

14 GRAZING MANAGEMENT

*The greatest diversity within the California's coastal grasslands can be seen in the **forbs** or wildflowers that emerge in the spring following winter rains. Sites with adequate management of non-native vegetation will reward these efforts with bountiful displays of colorful spring wildflowers.*

By some estimates, nearly 80% of the vegetation cover within California grasslands is exotic vegetation.

District lands currently contain approximately 5300 acres of grassland habitat. The largest contiguous grassland areas are within District lands in western San Mateo County.

Livestock ranching is a small but vital part of the Bay Area's agricultural economy. As with any business that depends on local infrastructure and services, livestock ranching is increasingly threatened with each ranch that goes out of business. Every livestock rancher depends on services and supplies including veterinary care, feed sales and delivery, farm and ranch infrastructure supplies, and livestock transportation services. As land is taken out of ranching, all of these services and supplies are incrementally affected and may cease to operate, increasing the burden for families and businesses who choose to keep ranching.

The vegetation of the Santa Cruz mountains is comprised of a rich and diverse assemblage of plant species. This wealth of diversity was most evident within the grassland ecosystems that evolved under a variety of disturbance pressures including fire and grazing by large herds of **ungulate animals**, which are now mostly extinct. The **flora** that emerged has been described as one of the most diverse, species rich and, unfortunately, also one of the most endangered ecosystems in the United States.

The arrival of early Spanish and Anglo settlers initiated a particularly dramatic change in species composition of California grasslands, primarily as a result of tilling the grasslands for agricultural crop production, reduction of native grazing animals and introduction of cattle herds brought over from Europe and let loose on the new rangeland. This introduction of **non-native** plants and animals, coupled with the concurrent suppression of fire on the landscape as the western United States was settled, resulted in the virtual complete replacement of the native grassland vegetation with a predominately exotic, annual flora. The exotic vegetation is more competitive, productive, and prolific than the native plants within which it coexists, and will tend to dominate and replace existing native grasses and wildflowers. Over the last 150 years, coastal grassland areas have also experienced large-scale conversion to agriculture or urban development. The remaining undeveloped grasslands face continued development pressure and are severely impacted by exotic, invasive organisms.

The District's open space preserves contain large acreages of grasslands that in many areas have been degraded due to the pressures described above. Management of these grassland habitats is desirable to reduce the risk of wildfire and to maintain viable native plant communities. Vegetation management using **livestock** grazing or other resource management tools can be a substitute for native grazing animals and recurring fire to achieve the District's objective of preserving, protecting and restoring the natural environment.

In 2003, the District completed the Service Plan for the San Mateo Coastal Annexation Area and accompanying Environmental Impact Report for expansion of the District's boundaries to include coastal San Mateo County. The Service Plan recognized the unique value of the San Mateo County coastal area and established Agricultural Policies to preserve and encourage viable agricultural use of land. The Policies and Implementation Measures established in this Grazing Management Policy are intended to supplement and complement the Agricultural Policies in the Service Plan. Furthermore, these Grazing Management Policies will be implemented in a manner that is consistent with the Service Plan.

14 Grazing Management

Goal: Manage District land with livestock grazing that is protective of natural resources and that is compatible with public access; to maintain and enhance the diversity of native plant and animal communities, manage vegetation fuel for fire protection, help sustain the local agricultural economy, and preserve and foster appreciation for the region's rural agricultural heritage.

Policies and Implementation Measures

14.1 Ensure that grazing is compatible with and supports wildlife and wildlife habitats.

- Inventory and assess sensitive habitats to identify areas requiring special protection. The conservation of these areas will take precedence over other uses and management practices that are determined to have an adverse effect on these resources.
- Prepare site-specific grazing management plans by a certified rangeland manager for preserves where grazing will be utilized as a resource management tool. The site-specific grazing management plan will be a component of the agricultural production plan developed through the Use and Management Planning process. The Use and Management Planning process provides for public input and Board approval of site-specific grazing management plans.
- Manage agricultural leases and easements to protect and enhance riparian areas and to maximize the protection or enhancement of water quality. (Water Resources, Chapter 7, Policy 7.4)

Typical fencing used to control livestock movement is 5-strand barbwire fencing. Other fencing types that may be used include 4-strand barbwire for interior fencing, wood rail fencing and temporary electric fencing that can be installed to seasonally restrict livestock to target areas or exclude livestock from sensitive areas.

Wildlife-friendly fences enable virtually all wild animals to move through an area without harm and with minimal impediment.

