

# **Santa Fe County Open Space and Trails Program**

## **Los Potreros Open Space Management Plan**

**PRELIMINARY REVIEW DRAFT**

**May 9, 2016**



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## EXECUTIVE SUMMARY

The Los Potreros Open Space (LPOS) Management Plan identifies short-term, mid-term, and long-term priorities for the property. The short-term phase focuses on **ecological restoration and maintenance activities** related to drainage and irrigation improvements, streambank stabilization, fence upgrades, riparian area cleanup, planting of riparian buffer vegetation, and wildfire prevention. Additionally, short-term activities include the installation of simple signage, resting the grassland, haying and baling, and planning future management activities. Planning activities focus on preparing future grazing management and the possible development of a scenic overlook and interpretive education programming. In the short term, Santa Fe County will also encourage neighbors and other local stakeholders to collaborate on **maintenance-oriented stewardship** activities.

In the mid- to long-term, Santa Fe County will work with stakeholders to develop an **agricultural program for the restoration of degraded, dry pastures** in the northern part of LPOS. This program will include the improvement of the area's irrigation system and soil improvements with cover crops. This Plan also identifies the importance of developing a simple **interpretive education program** at LPOS to help visitors explore and understand the area's unique history, hydrology and ecology.

The Management Plan for LPOS property emphasizes the importance of **collaboration regarding stewardship, conservation, and development** of LPOS, especially because LPOS is interwoven with private properties. The plan identifies several opportunities for active public participation in stewardship activities and in the gradual development process to reach the vision for LPOS, in harmony with the dreams of the property's neighbors.

## 1. INTRODUCTION

*This Management Plan for the Los Potreros Open Space was developed with community members, neighbors, property owners and other stakeholders from the Chimayo area. The planning team worked with them to formulate a vision for the Los Potreros Open Space and to verify the final plan components and priorities.*

### 1.1. Management Plan Development Process

Los Potreros Open Space (LPOS) Management Plan was developed between June 2015 and May 2016. This Open Space Management Plan has been developed as part of a series of open space management plans in Santa Fe County in response to a recommendation from the County Open Lands, Trails, and Parks Advisory Committee (COLTPAC) and with clear support for enhanced management of open space properties from the Board of County Commissioners (BCC).

The planning process included 3 phases: (1) a scoping and reconnaissance phase, (2) a research phase, and (3) a plan development phase.

#### Scoping and Reconnaissance Phase:

- Interviews with key stakeholders, community members, and County staff to develop an initial understanding for engaging the community in the management plan process
- Review of relevant Santa Fe County plans and policies
- Site visits to identify specific research needed for this management plan
- The first public input meeting to develop an initial community vision for the site

#### Research Phase:

- Follow-up interviews with key-stakeholders and community members to refine the approach for the second public input meeting
- Research on topics identified in the Scoping and Reconnaissance phase
- Site visits to confirm terrain management units and collect data for a land suitability assessment and the development of management recommendations
- Mapping of findings of the Scoping/Reconnaissance and Research phases

#### Plan Development Phase:

- The second public input meeting to present research and land suitability findings and formulate ideas for management of the property
- Writing the first draft of the management plan

- Interviews and reviews with County staff to confirm plan coordination and implementation opportunities
- The third public meeting to confirm the draft vision statement and goal and review the major components of the draft management plan
- Writing and submittal of the final draft management plan for official approval

The planning process was informed by the initial goals for the acquisition of the property and on a set of planning principles (Table 1). The planning principles were formulated during the Research phase based on public input and management conditions within Santa Fe County. An Open Space Management Guidance Plan that accompanies the LPOS Management Plan describes technical planning methods, approaches to County capacity building, best management practices (BMPs), and guidance recommendations for plan implementation.

Table 1. Overview of initial purpose and goals for LPOS acquisition (Source: initial acquisition documents) and planning principles (Source: Santa Fe County staff and planning team).

<b>Initial Goals for Acquisition</b>
Preserve the undeveloped state, viewshed and backdrop of El Santuario de Chimayo
Develop a gateway to BLM properties via the trails along the Rio Quemado
Conserve traditional agricultural practices and the historic acequias
<b>Planning Principles</b>
Adhere to goals and purpose of Santa Fe County Open Space and Trails Program
Ensure public access and safety (based on the reasons for acquiring the property)
Keep maintenance needs to a minimum (commensurate to County capacity and community-based stewardship support)
Minimize needed investments related to master planning
Minimize the disturbance of cultural and ecological resources
Identify and enhance opportunities for agricultural use of Open Space properties
Involve youth and create educational opportunities

## 1.2. Plan Purpose

The LPOS Management Plan is written for Santa Fe County staff, County policy makers, community stakeholders, and site stewards with the **purpose** to:

- Document the vision, goals, and objectives for the management of the property
- Help staff and the public understand terrain conditions and suitability of the land for different uses of the property
- Clarify priorities for site restoration and maintenance
- Identify projects for future investment and financing mechanisms to fund those projects
- Streamline management protocols within Santa Fe County

The LPOS Management Plan outlines specific action priorities, spread over short-term, mid-term, and long-term phases. The overarching Open Space Management Guidance Plan describes general management planning methods, procedures, recommendations, and Best Management Practices, and guides Santa Fe County staff in implementing the LPOS Management Plan and other open space management plans.

### 1.3. Property Description

The Los Potreros Open Space is a **40-acre County Open Space property**, at the confluence of the Rio Quemado and Rio Santa Cruz, in **Chimayo, in the far northern part of Santa Fe County** (Figure 1). The LPOS offers a unique scenic backdrop to El Santuario de Chimayo and is strongly connected to the famous church. More than half of the LPOS property consists of historic grassland, or “Potrero” (foal pasture), while the eastern part consists of foothills lined with acequias and dry juniper savannah at higher elevations, bordering BLM land. Access to the LPOS is limited to a gated entrance off of Juan Medina Road, which runs around the western part of

LPOS, and a few informal foot bridges and fords across the streams.

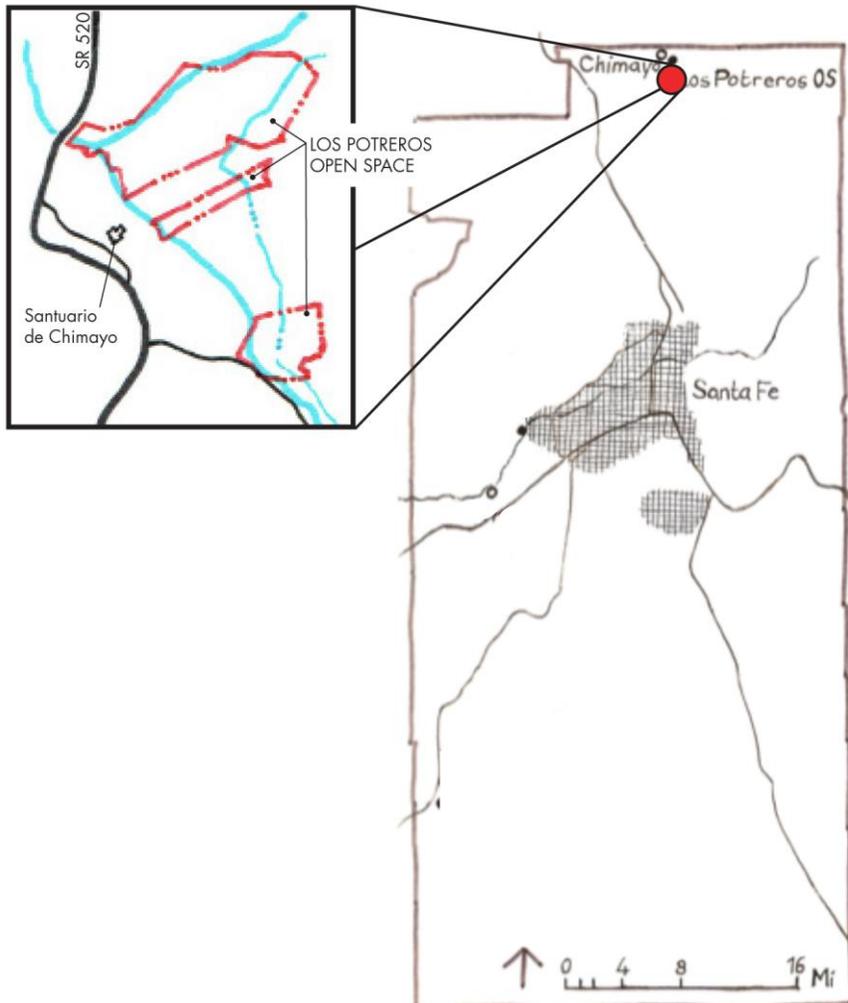


Figure 1. Location Map detailing the location of Los Potreros Open Space in Santa Fe County.

