



# THE SAMPLER

VEGETATION COMMITTEE NEWSLETTER

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## Introduction by Julie M. Evens

This year's CNPS vegetation committee newsletter focuses on specific uses and applications of the CNPS system of classifying and sampling vegetation across the state. For example, local chapter members have been using the CNPS sampling methods to identify and describe high priority vegetation. Local and state agencies have also adopted the methods for state-wide inventory and mapping projects, including the California Department of Parks and Recreation and California Department of Fish and Game. The first two newsletter articles reflect the use and importance of the CNPS system by local and state entities.

A principal application of vegetation classification is in the production of maps that represent the distribution of recognized vegetation and habitat types. While there are various ways to classify and map vegetation and habitats, it is important to have consistent methods to accurately represent the diversity and distribution of vegetation. The third article discusses a federal agency's emphasis on plant com-

munity classification and mapping. At this time, state and federal agencies are agreeing upon consistent protocols for classification and mapping through an interagency vegetation group. The standardized classification will be reflected in the CNPS revision of *A Manual of California Vegetation*, with should be completed in the next year.

The recognition of both rare and common vegetation types is also reflected in the laws and policies set by state and federal bodies. Specifically, vegetation and habitat are covered within the California Environmental Quality Act, Habitat Conservation Plans, and the Natural Community Conservation Planning Act with the goal of protecting natural habitat in California. The last two articles discuss the use of vegetation information in these acts and planning efforts, with our expectation that people can effect stronger legal regulations to insure protection of natural plant communities as well as individual species after reading these articles. ?

## Vegetation Surveying in Santa Clara Valley by Don Mayal

Soon after the CNPS state office hired vegetation ecologist Julie Evens in the spring of 2001, the Executive Director sent a letter to chapter presidents soliciting proposals for support for chapter vegetation projects. The Santa Clara Valley Chapter responded with a request for assistance in studying the serpentine endemics of Coyote Ridge in southern

Santa Clara County. Coyote Ridge is a solid block of serpentine two miles wide and fifteen miles long, the principal home of the bay checkerspot butterfly, listed as threatened by the US Fish and Wildlife Service, and the home of a number of special status plants and animals.

Although the area has not been developed

Pacific Southwest Region, we are actively involved in the classification and mapping of existing and potential vegetation communities. Prod-

ucts deriving from the definition and delineation of these community types constitute a major part of the scientific fundament upon which many of our

most important management decisions rest. ?

## CEQA and Rare Vegetation Communities by Keith G. Wagne

In enacting the California Environmental Quality Act (CEQA; see sidebar this page), the Legislature declared that it is the policy of the state “to preserve for future generations representations of all plant and animal communities” (PRC §21001c). This article discusses sections of the CEQA Guidelines that can be used by the public to help protect rare plant communities.

Public participation in the CEQA process is important since the lead agency, consultants, and project proponents may not be aware of the existence or rarity of one or more plant communities on the proposed project site. In addition, public participation establishes one’s standing in the event that legal challenge becomes necessary. Optimally, one should provide comments as early as possible, and consistently throughout each phase of CEQA’s public process. This includes scoping comments, comments on draft environmental documents that are released for public review, and commenting at any public hearings for the project. By participating in the CEQA process, one may also be able to convince the project proponent and decision makers to make changes that will reduce or avoid the project’s impacts on rare plant communities.

In providing comments, the focus should be on identifying and presenting the agency with “substantial

evidence” supporting your assertions. CEQA defines “substantial evidence” to include “*facts, reasonable assumptions predicated on facts, and expert opinion supported by facts.*” It is not “*argument, speculation, unsubstantiated opinion or narrative...*” (PRC § 21080(e).)

The following provisions of the CEQA Guidelines address the potential for significant, adverse impacts to rare plant communities. Where such impacts are identified, they must be addressed during environmental review, either through the incorporation of mitigation measures and alternatives that will *clearly* avoid or mitigate the impacts to less-than-significant levels (in which case a mitigated negative declaration may be prepared), or through the analysis of such measures in an Environmental Impact Report (EIR), in situations where it appears that the project may have remaining, unavoidable impacts.

### Communities supporting rare species

Section 15065 of the Guidelines requires preparation of an EIR when the project has the potential to “*reduce the number or restrict the range of an endangered, rare or threatened species.*” Impacts to plant communities that either support or are dominated by one or more rare, threatened or endangered (RTE) species should therefore be addressed during environmental review. In cases where an

RTE plant is a dominant in the community or in which an RTE animal depends on the community, one can request that impacts to the functioning of the *entire* community, and not just direct impacts to the RTE species, should be addressed and mitigated to the extent feasible.

