

THE BOARD OF COUNTY COMMISSIONERS OF

**T H E C O U N T Y O F S A N T A F E
RESOLUTION NO. 2017- 40**

**A RESOLUTION ADOPTING MANAGEMENT PLANS FOR LAMY OPEN SPACE AND
PARK AND MADRID OPEN SPACE AND DIRECTING STAFF TO IMPLEMENT THE
PLANS**

WHEREAS, Santa Fe County (County) owns and maintains a network of over 6,600 acres of open space and parks, and 46 miles of trails, including the Lamy Open Space and Park and the Madrid Open Space; and

WHEREAS, the 2015 Sustainable Growth Management Plan and the Open Land and Trails Plan call for developing management plans for open space properties; and

WHEREAS, the Santa Fe County Board of Commissioners and the County Open Land, Trails and Parks Advisory Committee (COLTPAC) support the development of management plans for open space properties; and

WHEREAS, management principles were developed with community input to guide the development, management, and maintenance of Santa Fe County Open Space properties; and

WHEREAS, specific management principles were developed for the Lamy Open Space and Park and the Madrid Open Space which include appropriate public access, minimal maintenance needs, limited capital investments, protection of resources, diverse use opportunities, and increased youth and community participation in site stewardship; and

WHEREAS, the planning process for the Lamy Open Space and Park and the Madrid Open Space included numerous stakeholders, community members, adjacent property owners, and relevant public entities who assisted County staff to develop a long range vision for each of the two properties through a vigorous community planning process; and

WHEREAS, the Management Plans prioritize projects for implementation in the short-term, mid-term, and long-term; and

WHEREAS, the Management Plans define Best Management Practices (BMPs) in order to guide maintenance in a responsible and effective manner; and

WHEREAS, according to the Management Plans, additional staffing would enhance the County's ability to address deferred maintenance needs, and increase the likelihood of implementing the Management Plans in a timely and efficient manner; and

WHEREAS, the Management Plans include implementation phasing timelines and preliminary estimated implementation costs; and

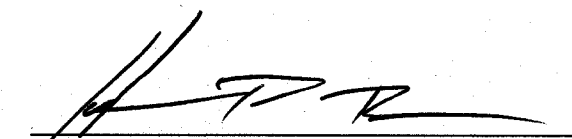
WHEREAS, COLTPAC has reviewed and recommends approval of the Lamy Open Space and Park Management Plan (Exhibit A), and the Madrid Open Space Management Plan (Exhibit B).

NOW, THEREFORE, BE IT RESOLVED by the Board that:

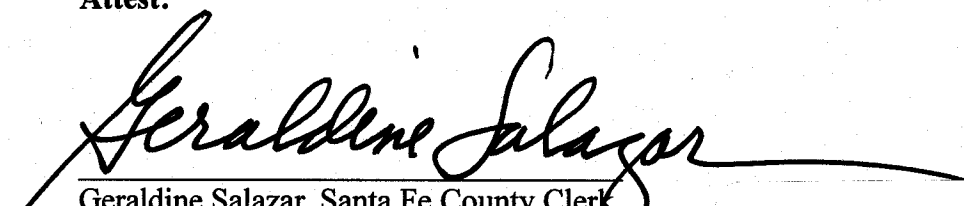
1. The Management Plans attached hereto as Exhibits A and B are hereby adopted;
2. Staff is directed to implement the Management Plans to the extent possible with available resources and to request amendment of the plans as needed;
3. Staff is directed to request necessary budget for staffing, training, planning, maintenance, and capital funding for implementation of the Management Plans;
4. Staff is directed to involve community members and the public in the outlined management projects and activities contained within the Management Plans when appropriate.

PASSED, APPROVED, AND ADOPTED this 2nd day of May, 2017.

BOARD OF COUNTY COMMISSIONERS

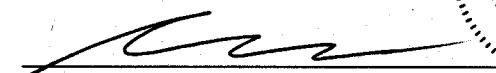

Henry P. Roybal, Chairman

Attest:


Geraldine Salazar, Santa Fe County Clerk



Approved As To Form:

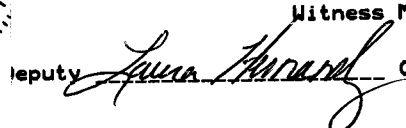

Gregory S. Shaffer, County Attorney



COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

BCC RESOLUTIONS
PAGES: 174

Hereby Certify That This Instrument Was Filed for
Record On The 3RD Day Of May, 2017 at 09:55:38 AM
and Was Duly Recorded as Instrument # 1824621
of The Records Of Santa Fe County