The LPOS property includes a **unique wetland and riparian ecosystem** associated with the confluence of the Rio Quemado and Rio Santa Cruz. Much of the pastures are wetlands. The rugged hills, wetlands, grasslands, riparian areas, and trees lining the rivers and pastures comprise **valuable wildlife habitat and a unique scenic beauty**. The LPOS has maintained a historic, pastoral character, and local residents strongly advocate for the preservation of these characteristics.

The LPOS comprises three different, non-contiguous groups of parcels across a valley that constitutes the confluence of the Rio Santa Cruz and the Rio Quemado. The LPOS is bordered by numerous private parcels and the Santuario de Chimayo on the west side of the valley. Santa Fe County, the private landowners of these parcels, and the leadership of the Santuario de Chimayo acknowledge the integrity of the LPOS and the private parcels together in the entire valley landscape. As a result, implementation of this plan will require coordination and collaboration with neighbors, specifically regarding access and shared landscape resources. Table 2 and Figure 2 identify the key parcels for managing the LPOS.

Table 2. Parcel identification and descriptions for Los Potreros Open Space and adjacent properties (*in italics*).

<b>Parcel Number</b>	<b>Parcel Name</b>	<b>Location Description</b>
Parcel 1	South Potrero parcel	Parcel along Rio Santa Cruz and CR92 (0.31 acres of grassland)
<i>Parcel 2</i>	<i>Bal family parcel A</i>	<i>Parcel along Rio Santa Cruz, accessible from driveway off of CR92, with gates into parcels 1+3</i>
<i>Parcel 3</i>	<i>Bal family parcel A</i>	<i>Parcel along Rio Santa Cruz with gates into parcels 2+4</i>
Parcel 4	Conservation Easement pasture, owned by Vigil family	Parcel along Rio Santa Cruz across from El Santuario parking area (2.48 acres of grassland), accessible with gates from parcels 3+5, and a ford across Rio Santa Cruz
<i>Parcel 5</i>	<i>Martinez family parcel</i>	<i>Parcel along Rio Santa Cruz across from El Santuario, with gates to parcels 4+6</i>
Parcel 6	West Potrero pastures	Parcel at confluence of Rio Santa Cruz and Rio Quemado, just east of El Santuario (8.87 acres of grassland and wetland), with gates to parcels 5+7, and a ford and main gate to Juan Medina Road for ingress/egress (approx. 1 acre).
Parcel 7	East Potrero pastures	Parcel upstream along Rio Quemado (6.98 acres of grassland and wetland), with gates to parcel 6 and to the riparian area along Rio Quemado

Note: Each parcel also includes a riparian buffer strip. However, the acreages listed for the parcels pertain to the grassland and wetland vegetation components of the parcels.

For purposes of maintenance and land use suitability, this plan identifies several **Terrain Management Units** (TMUs) (Figure 3). Each TMU encompasses an area with similar landscape features, and maintenance requirements, and similar land suitability characteristics (i.e., a unique set of options for land use). The identification of TMUs organizes the spatial management aspects of this plan. TMUs continue across the landscape. Santa Fe County will manage each TMU according to its particular needs and terrain characteristics.

A more in-depth terrain characterization is described in “A Field Characterization for the Los Potros Open Space Property Santa Fe County, New Mexico - An Existing Conditions and Inventory Report” (2016).

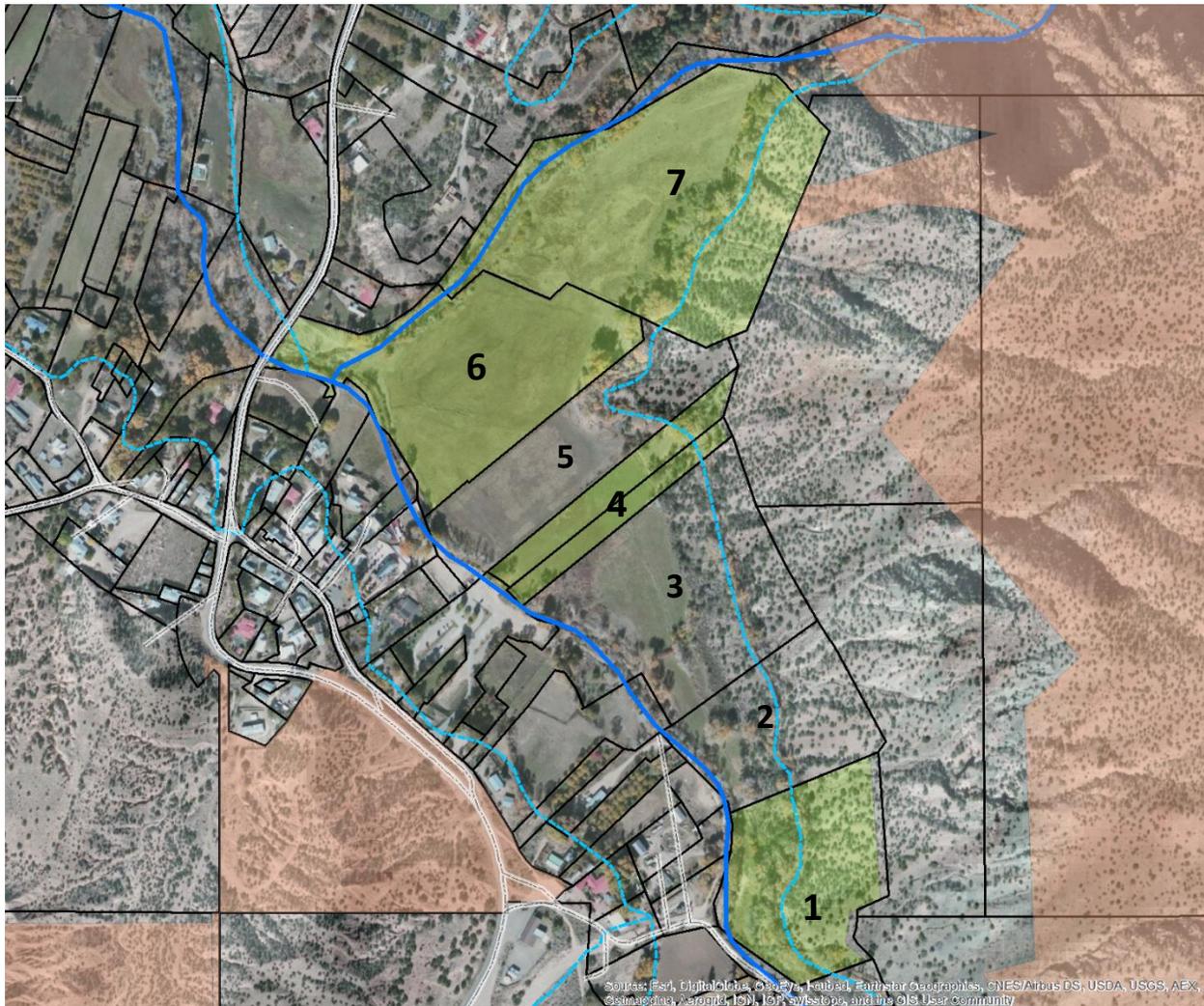
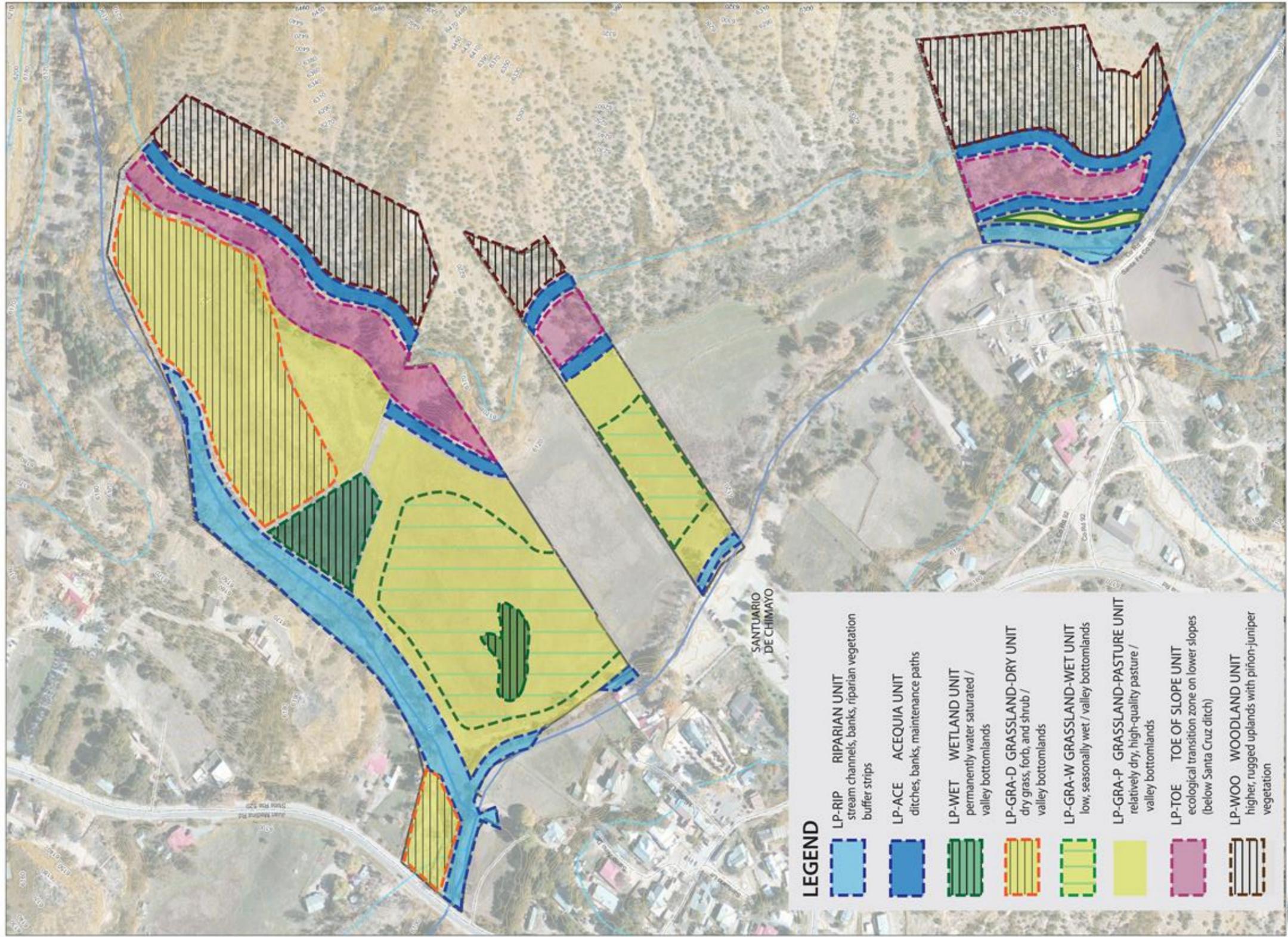
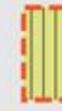
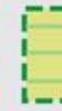


