COVID-19 Research Ramp-Up Plan:  
Protocols and Procedures for UCSB Natural Reserve System - Beginning Summer 2020  
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Overview
The University of California Santa Barbara (UCSB) Natural Reserve System (NRS) includes 7 UC owned or managed properties located in Santa Barbara, San Luis Obispo and Mono counties. The Reserves are operated for the purposes of supporting research and university-level education. Working at the direction of UCSB’s Office of Research (OR), in alignment with campus, UCSB’s Natural Reserves have been limited to day use research (with UCSB OR research exceptions) since March 13, 2020, in response to the COVID-19 global pandemic.

The information in this UCSB NRS Research Ramp-Up Plan ("the plan"), and associated documents, is intended to be used in the staged return to research as allowed by UCSB, and is composed of procedures and policies applicable across all 7 UCSB NRS sites. Implementation of these procedures and policies will vary based on specific Reserve location and character. As such, reserve-specific guidelines have been developed to support this plan and are available on Reserve websites and also directly from Reserve management staff. Further, to guide and support applicants for UCSB NRS Reserve use, a NRS COVID-19 Field Protocol: UCSB NRS Reserve Site Planning Checklist has been developed for all Research Users.

The information in this plan presents:
(I) Guiding principles  
(II) Procedures to Approve Research at Reserves  
(III) Requirements and Guidelines for all Users  
(IV) Tracking Reserve Users and Response Plans in case of COVID-19 incidence at the Reserves  
(V) Phased Ramp-Up of Research at UCSB NRS Reserves

I. Guiding Principles
The goal of the UCSB NRS Research Ramp-Up plan is to safeguard researchers and facilities while accommodating research to prevent great loss. To address topics II – V (as above), this plan largely relies on Federal Centers for Disease Control (CDC) guidance, State of California and County guidance in support of modification of current statewide COVID-19 Public Health Orders, UCSB OR Research Ramp-Up Guidelines, and the UC Natural Reserve System Administrative Handbook. These sources are generally referenced in the following ways:

A. Social distancing, PPE requirements, and cleaning protocols are aligned with the Federal Centers for Disease Control (CDC) health and safety guidance for operating during the COVID-19 pandemic.

B. Operation stages at UCSB NRS Reserves will follow State and county guidelines aimed at achieving key public health metrics to allow a gradual re-opening of California’s
economy. Specifically, the CA Resilience Roadmap defines 4 stages of expanded operations intended for gradual phasing. Counties may vary in their implementation of the CA issued guidance. The UCSB NRS field sites are located in 3 counties (Santa Barbara, San Luis Obispo and Mono) that may be in different stages at different times. UCSB NRS Reserves will align with relevant county public health guidelines:

1. Santa Barbara County Public Health Guidelines (Coal Oil Point Reserve, Sedgwick Reserve, Carpinteria Salt Marsh Reserve, Santa Cruz Island Reserve)
2. San Luis Obispo County Public Health Guidelines (K.S.N. Rancho Marino Reserve)
3. Mono County Public Health Guidelines (Sierra Nevada Aquatic Research Laboratory and Valentine Camp Reserve)

C. The principles, policies and procedures of the UCSB NRS Research Ramp-up Plan are aligned with the UCSB Office of Research (OR) Research Ramp-Up guidances including the Guidelines for Establishing Safe Research Practices, and the COVID-19 Research Ramp-Up Stage Definitions & Criteria which outlines the staged approach to allow gradual and conditional reopening of Reserves to research activities. Specifically, ramp-up of research related activities associated will follow three guiding principles that have been established across the UC system:

Principle #1: Follow local, State, and National Public Health Authority directives to shelter-at-home and maintain physical distancing.

Principle #2: Protect the physical and emotional health and safety of the research workforce, maintenance staff, clinical patients and human research subjects.

Principle #3: Utilize a suite of strategies to ramp-up research activities in a way that minimizes risks for all employees and is in compliance with public health guidelines.

