

7. ACQUISITION GUIDELINES FOR RESERVES: SCIENTIFIC, ACADEMIC, AND ADMINISTRATIVE

SCIENTIFIC CRITERIA

General

The objective of the NRS is to develop and maintain, for educational and scientific study, a system of reserves broadly representing California's ecological diversity.

Because ecosystems totally free of man's influence are no longer to be found, units of a system of natural reserves will fall within a spectrum that ranges from undisturbed ecosystems to ecosystems heavily influenced by man.

Criteria

1. Viable Ecosystem – Ecosystem viability is a prime requisite in establishing a natural reserve. The reserves should be of sufficient size and appropriate geometry so that the community may be maintained with the survival of the species and ecological/environmental processes assured. The boundaries must be located so as to encompass the critical landscape features necessary to maintain the ecosystem. An ideal reserve will be buffered from the detrimental impact of adjacent land uses.
2. Habitat Significance – Reserves should possess exceptional value in illustrating, interpreting, and protecting examples of the major habitat types of California. The most desirable situation is a reserve with a high diversity of extensive habitats. This maximizes the academic yield for its acquisition cost. It is easy to become enamored with the unusual and overlook the common. Therefore, it is important that the NRS guard against unbalancing its system in favor of

unusual habitats and take care to emphasize the inclusion of typical samples of widely distributed habitat types. However, a reserve has added value if it also possesses special features such as:

- important variations of the common habitat types, e.g., different successional stages (including important man-induced successional stages), variations in soil parent material, etc.;
- significant gene pools, e.g., isolated populations, or populations at extreme limits of the range of a species or habitat type;
- “type localities”, i.e., the location where a species, soil type, geological type, etc., are first described;
- transition zones (ecotones) and interfaces between adjacent habitat types;
- the presence of a feature of geological, archaeological, or paleontological importance;
- the presence of a rare or an endangered habitat type, or the presence of a rare or endangered species.

In some cases unusual features will be deliberately acquired because they are judged to have special value to the NRS.

ACADEMIC CRITERIA

General

The NRS concentrates on serving the needs of higher education. Sites lacking in high degree of academic usefulness do not meet a fundamental criterion for inclusion in the NRS.

Criteria

Of particular interest are unprotected sites which enjoy current academic use, but are not in the system. The larger the variety of disciplines that can be accommodated, the more useful the reserve will be. Extended field trips and studies in remote locations play an important role in field studies and these needs should be met by the NRS, but the backbone of undergraduate and graduate education is the normal three-hour laboratory period. Sites close to a campus will naturally receive more use and make a correspondingly higher contribution to the NRS.

ADMINISTRATIVE CRITERIA

General

Even though a particular site may meet all of the academic and scientific criteria, it must also be administratively viable. Some reserves that are remote and little used will require little administrative attention in order to maintain their basic value, while near-urban and heavily used reserves will require intense administrative attention. In all cases, a sound administrative plan will improve the academic value of a reserve.

Criteria

A campus must be willing to assume administrative responsibility for its reserves and provide support funds (see Section 5, Administrative Structure of the NRS). A limited amount of funds for special projects, emergency repairs, and maintenance and operations is available from Systemwide resources.