

Valentine Eastern Sierra Reserves

Information and Guide for SNARL and Valentine Reserves



Natural Reserve System
UNIVERSITY OF CALIFORNIA



SNARL and Valentine Reserves

<https://vesr.nrs.ucsb.edu/>

1016 MOUNT MORRISON ROAD, MAMMOTH LAKES, CA 93546 | LAST UPDATED June, 2022

Table of Contents

About Valentine Eastern Sierra Reserves	5
<i>SNARL</i>	5
Geologic Monitoring	5
Public Outreach	5
Regional Field Station	5
Field courses	5
Selected Research	5
<i>Valentine Reserve</i>	6
Forest Management	7
Public Outreach	7
Field Courses	7
Selected Research	7
Contact Information	8
Regional Resources	8
What to Bring	9
<i>Food</i>	9
<i>Paper Products</i>	9
<i>Bedding</i>	9
<i>Towel and Toiletries</i>	9
<i>Signed waiver</i>	9
What NOT to Bring	9
<i>Firearms</i>	9
<i>Pets</i>	9
<i>Drugs</i>	9
<i>Exotic Species</i>	9
Code of Conduct – UC Natural Reserve System	10

<i>Expected Behavior</i>	10
<i>Unacceptable Behavior</i>	10
<i>Resources</i>	10
Directions	10
<i>To snarl from the south</i>	10
<i>To snarl from the north</i>	11
<i>To Valentine Reserve</i>	11
<i>Road Conditions:</i>	11
<i>Typical driving times:</i>	11
Maps	11
<i>SNARL Overview</i>	12
<i>SNARL Campus</i>	13
<i>Valentine Reserve Campus</i>	14
Daily life at SNARL and Valentine Reserve	15
<i>Parking</i>	15
<i>Camping at SNARL</i>	15
<i>Fire, Smoking, Grilling and Woodstoves</i>	15
<i>Trash and Recycling</i>	15
<i>Bears and other Wildlife</i>	16
<i>Driving Speed</i>	16
<i>Shop, Garage and Tools</i>	16
<i>Visitors</i>	16
<i>Telephones and Internet</i>	16
<i>Mail and Packages</i>	16
<i>Printers and computers</i>	17
<i>Laundry</i>	17
<i>Library and VESR Biological and Climate Resources</i>	17

<i>Recreation</i>	17
Trails	17
Basketball, Horseshoes, Bocce	17
Health, Safety and Emergency Information	18
<i>Elevation, Altitude and Acute Mountain Sickness (AMS)</i>	18
<i>Hydration and Sun Exposure</i>	18
<i>Field Safety</i>	18
<i>Wildlife – Bears, Mountain Lions, Coyotes, Deer</i>	18
<i>Diseases transmitted by mice, ticks and mosquitos</i>	19
Hantavirus, Lyme Disease and West-Nile Virus	19
<i>First Aid and AEDs</i>	19
<i>Laboratory Use and Safety</i>	19
<i>Animal Subjects</i>	19
<i>COVID Safety Guidelines</i>	19
Fire Safety, Wildfire and Air Quality	20
Research Reporting Requirements	21
<i>Digital Object Identifiers (DOIs)</i>	21
<i>Acknowledgments</i>	21
<i>Bibliography</i>	21
Social Media	21
Cleaning	22

About Valentine Eastern Sierra Reserves

[Valentine Eastern Sierra Reserves \(VESR\)](#) comprise two of 41 sites in the [University of California's Natural Reserve System \(NRS\)](#). The Reserves are administered by UC Santa Barbara and consist of **two sites, Valentine Reserve** and the **Sierra Nevada Aquatic Research Laboratory (SNARL)**, located 15 miles apart near Mammoth Lakes in the eastern Sierra Nevada. The mission of the Natural Reserve System is **to contribute to the understanding and wise stewardship of the Earth and its natural systems by supporting university-level teaching, research, and public service at protected natural areas throughout California**. VESR provides protected wildlands, on-site experimental facilities, as well as the support facilities for conducting studies of natural systems over a large part of central, eastern California and western Nevada. The Reserves are open, by application, to any bona fide researcher or instructor.

SNARL

With a large, modern laboratory and computing facilities, the [Sierra Nevada Aquatic Research Laboratory \(SNARL\)](#) serves as a major center for research for the eastern Sierra Nevada and Owens Valley. The site features a human-made experimental stream system consisting of nine meandering channels used for research on stream hydrology and ecology. Convict Creek flows year-round through SNARL, feeding the experimental system and providing a natural stream environment protected from grazing and other human impacts. Non-aquatic research is also supported and encouraged on the reserve's pristine habitats, which include Great Basin shrubland and grassland, high desert riparian woodland, and riparian meadow. Another nearby NRS site, Valentine Camp, joins with SNARL to comprise the Valentine Eastern Sierra Reserves (VESR).

Geologic Monitoring

U.S. Geological Survey-funded scientists monitor seismic activity in the Long Valley Caldera and carbon dioxide emissions around Mammoth Mountain.

Public Outreach

Environmental education programs for local elementary school students; K-12 summer camps; public tours; short courses.

Regional Field Station

The reserve attracts users from all UC campuses, many out-of-state colleges/universities, federal laboratories and research programs; the reserve manager consults on regional resource management issues.

Field courses

University courses using this site include botany, geology, environmental studies, snow science, and other UCNRS-wide courses.