Figure 2. Parcel Map. Green colored parcels are part of the LPOS. Red parcels are BLM property.



SANTUARIO DE CHIMAYO

**LEGEND**

-  **LP-RIP RIPARIAN UNIT**  
stream channels, banks, riparian vegetation buffer strips
-  **LP-ACE ACEQUIJA UNIT**  
ditches, banks, maintenance paths
-  **LP-WET WETLAND UNIT**  
permanently water saturated / valley bottomlands
-  **LP-GRA-D GRASSLAND-DRY UNIT**  
dry grass, forb, and shrub / valley bottomlands
-  **LP-GRA-W GRASSLAND-WET UNIT**  
low, seasonally wet / valley bottomlands
-  **LP-GRA-P GRASSLAND-PASTURE UNIT**  
relatively dry, high-quality pasture / valley bottomlands
-  **LP-TOE TOE OF SLOPE UNIT**  
ecological transition zone on lower slopes (below Santa Cruz ditch)
-  **LP-WOO WOODLAND UNIT**  
higher, rugged uplands with piñon-juniper vegetation



Terrain Management Units

LOS POTREROS OPEN SPACE C H I M A Y O N M



**Ecotone**

Figure 3. Terrain Management Unit (TMU) map.

## 2. THE LOS POTREROS OPEN SPACE MANAGEMENT PLAN

### 2.1. A Vision for Los Potreros Open Space

*This vision statement is based on responses from community meeting participants to questions that asked “What would “good” look like?”, “What do you want for the future of this place?”, “What might other people think would be good for this site, but you don’t?”, and “What would worry you if it happened on the site?” The draft vision statement was shared and verified with community members at the third community meeting.*

*In 2025, the Los Potreros Open Space (LPOS) is a **peaceful, passively used open space area, faithful to the local traditions of the Chimayo community.** The land expresses the area’s traditional, pastoral scenic qualities and historical characteristics, and is managed to protect its wildlife habitat and corridors. The LPOS is **carefully maintained**, including the rivers, native trees, and brush.*

*The LPOS may include some **agricultural uses** that have been considered carefully and are designed to minimize the impact on the land. The open space may include some **grazing activities** if reference is provided to historical uses, an equitable lease system, the minimization of fencing, and the consideration of haying as an alternative or addition. The land may also be used for **educational opportunities.***

*The LPOS is managed for use primarily by local residents and youth. Investments on the property are primarily geared to the **quality of life for locals.** Santa Fe County is active as a steward for the land, a good neighbor, and a parciante on the acequias.*

## 2.2. Goals, Monitoring, and Information Management

*This section describes the LPOS's central management goal and the specific management objectives that originate from the vision. This section also describes the methods for tracking progress toward the goal and objectives as well as systems for managing information.*

### Management Goal and Objectives

Based on the vision statement, the central management goal for LPOS is:

*Santa Fe County and the community of Chimayo **collaboratively** maintain and enhance the natural qualities and beauty of the uplands, acequias, wetlands, pastures, and riparian zones of LPOS to reflect the historical use and aesthetic of the place through **landscape conservation and traditional uses**, such as grazing, haying, wildlife habitat maintenance, and periodic rest periods, with a view toward **local enjoyment and education**. Traditional uses should be organized in such a way that they are equitable, low-impact, supportive of the qualities of the land, and transparently managed.*

Specific management objectives in support of this vision and central goal are:

1. **Holistic & Neighborly.** Manage the property in a way that the different values and objectives are balanced as a whole (and not one despite another), and seek and maintain optimal working relationships with neighbors and other local stakeholders
2. **Access.** Control access by managing roads, trails, fences, gates, stiles, river crossings, and signage
3. **Scenic & Interpretive.** Maintain the area's scenic, pastoral, and historical qualities, and provide and maintain locally appropriate interpretive education, which may include simple signage
4. **Ecological Health.** Maintain the ecological health, resilience, and productivity of the LPOS wetlands, pastures and riparian areas, and maintain wildlife habitat qualities
5. **Grazing.** Establish a managed, restorative grazing lease program (and rest periods) as a way to improve grassland and wetland health
6. **Agriculture.** Explore and develop locally appropriate, small-scale agricultural opportunities (e.g. haying) in response to the need to develop an agricultural use for County Open Space properties, and, therefore, maintain water rights and acequia use
7. **Education.** Explore and use educational and research opportunities

### Monitoring

In order to ascertain that progress is made toward achieving the goals, County staff and local community partners will periodically monitor certain indicators of progress.