### Communities threatened with elimination

Section 15065 of the Guidelines also applies where substantial evidence indicates that “*the project has the potential to ... threaten to eliminate a plant or animal community.*” This is admittedly a perilously low standard, similar to the “jeopardy” standard of the state and federal endangered species acts. However, there may be instances in which a large development would threaten to completely eliminate a plant community, either

CEQA (Pub. Resources Code, §21000 et seq.) is a complex area of law that includes the Act itself, the CEQA Guidelines (Cal. Code Regs., tit. 14, ch. 3, §15000 et seq.) and CEQA case law.

Excellent resources for understanding and applying this law for resource protection include the Planning and Conservation League’s “Community Guide to the California Environmental Quality Act” by J. William Yeates (see [www.pcl.org](http://www.pcl.org)), and “How to Comment on a CEQA Document” by T. Peterson in *Fremontia* 29 (3-4):27-37.

through direct or indirect impacts. If there is a fair argument that this would be the case, an EIR must be prepared.

### Riparian habitats

The state recognizes the substantial ecological role that riparian habitat plays and its significant historical loss, and so section IV (b) of the Environmental Checklist (Appendix G of the Guidelines) requires the lead agency to consider whether the project would have “a substantial adverse effect on any riparian habitat.”

### Wetlands

Section IV(c) of the Checklist asks if

the project would have “a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.” Although the scope of wetland communities that fall under Section 404 protection was recently limited by a recent U.S. Supreme Court decision, *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers* (2001) 531 U.S. 159, impacts to the state’s wetlands arguably should still be considered significant regardless of their section 404 status because the State of California and the Fish

and Game Commission (FGC) have independently recognized the value of the State’s wetlands with a “no net loss of wetlands” policy.

### Previously identified sensitive natural communities

Section IV (b) of the Checklist asks if the project would have “a substantial adverse effect on any...sensitive natural community identified in local or regional plans, policies, regulations...” Similarly, IV (e) asks if the project will “conflict with any local policies or ordinances protecting biological resources...” Thus, if protection of important natural communities is contemplated by the overlying General Plan or local ordinances, adverse impacts to such communities caused by a specific project should be viewed as significant. For example, the Land Use and Circulation Element of the Solano County General Plan states that the “...County shall protect its ... lowland grasslands which are critical habitats for marsh-related wildlife,” and so if a project would destroy lowland grassland near Suisun Marsh, the impact should be considered significant.

### Sensitive natural communities identified by resources agencies

Section IV (b) also asks if the project will have a substantial adverse impact on a “sensitive natural community identified ...by the California Department of Fish and Game or US Fish and Wildlife Service.” The state’s vegetation classification, which is based on CNPS’s *A Manual of California Vegetation* and the state’s Vegetation MOU Group, is a work in progress and requires thor-



Overview of southeastern portion of Suisun Marsh, DFG Grizzly Island Wildlife Area, showing a mosaic of grassland and emergent marsh vegetation created partially by different management practices. Photograph by T. Keeler-Wolf.

ough classification and mapping of vegetation statewide before a full understanding of community sensitivity is gained. However, the California Natural Diversity Database maintains a list of all vegetation communities that have been identified so far ([www.dfg.ca.gov/whdab/pdfs/natcomlist.pdf](http://www.dfg.ca.gov/whdab/pdfs/natcomlist.pdf)). Communities that are indicated by an asterisk on this list are considered sensitive in that they have 100 or less viable occurrences in the state based on the Department's best information about distribution and the likelihood of the community being found in currently unmapped areas. If the project will impact one of these sensitive communities, you may make an argument that impacts to it will be significant.

#### **Other rare communities, not previously identified**

If the CEQA guidelines, as discussed above, do not specifically address a potential rare plant community on the project site, comments about such communities will have to be based on accompanying submittals to establish the nature and existence of the community. If a project will clearly result in the destruction or degradation of a potential rare plant community, one should carefully document and present evidence that the community is, in fact, a distinct, rare community. Many plant communities still need better definition with scientific data collection. "Substantial evidence" that a community is distinct and that it is rare might be established, for example, through vegetation sampling, classification, and mapping. This may mean that a study has to be done quickly, which

can be difficult without access to the site or where the project proponent does not agree to have a study done. However, one might be able to provide substantial evidence that a study *should* be done, based on a reasonable inference founded on expert opinion or facts that *are* available, that a rare community exists onsite.