Witness My Hand And Seal Of Office
Geraldine Salazar
Deputy County Clerk, Santa Fe, NM


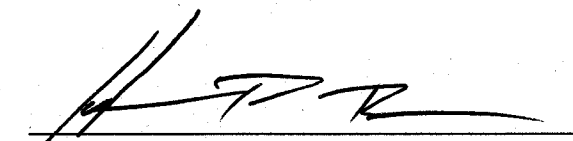
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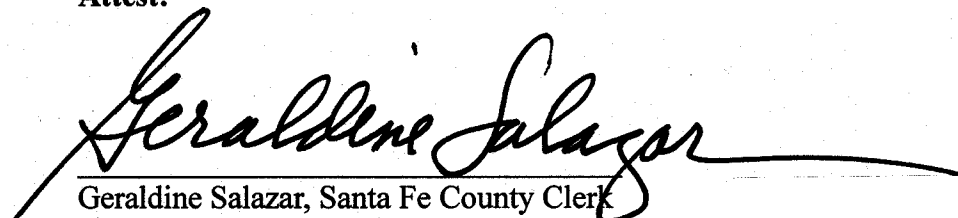
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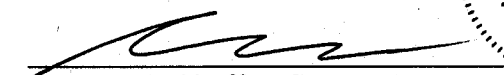

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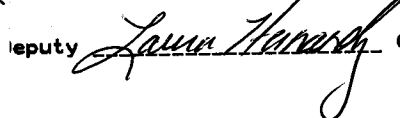


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SANTA FE COUNTY OPEN SPACE AND TRAILS PROGRAM LAMY OPEN SPACE + PARK MANAGEMENT PLAN

APRIL 2017



OPEN SPACE
& TRAILS

surroundings



ACKNOWLEDGEMENTS

The plan was made possible through the support of the Santa Fe County Board of County Commissioners.

2017 Commissioners

Henry Roybal – District 1
Anna Hansen – District 2
Robert Anaya – District 3
Anna Hamilton – District 4
Ed Moreno – District 5

2016 Commissioners

Henry Roybal – District 1
Miguel Chavez – District 2
Robert Anaya – District 3
Kathleen Holian – District 4
Liz Stefanics – District 5

The County Open Lands, Trails, and Parks Advisory Committee (COLTPAC) provided strategic guidance and review.

The knowledge and expertise of the County Open Space and Trails planning, project development, and maintenance staff was invaluable in developing this plan.

Maria Lohmann, OS&T Senior Planner
Paul Olafson, Planning Project Manager
Colleen Baker, OS&T Project Manager
Shane Martinez, OS&T Lead Maintenance Technician

Special appreciation is given to the approximately twenty community members who provided the time, local wisdom and sense of the community needed to achieve this management plan. Their

participation in a series of three community work sessions, interviews and in providing information about the project site and its history, environment and the surrounding community are fundamental to this plan.

The County thanks Our Lady of Light Community Center's Board for providing the historic Lamy Church to host public meetings for this plan.

Specific data and resources that added immeasurably to the research efforts for this plan were provided by:

Robert Fine, NMDOT Lamy Historic Rail Photos
Cindy and Jack Clark, Clark Property Species List

The Lamy Open Space + Park Management Plan consultant team was:

Surrounding Studio / Team lead, planners
Faith Okuma
Carly Piccarello
The Community Store / Facilitator
Carl Moore
Jessie Lawrence
Ecotone / Ecologist
Jan-Willem Jansens
River Source / Ecological planner
Richard Schrader
Conservation by Design / Interpretive
Melanie Pierson
Tamarch / Archaeologist
Tamara Stewart
Earth Analytics, Inc./ GIS planners
Wetherbee Dorshow
Tonya Fallis