A basic set of monitoring activities for LPOS includes first tier measurements for which a baseline of data was established during the management planning process (Table 3), and a second tier consisting of additional monitoring activities that Santa Fe County staff may conduct in the future if staff time and budget allow (Table 4). The proposed monitoring activities are numbered and their locations are indicated by number on a TMU map (Figure 4).

Based on the monitoring overview described below, and as part of plan implementation, Santa Fe County staff will develop a detailed and accumulative **monitoring plan**. It will enable staff and stakeholders to track progress made of specific goals and objectives. Ideally, the monitoring plan will be updated annually with community members and stakeholders.

A monitoring plan specifies how the indicators will be measured or documented, when and where this will be done, who will do this, and what equipment or supplies are needed. Additionally, a monitoring plan will establish thresholds and conditions that serve to indicate whether corrective action will need to be needed.

*For example, to improve forage quality and quantity from year to year, a simple threshold could be the baseline levels established in 2015. Corrective action must be taken if the new conditions are not the same as the previous year's conditions. In such a case, causes for the impairment need to be established and addressed. This might mean for example that a pasture must be rested, that the grazing regime must be changed, or that a fence must be fixed.*

Baseline methods and findings are described in "A Field Characterization for the Los Potreros Open Space Property Santa Fe County, New Mexico - An Existing Conditions and Inventory Report" (2016). Methods for additional monitoring activities are referenced in a list of BMPs in the Open Space Management Guidance Plan.

Table 3. Monitoring overview for existing baseline monitoring conducted for specific landscape conditions in 2015.

#	Conditions Monitored	Mgmt. Objectives	Indicators and Monitoring Method	Monitoring Frequency and Season
1	Forage quantity and quality & cover of grasslands	Ecological Health / Grazing	Dry weight of clipped biomass in random sample plots (one plot selected along a transect with 10 plots); measurement of vegetation cover in selected transects; literature review of forage quality of species found in transects	Annually in September or October
2	Fuel load of riparian zone	Ecological Health	“Brown’s Line” transects for fuel load estimates	Every 3 years in spring or fall
3	Dead and down wood and debris in streams, on stream-banks and on slopes	Ecological Health	Visual observation during walk through and photo documentation; tally number of dead branches, tree trunks, and large rock obstacles in channel and nearby adjacent river banks.	Every 3 years in spring or fall

Table 4. Monitoring overview for additional monitoring activities and field inspections.

#	Conditions Monitored	Mgmt. Objectives	Indicators and Monitoring Method	Monitoring Frequency and Season
4	Neighbor and stakeholder stewardship and relations	Holistic & Neighborly	Public participation and initiative; public feedback and expressions of support	Annually
5	Scenic quality	Holistic & Neighborly / Scenic & Interpretive	Visual observation during walk through and photo point documentation	Annually (spring or fall)
6	Liability risks to neighboring properties	Holistic & Neighborly / Ecological Health	Visual observation during walk through and photo point documentation	Quarterly
7	Infrastructure conditions; fence effectiveness	Scenic & Interpretive	Visual observation during walk-through and photo point and GPS/Avenza PDF Map documentation of any infrastructure damage	(Bi-)Annually (spring and/or fall)
8	Stream channel morphology, efficiency and bank stability	Ecological Health	Visual observation during walk through and photo point documentation	Annually (spring or fall)
9	Slope stability	Ecological Health	Visual observation during walk through and photo point documentation	Annually (spring or fall)

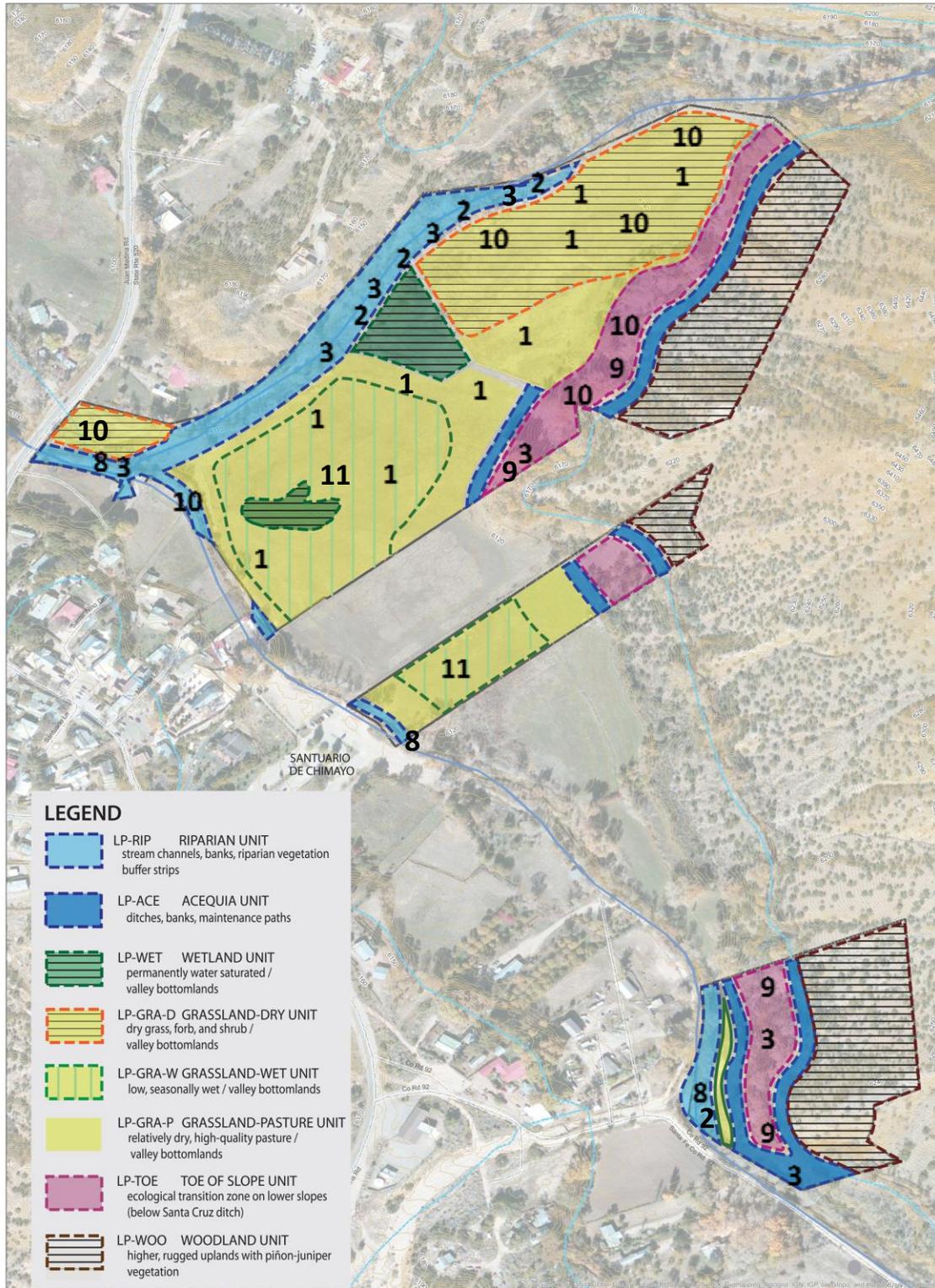
#	Conditions Monitored	Mgmt. Objectives	Indicators and Monitoring Method	Monitoring Frequency and Season
10	Vegetation health, presence of non-native plants and other invasives	Ecological Health	Plant list comparison with knowledge of native and invasive plants; visual observation during walk through and photo point and GPS/Avenza PDF Map documentation of locations	Annually (late summer or fall)
11	Hydrological terrain conditions: irrigation and drainage effectiveness	Ecological Health / Grazing	Visual observation during walk through and photo documentation	Annually (spring or fall)

### Information Management and Plan Updates

Santa Fe County will gradually streamline and enrich the procedures that help staff **acquire, store, and share knowledge that is essential for effective resource management** of LPOS. Recommendations about County capacity building, knowledge development, information management, plan updates, and community involvement methods are described in the Open Space Management Guidance Plan.

