

I. GRAZING MANAGEMENT

BACKGROUND

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 and species rich 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 substantial replacement of the native grassland vegetation with a predominantly **exotic**, annual flora. The exotic vegetation is often more competitive, productive, and prolific than the native plants within which it coexists, and tends 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.

The greatest diversity within 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 percent 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 that choose to keep ranching.

*Typical fencing used to control livestock movement is **five-strand barbwire fencing**. Other fencing types that may be used include four-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.*

In 2003, the District completed the Service Plan and accompanying Environmental Impact Report for the San Mateo Coastal Annexation Area 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.

GRAZING MANAGEMENT GOALS, POLICIES, AND IMPLEMENTATION MEASURES

<p>Goal GM- 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.</p>

Policy GM-1 Ensure that grazing is compatible with and supports wildlife and wildlife habitats.

- ◆ Inventory and assess sensitive habitats to identify areas requiring special management practices. 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 including **best management practices (BMPs)** 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**. (See WR-4)

Policy GM-2 Provide necessary infrastructure to support and improve grazing management where appropriate.

- ◆ Utilize fencing that allows wildlife movement and fosters habitat connectivity. (See WM-3:Measure 3)
- ◆ Manage access to existing water features and where needed supply supplemental drinking water through stock ponds and water troughs to preserve clean water for livestock, protect water quality, and enhance habitat for wildlife.
- ◆ 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. (See WR-4)

Policy GM-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 (RDM)** 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 WF policies).
- ◆ Monitor livestock use levels and **agricultural infrastructure** condition to insure conformity with lease provisions to contribute to improved management.

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.

- ◆ 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, **wetlands**, 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**.
- ◆ Use information collected from monitoring to annually review rangeland conditions and response to livestock grazing. Use **adaptive resource management decision making framework** within grazing management plans.

Policy GM-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.

Policy GM-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 agricultural infrastructure maintenance and improvements.
- ◆ Ensure site-specific grazing management plans are economically feasible and practical for grazing operators.

Policy GM-6 Provide information to the public about the region's rural agricultural heritage. (See PI-1)

- ◆ Install display boards and give presentations highlighting historical and educational facts about ranching families and industry at appropriate sites.

Policy GM-7 Provide public access in a manner that minimizes impacts on the grazing operation. (See PI-1)

- ◆ 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.

Policy GM-8 Grazing operations on District lands **in San Mateo County 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.

- ◆ 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.

Policy GM-9 Ensure the sustainability of conservation grazing in areas where **predation of livestock** may occur.

- ◆ Provide economic relief, for grazing tenants that are actively utilizing non-lethal **livestock protection methods**, in response to losses from **predation** to sustain conservation grazing as a viable tool for natural **resource management**. Coordinate with grazing tenants to document livestock losses due to **predation** as well as the total annual non-predation-related losses.
- ◆ Reduce conflicts between livestock and wildlife by promoting and implementing non-lethal **livestock protection methods** that reduce livestock losses while safeguarding **native wildlife** populations. Select methods on a site-specific basis and prioritize the protection of

livestock by the most ecologically sustainable means available. Develop and implement an adaptive administrative Livestock Protection Protocol to standardize **wildlife** and **livestock** protection methods and procedures, and designate responsibilities for implementing **livestock protection methods**.

- ◆ Support and promote scientific research on the effectiveness of **livestock protection methods**, and their influence on **native wildlife** populations. Monitor results and modify methods over time as conditions change and techniques improve.

GLOSSARY AMMENDMENT

Livestock Protection Methods – a variety of wildlife and livestock conflict mitigation tools ranging from visual and auditory frightening devices to hazing (Grazing Management)

Population – the number of organisms in a particular species that occupy the same geographic region at the same time and are capable of interbreeding (Vegetation Management, Wildlife Magagement, Water Resources, Ecological Succession, Habitat Connectivity, Wildland Fire)