EXECUTIVE SUMMARY

1.0 INTRODUCTION

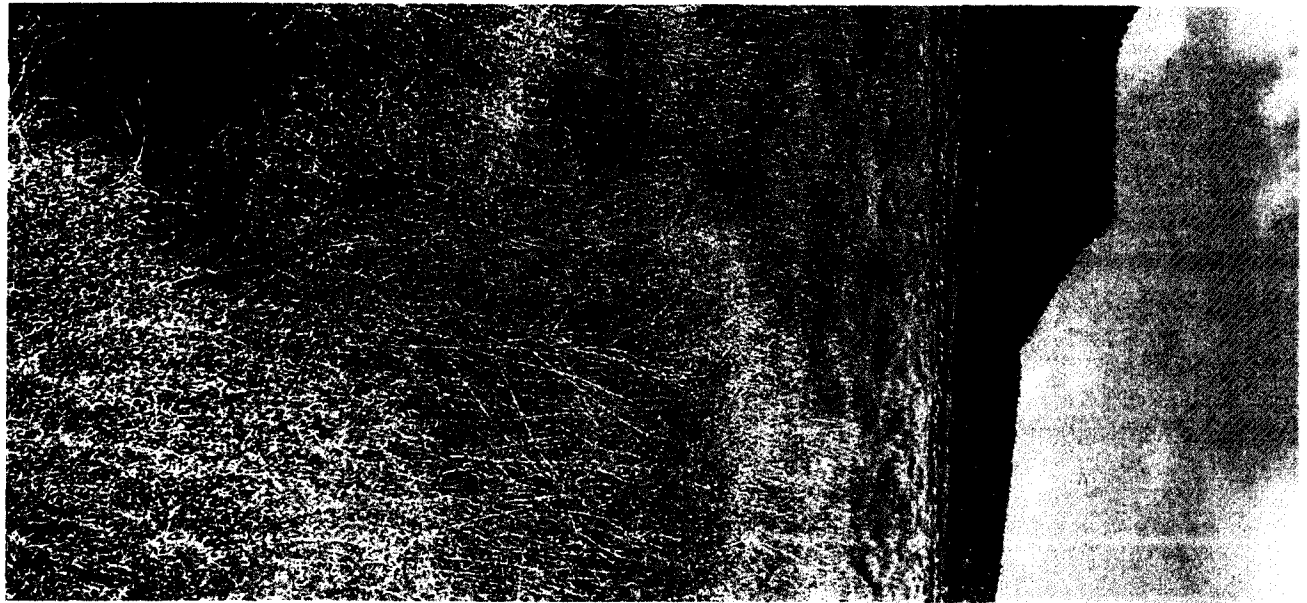
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LAMY OPEN SPACE + PARK APPENDICES

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Lamy Open Space + Park (*Lamy OSP*) is comprised of two parcels. The Lamy Open Space parcel is a ninety-one (91) acre property. The Lamy Open Space contains the "Lamy Junction" archeological site and is listed in the Galisteo Basin Archeological Sites Protection Act. The Open Space was purchased in 2002 to protect those significant cultural resources. The Lamy Park site is a fifty (50) acre parcel immediately to the east of the Lamy Open Space. The park through Land and Water Conservation Funds has been developed as a passive recreation and picnic area.

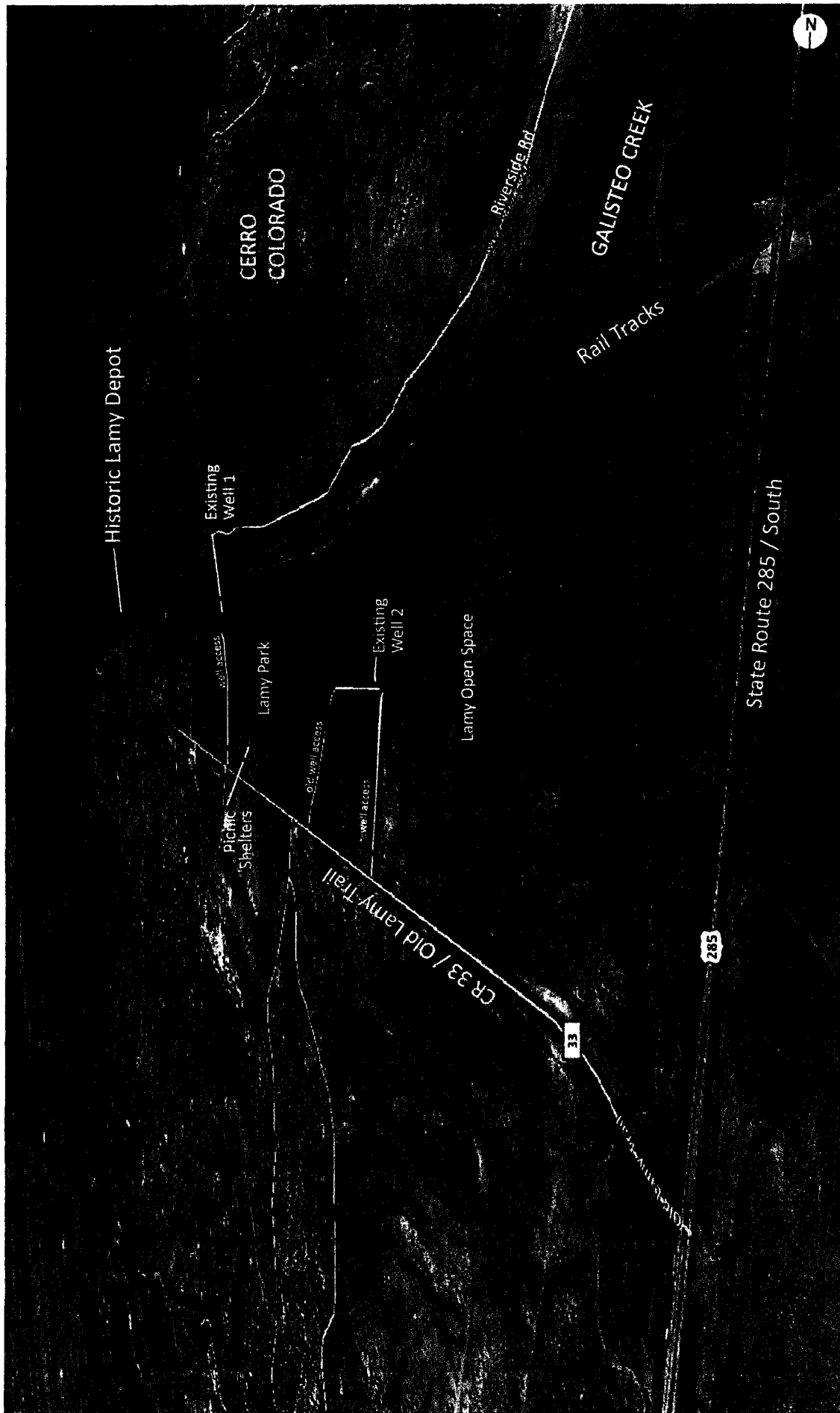
The goal of this plan is to provide practical and effective management steps to maintain the cultural resources, the wildlife habitat and educational opportunities of Lamy OSP. This plan was developed based on input gathered in three community meetings and interviews with key stakeholders, site analysis and research. Community members are very supportive of cultural resource preservation, wildlife habitat monitoring, development of education and interpretation regarding the site, and a visitor center in the Lamy area.

