The Natural Reserve System (NRS) is a unique assemblage of protected wildland sites throughout California. Its reserves encompass nearly all of the state's major ecosystems preserved in as undisturbed a condition as possible to support University-level research and teaching programs. The ecosystems and facilities offered by each reserve are available to faculty and students from all University of California campuses, and to users from other institutions, public or private, throughout the world.

The NRS is an intercampus program through the Office of Research - Division of Academic Affairs, in the UC Office of the President. The NRS Director provides leadership and coordination for the reserves, and an NRS University-wide Advisory Committee, composed of representatives from each campus, meets biannually to provide broad input on the activities, policies, and priorities of the NRS. Each reserve is assigned to a particular UC campus for day-to-day administration and is managed by a resident or non-resident Reserve Director, with oversight provided by a campus NRS administrative structure and, at most campuses, by a faculty Reserve Director with advice from a campus advisory committee.

1. General Guidelines

Each reserve has been established to support the University of California's research and teaching mission and, where appropriate, public service programs. Use of a reserve will be allowed if the proposed activity and level of use, after careful review by the Reserve Director, are deemed to be consistent with the NRS Reserve Use Guidelines and with regulations and management plans for that particular reserve. General Systemwide guidelines are set by the NRS Director in consultation with the Systemwide NRS Advisory Committee, and more reserve-specific guidelines emerge from discussions among campus NRS administrators, Reserve Directors, and the campus NRS advisory committee. Activities that could irreversibly harm the natural values, ecosystem functions, and native biodiversity of the reserve, or preclude its possible future use for University-level research or instruction will not be allowed. Thus, the number and duration of stay by visiting researchers, classes, and members of the public will necessarily be limited at each reserve. Similarly, facility development at each reserve may be allowed only in designated areas and may be limited in size so that natural and cultural values are not adversely affected.

2. Process

The Reserve Director has primary responsibility for approving proposed uses under the NRS Use Guidelines and applicable reserve guidelines, and will coordinate management and all other uses of the reserve. In difficult cases, the Reserve Director will consult the faculty Reserve Director or other faculty with appropriate areas of expertise before approving or rejecting an application. If a user fails to comply with any of the requirements, the Reserve Director, after proper consultation, could restrict or terminate ongoing reserve use, and the user's subsequent use applications may be rejected. Each campus will establish an appeals process to deal with disputes between potential or current users and Reserve Directors regarding reserve use. This appeals process may consist of dispute resolution by an informed, ad hoc board consisting of faculty members with appropriate areas of expertise.

3. Management Plans

Each reserve has or is developing a management plan to ensure that the intrinsic

ecosystem functions of the reserve are maintained and, where needed, manipulated to achieve desired ecosystem functions. These plans (which include specific- reserve regulations) guide resource management decisions, identify areas suitable (in some instances, exclusively) for certain uses. Some plans may zone certain areas that contain fragile resources "off-limits" to most users. All activities (e.g., management, facilities construction) must comply with applicable federal, state, and local regulations.

A. Research Areas

Many research protocols require that the research area, including its biological resources and any equipment, be minimally disturbed by humans. Thus, some areas of each reserve may be set aside permanently or temporarily for research use only.

B. Instructional Areas

Areas designated for class use (e.g., for observing wildlife and plants) may also be used by researchers if their research will not be adversely affected by instructional use. C. Natural Areas

Reserves often include areas that have been relatively undisturbed by agriculture, grazing, logging, or other consumptive land-use history. Such natural areas will be identified and mapped. Based on the best available scientific evidence, management of such natural areas may require occasional large-scale management actions, such as controlled burning or flooding.

D. Disturbed Areas

Reserves frequently include former agricultural fields and other areas degraded by past intensive land uses. Management of these disturbed areas may involve manipulative measures (e.g., the use of herbicides, fire, cultivation). Where needed, these areas should be restored or enhanced when funds for such restoration and/or other resources become available. Restoration projects will only be implemented if the best available knowledge or scientific evidence indicates that the proposed restoration activity will not harm the natural values of the reserve or preclude the present or future long-term use of the natural area for research or instruction.

E. Administrative Areas

Each reserve management plan will identify a projected "build-out" location that specifies the optimum allowable facilities for resident staff, researchers, classes, and public outreach programs to ensure minimal impacts on the natural systems (e.g., carrying capacity based on the ecosystem responses or biodiversity). These locations may in some cases overlap with disturbed areas.

4. Research Use

All researchers using NRS reserves must have valid academic qualifications. Research in any subject area may be allowed if the researcher can demonstrate that the resources and/or facilities available at the reserve are reasonably necessary for the proposed research project.