Selected Research

- Ecology of Mono Lake: UC research since 1976 on Mono Lake influenced a 1994 decision of the State Water Resources Control Board to raise the lake level, helping to restore its ecosystem; recent research projects there include physical limnology modeling and monitoring of brine shrimp and alkali fly populations.
- [Mountain Lakes Research Group](#) – working on all aspects of biology, ecology and conservation of the Endangered Mountain Yellow Legged Frog, and mountain lake ecology

- Sierra snowpack: SNARL scientists operate a [Snow Science Laboratory](#) on Mammoth Mountain; the National Science Foundation and NASA Earth Observing System Project fund ongoing studies of snowpack properties and snowmelt runoff.
- Aquatic biology: Ongoing studies examine impacts of livestock grazing on stream ecology and effects of nonnative trout on Sierra Nevada lake ecosystems.

Location

Mono County, eastern slope of Sierra Nevada; 13 km (8 mi.) east of Mammoth Lakes just off U.S. Highway 395.

Facilities

Experimental stream complex; molecular biology lab and nine wet labs, controlled-environment room, offices, Page Center Conference and meeting facility, classroom, conference room; dormitory, and five additional housing units; classroom annex; database center with extensive computer facilities; storage for long-term researchers' equipment; Mammoth Mountain Snow Science Lab located nearby.

Databases

Plant List; Long-term flow/temp records for Convict Creek; climate data; maps; bibliography of on-site research; synoptic collections; aerial photos; regional geographic information system (GIS).

Personnel

On-site staff: reserve manager, stewards, and education coordinators.

Size

22.6 hectares (56 acres)

Elevation

Regional: 1,250 to 4,012 m (4,100 to 13,163 ft); Site: 2149 to 2160 m (7052 to 7116 ft.)

Average Precipitation

25 to 38 cm (10 to 15 in.)/yr, most as snow.

Average Temperature

Summer: 0 to 29 °C (32 to 84 °F); Winter: -23 to 11 °C (-10 to 52 °F)

VALENTINE RESERVE

[Valentine Reserve](#) (also called Valentine Camp) is a center for research in the high Sierra Nevada and the upper Owens Valley. The reserve lies in a glacier-carved basin in a transition zone between the sagebrush desert of the Great Basin and the coniferous forests of the high Sierra Nevada. With its varied topography and soils, the site encompasses several distinct habitats: Sierran upper-montane forest and chaparral, Great Basin sagebrush, and wet montane meadow, all occurring within a relatively small area. Mammoth Creek flows through the site, bordered by high montane riparian vegetation. Several large springs and small seeps add to diverse habitats. Valentine and SNARL together comprise the Valentine Eastern Sierra Reserves (VESR).

Forest Management

Selected projects to reduce fire hazards and improve forest health.

Public Outreach

Outdoor science education programs; K-8 summer camps; internships; public tours; citizen science projects.

Field Courses

Site visits by university courses in wetland delineation, botany, and plants of the high country.

Selected Research

- Forest and Fire ecology: Valentine Camp fire history studies, stand-age analysis, and fuel-loading maps will be used to develop a fire management plan.
- Wetland mapping project: Identification and delineation of wetlands in Long Valley.
- Plant ecology: Population ecology, ecophysiology, and genetics of mountain brome grass.
- Avian ecology: Artificial nest boxes are used to attract house wrens for study in breeding behavior and endocrinology.
- Expanded research opportunities: Studies of insects, mammals, and amphibians are conducted on the reserve and at other regional sites.

Location

Mono County, on the eastern slope of the Sierra Nevada in the town of Mammoth Lakes.

Facilities

Housing for 20 in three renovated cabins with modern cooking, sleeping, bathrooms, electricity, Internet, spring water. Other facilities include limited parking/storage space, and a log classroom building. Supplies are available in neighboring Mammoth Lakes.

Databases

Synoptic collections of plants/insects available nearby at Sierra Nevada Aquatic Research Laboratory and UC Santa Barbara; bibliography of publications based on on-site research; aerial photos.

Personnel

Onsite caretaker and steward, and education coordinators.

Size

62 hectares (154 acres)

Elevation

Regional: 1,250 to 4,012 m (4,100 to 13,163 ft); Site: 2,437 to 2,605 m (7,994 to 8,545 ft.)

Average Precipitation

51 to 64 cm (20 to 25 in.) per year, mostly snow

Average Temperature

July maximum: 28 °C (82 °F); January minimum: -10 °C (14 °F)

Contact Information

Carol Blanchette, VESR Director and SNARL Onsite Reserve Manager, carol.blanchette@ucsb.edu

Phones: **office:** 805-893-5698, **cell:** 805-403-9561

Jeremiah Eanes, VESR Assistant Reserve Manager, jeanes@ucsb.edu

Phones: **office:** 805-893-5695, **cell:** 760-709-0972

Ben Peck, VESR and Valentine Onsite Steward, benjaminpeck@ucsb.edu

Phones: **office:** 805-893-5695, **cell:** 760-709-6296

Carole Lester, VESR Education Coordinator, carole.lester@ucsb.edu

Phones: **office:** 805-893-5655, **cell:** 760-914-3722

Regional Resources

The [Town of Mammoth Lakes](#) is in [Mono County](#), and is 10 miles from SNARL and is a well-developed tourist town with groceries, gas, restaurants and shops. The town of Crowley lake is approximately 5 miles south of SNARL, but far less developed with only one small gas station and a small bakery (East Side Bake Shop). Bishop is approximately 30 miles south of SNARL, and is a larger town (but less touristic than Mammoth) with groceries, gas, restaurants and shops. The nearest restaurant to SNARL is the Convict Lake Resort, just 4 miles up Convict Lake Road. The restaurant, bar and general store are open year-round. Valentine Camp is located just outside of the main Mammoth Lakes business area. [Mammoth Mountain](#) operates a ski resort in winter and bike park in summer, and there is abundant hiking, biking, fishing, golf and other recreational activities in Mammoth Lakes during the summer. Valentine Reserve is located in the town of Mammoth Lakes and is adjacent to USFS land and Mammoth Mountain.