This open space property includes significant cultural resources and important habitat. The open space site was added to the National Register of Historic Sites in June 2016. The Lamy site is identified by the New Mexico Game and Fish Crucial Habitat Assessment Tool as within a crucial wildlife corridor that runs through the Galisteo Basin. The property's ecological and cultural resources are currently stable and have limited risks. Management needs include continued protection of cultural resources, preservation of wildlife values, habitat monitoring and interpretive educational programs. The Management Plan focuses on preserving the site's cultural resources and wildlife habitat, and outlines a vision, maintenance activities, improvement priorities, and stakeholder involvement in land stewardship.

The Lamy OSP Management Plan identifies short-term, mid-term, and long-term management priorities for the property. The short-term phase focuses on maintenance activities and an ecological monitoring program. In the mid-to-long term, Santa Fe County may collaborate with various stakeholders to develop a visitor interpretive-education center in the Lamy area to help visitors explore and understand the unique history, geology and ecology of the site.

The Management Plan emphasizes the importance of collaboration with the community for land stewardship, and cultural resource and environmental monitoring. The plan identifies opportunities to create a stewardship group and community activities to support the Lamy OSP vision and goals.





View of Lamy Open Space + Park - from west looking to east

This Management Plan for the Lamy Open Space + Park was developed with community members, neighbors, property owners and other stakeholders from throughout Santa Fe County.

The planning team worked with participants to formulate a vision for the Lamy Open Space + Park and to verify the final plan components and priorities.

1.1 Plan Purpose and Need

The Lamy Open Space + Park (Lamy OSP) Management Plan purpose is to:

- describe a vision, goals, and objectives for management of the Lamy OSP,
- help understand existing environmental conditions on the Lamy OSP,
- clarify priorities for the maintenance and protection of the Lamy OSP,
- identify projects for future investments at Lamy OSP,
- describe a coordinated management approach to planning, implementation and maintenance activities for the Lamy OSP,
- identify stewardship and community educational opportunities for the Lamy OSP.

This Plan was developed in response to clear and strong support for enhanced management planning for open space properties from the County Open Lands, Trails, and Parks Advisory Committee (COLTPAC) and from the Board of County Commissioners (BCC). The Plan arose from a growing need for:

- strategic management plans that include meaningful input from the community,
- a strong vision with clear objectives and strategies for resource conservation, preservation, passive recreation, and public access,
- an overview of existing conditions and site-specific inventories,
- maintenance plans with best-practice recommendations,
- identifying priorities and actions for developing key projects,
- identification of potential funding sources to implement the plan.