A. Research Application

All researchers should discuss their proposed research project with the Reserve Director before formally applying for permission to conduct their studies. All researchers must complete an NRS Research Application (Exhibit A) and agree to comply with all reservespecific regulations. The applicant must specify the proposed project duration, dates of reserve use, contract and grant information, and provide a statement of purpose describing prospective research site(s), animal and plant populations that may be affected by the proposed research, as well as housing and other resources needed during their research. Applicants desiring the use of housing or facilities must include estimated arrival and departure dates, whereas day-use applicants should provide approximate dates of use and should sign in at entrance kiosks where required. Any potential disturbances to the reserve's ecosystem or cultural resources must be clearly described.

B. Evaluation

The Reserve Director will use the following criteria to evaluate each application for research use:

i. Impacts on Natural Systems

Potential positive and negative impacts on natural systems (e.g., significant new research, extensive collections, significant habitat alterations, introductions of species or genes); ii. Impacts on Present or Long-term Use

Potential positive and negative impacts on present or future long-term use of reserve for research or instructional purposes;

iii. Laws and Policies

Compliance with applicable state and federal laws, and with any established research guidelines of the reserve;

iv. Feasibility

Feasibility and scientific merit of proposed project;

v. Academic Credentials

Researcher's academic credentials and affiliation with institution of higher education or governmental agency or research institute. University of California researchers will generally be given priority, but every effort will be made to accommodate other users; vi. Funding

Certification of grant approval by the applicant's funding source;

vii. Alternative Sites

Availability and proximity of alternative sites;

viii. Safety

Ability of researcher to conduct research in a safe manner.

C. Decision

The Reserve Director will inform the applicant that his/her request has been approved, denied, or approved with conditions. If an application is approved, the researcher must comply with all applicable University regulations, including those that are reserve-specific, and provide all required state and federal permits. Reserve Directors and potential users will discuss appropriate restrictions on research projects involving experimental manipulations. For highly manipulative research that may irrevocably harm the natural values of the reserve or preclude its future use for University-level research or instruction, the prospective researcher may be directed to areas outside the reserve if such areas are available, or the application may be denied. If an application is rejected and the applicant disagrees with this decision, the applicant may appeal this decision to an ad hoc board of experts in that particular field appointed by the campus NRS administration or by the campus advisory committee.

D. Data

All researchers are strongly encouraged to annually provide, at a minimum, a text file that describes each data set derived from their work on the reserve and a summary of research results. Minimum required metadata include the title of each data set, the investigator's

name, mailing address, e-mail address, and an abstract. All researchers are strongly encouraged to provide copies of mature data sets derived from work on the reserve, which will be archived at the reserve.

E. Publications and Reports

All researchers must identify the University of California and the specific reserve where the research was completed in any publications or reports that result from use of the reserve. Two copies of each publication resulting from work done at a reserve shall be provided to the Reserve Director as soon as they become available. One copy of each thesis, preferably bound, shall be provided to the Reserve Director.

**Research Reporting Requirements (annual basis) in link below: <u>mvpgr_research_reporting_requirements.pdf</u>

5. Instructional Use

Reserves may be available for classes offered for credit by state- or nationally accredited colleges or universities. Classes in any subject may be allowed on site if the instructor can adequately demonstrate that unique resources at a reserve are reasonably necessary for the class. Reserve staff may be available to help facilitate a field trip or to co-lead a trip, but professors should be prepared to lead the field trip on their own. A. Class Use Application

All instructors should discuss their proposed class visit with the Reserve Director before formally applying for permission to visit the reserve. All instructors must complete an NRS Class Use Application (Exhibit B) and agree to comply with all reserve specific regulations. The instructor must specify the requested arrival and departure dates, the number of class participants, and a statement of purpose describing prospective teaching site(s), animal and plant populations that may be affected by the proposed class visit, and housing and other resources that will be needed during the visit. Any potential disturbances to the reserve's ecosystem or cultural resources must be clearly described. If applicable, the instructor must provide an approved animal care and use protocol from his/her home institution and all required state and federal permits.

B. Evaluation

The Reserve Director will use the following criteria to evaluate each application for instructional use:

i. Impacts on Natural Systems

Potential positive and negative impacts on natural systems (e.g., significant new research, extensive collections, significant habitat alterations, introductions of species or genes); ii. Impacts on Present or Long-term Use

Potential positive and negative impacts on present or future long-term use of reserve for research or instructional purposes;

iii. Academic Credentials

Instructor's academic credentials and affiliation with institution of higher education. University of California instructors will generally be given priority, but every effort will

be made to accommodate other users;

iv. Alternative Sites

Availability and proximity of alternative sites.