This plan is a living document which will be updated and amended when necessary. The scope of this plan is approximately 15-20 years. Plan information is specific for the short-term (years 1-5), descriptive for the mid-term (years 6-10), and preliminary for the long-term (year 11 and beyond).

Changing community needs, terrain conditions, and County management capacity and approaches will inevitably lead to the need for plan adjustments. Priorities and timelines may shift, and objectives for planned projects, maintenance activities, and community relations may change or. Following completion and assessment of actions beyond the mid-term period of this plan (10-15 years), this plan may need to be renewed.



Terrain Management Units

LOS POTREROS OPEN SPACE CHIMAYO NM



Figure 4. Map of recommended monitoring locations in relation to TMUs.

### 2.3. Conceptual Master Plan

*The Conceptual Master Plan for LPOS describes proposed land improvement projects and associated investments that are necessary to meet the central management goal and the LPOS vision. The proposed projects result from stakeholder wishes and planning opportunities, prescribed by the suitability of the land. The Conceptual Master Plan describes alternative options for projects, the specific locations of projects, their purpose, priority, as well as a suggested timeline for implementation.*

#### Land Use and Conceptual Master Plan

The LPOS Conceptual Master Plan conserves scenic beauty and integrity, wildlife habitat, agricultural uses. and **It preserves the specific pastoral, historical and traditional values** local community members treasure about the place. All other uses are subordinate to this predominant use designation and will be in service to achieving the vision for the LPOS.

Land conservation is already the *de facto* land use. As a result, this plan does not propose any changes. The development of other uses in support of the vision will take place gradually during and after the short-term maintenance and restoration phase. The preservation of the scenic qualities supports the continued importance of the area as the scenic backdrop for *El Santuario de Chimayo*

The proposed projects are designed to **improve grassland health and productivity** for grazing and wildlife habitat. Projects will focus on:

- improving the hydrological conditions of the pastures through irrigation and drainage,
- upgrading fencing,
- planting stream-side vegetation,
- locally stabilizing the banks of the Rio Santa Cruz to prevent erosion and flooding,
- implementing agricultural activities for soil improvement in the northern pastures.,

Improvements will also include improving some of the basic infrastructure of trails and river crossings, installing simple signs and a bulletin board and developing one or two observation areas for appreciation of the scenic beauty of the area (Table 5).

Prioritization and phasing for LPOS is based on the terrain conditions of early 2016. The baseline site conditions include needed maintenance on acequias, drainage systems, fences,

and wooded areas. The proposed Conceptual Master Plan activities follow the prioritization criteria outlined in the Open Space Management Guidance Plan.

- Short-term:
  - All activities focus on **land restoration and maintenance** to address conditions caused by deferred maintenance
  - **Grazing uses will be paused to rest and improve the land with a focus on ecological restoration and management fo the pastures.** ; grazing may resume after several years when grassland health is restored, infrastructure is improved, and the County’s lease system is updated.
- Mid-term:
  - **Improvement of the dry, northern pastures**
  - **Infrastructure upgrades**
  - Possible development of a scenic observation area
- Long-term:
  - Conceptual Master Plan components, such as the **possible ongoing ecological and agricultural development** of the irrigated, northern fields
  - Installation of some **educational interpretive signage**
  - Upgrades of ditches, fences, fords, and trails

Table 5 depicts a timeline of the proposed activities.

Planning and preparation is required for all Conceptual Master Plan improvements listed above. Implementation of improvements will be based on maintenance and repair activities. The following section describes key projects for planning, research and development are required to prepare maintenance and proposed improvements.

Community involvement is essential for many of the listed proposed Master Plan projects. Public involvement may include feedback on proposed project details during future planning and design sessions and active engagement in the planning and implementation of the projects. Several maintenance activities will be suitable for community or volunteer participation, which will facilitate community stewardship for open space care and maintenance.

Table 5. Prioritized list of proposed Master Plan projects for LPOS.

#	Project	Location	Purpose	Priority	Time Line
1.1	Drainage improvements	West Potrero pasture (parcel 6)	Increase land productivity and grazing potential	Highest	Short Term
1.2	Acequia irrigation system upgrades	Acequia de la Cueva	Increase land productivity, scenic quality, and grazing potential	Highest	Short Term
1.3	Riparian vegetation buffer fencing and planting	West Potrero pasture (parcel 6), along the streams	Filter drainage water and increase water quality in stream; improve habitat	Very high	Short Term
1.4	Fence upgrades and fence relocation (incl. stiles, gates)	Entire property	Improve managed grazing practices, wildlife use, and scenic quality	Very high	Short Term
1.5	Bank stabilization and flood control	Southern parcel (1) in Rio Santa Cruz	Control flooding and bank erosion and reduce maintenance	Very high	Short Term
1.6	Install of signs and bulletin board	Juan Medina Rd gate	Community outreach & education	Very high	Short term
2.1	Piped irrigation system upgrades	Northeastern pasture (parcel 7)	Test and improve system functionality to support future agricultural activity	High	Mid Term
2.2	Cover crop planting	Northeastern pasture (parcel 7)	Manage vegetation cover, and improve soil structure, water holding capacity, and productivity	High	Mid Term
2.3	Observation area(s)	West Potrero pasture (parcel 6)	Offer opportunities for viewing of scenic beauty	Medium	Mid Term
2.4	Periodic upgrades of fences, stiles, gates, signs	Entire property	Improve managed grazing practices, wildlife use, and scenic quality appreciation	Medium	Mid + Long Term
3.1	Agricultural improvements (river crossings, trails, ditches)	Entire property	Improve managed grazing practices, wildlife use, and scenic quality appreciation	Medium	Long Term
3.2	Installation of interpretive education signs	Selected locations along periphery of property	Improve public, awareness, understanding, appreciation, and care	Low	Long Term
3.3	Tree planting for replacement of old and dead trees	Selected locations on property	Improve wildlife habitat and scenic quality	Low	Long Term

A comprehensive overview of planning activities along with maintenance activities, Conceptual Master Plan projects, and community stewardship activities is included in Table 6. The activities are listed by functional group (planning, maintenance, community services, and projects/improvements) relative to Santa Fe County's organization of departments, and split over short-term, mid-term, and long-term phases.

Alternatives for proposed Conceptual Master Plan projects will be developed during the planning process of each individual project. Alternatives vary between (1) No Action, (2) Preferred Solution, and (3) Alternative Solution(s).

*For example, for drainage improvement (Project 1.1), the No Action alternative will be that the current drainage pipe will remain in place and has to be changed and maintained by hand to alter drainage conditions. One alternative solution may consist of a series of drainage pipes at different elevations (in V-formation) that increase drainage potential if the water table rises. Another alternative may include the installation of a large outlet box and pipe with a hand-cranked gate, possibly accompanied with a sediment sluice or sediment pond to limit the need to clean the system, and fencing to limit livestock impact on the drainage system.*

*Another example, when planting riparian buffers (Project 1.3), the No Action alternative will be that no buffers are planted and no changes occur to the fencing location. As a result, there will be no habitat gain and no improvement in filtering nutrient-rich water from the pasture into the streams. One alternative for the buffer plantings may be to create a fenced-out strip of land where native grasses, forbs and shrubs are allowed to grow out (protected from grazing impacts), potentially aided by some minimal plantings of desired species. Another alternative may include the planting of willows, cottonwoods, and/or other native streamside shrubs and trees in a fenced-out strip of 20'-30' between the pasture and the existing stream-side vegetation. A third alternative could include the combination of the previous two alternatives on select locations along the streams. Each alternative will have different visual quality impacts and maintenance requirements.*