A UCSB Field Research Committee (FRC) formed by the VCR and Deans will provide oversight to the UCSB NRS during the Research Ramp-Up to assure that Reserve operations meet all requirements and health protection protocols. UCSB NRS will work with the FRC to determine criteria, timing, and protocols surrounding transitioning from each UCSB Stage to the next, as defined in the UCSB OR guidance document “Research in the Time of COVID-19”. Plans outlined in this document also follow the COVID-19 Field Protocol Worksite Planning Checklist.

D. Natural Reserve management will continue to be informed by the UC NRS Administrative Handbook, an administrative manual developed by UC NRS Systemwide
to provide consistent policy and management guidance for UC NRS directors, managers and staff.

II. Procedures to Approve Research at Reserves
This section provides procedures to approve research use at Reserves that are based on usual Reserve management protocols, but have been adjusted to account for academic activities under COVID-19 response. A UCSB NRS COVID-19 Field Protocol and Reserve Site Planning Checklist has been developed to assist Reserve Users in the application, use and departure from UCSB NRS sites.

A. Application
An ad-hoc committee composed of UCSB Reserve Directors will meet weekly, starting the week of June 15th, to review research requests. This committee will provide input on the ability for the work to be safely conducted at each Reserve, priority of research requests at Reserves, and feedback on user COVID-19 safety proposals. The ad-hoc committee will review research requests once the following steps have been completed by the research applicants:

1. An advanced reservation must be submitted using the UCNRS Reserve Application Management System (RAMS). All research applications and reservations must be logged into RAMS in order for Reserve use to be considered and, ultimately, approved. NOTE: an approved research application in RAMS is required, as is an approved reservation for each use of a Reserve for any existing approved application.
2. All users included in a RAMS reservation must have filled out a UC NRS liability waiver.
3. Submit a COVID-19 Safety Plan (via Google Form) that outlines:
   ● Social distancing protocols and PPE use,
   ● Field safety techniques (dependent on research projects),
   ● Statement of how the research will be ramped-down during an existing reservation, should UCSB OR policy revert to Stage 1 or 2 while users are onsite,
   ● Plans for non-Reserve facilities (i.e. hotels, private home, accommodations) should any team member need to self-isolate (overnight use only),
4. Researchers must watch this COVID-19 Safety Presentation created by UCSB OR.
5. All UCSB Reserve users must enroll in a self-reporting health application developed by UCSB to track and report daily symptoms. All non-UCSB users should use an alternate self-reporting health application detailed below (section III.H.).
6. In addition to the standard release and waiver forms for each Reserve, users will acknowledge (as a checkbox within RAMS and the Safety Plan Google Form) that they have read the COVID-19-related documents based on Reserve-specific policies and procedures prior to use.

B. Criteria for Reserve Use Approval

Research priority will be given to critical research (see UCSB Office of Research Ramp-Up Stage Definitions & Criteria), including but not limited to: long term data sets, graduate students, expiring grants, and research equipment/sensor maintenance. The ad-hoc committee will use a risk-based evaluation framework (see below) to determine permissible activities at UCSB NRS Sites during UCSB Research Ramp Up. Once the ad-hoc committee has determined that a request for use is permissible, the research user will receive confirmation from the Reserve Director via RAMS and email.

### Evaluation of Permissible Activities at UCSB NRS Sites During UCSB Stage 3 Operations

1. Is the request being made research related, and proposed in a complete RAMS application/Reservation Request?
   - **YES** Go To Next Question
   - **NO** ➔ Deny Request

2. Is the request being made to work on a project deemed critical in that work cannot be stopped immediately without great (many months of work) loss of important materials or data?
   - **NO** ➔ Deny Request

3. Is the activity being made on the dates of the reservation request (including travel to and from the Reserve) permissible under current county Reopening Health Order(s)?
   - **NO** ➔ Deny Request

4. Can the request be accommodated without users overlapping at constriction points*?
   - **YES** Go To Next Question
   - **NO** ➔ Offer to Reschedule Request
     * Gate locks; information tables; bathrooms; kitchens

5. Can the Reserve handle the request*?
   - **NO** ➔ Deny Or Offer to Reschedule Request
   - **YES** Approve Request
     * Staffing is available; adequate PPE and cleaning supplies on hand; fire conditions favorable; needed facilities or transportation available

III. Requirements and guidelines for UCSB NRS Use

This section includes requirements and guidelines for use of UCSB NRS Reserves for all researcher users. Following UCSB OR Stage 3 guidelines, Reserves will limit occupancy to 25% of the facility maximum. On site logistics may vary depending on Reserve, and Reserve-specific guidelines (available at Reserve websites or from Reserve staff) address this.