C. Decision

The Reserve Director will inform the applicant that his/her request has been approved, denied, or approved with conditions. If an application is approved, the instructor must comply with all applicable University regulations, including those that are reserve-specific, and provide all required state and federal permits. If an application is rejected and the applicant disagrees with this decision, the applicant may appeal this decision to an ad hoc board of experts in that particular field appointed by the campus NRS administration or by the campus advisory committee.

D. Publications and Reports

All instructors should acknowledge the University of California and the specific reserve where the instruction was completed in any publications or reports that result from use of the reserve. Two copies of each publication resulting from work done at a reserve shall be provided to the Reserve Director as soon as they become available.

6. Public Outreach

Where appropriate, reserves may be used to support research and education activities by K-12 classes, community groups, and qualified non-profit organizations. Except as specifically allowed, recreational use is expressly prohibited to protect sensitive habitats, ongoing research, and instructional programs.

A. Public Outreach Use Application

All group leaders should discuss their proposed reserve visit with the Reserve Director before formally applying for permission to visit the reserve. All group leaders must complete an NRS Public Outreach Use Application (Exhibit C) and agree to comply with all reserve-specific regulations. The group leader must specify the requested arrival and departure dates, the number of group participants, and a statement of purpose describing prospective teaching site(s), animal and plant populations that may be affected by the proposed group visit, and housing and other resources that will be needed during the visit. Any potential disturbances to the reserve's ecosystem or cultural resources must be clearly described and discussed in advance with the Reserve Director.

B. Evaluation

The Reserve Director will use the following criteria to evaluate each application for public outreach use:

i. Impacts on Natural Systems

Potential positive and negative impacts on natural systems (e.g., significant new research, extensive collections, significant habitat alterations, introductions of species or genes); ii. Impacts on Present or Long-term Use

Potential positive and negative impacts on present or future long-term use of reserve for research or instructional purposes;

iii. Alternative Sites

Availability and proximity of alternative sites.

C. Decision

The Reserve Director will inform the applicant that his/her request has been approved, denied, or approved with conditions. If an application is approved, the group leader must comply with all applicable University regulations, including those that are reserve-specific, and provide all required state and federal permits. If an application is rejected and the applicant disagrees with this decision, the applicant may appeal this decision to an ad hoc board of experts in that particular field appointed by the campus NRS administration or by the campus advisory committee.

7. Other Uses

NRS reserves may occasionally be available for purposes other than research or education activities (e.g., reasonably passive activities, such as nature film production and non-educational conferences), but only if there is a clear benefit to the research and teaching mission of the reserve, and if such use will not conflict with other uses of the reserve. Special permission must be obtained for these activities and will be granted only if, based on best available knowledge or scientific evidence, such proposed activities will not harm the natural values of the reserve or preclude the present or future long-term use of the natural area for research or instruction.

A. Application Process

Applicants proposing non-educational or non-research use of the reserve must apply to the Reserve Director, who will determine if such use is appropriate. In most instances, a formal license agreement with the University will be required and applicants will need to meet University contracting requirements (e.g., insurance, bonding, indemnity). If a formal agreement is not required, the applicant must, at a minimum, sign a release agreement.

B. Evaluation

The Reserve Director will use the following criteria to evaluate the application:

i. Impacts on Natural Systems

Potential positive and negative impacts on natural systems (e.g., significant new research, extensive collections, significant habitat alterations, introductions of species or genes); ii. Impacts on Present or Long-term Use

Potential positive and negative impacts on present or future long-term use of reserve for research or instructional purposes;

iii. Alternative Sites

Availability and proximity of alternative sites.

C. Decision

The Reserve Director will inform the applicant that his/her request has been approved, denied, or approved with conditions. If an application is approved, the applicant must comply with all applicable University regulations, including those that are reserve-specific, and provide all required state and federal permits. If an application is rejected and the applicant disagrees with this decision, the applicant may appeal this decision to an ad hoc board of experts in that particular field appointed by the campus NRS administration or by the campus advisory committee.

D. Non-educational/research Fees

Applicants for non-educational or non-research may be charged reasonable rates based on prevailing rates for similar situations. An appropriate in-kind fee or service, such as artwork relating to reserve use, may be considered on a case-by-case basis in lieu of a fee. These fees and materials will be used to support the research and educational programs of the reserve.

E. Non-Disclosure

Unless specifically agreed to in writing, neither University of California nor the name and location of the reserve shall be disclosed in any materials or publications that result from use of the reserve by these non-education or non-research users.

6. Scheduling

Priority for reserve use will be determined at each reserve based on its particular resources, facilities, and programs, and generally will be given to research and University-level educational uses.

7. User Fees

Each campus has established a fee structure for research and instructional use and public outreach programs that is appropriate to the particular situation at each reserve. At present (June 2015), fees are not required to visit the Merced Vernal Pools and Grassland Reserve.