Management Plan Need

The Lamy OSP Management Plan is needed to continue the protection of the significant archeological resources on the Lamy OSP. Santa Fe County and the Lamy community have an interest in examining the role that this site might have relative to the community and Santa Fe County's regional open space program in the Galisteo Basin. The present timing for the development of this management plan for the Lamy Open Space Park is relevant and timely to that discussion.

1.2 PROPERTY DESCRIPTION + EXISTING CONDITIONS ASSESSMENT

The Lamy Open Space + Park (*Lamy OSP*) is at the intersection of US Highway 285 and County Road 33. The site is comprised of two parcels-Lamy Open Space and Lamy Park. The Lamy Open Space is a ninety-one (91) acre parcel purchased to protect significant cultural resources on that site. The property contains the Lamy Junction archeological site which is listed in the Galisteo Basin Archeological Sites Protection Act. Abutting the east side of the Open Space is the fifty (50) acre Lamy Park. Picnic shelters and passive recreation opportunities were built on the park site as part of a Land, Water and Conservation Fund project.

The Lamy OSP property is near the entry to the historic Lamy community and sits at the eastern edge of the Galisteo Basin. The Lamy area has been an important locale in the long history of environmental change and human occupation in the Galisteo Basin. The site contains significant cultural resources associated with several periods of pre-historic Native American presence in the Galisteo Basin. In the late 1800s and early 20th century, Lamy was a vibrant railroad-based community and regional commercial hub, as evidenced by the rail line that runs along the southern boundary of the open space. The site is crisscrossed by four old trail alignments and other informal narrow dirt paths. Over the 19th century and until the recent past, sheep and cattle grazing and ranching were activities that affected the area. Across the site, artifacts from the railroad and ranching periods can be found.

The need to protect those significant cultural assets led to the purchase of Lamy Open Space and subsequent listing on the National Register of Historic Sites in June 2016. Also in 2016, an archaeological survey of the Lamy Park property identified additional cultural sites. The cultural assets at Lamy OSP are generally buried which helps to protect the resources. New Mexico SiteWatch assists in monitoring the cultural resources on the open space property.

The Lamy OSP is identified by the New Mexico Game and Fish Crucial Habitat Assessment Tool as within the major crucial wildlife corridor linking the Sangre de Cristos Mountains through the Galisteo Basin to the Ortiz Mountains area. Local residents have listings of over 90 wildlife species found on the property and on adjacent land. (*See Appendix D.*) The existing wildlife habitat is generally stable and with limited problems in a few specific locations. Fencing on site is not wildlife friendly and hinders movement of wildlife between and through the site.

The landscape is a stable Pinon-Juniper Savannah and Shrub Land. The dense shrub cover makes the site difficult to walk through which helps control the proliferation of informal paths

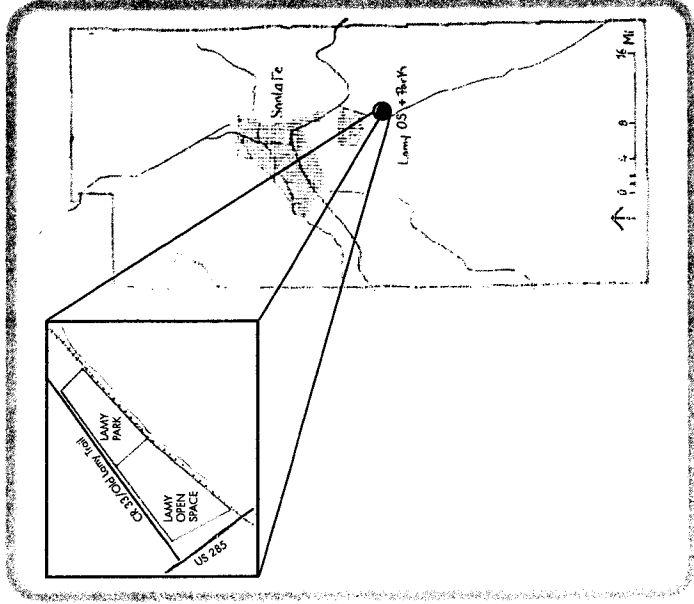


Figure 1. Location Map - Lamy Open Space

by visitors. There are no immediate threats to the landscape. Limiting new trails and improvements is important for both wildlife habitat health and cultural resources protection. The habitat needs only limited management. There are a few erosion headcuts and a small area of invasive weeds which should be addressed as localized issues. In the past few centuries the Lamy area included woodland areas. A small group of Box Elders on the open space parcel may be surviving representatives of those prior woodlands. Protecting these remnants would provide an opportunity for an educational story on habitat change.