For example, if the soils, geology, topography, and aerial photographic signature are similar to a nearby site that is both sampled and mapped as a rare community, one might reasonably infer that the plant community on the project site could be the same. Current vegetation mapping techniques use this type of inference all of the time, since some areas are accessible and sampled in a mapping effort while other areas are not accessible. The accuracy assessment of the mapping (which hopefully was conducted) would test the assertions of the mapping of the nearby area and provide a measuring stick of the likelihood of any particular mapped vegetation stand actually being that type. Thus, if

an unvisited area of a given signature is 80%-90% likely to be correctly identified according to the accuracy assessment, one might be able to make a "reasonable inference" based on this scientific fact (i.e., "substantial evidence") that the area is really that community type. This is one of the reasons that accurate and well-tested vegetation mapping will do a great deal for conservation advocacy. If no map and accuracy assessment of an adjacent area is available, one might provide "substantial evidence" that a rare vegetation type is likely to occur on the site by collecting data from one or more stands in an adjacent or nearby area with similar environmental characteristics and photographic signature (or similar appearance through binoculars) to the community on the project site.

The key to effectively using the CEQA process to protect rare plant communities is to relentlessly focus on gathering and submitting



Englemann oak (*Quercus englemannii*) woodland is recognized as a rare plant community in California. Near Santa Ysabel, San Diego County. Photograph by J. Evens.

“substantial evidence” in the form of *facts, expert opinion, and reasonable inferences* based on those sources. If you are providing previously undocumented evidence that a community on the project site is likely rare and should be addressed

under CEQA, you must *clearly* establish 1) the facts that support your assertions and 2) the credibility of the methodology used in identifying or describing the rare plant community. Provide your credentials if you are a botanist or biologist. After consulting

with your local CNPS chapter or the state organization, state that you are representing the California Native Plant Society and demonstrate that you have used the accepted methodology in describing the rare community. ?

## Importance of Vegetation in Regional Conservation Planning by Julie M. Evens and Todd KeeleWolf

### Natural communities defined

Conservation action can be directed at many levels, from genus and species to entire ecosystems. One such level is the natural community, which is recognized as “an assemblage of species that co-occur in defined areas and that potentially interact in the landscape at certain times” (Grossman et al. 1998). The Nature Conservancy has used this term widely over the past three decades (Mayberry 1999) to represent a coarser level of biological diversity assessment than single species. The use of natural communities for conservation is often referred to as “the coarse filter approach” (TNC 1982). This implies that communities address the issues of biodiversity conservation that would not be addressed using the “fine filter approach” of individual rare species conservation. Along with rare plants and animals, natural communities are one of the main elements of biological diversity tracked by state and national biodiversity centers such as the Department of Fish and Game’s California Natural Diversity Database. Natural communities can be operationally and quantitatively defined as separate entities using the criteria of distinct and repeated co-occurrence of species that prefer a

particular environmental setting (see figure on page 11).

Biologists and ecologists have created naming conventions for natural communities, including the international classification for terrestrial ecological communities (Grossman et al. 1998; on-line version available at [www.natureserve.org/explorer/classseco.htm](http://www.natureserve.org/explorer/classseco.htm)). Research data and publications in California support this classification system of natural communities, such as CNPS’s *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). The state and international classification systems consist of a seven-level hierarchy, in which lower finer levels are nested into progressively coarser levels. At the finest levels, the hierarchy is defined by plant species composition, with the “association” at finest level and the “alliance” at the next highest level. At the coarser levels such as the “formation” or “class”, the hierarchy uses physical criteria such as plant lifeform and leaf morphology. An example “association” from northern California is old-growth redwood forest with sword fern and redwood sorrel in the understory.

### How natural communities fit into conservation planning efforts

In recent Natural Community Conser-

vation Planning (NCCP) and Habitat Conservation Plan (HCP) efforts, greater importance has been given towards conserving sets of co-occurring species, unique species interactions, and ecosystem functions, instead of conserving a single species in a particular setting. Conservation biologists and land use planners agree that long-range planning efforts are generally more effective when they incorporate all of the sensitive species in a particular area using their habitats as an “umbrella” to afford them protection. Because there are shared issues of habitat and site quality among different species, biologists and planners are working towards conserving groups of species in their habitats while allowing for planned development and loss of habitat area. In this respect, a natural community can represent a given species’ habitat.

However, natural communities are biological units in and of themselves, and thus, it is important to look at the site quality of each community, the acreage of each community, and the corridors between them, each of which facilitates inventorying and mapping. In defining the landscape as discrete natural communities, people can effi-