CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS IN CONNECTION WITH THE APPROVAL OF THE ARBORETUM HERON COLONY MANAGEMENT PROJECT—UC DAVIS

I. ADOPTION OF THE MITIGATED NEGATIVE DECLARATION

In accordance with Title 14, California Code of Regulations, Section 15074, the University of California, Davis (UC Davis), pursuant to authority delegated from the Board of Regents of the University of California (The Regents) (hereinafter referred to collectively as "the University"), hereby finds that the Initial Study and proposed Mitigated Negative Declaration (IS/MND) were prepared for the proposed Arboretum Heron Colony Management Project (the project) have been completed in compliance with the California Environmental Quality Act, Public Resources Code Sections 21000 et seq. (CEQA). The University has reviewed and considered the information contained in the IS/MND prior to approving the project, and finds that the IS/MND reflects the independent judgment and analysis of the University, and hereby adopts the Mitigated Negative Declaration.

II. FINDINGS

The University hereby adopts the following Findings pursuant to Title 14, California Code of Regulations, Section 15074, in conjunction with the approval of the project, which is set forth in Section III.

A. Background

The UC Davis Shields Oak Grove contains a unique collection of oak species and hybrid oak trees. This collection is the UC Davis Arboretum's most prominent and scientifically important plant collection. The Shields Oak Grove is located south of Garrod Road at the west end of the UC Davis Arboretum and consists of approximately 7 acres of oak trees and lawn area. The oak trees are primarily large, mature specimens with heights ranging from 20 to 35 feet and dense tree canopies reaching 20 to 50 feet in diameter.

The Shields Oak Grove has been recognized as a collection of national significance by the North American Plant Collections Consortium and is considered the most unique oak collection in the United States. The collection is a living museum exhibit and a resource for university teaching and research as well as a reference collection for professional arborists, urban foresters, and home gardeners. The Arboretum's significance as a living museum rests on the accessibility of the collections to educators, students, researchers, and visitors. The opportunity to walk and work among these magnificent oaks, to experience them directly through the senses and personal observation, is an essential component of their value.

Over the past decade, a heronry (a nesting congregation of colonial birds of the family Ardeidae), has become established in the Shields Oak Grove. By 2003 the heronry had grown large enough to raise concerns about the effect of the birds on tree health. Birds can damage

trees by removing leaves, twigs and other foliage for nesting, and by depositing guano, which can reduce light absorption, burn leaves, cause defoliation, and alter soil chemistry. Arboretum managers were concerned not only about the effects of the birds on the trees, but also on visitor health and safety. Beginning in 2004, UC Davis instituted management techniques such as removal of vacant nests prior to arrival of the birds and the installation of a temporary fence keep members of the public away from the herons.

In addition to the on-going management activities described above, beginning in the 2009 nesting season, UC Davis proposes as part of the project to employ a higher level of heron deterrence activities at the Shields Grove to reduce or prevent heron nesting. The new heron deterrence activities would include pyrotechnics (loud explosions and loud whistles launched through the air with a glowing visual appearance), bio-acoustics (loud playback of bird distress calls), and handheld lasers (pointed at the birds). The use of frightening devices potentially will take place daily from March through July. Activities will primarily take place for two hours before and after sunrise and sunset as the birds arrive to prospect for suitable nest sites.

This heronry is comprised of four species, all of which have peak nesting at differing periods. The primary arrival of Black-crowned Night-Herons (*Nycticorax nycticorax*) begins in March, followed by both Great and Snowy Egrets (*Ardea alba*, *Egretta thula*) (April). Cattle Egrets (*Bubulcus ibis*) are the last to arrive usually by April 15th with the main thrust arriving in early May. The deterrence efforts will have to be sustained over several months and is expected to extend from March through July. The object of the deterrence efforts is to prevent birds from reaching the stage of egg laying in the nesting cycle. In order to comply with state and federal laws protecting colonial and migratory birds by preventing abandonment of nests with eggs or chick mortality, no birds will be targeted by deterring efforts once they have laid eggs. Prior to the start of the project, a survey for nesting birds will be conducted on the project site and within a 500 foot area surrounding the project site to ensure that hazing activities will not cause abandonment of any active nests on the site. Additionally, bird response will be monitored throughout the effort, and activities and schedules will be adjusted based on monitoring results. If an active nest is found, use of frightening devices and bio-acoustics (but not lasers) will be abandoned within 200 feet of the nest. This program would start in 2009 and continue indefinitely as needed to dissuade the heronry from forming in Shields Grove.