South of the site is the Galisteo Creek. In the past, the creek meandered between the Cerro Colorado hills and the Lamy OSP. The old flood plain changed when the rail line was built in the 1880s. The raised rail bed cut off the Lamy OSP portion of the flood plain from the main Galisteo Creek floodway. The Lamy OSP portion of the flood plain now only connects to the Galisteo Creek at the west corner of the site. Three large culverts convey surface flows from the old flood plain under the rail line to the active creek bed to the south. A deep dirt trench was dug to convey surface flows from the old flood plain area to the culverts and requires ongoing clearing and management. The old flood plain on the Lamy OSP experiences low-level surface flooding from storm runoff that enters the site from the two road culverts under Country Road 33. Evidence of flooding in the form of debris wash indicates that the old flood plain area is not well suited to development of structures. Any future improvements in this area need to be designed to accommodate occasional flooding. The County Road 33 drainage culverts need maintenance to clear them on a regular basis. The County should work with NMDOT to notify them when the rail line culverts need to be maintained.

The site includes two water wells owned by the Eldorado Area Water & Sanitation District (EAWSD). Both are secondary seasonally used wells on the EAWSD system. One well is located on the park parcel near the eastern corner of the site. The second is on the open space parcel near the boundary between the open space and park parcels. Dirt maintenance roads run from gates on CR 33 to the well locations. There is also a 15 ft. wide EAWSD utility easement running along the north boundary of the site. Erosion problems related to the maintenance roads and the easement are evident and need to be repaired. EAWSD should be engaged to make those repairs. Both water wells discharge small amounts of water onto adjacent areas which creates opportunities for habitat enhancement.

In 1974, the Lamy Park parcel was deeded to the County for county uses. The County built a gate, three small shelters, picnic tables, trash receptacles and an unpaved parking area. Current maintenance is primarily trash removal and mowing of an area around the shelters. Best management practices for mowing need to be used to prevent the spread of invasive weeds and the surface erosion caused by the mowing. Accessibility improvements in the parking lot and around the shelters need to be addressed in the future. The County plans to connect the Lamy OSP to the Santa Fe Rail Trail. That connection will need to be integrated with other on-site improvements. Future site improvements on the Lamy OSP will require coordination with the State Historic Preservation Office.

The community's active support for protecting the archeological resources and wildlife habitat of the site was instrumental in the acquisition by Santa Fe County of the Lamy Open Space site. The community enjoys the quiet solitude of the site and uses it primarily for walking. Prior to County ownership, the community held an annual kite flying event on the site and used the informal site paths as bike and hike connections. In the community process for this Plan, participants strongly supported an Open Space visitor's center at or near the Lamy OSP. The center is seen as a place to increase awareness of Lamy as a unique historic community and to help educate about the archeological, environmental and cultural richness of Lamy and the Galisteo Basin.