What to Bring

FOOD

All units have a cooking area with sink, refrigerator, stove, pots, pans, dishes, utensils and a variety of small appliances, and there is a propane grill at SNARL. Users need to bring their own food. All the water at SNARL comes from a well and is safe and good to drink. Water at Valentine Camp comes from a spring, and there are filters in each unit for drinking water. Dish soap, dish towels and sponges are provided, but we ask longer term users to purchase replacement soap and sponges.

PAPER PRODUCTS

We will supply a limited quantity of toilet paper and paper towels, and we ask that users either bring or purchase replacement paper products. Please purchase septic safe toilet paper.

BEDDING

All units have beds with mattresses (mostly twin mattresses) with mattress covers. Users must bring their own bedding (either sleeping bags or sheets and blankets), topsheet and pillows.

TOWEL AND TOILETRIES

All units have a bathroom with a tub or shower and a sink. Users must bring their own towels and toiletries.

SIGNED WAIVER

Waivers in pdf format can be downloaded from RAMS or the VESR website, or can be signed electronically via DocuSign – links to the Waivers at: <https://vesr.nrs.ucsb.edu/research/permits-waivers>. We request that all users sign and submit waivers prior to arrival.

What NOT to Bring

FIREARMS

Guns, explosives and other dangerous weapons are not allowed on UC Reserves

PETS

Visitors are not allowed to bring their pets to the reserves.

DRUGS

Controlled substances are not allowed on the reserve. Smoking is prohibited on the reserves.

EXOTIC SPECIES

If you are doing research involving alien or introduced species, please consult with the reserve director before bringing any seeds, or living plants or animals to the reserve.

Code of Conduct – UC Natural Reserve System

EXPECTED BEHAVIOR

- All participants, visitors, staff, students, faculty, and vendors are to be treated with respect and consideration, valuing a diversity of views and opinions.
- Be considerate, respectful, and collaborative.
- We are living in a small community, where respect for each other and the place is required.
- Alert station or campus personnel if you notice a dangerous situation or someone in distress.

UNACCEPTABLE BEHAVIOR

- Harassment, intimidation or discrimination in any form.
- Physical or verbal abuse of any participants, visitors, staff, students, faculty, vendors, neighbors, or other field station guests.
- Verbal comments related to gender, sexual orientation, disability, physical appearance, body size, race, religion, national origin.
- Unwelcome physical contact.
- Inappropriate use of nudity and/or sexual images in field station spaces.
- Threatening or stalking any participants, visitors, staff, students, faculty, vendors, neighbors, or other field station guests.

RESOURCES

In case of Emergency, dial 911 from cell phone or 9-911 from a SNARL VOIP phone

[UCSB Campus Advocacy Resources and Education \(CARE\)](#)- 805-893-3778

[UCSB Ombuds Office](#) – 805-893-3285

[UCSB Title IX & Sexual Harassment Policy Compliance Office](#) - 805-893-2701

Directions

TO SNARL FROM THE SOUTH

Take US 395 north to Bishop, CA. As you head north out of Bishop look for a Shell Gas station at the junction of US 395 and Highway 6. Note the reading on your odometer and proceed north on 395. At 31.3 miles you will pass a turnoff signed “Crowley Lake Drive/Long Valley”. The turn to SNARL, Mt. Morrison Rd., is the next turn on the LEFT, at 32.5 miles. As you climb up the hill past the CalTrans station, you will turn left onto Mt. Morrison Road just at the top of the hill. Proceed to the end of Mt. Morrison Rd. (ca. 1 mile) and you will be at SNARL. There is no gate at SNARL. You can drive into the SNARL campus and park in any spot in the general parking area. Please drive slowly on the reserve.

TO SNARL FROM THE NORTH

Take US 395 south toward Mammoth Lakes and Bishop, CA. Do not take the Mammoth Lakes turnoff (Highway 203) off 395. As you pass the Mammoth turnoff, note the reading on your odometer. Proceed another 5.5 miles and you will see a small green church on the left side of the highway. Stay on 395 one-half (0.5) mile past the church and turn RIGHT on Mt. Morrison Rd. Proceed to the end of Mt. Morrison Rd. (ca. 1 mile) and you will be at SNARL. The SNARL gate is generally open. You can drive into the SNARL campus and park in any spot in the general parking area. Please drive slowly on the reserve.

TO VALENTINE RESERVE

From HWY 395 take the Mammoth Lakes turnoff, Highway 203. If approaching from the South, turn left; from the North follow the ramp around to the right. Continue approximately 2 miles to the first traffic signal, Old Mammoth Road. Turn LEFT and stay on Old Mammoth Road for 2.2 miles.

Valentine is on the RIGHT marked by a wooden sign and a paved driveway leading to a gate. Please close the gate behind you after driving onto the reserve. Please drive slowly - the speed limit on the interior Valentine Road is enforced at 5 mph.

ROAD CONDITIONS:

CalTrans (<http://www.dot.ca.gov/>)

Yosemite National Park – Tioga Pass (<https://www.nps.gov/yose/planyourvisit/tioga.htm>)

TYPICAL DRIVING TIMES:

