimental drought conditions, dehydration response curves will be created to determine drought survival, leaf senescence, and leaf meristem water content. Once stomatal closure occurs, a subset of plants will be periodically harvested to measure root to shoot ratio, total root biomass, and diameter and root length for an assessment of physiological responses to lethal drought conditions.

**California Public Agency Approving Project:** California Department of Fish and Wildlife

**Person or Agency Carrying Out Project:** Dr. Justin Luong, Assistant Professor of Rangeland Resource Science at Cal Poly Humboldt

### Exempt Status:

- Ministerial;
- Declared Emergency;
- Emergency Project;
- Categorical Exemption. Type and section number: Section 15306, Class 6

**Reasons why project is exempt:** The Project consists of basic data collection and research that will inform recovery and adaptive management of *Lupinus nipomensis* under drought conditions. Seeds to be germinated for the Project will be sourced from a previously permitted research project, and no existing populations of *Lupinus nipomensis* will be detrimentally impacted by research activities.

**Lead Agency Contact Person:** Joanne Heraty

Area Code/Telephone/ Extension: (916) 594-4574

**Signature:** 

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Isabel Baer, Native Plant Program Manager

**Date:** 3/4/2024

Signed by Lead Agency

Date Received for filing at OPR: \_\_\_\_\_