### List of Key Projects for Planning, Research, and Development

The Conceptual Master Plan projects require initial work through a series of planning and research projects. In the short term such projects include:

1. Develop protocols for communication and verification about maintenance and land restoration work, mapping, monitoring, and team coordination
2. Develop and implement a monitoring plan for baseline data for all scheduled activities and associated terrain conditions
3. Develop a basic signage plan for boundary marking and/or acknowledgement of the LPOS and the conservation easement, along with a bulletin board that will serve to post flyers and announcements. The signage should address public safety rules, leave-no-

trace principles, and Santa Fe County contact information. Signage design that is simple and unobtrusive will best meet the vision for the LPOS

4. Develop a simple grassland and grazing management plan, including pasture management, irrigation and drainage planning, and a short-term plan for haying and baling (with community involvement)
5. Work with the Santa Fe County Legal Department to clarify water rights, develop a plan to utilize the water rights already allocated to the Acequia de la Cueva Ditch, and improve irrigation infrastructure and acequia management systems
6. Develop a detailed plan and design for drainage improvements for the West Potrero pasture (parcel 6), with a detailed scope of work for RFP implementation
7. Redesign the grazing lease process, and create a lease program for managed, restorative grazing, and a managed grazing lease for grassland maintenance
8. Prepare an RFP for bank stabilization, drainage improvement, and associated arroyo maintenance at MAP location.
9. Prepare an RFP to plant riparian buffer strip vegetation along Rio Quemado and Rio Santa Cruz on the West Potrero parcel #6 (see figure 2)

Mid-term and long-term research and planning projects would include:

10. Design a simple trail and observation area on the west side of the West Potrero parcel #6
11. Plan and organize a community-driven restoration project for the dry pastures (parcel #7). This project should include assessment of the irrigation system , and of opportunities in the community to actively participate; this restoration project may include the planting of cover crops, mulching with mowed crops, and managed, restorative grazing. Sowing and cultivating a forage crop subsequent to restoration efforts would provide soil cover soil restoration capacity, and forage for wildlife and livestock.
12. Research and plan for a simple interpretive education program for the LPOS
13. Replace and remove old, weak, dead and fallen trees.

MAINTENANCE / IMPROVEMENT / PLANNING

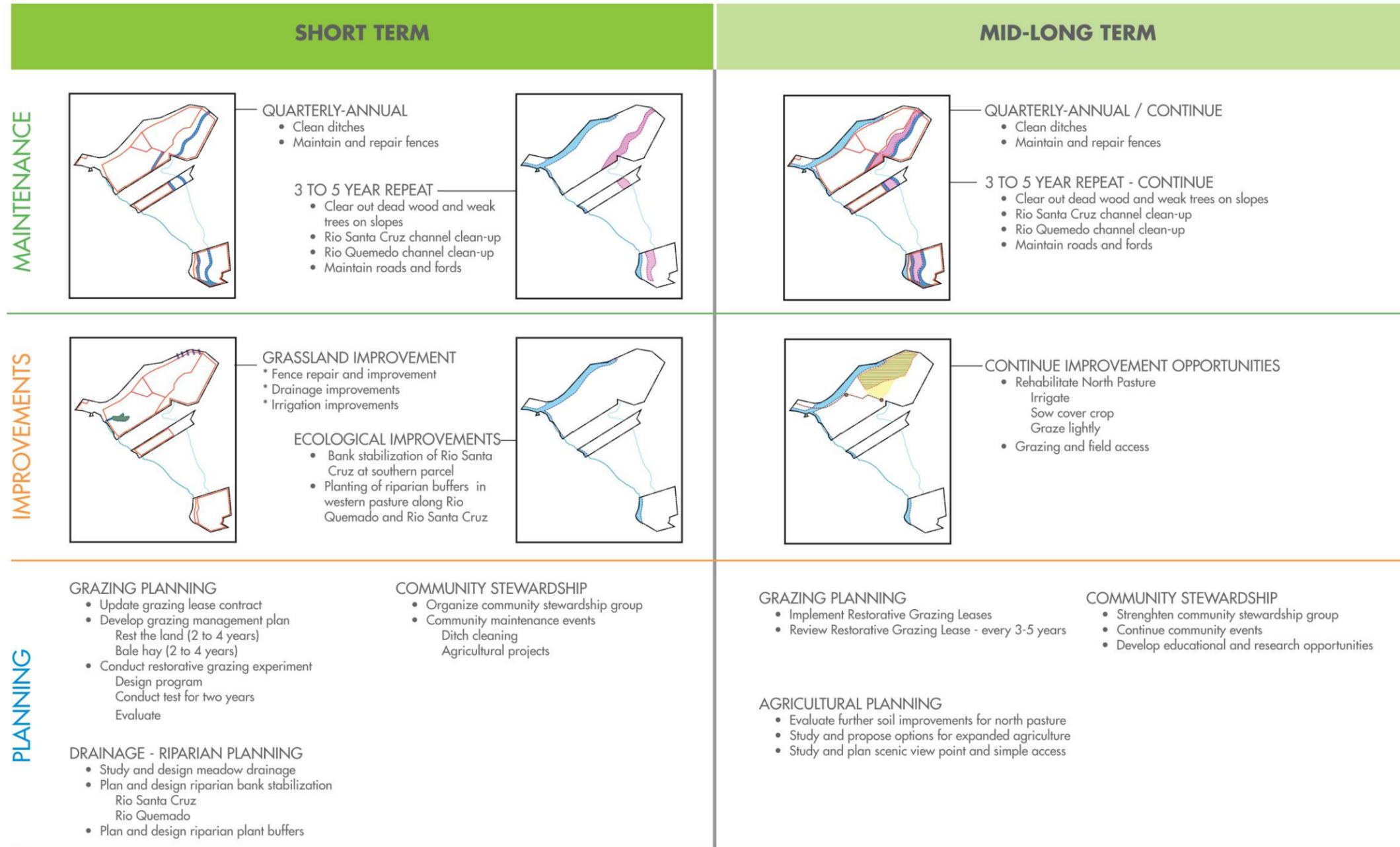


Figure 5. Graphic display of phased management activities for SPOS relative to functional activity groups.

Table 6. Overview of phased management activities for LPOS relative to functional activity groups.

**PLANNING**

<b>Short Term</b>	<b>Mid Term</b>	<b>Long Term</b>
Establish protocols for maintenance work and team coordination	Update the grazing program	Update management of the grazing program
Develop a monitoring plan and gather base-line data	Manage restoration program for the dry pastures and check water rights for parcel 7 (associated with local ag program development)	Update and adaptive management of the dry pastures/ag development program
Develop a basic signage plan	Develop an acequia association and protect water rights	Implement interpretive education program
Develop signs and bulletin board for LPOS entrance (at Juan Medina Rd) and establish a fund for signs and bulletin board maintenance and replacements	Develop of an interpretive education program	
Develop a grazing management plan (including a pasture management and irrigation plan)		
Plan haying and baling in 2016-2017		
Plan for improvements to drainage of pastures		
Update Grazing lease		
Plan for bank stabilization along Rio Santa Cruz		
Grazing pilot program		
Design of riparian buffers		
Design a simple trail and observation area		
community-driven rehabilitation program for the dry pastures		
new grazing program		

## COMMUNITY and County SERVICES

Short Term	Mid Term	Long Term
Community organization for maintenance work, such as fence repair, acequia maintenance, and wood management	Community organizing for community-driven rehabilitation program for the dry pastures (ag development)	Community organizing for maintenance and the dry pastures (ag development) program

## MAINTENANCE

Short Term	Mid Term	Long Term
Remove dead wood, debris, and overgrown willows in river channels	Remove dead wood, debris, and overgrown willows in river channels	Remove dead wood, debris, and overgrown willows in river channels
Clean and repair acequias	Clean and repair acequias	Clean and repair acequias
Remove dead wood and debris on lower slopes and along acequias	Remove dead wood and debris on lower slopes and along acequias	Remove dead wood and debris on lower slopes and along acequias
Inspect and repair fences	Inspect and repair fences	Inspect and repair fences
Remove dead wood and debris on river banks and riparian areas	Remove dead wood and debris on river banks and riparian areas	Removal of dead wood and debris on river banks and riparian areas
Driveway drainage	Driveway drainage	Driveway drainage

## PROJECTS/IMPROVEMENTS

Short Term	Mid Term	Long Term
Repair and improve all fences	Repair and improve all fences	Repair and improve all fences
Upgrade the acequias	Build stiles and gates	Improve infrastructure
Improve the drainage in the western pasture	Build a simple trail and observation deck	Install interpretive education signage
stabilize bank Rio Santa Cruz	Assess and repair irrigation system in dry pastures (parcel 7)	Build ag improvements on parcel 7
Plant riparian buffer strips + move fences	Plant a cover crop on the dry pastures (parcel 7)	
Install signs and bulletin board		

## 2.4. Community Relations

*Santa Fe County intends to develop and maintain productive, neighborly and collaborative relations with the Chimayo community regarding the implementation of the LPOS Management Plan.*

### Information Exchange

In the short term, Santa Fe County plans to expand and develop several methods for information exchange with community members and stakeholders.