B. Environmental Review Process

A Draft Initial Study was prepared for the project in accordance with CEQA and the University of California Procedures for Implementation of CEQA (State Clearinghouse No. 2009012037).

Based on the analysis contained in the Initial Study, it is determined that for all resource areas, the project, with the incorporation of identified mitigation measures, would not result in any significant impacts. Based on this analysis, the campus prepared a Mitigated Negative Declaration. The project's Draft Initial Study was submitted to the State Clearinghouse in the Governor's Office of Planning and Research and circulated for a 30-day public review period beginning on January 16, 2009. During that time, the document was reviewed by various state and local agencies, as well as by interested individuals and organizations.

During the comment period, comment letters were received from the following:

- Paul Kelly;
- Chad Roberts, Conservation Chair for the Yolo Audubon Society; and
- Yolo-Solano Air Quality Management District.

Paul Kelly and Chad Roberts provided comments indicating concern for the health of the heron and egret populations. The comments raised no new issues regarding the potential impacts to the herons and egrets and provided no new information regarding these species. The University carefully reviewed the comments provided in these letters, provided responses to each comment, and determined that no additional analysis for potential impacts was needed. The responses to the comments are provided in Appendix C of the Initial Study. Based on the information in the responses to comments (Appendix C) and in Section 6.4 (Biological Resources) of the Initial Study, no additional potential impacts are anticipated beyond the impacts previously identified in the draft Initial Study that was made available for public review and comments on January 17, 2009 and no project revisions or mitigation measures are required.

The Yolo-Solano Air Quality Management District provided a comment letter stating that the air district had reviewed the Initial Study and had no comments on the proposed project. The comment letter is provided in Appendix C of the Initial Study.

C. Significant and Unavoidable Adverse Impacts and Related Mitigation Measures

The Initial Study identified no significant and unavoidable impacts of the proposed action.

D. Significant and Potentially Significant Impacts that would be Mitigated to "Not Significant" or "Less-than-Significant" Levels and Related Mitigation Measures

The Initial Study identified two potentially significant impacts of the proposed action and concluded that the inclusion of identified mitigation measures would reduce the potential impacts to a less-than-significant level.

Specifically, Section 6.4(d) of the Initial Study concluded that the project could have a potentially significant effect on biological resources due to potential impacts to burrowing owls (Mitigation Measure 1) and that the project could have a potential significant noise impact due to disturbance at the adjacent UC Davis equestrian center (Mitigation Measure 2). The identified mitigation measures are provided below.

Mitigation Measure -1:
In accordance with CDFG's Staff Report on Burrowing Owl Mitigation a pre-activity survey must be conducted prior to any noise disturbance activities at the project site and

ongoing burrowing owls surveys of campus areas will include the project site in the upcoming survey efforts. To ensure that nesting disturbance will not occur, the survey shall be conducted prior to February 1st and within 1 week of the commencement of active deterrence activities during the timeframe specified in the Burrowing Owl Survey Protocol and Mitigation Guidelines (i.e., 1 hour before sunrise to 2 hours after sunrise, or 2 hours before sunset to 1 hour after sunset). The survey should include the project site and adjacent suitable areas within 500 feet up to the nearby Interstate 80 and State Route 113 corridors to ensure that burrowing owls potentially occurring adjacent to the site are not disturbed. If no active burrows are detected, deterrence activities can commence and no further mitigation is required. Unoccupied mammal burrows or other suitable habitat areas identified within and adjacent to the site may be removed or otherwise altered to discourage burrowing owl occupancy immediately upon completion of the survey.

If active burrowing owl burrows are detected during or immediately preceding the proposed project (March to July), a qualified biologist will evaluate whether the proposed project will potentially disturb the nest at the specific site. If yes, acoustic frightening devices and increased human presence will not occur within 160 feet of the active burrows, but other heron deterrence techniques will continue. Active burrows will not be physically disturbed during the burrowing owl breeding season (February 1–August 31). In anticipation of implementing the proposed project in subsequent years, passive relocation techniques (e.g., installing one-way doors at burrow entrances) will be used instead of trapping, as described in CDFG guidelines. At least 1 week will be necessary to complete passive relocation and allow owls to acclimate to alternate burrows.