A. Day Use of Reserves
During UCSB Research Ramp-up Stages 3-5, day use at Reserves will be granted for research deemed critical, and after adequate RAMS applications and reservations are submitted, evaluated and approved by the ad hoc committee. At most UCSB NRS sites, the majority of Stage 3-5 research use will be day use only. COVID-19 Safety Plans (II.3, and as below) from users must be submitted via Google Form to Reserve Directors and will be discussed by the ad hoc committee for research approval. All Reserve use, including day use, will require a COVID-19 Safety Plan and must include all items outlined in Section II.3 above. All day use of facilities will follow the policies outlined in Section III.3 of this document.

B. Overnight Use of Reserves
For Reserves that have the capability of allowing overnight use, limited overnight use will be allowed under UCSB Research Ramp-Up Stages 3-5. Initial UCSB NRS Reserve use at Stage 3 will limit capacity at each Reserve, limit allowable research activities at each Reserve, and guide expectations for safety and cleaning procedures. UCSB NRS overnight users will be assigned their own bedroom, except in cases where users cohabitate at their personal residences. The maximum capacity for overnight accommodations at each Reserve is dependent on layout, capacity, communal facilities, and safe use of vehicles. Each UCSB NRS Reserve outlines detailed protocols for Stages 3-5 reopening of facilities in Reserve specific guidance documents. Reserve facilities and common areas will require strict social distancing and cleaning standards, outlined in the following section. All users, including overnight users, must submit COVID-19 Safety Plans to Reserve Directors; COVID-19 Safety Plans will be discussed by the ad-hoc committee for approval. COVID-19 Safety Plans must include all items outlined in Section II.3 above.

C. Reserve Vehicles and Facilities Use Rules
Each Reserve has unique vehicles and facilities. The following are UCSB NRS policies for vehicles and facilities used by Research users at UCSB NRS Reserves. All policies are guided by UCSB OR Guidelines for Establishing Safe Research Practices. For every vehicle and facility used, users are expected to clean (using the procedures outlined in Section III.4 of this document) before use, after use, and immediately prior to departure from the Reserve. Reserves will provide cleaning supplies to users and staff. Staff will clean facilities and vehicles after departure or before arrival of groups following the guidelines outlined in Section IV. Specific facilities use rules are included in Reserve-specific guidelines available at Reserve websites or from Reserve staff.

1. Vehicles
Social distancing will be maintained for vehicle use on Reserves. Social distancing protocols are dependent on the layout and model of each vehicle at each Reserve. At some reserves, University-owned vehicles may not be available for use and users will need to use their own vehicles to ensure social distancing is maintained between researchers. For Reserves in which University-owned vehicles may be utilized by users, users are expected to clean those vehicles. Reserve-specific guidelines will include details relevant to a particular vehicle fleet by Reserve location.

2. Communal Facilities
With the exception of the Carpinteria Salt Marsh Reserve, all UCSB NRS sites have communal facilities, intended for multiple users. The following outlines required use protocols for these facilities.

**Kitchens:** User capacity of communal kitchens will be strictly limited. Users are encouraged to bring foods that require minimal preparation in order to limit time spent in communal areas. Protective face coverings must be worn by all users in all communal spaces, including kitchens, and cooking will be conducted by one user at a time in order to maintain social distancing. All kitchen users must clean all surfaces of the kitchen prior to kitchen use and after kitchen use is complete. Reserves will provide cleaning supplies to users and staff. A Google Calendar or similar tool will be maintained by Reserve staff to assign and coordinate use of shared kitchen facilities by users.