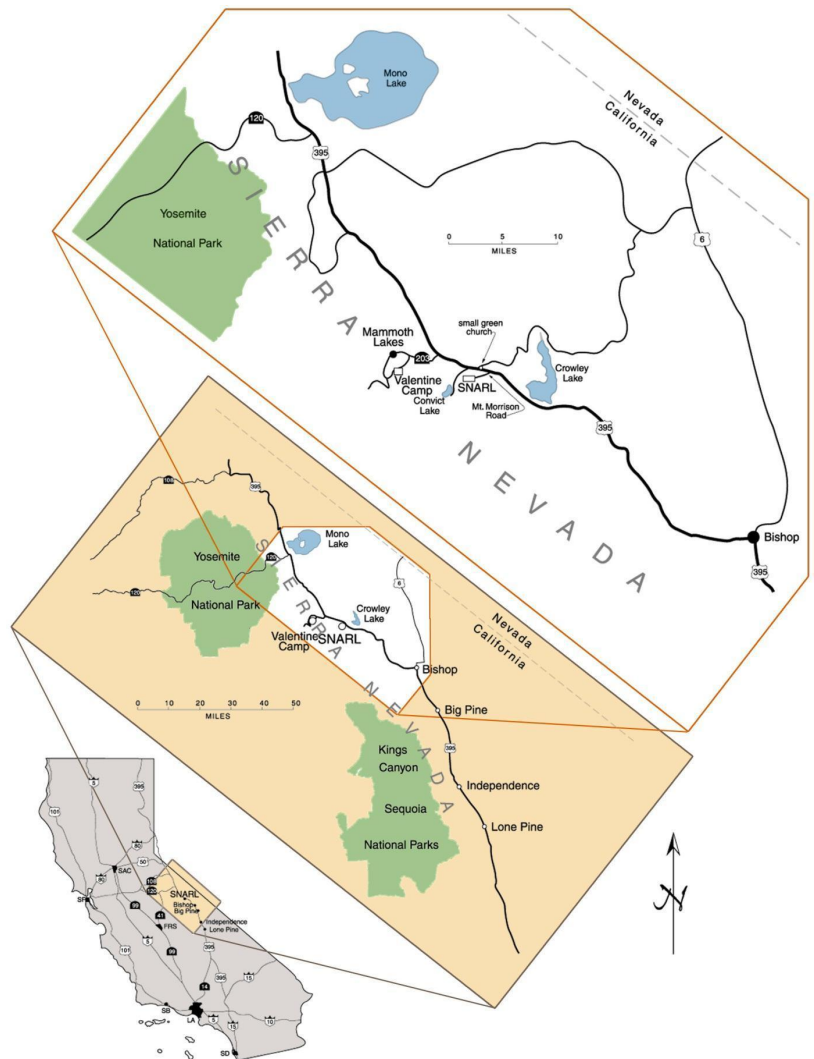
San Diego: 6 hours

Santa Barbara: 6 hours

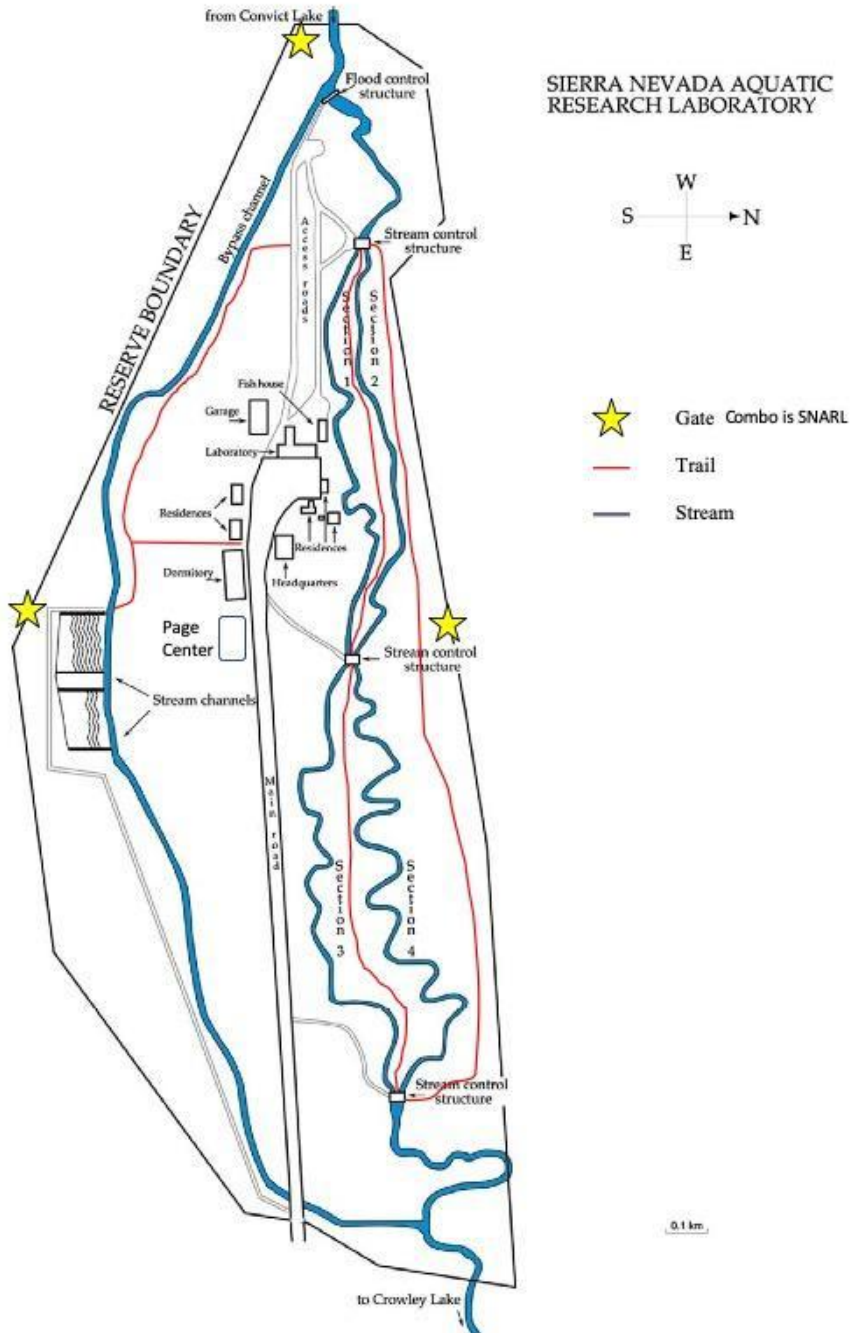
Los Angeles: 5 hours

Reno: 4 hours

San Francisco: 6 hours through Yosemite; 8-12 hours depending which pass is open



SNARL OVERVIEW



SNARL CAMPUS

1016 Mt Morrison Road, Mammoth Lakes, CA 93546



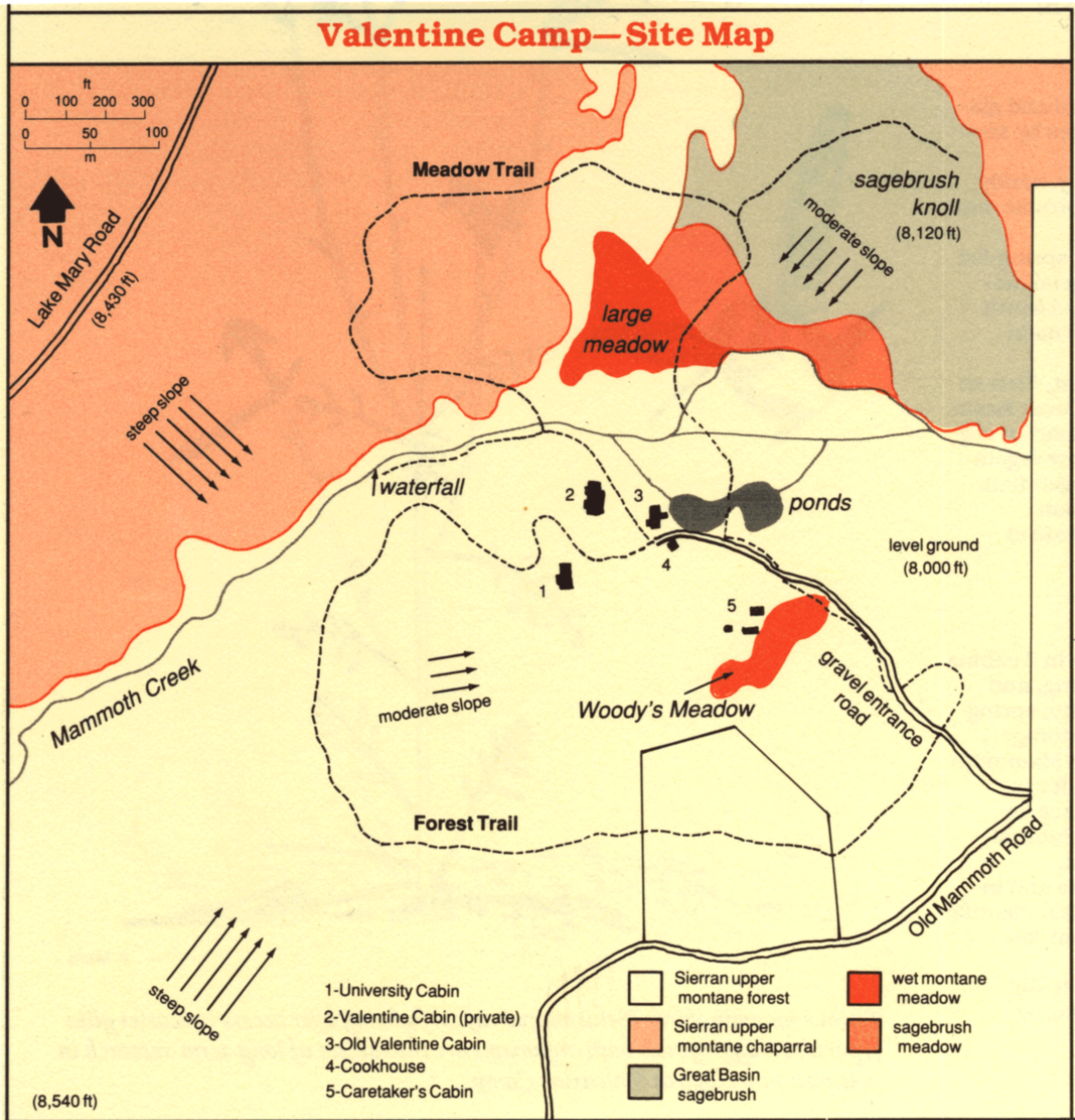
SNARL Campus



- | | |
|---|---|
| 1. Page Center (classroom and lecture hall) | 11. Animal House (animal research facility) |
| 2. Sage Dorm (dormitory) | 12. Storage Containers (storage spaces) |
| 3. Cottonwood House - Q8 (researcher housing) | 13. Wood Shop (large power tools) |
| 4. Birch House - Q7 (Director's residence) | 14. Garage (large equipment) |
| 5. Morrison Building - HQ (Offices, kitchen and conference rooms) | 15. Shop (tools and small power tools) |
| 6. Meadow House - Q1 (researcher housing) | 16. Recycling and Trash (containers and dumpster) |
| 7. Creek House - Q2 (researcher housing) | 17. Willow (shipping container residence) |
| 8. Aspen House - Q3 (researcher housing) | 18. Camp East (designated tent area) |
| 9. Laboratory (research laboratory) | 19. Camp West (designated tent area) |
| 10. Fish House (flow-through tanks) | 20. The Shack (bathrooms and showers) |

VALENTINE RESERVE CAMPUS

2380 Old Mammoth Road, Mammoth Lakes, CA 93546



Daily life at SNARL and Valentine Reserve

PARKING

At SNARL in the summer, please park in a designated parking spot on the pavement, not on dirt or grass. Please do not park in front of the Director's Residence. In the winter, you must be available to move your vehicle as we do snow removal. If you will be gone but your vehicle will be at SNARL, please leave the keys in the car or with us in the office. At Valentine, you may park near the front gate, or when permitted in designated spots that are near your cabin.