### Signage

Santa Fe County will install **simple signage** identify the Open Space property. Santa Fe County will also install a sign indicating the conservation easement on parcel #4, as stipulated in the Easement Deed Agreement. Signage will also inform the public about safety, leave-no-trace principles, general care and stewardship behavior, and contact information for Santa Fe County. Boundary markers will be installed for maintenance and access control. A **bulletin board** will be placed at the gate on Juan Medina Road for public notices, such as specific events, meetings, and terrain management activities.

### Website

Santa Fe County will maintain **website pages** dedicated to the County Open Space program. The website may be expanded with a specific webpage describing the LPOS landscape and history, management plan information and activities, and planned events at the LPOS.

### Community Contact

Santa Fe County will work with the community to identify a communication structure to field comments and questions for follow-up actions. Communication will address signage, grassland management and improved grazing practices, haying and baling activities, collaboration on acequia cleanup, weed management, and wood removal and distribution, among other initiatives, especially in the initial phase of plan implementation.

### Education, Coordination and Collaboration

Santa Fe County and community members understand it is important to **cultivate educational activities** at LPOS to raise awareness about the area's unique history and ecology, and to mobilize support for future stewardship. Santa Fe County and community members encourage more youth engagement like school groups in educational activities and site maintenance.

A significant portion of community communication will revolve around maintenance of the open space property, both to announce maintenance work done by Santa Fe County and its contractors and to plan and **coordinate maintenance work done in collaboration with community members**. All maintenance and restoration activities will be reviewed with

affected neighbors and stakeholders prior to implementation, or discussed and coordinated in community meetings. Maintenance activities that are suitable for (small) groups of volunteer stewards include:

- Fence repair (in the fall, to prepare for the winter grazing season)
- Removal of dead wood and woody debris on the ground and in the river (during low flows) (in the late winter and early spring to prepare for spring runoff and summer storms)
- Removal of invasive plants (esp. elm, Tree of Heaven, Russian olive, and tamarisk) (in the late fall and in the early spring)
- Acequia cleaning and brush removal (in the early spring to prepare for the irrigation season)
- Baling of hay (in later summer and fall, in years that the pastures are not grazed)

Maintenance activities can provide **benefits for the community**. Such benefits may include the distribution of dead wood as firewood (e.g., there used to be an “Ancianos” program in Chimayo that distributed firewood to elderly people), maintaining visual contact between the Santuario grounds with the Potrero grassland by trimming vegetation along the Rio Santa Cruz, offering priority to local livestock owners for the managed grazing lease, and organizing haying and baling of grass crops with and for local community members. Other important maintenance activities to involve the community members include acequia maintenance events, and collaboration with neighbors on fence repair and drainage around the pastures.

There is a diverse group of community stakeholders that Santa Fe County intends to include in volunteer stewardship work. These **stakeholder groups** include:

- Immediate neighbors and parcientes on the acequia
- Representatives on behalf of El Santuario de Chimayo
- Other acequia groups, namely those associated with the Potrero Ditch and the Martinez Arriba (Santa Cruz) Ditch
- Local youth, and possibly organized through the Chimayo Conservation Corps
- Local farmers
- Local livestock owners
- Area schools and their students, such as the Chimayo Elementary School, Camino de Paz (agricultural) School, and Northern New Mexico College in Espanola
- Regional conservation groups, hiking and outdoor organizations, and other entities that could become interested in the LPOS

Collaboration on maintenance activities will be effective by organizing community partners around **specific, tangible projects** to **foster** communication I trust, and generate additional objectives, priorities, and creative new ideas for problem solving These projects will support the

development of communication and between Santa Fe County and interested community members. The following topics are of interest in the community and may serve as pilot projects for implementation of this plan:

- Grassland and wetland management and traditional grazing
- Other agricultural uses, including haying and baling
- Scenic and spiritual appreciation
- Wildlife habitat conservation
- Public and youth education

A more detailed list of community involvement is included in section 2.6 about short-term Plan implementation activities.

## 2.5. Terrain Management

*Terrain management activities are described in detail in a separate Maintenance Plan for LPOS. The following sections summarize terrain management in the context of this plan. The proposed terrain management activities also reference specific Best Management Practices (BMPs), which are described in the Open Space Management Guidance Plan.*

### Summary Overview

Property management includes land restoration, maintenance, and community stewardship. Terrain management activities are specific for each different Terrain Management Unit (TMU). Each TMU requires a discrete set of management activities to maintain their ecological functions as part of the central management goal for the LPOS. An overview of terrain management activities is included in Table 7. Detailed lists of short term terrain management activities are included in Tables 8 and 9.

Table 7. Overview of Terrain Management Units and anticipated regular maintenance activities related to the management objectives for the property.

<b>Where</b>	<b>What</b>	<b>Why</b>	<b>When</b>
<b>TMUs [Hispanic Name]</b>	<b>Anticipated Regular Maintenance Activities</b>	<b>Objective</b>	<b>Maintenance Frequency*</b>
All TMUs	Dialogue about maintenance with neighbors and stakeholders and integrate feedback in planning	Holistic & Neighborly	Annually
All TMUs	Inspect and mark property boundary markers, especially at corner points with T-posts combined with a Carsonite fiberglass post that is labelled	Access	One time (year-1) and when needed
All TMUs	Inspect and repair: a. Fences, gates and stiles b. Fords and stream crossings c. Roads and trails (esp. drainage fixes along CR 92) d. Signage	Access / Scenic & Interpretive / Ecological Health	a. Annually b. Annually c. Annually d. Annually

Where	What	Why	When
TMUs [Hispanic Name]	Anticipated Regular Maintenance Activities	Objective	Maintenance Frequency*
1. Riparian Area: stream and streamside terraces <i>[el rio, el bosque, y la ribera]</i>	a. Remove fallen trees, dead wood, woody debris b. Remove of vegetation encroaching on the stream channel in specific locations	Ecological Health	a. Annually b. Once in 2-3 years
2. Acequia Zone: irrigation ditch, berms, and infrastructure <i>[las acequias]</i>	a. Acequia cleaning, tree thinning, bank repair ( <i>la limpia y la jara</i> ) b. Infrastructure repairs c. Gopher and mole control	Ecological Health	a. Annually (spring) b. Annually (spring) c. Annually
3. Wetlands: permanently saturated soils <i>[la cienega]</i>	a. Remove periodically of dead wood and invasive plants b. Clean drainage structures	Ecological Health	a. Every 2-3 years b. Annually
4. Meadows – dry: sandy, non-irrigated grassland <i>[la vega]</i>	a. Inspect of irrigation system b. Cover crop and weed management	Ecological Health / Agriculture	a. Annually once water rights are secured b. Annually
5. Meadows – wet: periodically saturated, loamy grassland <i>[el prado]</i>	a. Irrigation and drainage management b. Grazing management	Ecological Health / Grazing	a. Monthly b. Monthly-Quarterly
6. Meadow (or hay land): somewhat higher, high quality irrigated grassland or cropland <i>[la joya]</i>	a. Irrigation and drainage management b. Grazing management	Ecological Health / Agriculture / Grazing	a. Monthly b. Monthly-Quarterly
7. Lower Slopes – Transition Zone: sandy, gravelly and rocky soils with mixed grass-shrub vegetation, sub-irrigated <i>[los altitos]</i>	a. Remove dead wood b. Remove invasive plant species c. Soil conservation	Ecological Health	a. Annually b. Annually c. Annually

**\*) Note:** The table indicates the minimum suggested frequency. In some circumstances frequencies may need to be increased if/when staff time and funds allow or if maintenance activities can be conducted by community volunteers.