**Bathrooms:** Use of communal bathroom facilities will be limited to one user at a time. Reminder signage will be posted at the bathroom entrance and users will be required to verbally acknowledge if another user is present in the bathroom prior to entering themselves. Individual users are required to clean the surfaces that they use during any bathroom utilization (shower surfaces, toilet handles, toilet seats, stall doors, faucets, counters) after each use and prior to the entry of the next user. Reserves will provide cleaning supplies to users and staff.

**Indoor Living Spaces:** Use of indoor communal spaces such as dining rooms, living rooms or recreational rooms, will be unavailable during Stage 3-5 reopening. Eating and socializing will be done in outdoor facilities with safe social distancing practices in place.
Outdoor Living Spaces: Outdoor spaces (e.g., picnic tables, or other outdoor areas) will be utilized for all eating and socializing; social distancing will be safely practiced at all times.

3. Private Facilities
With the exception of Carpinteria Salt Marsh Reserve and Coal Oil Point Reserve, all UCSB NRS Reserves have private overnight accommodation facilities.

Bedrooms: To maintain social distancing, each bedroom will have a maximum occupancy of one user, except in cases where users cohabitate in their personal homes. No other users will be allowed to enter bedrooms during their stay at Reserves except for the individual user assigned to that room. Users must supply their own top sheet and other bedding (sheets, blankets, or sleeping bag) and take this bedding back with them at departure.

Kitchens: In facilities that have single occupancy and a private kitchen, the user will clean upon arrival and departure.

Bathrooms: In facilities that have single occupancy and a private bathroom, the user will clean upon arrival and departure.

4. Laboratories
All laboratory use at Reserves (Coal Oil Point Reserve and Sierra Nevada Aquatic Research Laboratory) will follow the UCSB EHS Lab Space Planning and Scheduling Guideline. Individuals and research teams will be assigned to laboratory spaces based on their research needs and space availability. All laboratory users must adhere to general use guidelines outlined above, and to social distancing guidelines, including use of face coverings in common spaces. Laboratory users will also be required to clean and disinfect laboratory spaces before and after use. Cleaning materials will be provided by the Reserve staff for use by Reserve users. A Google Calendar or similar tool will be maintained by Reserve Staff and shared with all laboratory users.

D. Cleaning and Disinfecting Procedures
Each reserve will follow established cleaning and disinfecting procedures established by the CDC specifically for shared or communal facilities such as those operated by the UCSB NRS. Staff will clean and disinfect all common spaces before and after use, using CDC approved
disinfectants and wearing appropriate PPE (face covering and gloves). Users will be required to disinfect housing spaces, kitchen spaces, bathrooms, and vehicles upon arrival and departure and after each use using the same CDC developed protocols and appropriate PPE. Staff will clean and disinfect housing spaces following departure of users or prior to arrival of new users.

E. Orientation and Compliance
Staff will provide up-to-date orientation materials and/or presentations to users about cleaning protocols, social distancing safety, and the importance of compliance. Users must watch this safety video COVID-19 Safety Presentation created by UCSB Office of Research that all researchers are expected to study.

Communal spaces will be inspected by staff regularly to assess for compliance (clean surfaces, evidence of use of supplied cleaning supplies, social distancing protocols in effect, PPE being worn at all relevant times). Users that are compliant with all stages of Reserve use as outlined in this document and the Reserve Specific Plans will be given priority over users who do not comply with these protocols.

F. Reserve Specific Protocols
All users must adhere to all existing Reserve-specific use guidelines as well as additional COVID-use protocols and procedures. Reserve-specific standard use guidelines can be acquired via email with Reserve management staff and are also found on the Reserve websites at the following links:
- Santa Cruz Island Reserve
- Sedgwick Reserve
- Sierra Nevada Aquatic Research Laboratory
- Valentine Camp Reserve
- Coal Oil Point Reserve
- Rancho Marino Reserve
- Carpinteria Salt Marsh Reserve

G. Social Distancing - Maintain social distancing of at least 6 feet, whenever feasible, and follow NRS procedures herein, and for specific Reserves, for handling and disinfection of shared equipment.