CAMPING AT SNARL

In the summer, busy season when demand for space exceeds our capacity we will allow approved users to camp in our designated camping location. Please note that overnight fees apply whether you are camping or staying in one of the beds. **You must let us know in advance if you plan to camp and you must set up your tent in the assigned camping area.** This is very important since there are many areas of the reserve that are sensitive habitat, study areas or restricted. Please do not set up a tent without advance permission from the director – we are a reserve not a campground and we ask that you respect this distinction.

FIRE, SMOKING, GRILLING AND WOODSTOVES

Due to extreme fire danger, we do not allow open fires anywhere at either reserve. Smoking is not allowed anywhere on either reserve. If you need to use the woodstoves in the Valentine cabins for heat, please contact the caretaker for permission and instructions. We have a propane BBQ at SNARL near the Headquarters building that users may use for grilling.

TRASH AND RECYCLING

Trash and Recycling containers are located at SNARL and at Valentine Camp. At SNARL the trash dumpster is located just outside the garage, along with the recycling containers. Trash and recycling are all located near the Kohler Shed at Valentine camp. Please don't dump styrofoam "peanuts" in the dumpster loose, place them in the designated barrel in the garage at SNARL or seal them in a plastic bag so they can't blow around when the dumpster is emptied. The bears routinely check the dumpster, please ensure the carabiner on the dumpster is securely latched after depositing your trash. **Keep bears safe.**

Detailed recycling instructions are located in the residence units. We recycle as much as possible in an attempt to reduce the amount of trash going to the landfill. At SNARL, there is a trailer located in the big garage for flattened cardboard and red bins for paper. There are also receptacles in the garage near the cardboard trailer for used batteries and lightbulbs - Please do not throw these in the trash. Glass, plastic, and metal should all be sorted and emptied into the labeled bins outside the garage.

BEARS AND OTHER WILDLIFE

Do not leave any coolers, trash, food or smelly supplies such as toothpaste in cars. Bears can and will break into cars to investigate. Do not leave your cabin or residence doors open. Bears and other creatures will wander in. Do not leave coolers outside –all coolers must go inside. **Keep bears safe.**

DRIVING SPEED

Please drive slowly! Deer are very abundant all around SNARL, and cows are abundant on Mt Morrison Road in June and July when ranchers graze the lands around SNARL. Wildlife, animals and children are abundant at both reserves. Please reduce your speed to 25 mph at the SNARL cattle guard and to 10 mph as you approach the dorm and other buildings. Please reduce your speed to 5 mph on the Valentine Camp roads to minimize dust.

SHOP, GARAGE AND TOOLS

Tools are stored in the maintenance shop and may be checked out from the steward. Tools may not be taken off-site, except in special circumstances and by prior arrangement. If you expect to need a tool at some other time, please anticipate and check it out when the shop is open, and the steward is available. Missing or broken tools will be charged to the person who checked them out. If you need larger equipment, or power tools, please request a checkout and safety orientation from the steward.

VISITORS

If you are staying at SNARL or Valentine Camp and plan to have a visitor, you must request permission from the Director in advance. We require a signed waiver for all visitors, and a RAMS reservation for any overnight visitors. Children must be supervised at all times.

TELEPHONES AND INTERNET

SNARL is equipped with high speed internet and WIFI throughout campus. The network at SNARL is called '**SNARL_guest**' and is not password protected. Valentine Camp also has internet and WIFI in each of the cabins. Names and passwords are noted in each cabin. Cellular phone reception at SNARL is poor on all carriers. We have a signal booster in the lab, that is useful for making calls, but you must be in or just in front of the lab for that to work. Most newer cell phones are equipped with a WIFI calling setting. Turning on WIFI calling on your phone works well in all the main areas and buildings at SNARL.

MAIL AND PACKAGES

Packages are delivered directly to the Morrison Headquarters building at SNARL daily by UPS and FedEx. If you need to order something, it is most convenient to have it delivered by UPS or FedEx and **NOT US POSTAL**. Our mailing address is 1016 Mount Morrison Rd., Mammoth Lakes, CA 93546. You may receive mail at SNARL, but there is no forwarding service when you leave. There is no mail or package delivery to Valentine, but you may have packages delivered to SNARL and pick them up at SNARL.

PRINTERS AND COMPUTERS

Printers are available in the computer room upstairs in the Morrison Headquarters Building. Printing is charged at \$.05 per page, black and white printing at \$.07 per page, color printing at \$0.15 per page.

LAUNDRY

We have a washing machine at SNARL in the foyer of the dorm that researchers may use for laundry at \$1 per load. Please use only the biodegradable soap that is provided, and make sure to pre-rinse any really dirty clothes outside, as our machines and plumbing are delicate. There is a clothesline between the dorm and the Cottonwood House (Q8) and another behind the Meadow House (Q1) for hanging wet clothes. We ask that large classes do laundry at laundromats in town.

LIBRARY AND VESR BIOLOGICAL AND CLIMATE RESOURCES

SNARL has a library/computer room upstairs in the Morrison Headquarters Building. There are a wide variety of books, theses, reports, photos, maps and other materials available for browsing or checking out. Biological species lists are available online for both SNARL and Valentine Camp, and SNARL houses reference collections of plants, and some insects at SNARL. SNARL operates an onsite weather station, and current weather and historical climate data from SNARL are available through the VESR website.