14.2 Provide necessary infrastructure to support and improve grazing management where appropriate.

- Utilize fencing that allows wildlife movement and fosters habitat connectivity.
- Provide water sources and protect water quality from degradation resulting from grazing animals.
- Encourage and assist grazing tenants on District land to provide range improvements to restore or conserve wildland resources and to enhance range condition.
- Inventory and assess roads and trails on District lands to identify significant erosion and sediment sources – abandon and where feasible restore to a natural condition poorly designed or sited roads. (Water Resources, Chapter 7, Policies 7.3, 7.4)

14.3 Monitor environmental response to grazing on District lands.

- Monitor forage utilization and distribution by grazing animals to assure appropriate amounts of residual dry matter remain on the ground to achieve desired resource management objectives. In the course of RDM monitoring, evaluate and report on wildland fire fuel levels that may result in an increased risk of wildland fire (see Wildland Fire Fuel Management, Chapter 16).
- Monitor livestock use levels and **infrastructure** condition to insure conformity with lease provisions to contribute to improved management.
- Monitor wildland conditions with an emphasis on documenting the location, distribution and abundance of native grasses, wildflowers, and other native flora and fauna.
- Monitor water quality in ponds and watercourses with unrestricted livestock access.
- Monitor non-native vegetation response to grazing with an emphasis on documenting the location, distribution and abundance of target, invasive species.

***Residual Dry Matter (RDM)** is a measure of the amount of vegetation left on the ground, typically measured at the end of the summer or fall.*

Appropriate levels of RDM strive to minimize thatch, which can inhibit new plant growth, while maintaining adequate levels of vegetation to prohibit soil erosion.

Fire reduction is a great concern for some landowners. However, cattle are not able to graze all land areas effectively for fire protection purposes, such as steep slopes or slopes partially vegetated with brush. In these instances, goats may be an effective alternative. Goat herds can be rented for a short period of time and can be moved with a goat herder and dog(s) along with portable fence enclosures.

- Use information collected from monitoring to annually review rangeland conditions and response to livestock grazing. Use adaptive management decision making framework within grazing management plans.
- 14.4 Utilize different livestock species to accomplish vegetation management objectives**
- Research the effective use of cattle, goats, sheep, and horses to manage vegetation on District lands.
 - Utilize appropriate species depending on management needs.
- 14.5 Preserve and foster existing and potential grazing operations to help sustain the local agricultural economy**
- Establish longer term grazing leases to promote financial viability for the operators and efficient land stewardship for the District.
 - Seek grants or other economic support for infrastructure maintenance and improvements.
 - Ensure site-specific grazing management plans are economically feasible and practical for grazing operators.
- 14.6 Provide information to the public about the region's rural agricultural heritage**
- At appropriate sites, install display boards highlighting historical and educational facts about ranching families and industry.
- 14.7 Provide public access in a manner that minimizes impacts on the grazing operation.**
- Grazing operators on District lands or lands under easement to the District shall be consulted when public access is being planned and considered for the property to minimize conflicts between the public and the grazing operation.
 - Prepare and distribute a brochure to educate visitors about etiquette for use of open space property with livestock animals.
 - Install signage where appropriate to educate the public about the resource benefits of grazing and to educate visitors about approaching animals, closing gates, and other etiquette appropriate for moving through lands with livestock animals.
- 14.8 Grazing operations on District lands in the Coastside Protection Area will be managed in accordance with the policies established in the Service Plan for the San Mateo Coastal Annexation Area.**
- The District will consult with appropriate agencies and interest groups, including the San Mateo County Farm Bureau and San Mateo County Agricultural Advisory Committee in the development of site-specific Use and Management plans and agricultural production plan components in the Coastside Protection Area.

Glossary of Terms

5-strand barbwire fencing – fencing typically used in ranching operations to confine livestock to established areas, constructed of five evenly spaced rows of barbwire stretched between posts comprised of wood or metal.

Flora – the plants of a particular region or period.

Forbs – a broad-leaved herb other than a grass, especially one growing in a field, prairie, or meadow.

Infrastructure – improvements made to a property to support an agricultural operation such as fencing, roads, water supply systems and structures.

Livestock – the horses, cattle, sheep, and other useful animals kept or raised on a farm or ranch.

Non-native (exotic) – those species that were not present in the Santa Cruz Mountains region of California prior to the large scale development of the American continent by European humans prior to 1769.

Residual Dry Matter (RDM) – a measure of the amount of vegetation left on the ground from the previous year's growth, typically measured at the end of the summer or fall.

Ungulate animals – hoofed mammals, including ruminants, such as cattle, goats, and sheep, as well as horses, and donkeys.