H. Daily Symptom Tracking - Daily symptom tracking is required. Users with UCSB Net IDs are required to use the UCSB Daily Wellness Test. Users unaffiliated with UCSB should utilize their home institution’s daily symptom tracker. If the user’s home institution has not developed a daily symptom tracker, then the user should indicate to the Reserve
Director on what daily symptom tracker they will be utilizing. Some examples of daily symptom trackers include: Stanford Medicine National Daily Health Survey, Johns Hopkins Medicine Coronavirus (COVID-19) Self Checker, and the UC San Francisco COVID-19 Citizen Science Study. Symptoms to be reported on include: cough, fever, difficulty breathing, sore throat, headache, muscle aches, loss of taste and/or smell, chills, excessive fatigue, nausea, vomiting, diarrhea or abdominal pain. If any user is experiencing any of these above-listed symptoms, it is required that they report this to Reserve staff and immediately make plans to leave the Reserve site, or refrain from coming on site.

I. **Necessary equipment** - Plan and pack gear for self-sufficiency, including hand sanitizer, face coverings, tissues, and first aid kit. Equipment needs may vary based on Reserve. Cleaning supplies will be provided by the Reserve but users are required to bring their own hand sanitizer, personal hygiene products, and PPE.

J. **Follow CDC guidance to Prevent Getting Sick** – Which includes the following:
   - Minimize touching of the face (specifically eyes, mouth and nose);
   - Wear a face cover in common areas, while in proximity to others; follow local public health requirements;
   - Wash hands with soap and water frequently for at least 20 seconds following CDC guidelines;
   - Use hand sanitizer when soap and water are not available;
   - Cover mouth and nose with a tissue when coughing or sneezing, or use the inside of one’s elbow. Dispose of used tissues and immediately wash hands;
   - Clean and disinfect frequently touched surfaces.

K. **COVID-19 Exposure** - Researchers should be asymptomatic for any COVID-19 symptoms and, if having been tested, negative for the COVID-19 virus, for at least two weeks prior to fieldwork. Users will not participate in any field research or use NRS sites should they feel ill or have reasonable cause to believe they have been exposed to COVID-19.

L. **Public Health Department Requirements** – Reserve users need to remain aware of local public health requirements and Reserve Use related policies regarding COVID-19 for Santa Barbara County, San Luis Obispo County, and Mono County. The latest public health requirements will also be made available from Reserve websites, or in RAMS.

M. **Contingency Planning** -- Maintain flexibility to alter plans at any time, self-isolate, or return home; plans for isolation or location for quarantine should be included in user COVID-19 plans provided to, and approved by the Reserve Director. Note that it is not
the responsibility of the UC, UCSB NRS, or the Reserves to provide for individual evacuation to health care facilities in the event of a COVID-19 incident. Users must provide resources to accommodate such situations if they are needed while visiting Reserves.

IV. Tracking Reserve Users and Response Plans in case of COVID-19 incidence at the Reserves

Site-Specific plans of action are included in each Reserve-specific COVID-19 Research Ramp-up plan. An overview of the plans is included here.

A. Tracking of Reserve Users

Each Reserve is unique in its location, availability of cell phone coverage, and interaction between staff and users. Each Reserve has a detailed plan to track day users and overnight users using site-specific resources such as QR codes, phone applications, and in-person interactions. Daily symptom wellness tracking is available for UCSB users and non-UCSB users should explain what symptom tracking application they are utilizing (see Section III.H. for suggestions).