RECREATION

Trails

A very nice set of trails has been constructed all around SNARL and Valentine Camp that you are welcome to use. See the maps for the trail locations. There are several gates leading out of the SNARL property. The combination to all gates is SNARL. Please always close the gate behind you if you enter or exit the property. There are two loop trails that access most of the Valentine Reserve. Please restrict all casual and class use of the Reserve to the trails. Researchers should make arrangements with the Director for off-trail use.

Basketball, Horseshoes, Bocce

There is a basketball hoop in the parking lot at SNARL and basketballs in the bucket in the garage or green metal can near the hoop. **DO NOT TRY TO DUNK.** If you break the rim or backboard you will have to replace it (Yes, it has happened more than once...). There is a horseshoe pit on the east side of the Morrison Headquarters Building that you are welcome to use. Horseshoes can generally be found in the area of the pit. There is a bocce court and some tables and chairs in the area behind the dorm. Bocce balls can generally be found in the area of the court.

Health, Safety and Emergency Information

ELEVATION, ALTITUDE AND ACUTE MOUNTAIN SICKNESS (AMS)

Both SNARL and Valentine Camp are located at high elevation (between 7000-9000 feet above sea level). If you are traveling here from lower elevations, you will likely notice shortness of breath and fatigue, and may experience headaches, nausea or sleeplessness. Acute mountain sickness is caused by the reduced percentage of oxygen at this elevation. Limit strenuous activity, limit alcohol consumption and get plenty of water and rest. Most people feel better within a few days.

HYDRATION AND SUN EXPOSURE

The eastern Sierra is an extremely dry environment, and it is essential to stay hydrated. Drink at least twice as much water as you normally would in a more humid, coastal environment. Due to our high elevation, sun exposure is also much greater than at sea level. UV radiation at VESR elevations is more than 25% greater than at sea level, and it is essential to apply sunscreen and cover and protect your skin to avoid sunburns and skin cancer.

FIELD SAFETY

If you plan to travel into the backcountry for your research or class, it is essential that you are prepared. Create a travel plan and notify someone who is not traveling with you on where you are going and when you plan to return. Make sure that you have maps and that you are prepared with adequate clothing, food and water. Mountain conditions in the Sierras can change rapidly. Be prepared for rain, lightning and snow. Know what to do if you get lost, know how to treat your water, know how to prevent hypothermia and protect yourself from the sun. For your safety and the safety of wildlife, know how to store your food properly. If you are traveling in winter conditions, study the snow and avalanche conditions and be prepared and trained in the use of snow safety gear (avalanche beacon, probes, shovel) and always travel with a buddy. There is more backcountry safety information in the binders in the units and links to resources. UCSB has a [Field Safety program](#) with additional information. We encourage you to carry a Satellite communication device if you are working in the backcountry. If you do not have one please see the Director to borrow a Garmin InReach device.

WILDLIFE – BEARS, MOUNTAIN LIONS, COYOTES, DEER

Both SNARL and Valentine Camp have abundant open spaces for wildlife and deer, coyotes, bears and mountain lions are active on both reserves. We take our interactions with bears very seriously for the safety of our visitors, and the safety of the bears. ‘Problem’ bears (those that interact with humans and learn to eat human food and trash) are often killed. Do not feed any wildlife. Keep all food and trash out of your cars, and properly store food inside your cabins. Do not approach bears or mountain lions. Avoid hiking or jogging at dawn and dusk and at night alone.

DISEASES TRANSMITTED BY MICE, TICKS AND MOSQUITOS

Hantavirus, Lyme Disease and West-Nile Virus

Keep an eye out for mice or mouse droppings in your units, and let us know if you see evidence of mice, and we will set traps. If you see mouse droppings, spray the area with the bleach solution (in your cleaning supplies) before cleaning the area. Mice are known to carry Hantavirus, which can be transmitted to humans when fresh feces are stirred up, and the virus becomes airborne. Please refer to the Hantavirus fact sheets in the residence binders for more information.

Although ticks are not very common at our elevation, they have become more common in recent years as the climate has warmed. Ticks can transmit a variety of diseases, including lyme disease. Please see the fact sheet in the residence binder for more information. Wear tick repellent and check your body for ticks every day. See a doctor if you develop a bulls-eye rash, fever or severe joint pain after being bitten by a tick.

Mosquitoes can transmit a variety of diseases including West-Nile virus. The best protection is to prevent yourself from being bitten by mosquitos. Cover your skin, especially in the evening, and use mosquito repellent.

FIRST AID AND AEDs

We have basic first aid stations and kits in the main buildings at SNARL and Kohler shed and Education Center at Valentine. It is best to bring your own kit if you need more specific items or medications. We also have AEDs onsite at each reserve. The SNARL AED is in the Front Hallway of the Morrison Building, and the Valentine AED is on the porch of the Education Center. There are Epinephrine Auto-Injectors inside the AED cabinets at each site in the event of a life-threatening allergic reaction.

LABORATORY USE AND SAFETY

If you plan to use the laboratory, please refer to the laboratory use and safety orientation information that is printed in the residence binder and available in the laboratory. If you will be working in the lab, we will also send you this information over email before your visit. See the [UCSB Laboratory Safety](#) page for additional laboratory safety information.

ANIMAL SUBJECTS

SNARL is equipped with research facilities for housing small mammals and a wet laboratory with tanks for work with fishes or amphibians. If your research will involve vertebrate animal subjects you must have approvals through the [Institutional Animal Care and Use Committee \(IACUC\)](#) at UCSB as well as your own campus. Please see the IACUC resources for more information.

COVID SAFETY GUIDELINES

The guidelines for COVID safety change frequently. Please see the [UCSB COVID-Safety Guidelines](#) as well as the [UCSB NRS COVID safety information page](#). These are links to online resources, as the situation changes and evolves regularly.