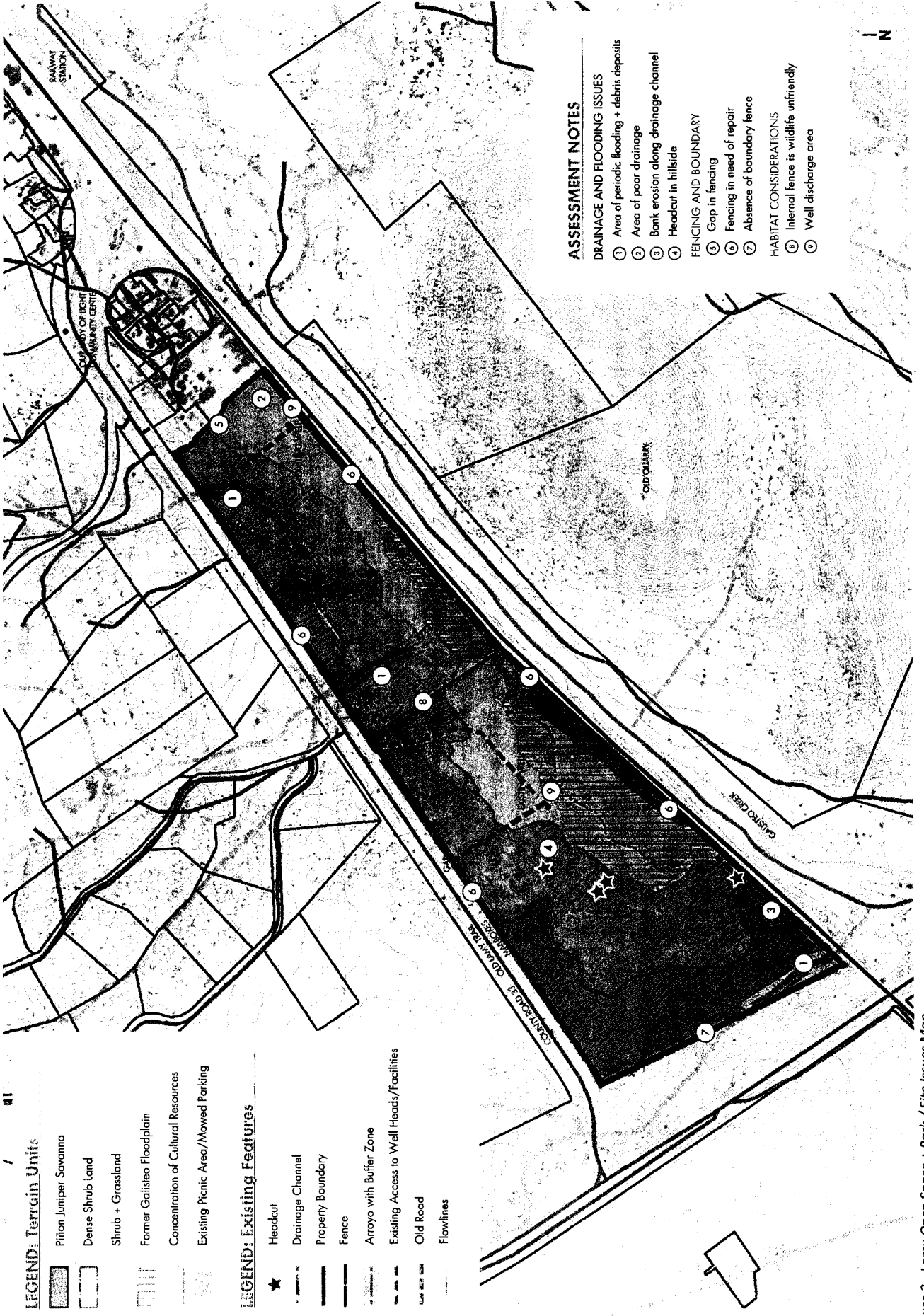


Figure 2. Lamy Open Space + Park / Site Issues Map

EXISTING CONDITIONS - NEEDS ASSESSMENT

Condition

- Archeological Resources

Needs Assessment

- Need to improve and extend boundary protection for existing and recently identified cultural resource areas.
- Need to continue arrangement for monitoring cultural resources with NIM SiteWatch.
- Need a long-term Lamy OSP interpretive education plan and access plan.
- Need to coordinate boundary protection and other improvement plans with the New Mexico State Historic Preservation Office.

- Plant-Wildlife Community

- Need to develop a habitat monitoring program.
- Need to change to wildlife-friendly fencing to encourage wildlife uses of site.
- Need to manage affects of well discharge water and to consider opportunities for use in habitat enhancement.

- Erosion and Drainage

- Need regular maintenance of the culverts at CR33 and railroad culverts.
- Need to manage small head cuts-erosion points on the Open Space site.
- Need to continue maintenance of southwest drainage ditch at end of the old floodplain.
- Need to manage erosion along the well roads and utility easements.

- Infrastructure

- Need to upgrade park entry sign, open space management signage, and accessibility.
- Need on-going trash management near picnic shelters and across site.
- Need to institute best management practices for mowing at picnic area.

- Community

- Need development of a stewardship group to support site management activities and to engage in the Lamy OSP monitoring program.
- Need to consider community desires for walking trail on the park site.

1.3 Management Plan Process

The Lamy Open Space + Park (*Lamy OSP*) Management Plan was informed by the County's initial goals for acquisition of the Lamy OSP and a set of planning principles. The planning principles were formulated based on goals for the Santa Fe County Open Space and Trails Program.

Initial Goals For Acquisition Of Lamy Open Space + Park

- Preserve the significant cultural and historic sites.
- Provide access to open space and trails for visitors to enjoy the views of Cerro Colorado and the surrounding area.

Planning Principles

- Adhere to the goals and purpose of Open Space program.
- Ensure public safety and access based on the reasons for acquiring the property.
- Keep maintenance needs to a minimum (commensurate to County capacity and community-based stewardship capacity).
- Invest in strategic, cost effective, long-term improvements.
- Minimize the disturbance of cultural and ecological resources.
- Involve youth and create educational opportunities.