B. Evidencing Symptoms of COVID-19

No users will be permitted access to Reserves who exhibit any symptoms of illness, including fever, cough, sore throat, or other COVID-19 related symptoms. All users granted access to Reserves will report any changes to their health to reserve staff via phone, text message or email. Any change in feedback from the daily symptom tracking will be reported to Reserve staff. All symptoms of illness will require that the individual must either call their personal health care provider, or if there is not a health care provider available, a virtual medical consultation using local telehealth resources must be pursued by the individual showing signs. For the relevant UCSB NRS Reserves, the tele-health resources are:

1. Santa Barbara County COVID-19 diagnosis service: “Cottage CareNow,” a free virtual consultation with a physician or nurse practitioner.
2. San Luis Obispo County COVID-19 diagnosis service: “Live Health Online”
3. Mono County COVID-19 diagnosis service: Dial 211 for free diagnostic services

If physician recommendation is immediate attention, then the symptomatic user shall seek this consultation and will depart from the Reserve following the guidelines in the following Section C, and at the expense of the user or user’s health care coverage.

C. Response or Treatment of Users with COVID-19 Symptoms
1. **Isolation/Quarantine**: If any Reserve users exhibit symptoms of COVID-19, CDC guidelines to isolate the person will be followed, and quarantine others that have been in contact. Reserve staff will coordinate with local county health officials who will help to determine a plan of action.

   In the event of a symptomatic reserve user, the user will be quarantined in their established room until they can be evacuated. Under most circumstances (outlined below), evacuation should occur as soon as possible following physician recommendation. In the event of a delayed evacuation due to weather conditions that prohibits travel, or users becoming symptomatic overnight in a location with fewer transportation options (Santa Cruz Island Reserve), or other circumstances, the user will remain quarantined onsite at the Reserve. In the event of extended quarantine, one bathroom facility will become a quarantine bathroom facility for the symptomatic individual and all other users will rotate use of other facilities following strict cleaning procedures outlined in this document. Meals and water will be delivered to the door of the quarantined room but all physical contact will be restricted. The isolation period of the symptomatic user will be minimized, in order to limit spread of COVID-19 within the Reserve. Minimization of the isolation period will be accomplished by rapid evacuation of symptomatic users as soon as possible after self-identification.

2. **Medical evacuation**: There may be an emergency event in which a medical professional is required to transport an individual from a Reserve to a medical care facility (i.e., the individual cannot transport themselves). Each Reserve-specific COVID-19 guidance document details county-specific procedures for medical evacuation specific to that Reserve. Medical evacuation will be dependent on the user’s symptoms, physician recommendation, and local facilities. Users can self-isolate and seek assistance at nearby medical facilities. UCSB NRS staff will not provide medical advice or diagnoses and all medical costs incurred are the responsibility of the user.

   Nearest medical facilities to each Reserve:
   i. Sedgwick Reserve: Cottage Hospital, Santa Ynez
   ii. SNARL/Valentine Reserve: Mammoth Hospital
   iii. Coal Oil Point Reserve: Cottage Hospital, Goleta
   iv. Rancho Marino Reserve: Sierra Vista Regional Medical Center
   v. Carpinteria Salt Marsh Reserve: Cottage Hospital, Santa Barbara
   vi. Santa Cruz Island Reserve: Santa Barbara Cottage Hospital (helipad), Ventura St. John’s (helipad), or Ventura Community
Memorial Hospital (please see the SCIR plan for transportation options; hospital will depend on transportation)

V. Phased Ramp-Up of Research at UCSB NRS Reserves

Implementation of the policies and procedures outlined in this document will depend on site-specific needs of each Reserve. As such, Reserve specific operating plans also follow the 6-stage operational plan outlined by the UCSB Office of Research, but include detailed site-specific information for staff and users, to allow for the ramp-up activities to occur under the procedures laid out herein.

Transition between phases and criteria for these transitions will be permitted by UCSB OR and will follow UCSB OR guidelines for incremental increase in use, diversity of use, cleaning and safety procedures, and revised definitions for allowable research activities. Based on UCSB OR Ramp-Up Stage Definitions & Criteria: Stage 3, initial UCSB NRS Reserve reopening will limit capacity at each Reserve to between 15% and 30%, limit allowable research activities at each Reserve with preference for day-only use, and guide expectations for safety and cleaning procedures. UCSB NRS Reserves will follow continued guidance from UCSB OR and the FRC but will limit capacity and follow safety protocols as outlined in this section and guided by the UCSB OR Guidelines for Establishing Safe Research Practices.