FIRE SAFETY, WILDFIRE AND AIR QUALITY

We recommend that all users enroll in the [CODE RED emergency alert system](#). This will allow you to be notified when a critical incident or emergency system takes place within Mono County. It is free and easy to enroll and very useful if you are out in the field when a wildfire or other natural disaster strikes. Please actively monitor any wildfire situations in the area using the resources at [CalFire - Ready for Wildfire](#). Fires in the Sierra may generate significant amounts of unhealthy smoke. The [AirNow](#) website and app provides detailed information and forecasts for wildfire smoke, and we have [Purple Air](#) sensors at both reserves.

Fires on-site

In the event of a small fire onsite, there are fire extinguishers located in all reserve buildings. Attempt to put out the fire using the extinguisher. Notify VESR staff immediately. In the event of a large fire onsite dial 9-1-1 and alert all reserve guests and residents to evacuate immediately. If you are near the Ed Center at Valentine or near the Dorm, Page center or lab at SNARL, use the pull station to set off the fire alarm.

Wildfire

In the event of a wildfire, alert all reserve guests and residents to evacuate immediately. If you are near the Ed Center at Valentine or near the Dorm, Page center or lab at SNARL, use the pull station to set off the fire alarm. Evacuate immediately following directions provided by emergency personnel. Call 9-1-1 if the fire has just started and is unknown to others.

EARTHQUAKE

During the earthquake, get under a table or desk and remain there until the shaking stops. Stay away from windows and cabinets. After the shaking stops, survey your area for damage and trapped persons. If outside, get to an open area away from trees, buildings and power lines. If in a vehicle, pull to the side of the road away from underpasses, bridges and buildings. Remain in the vehicle until the shaking stops. Do not leave the vehicle if a power line has fallen on or near it.

EMERGENCY SERVICES

Both SNARL and Valentine Reserves are within 15 minutes from [Mammoth Hospital](#), which provides a full range of emergency and other medical services.

SNARL is served by the [Long Valley Fire Department](#), and Valentine is served by the [Mammoth Fire Protection District](#). Calling 9-1-1 in the event of an emergency will solicit the nearest responders.

Cell phone coverage at Valentine is generally good for most wireless carriers, and cell phone coverage at SNARL is generally not good for any wireless carriers, however wifi calling works well at both reserves if you can connect to the WIFI network near the buildings. Cell phone coverage is good for most carriers, and calls can be made near SNARL by driving or walking out to the cemetery.

Research Reporting Requirements

In order to build and strengthen our capacity as a research station, it is essential for us to collect information on your research project so that we can report this information to our campus office of research, and so that we can build the VESR research community. We would like to highlight your work and help you to connect your science to a broad community.

Please provide us with an annual summary of your research project by June 30 of each year. The summary should include:

- A brief summary of your research accomplishments, including the title of the project, a list of all participants on the project with their affiliations.
- Any publications that include any support or resources provided through VESR
- PDFs (or printed materials) including conference proceedings, abstracts, and technical reports (one bound copy only of theses and dissertations), resulting from your research.
- Source of funding for your project, dates of funding, and the funding amount.

DIGITAL OBJECT IDENTIFIERS (DOIs)

We encourage you to add the **reserve's DOI#** in any publications resulting from research at that reserve:

[doi:10.21973/N3966F](https://doi.org/10.21973/N3966F)

Sierra Nevada Aquatic Research Laboratory

[doi:10.21973/N3JQ0H](https://doi.org/10.21973/N3JQ0H)

Valentine Camp

ACKNOWLEDGMENTS

Please acknowledge the **UNIVERSITY OF CALIFORNIA NATURAL RESERVE SYSTEM, UCSB VALENTINE EASTERN SIERRA RESERVES** in any publication resulting from use of the reserve.

BIBLIOGRAPHY

We maintain a Zotero database for all publications related to research at Valentine or SNARL.

[SNARL Zotero Database](#)

[Valentine Reserve Zotero Database](#)

SOCIAL MEDIA

Tag us on your Social Media Posts! #SNARLreserve, and #ValentineReserve

Follow us on Facebook - <https://www.facebook.com/ucsbvesr> and Instagram - valentinereserve

Cleaning

In order to keep our housing rates low, we cannot provide custodial services, and rely on all the users to keep units clean, and to thoroughly clean at the end of their stay. Please follow the cleaning checklist before checking out and make sure to checkout using the QR code provided.

Kitchen Area

- Dishes and Cookware - Wash, dry and put away
- Food - take or throw away any perishable food
- Sink - Scrub with cleaning product
- Fridge - Wipe down the refrigerator inside and out with cleaning product
- Microwave - clean the inside of the microwave with cleaning product
- Counters and Tabletops - clean surfaces using cleaning products
- Range and Oven - Clean surface and interior of range

Bathroom Area

- Sinks and Counters - Scrub with cleaning products
- Showers and Bathtubs - scrub with cleaning products
- Toilets - Scrub the inside of toilets with toilet brush and cleaner, wipe toilet outsides, seats and rims with disposable cleaning wipes (DO NOT FLUSH THE WIPES!)

Living areas and all Floors

- Carpeted floors - Vacuum
- Non carpeted floors - sweep and wet mop tile or vinyl flooring, damp mop wood flooring

Trash, Recycling and Laundry

- Trash - Dispose of trash at dumpster by the Garage at SNARL or Kohler shed at Valentine
- Recycling - Take all recycling to the recycling area and sort and dump following instructions
- Cleaning Rags and Dishtowels - Put all used cleaning rags and dish towels in the blue bin on top of laundry machine in dorm at SNARL or in bin at Kohler shed at Valentine
- Mattress Protectors - Do not remove fitted sheets from bed, notify us if they are dirty and we will arrange for them to be washed