If destruction of occupied burrows is unavoidable during the non-breeding season (September 1–January 31), the project proponent will take the following actions in accordance with CDFG guidelines.

- Unsuitable burrows will be enhanced (e.g., enlarged or cleared of debris) or new burrows created (i.e., installing artificial burrows) at a ratio of 2:1 on protected lands approved by CDFG. Newly created burrows will follow guidelines established by CDFG.

- CDFG requires that the loss of foraging and burrowing habitat on the project site will be offset by acquiring and permanently protecting a minimum of 6.5 acres of foraging habitat per active burrow identified on the project site.

Mitigation Measure-2: Test noise making activities to evaluate and minimize potential effects on the UC Davis Equestrian Center.

Prior to starting heron dissuading activities, the University will conduct a test of the pyrotechnics to observe the potential effects on horses within the equestrian center. The test will be scheduled to include a variety of noise levels based on the proximity of different explosions. If the tests reveal no effect on the horses, the heron control program and equestrian center activities will continue as planned. If the tests reveal significant

conflicts between the Equestrian Center classes and the pyrotechnics, the following actions will be taken:

a) The Arboretum would work with the Equestrian Center to coordinate the project schedule with the timing and location of Equestrian Center classes; and/or,
b) the use of the pyrotechnics will be eliminated or minimized within the distances that could reduce class effectiveness or create safety hazards by spooking horses.

With incorporation of Mitigation Measures 1 and 2, the Initial Study concluded that potential impact on burrowing owls Equestrian Center classes would be reduced to a less-than-significant level. Mitigation Measure 1 is discussed in Section 6.4.3.a and Mitigation Measure 2 is discussed in Section 6.11.3.d of the Initial Study.

E. Less-than-Significant Impacts for which Mitigation Measures Have Been Incorporated and Related Mitigation Measures

The Initial Study indentified less-than-significant impacts in the following environmental resource categories: aesthetics, biological resources, hazards and hazardous materials, and noise. These impacts were determined to be less-than-significant because they did not exceed the applicable thresholds of significance. No mitigation measures were necessary for these less-than-significant impacts and no mitigation measures were identified.

F. Mitigation Monitoring Program

When making findings, a lead agency must adopt a reporting or monitoring program for the changes to the project that it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.

Implementation of the project-specific Mitigation Measure 1 and Mitigation Measure 2 will take place through the ongoing surveys for burrowing owls in and around the Shields Oak Grove. The surveys started in late-January (no owls were observed). On-going monitoring for the burrowing owls will continue during the period of the heron management program and results of the burrowing owl monitoring will be documented in monthly monitoring reports.

Implementation of the project-specific Mitigation Measure 2 took place during late early February 2009 and included testing of the pyrotechnics within Shields Grove. During the test period, staff members from the equestrian center observed the reactions of horses and determined that the pyrotechnics use would not create a hazard or reduce class effectiveness. Annual testing of the pyrotechnics for potential effects on the equestrian center will take place during the period of the heron management program.

G. Incorporation by Reference

These Findings incorporate by reference the text of the Initial Study.

H. Record of Proceedings

Various documents and other materials constitute the record of proceedings upon which The University bases its findings and decisions contained herein. Most documents related to this project are located in the campus Office of Resource Management and Planning, University of California, One Shields Avenue, 376 Mrak Hall, Davis, California 95616.

I. Summary

Based on the foregoing Findings and the information contained in the record, the University finds with respect to the project:

1. There proposed mitigation measure will reduce the potentially significant impact to a less-than-significant level.

2. There is no substantial evidence that the project as proposed, with incorporation of the project-specific mitigation measures, may have a significant effect on the environment.

III. APPROVAL

The University hereby takes the following actions:

A. Adopts the Mitigated Negative Declaration for the project as described in Section I, above.

B. Approves and makes part of the project all project elements identified in the project's Initial Study.

C. Adopts the Mitigation Monitoring Program described in II, above.

D. Adopts the Findings in their entirety as set forth in Section II, above.

E. Approves implementation of the Arboretum Heron Colony Management Project.