Restoration Projects

Table 8. List of Terrain Management project activities for year-1 aimed at land health restoration.

Location Code	Management Activity	Location	Staff Prep	Volunteer Activity	SF County-M (Crew)	Contractor	Labor & Cost Items
LP-GRA-P/W	Fence repair of ineffective boundary fences (esp. on SE and E sides of pastures)	Parcel 6: 1,350 lf	One time to establish standards and prescription and to choose form of labor source				TBD: Based on proposal (one-time investment); possibly around \$1,500-\$2,500 depending on material
LP-WET	Drainage improvement: sediment pond, drainage pipe, fence	Parcel 6: Drainage channel of wetland in West Potrero pasture: 500 sq ft	One time to formulate RFP and standards				5 days for 2-person crew; Costs TBD: Based on proposal (one-time investment); possibly
LP-RIP	Fence inspection and small repairs - Rio Santa Cruz and Rio Quemado	All parcels: 1,900 lf + 1,500 lf = 3,400 lf					2 days/year for 1 crew member
LP-RIP	Bank stabilization & drainage improvement on driveway off of CR92	Parcel 1: 500 sq ft	Plan SOW and specs and choose labor source				1 day for experienced operator: \$1,000-\$1,500, including base coarse
LP-RIP	Structural bank protection	Parcel 1: 50 lf of stream	Plan SOW and specs and hire contractor				TBD: Based on proposal (one time investment); possibly around \$50,000

## Maintenance and Stewardship Activities

Table 9. List of Terrain Management maintenance and stewardship activities for year-1 aimed at land health maintenance.

Location Code	Management Activity	Location	Staff Prep	Volunteer Activity	SF County-M (Crew)	Contractor	Labor & Cost Items
LP-GRA + LP-WET	Fence inspection and repair (all interior and exterior fence)	Parcels 6+7: Entire grassland + wetland area: approx 5,780 lf	One time to establish standards and prescription				Annually: 1-2 days for 2 person crew
LP-GRA + LP-WET	Weed control: removal of elm, Ailanthus, knapweed, Kochia, etc.	Parcel 6-gate area + Parcel 7: Dry pastures and entrance area: 6.75 ac	One time to establish protocols and methods				2-3 days/year for 2-person crew
LP-RIP	Removal of trees fallen into river and woody debris that obstructs flow	All parcels: Stream channels: 500 lf + 1,500 lf = 2,000 lf	One time to establish standards and prescription				3-4 days/year for one sawyer and one swamper or for a group
LP-RIP	Removal of invasive species, juniper or willow encroaching on channel, and woody debris on banks	All parcels: 1,900 lf + 1,500 lf = 3,400 lf	One time to establish standards and prescription				Every 3 years, 5-6 days (possibly less over time) for one sawyer and one swamper or
LP-RIP	Removing dead wood and leaning trees from river banks and terraces	All parcels: 3 acres	One time to establish standards and prescription				Annually and in case of emergencies: about 5 days for one sawyer
LP-RIP	Pile burning	All parcels: When need arises	Prep burn and coordinate with Fire Dep				TBD
LP-ACE	Acequia cleanout, channel leveling, irrigation gates, desagues	All parcels: Approx. 2.630 lf (incl. neighbor properties)					2-3 days for 2-person crew
LP-RIP + LP-TOE	Removal of dead wood, leaning and fallen trees, and invasive plants	All parcels: Approx. 1.5 acres	One time to establish standards and prescription				Every 3 years, 2-3 days (possibly less over time) for one sawyer and one swamper or for a group of volunteers

## 2.6. Plan Implementation and Financing Mechanisms

*Plan implementation will start by identifying priorities, and timelines among staff for activities regarding maintenance, planning and project preparation, community outreach, and community stewardship involvement. This prioritization will be based on the recommended tasks at hand and the staff and funding available to accomplish the tasks. This section lists planned activities and suggested funding mechanisms for each activity.*

### Implementation

Implementation of this plan will start upon approval of the plan by the Santa Fe County Board of Commissioners.

Recommended implementation activities include:

1. **Periodic community meetings** to explain the planned implementation activities with an emphasis on:
  - a. Terrain inspections, baseline data collection, priority maintenance activities, and planning activities for a key projects for repairs and improvements
  - b. Identifying community interest and capacity to assist with the planned activities
  - c. Developing outlines for collaborative projects between Santa Fe County and neighbors and other local stakeholders
  - d. Coordinating specific community involvement for the selected projects  
Annual review of prior year activities and next year implementation planning.
2. Implementation of selected **terrain inspection, base-line data collection** (for future monitoring), **and maintenance activities** by County maintenance staff, assisted by neighbors and local volunteers; inspections, data gathering and priority maintenance will include:
  - a. Delineation and marking of boundaries
  - b. Inspecting and repairing all interior and exterior fence conditions
  - c. Weed removal, especially invasive tree species
  - d. Removal of dead wood, fallen trees, and debris in the streams
  - e. Removal of dead wood, fallen trees, and dead brush on stream banks and on the LP-TOE TMU, including wood or wood chip distribution in the community or wood disposal elsewhere
  - f. Acequia cleanout and small repairs
3. Planning, collaboration, and **community organizing** to implement priority projects which may include
  - a. Development and placement of signs and a bulletin board

- b. Drainage improvements at the wetland drainage point of the West Potrero pasture
  - c. Fence repair work that would require consideration of the historical and cultural visual quality of the area and/or the improvement of gates, and/or fence improvements along the streams
  - d. Drainage improvements at the intersection of CR92, an arroyo, a driveway and Rio Santa Cruz, at a river bend on parcel 1
  - e. Structural improvements to the channel of Rio Santa Cruz, especially in the river bend on parcel 1
  - f. Haying and baling of grass and forbs
4. **Research and planning for the preparation of larger initiatives** that are planned to be implemented at a later date, including:
- a. Development of protocols for communication, staff development, and coordination
  - b. Development of a signage plan that includes site specific signs, public outreach and communication strategies
  - c. Grassland management planning and the updating of a grazing lease
  - d. Research on water rights and reconciliation of irrigation planning (irrigated acres) with grassland management and grazing management planning (grazed acres)
  - e. Development of a drainage plan and design
  - f. Development of a plan and design for streambank improvements on the Rio Santa Cruz
  - g. Development of a plan and design for expanded riparian vegetation buffer strips
  - h. Evaluation of the roll-out phase and adaptive planning for subsequent years

#### Financing Mechanisms, Funding Sources, and Partners

Santa Fe County owns and manages more than 6,600 acres of open space properties and park areas, but it has insufficient funding and staff resources to meet the acquisition and management goals for the properties. Santa Fe County will be able to implement this plan and other property plans if it successfully continues to develop new funding mechanisms, identify new funding sources, and cultivate collaborative relationships with neighbors, local stakeholders, and other interest groups.

To implement this plan, Santa Fe County will **include neighbors, stakeholders and other partners** in planning, maintenance, and data gathering for purposes of monitoring, planning, and development of specific projects. This collaborative approach will reduce the need for outside funding for property management and it will help build neighborly relationships and increase stewardship by the people with the greatest interest in the property.

## APPENDICES (TBD)

- A. Planning Team and Participants
- B. Site Characterization Reports
- C. Maintenance Plans
- D. Community Meeting Notices and Summaries of Meetings
- E. Public Comments