Management Plan Process

The Lamy Open Space + Park Management Plan process involved three phases of activities.

Scoping and Reconnaissance Phase

- a. Interviews with key stakeholders, community members, and County staff on the current community interest in the site and how to engage the community in the management plan process.
- b. Review of relevant Santa Fe County plans and policies.
- c. Site visits to identify specific research needed for this management plan.
- d. The first public input meeting to develop an initial community vision for the site.



Research Phase

- a. Follow-up interviews with key stakeholders and community members to refine the approach for the second public input meeting.
- b. Research on topics identified in the scoping and reconnaissance phase.
- c. Additional site visits to confirm terrain units and collect data for a land suitability assessment and the development of management recommendations.
- d. Mapping of findings of the Scoping/Reconnaissance and Research phases.
- e. Conduct second public input meeting to present first draft of vision statement, management concept, research and land suitability findings, and generate management ideas.

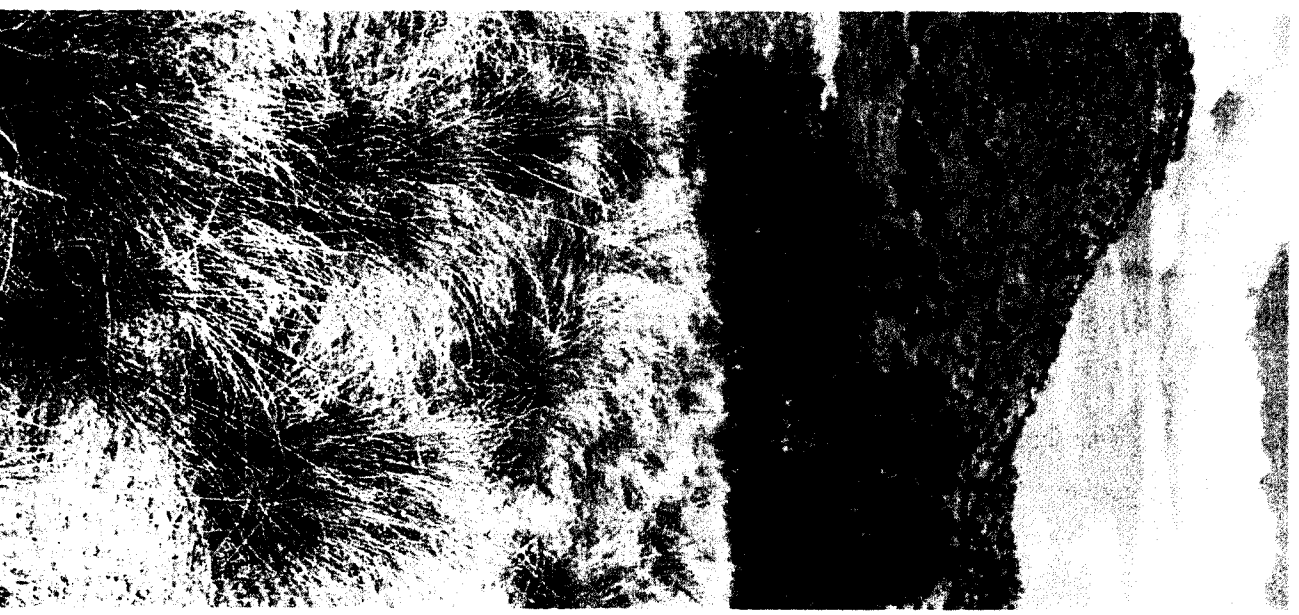
Planning Phase

- a. Develop initial management plan recommendations for Lamy OSP planning, implementation, maintenance.
- b. Conduct third public meeting to confirm the vision statement and management goal, review the components of the management plan, and identify stewardship opportunities.
- c. Write the first draft of the management plan.
- d. Review with County staff to confirm plan implementation and funding opportunities.
- e. Submit the draft management plan for public review comments via the County website.
- f. Revise based on public comments and submit final draft plan for official approval.

Plan Updating

The time scope of this Management Plan is approximately 15-20 years. Plan information is more specific for the short-term (*years 1-5*), descriptive for the mid-term (*years 6-10*), and preliminary for the long-term (*beyond 10 years*).

Changing community needs, environmental conditions, and County management capacity will lead to the need for adjustments to the plan. After the mid-term span of 10 years, this plan will need updating.





2.1 Vision + Goals for Lamy Open Space + Park

Vision Statement Process

The Lamy Open Space + Park (*Lamy OSP*) vision statement is based on responses from community participants to these questions, "*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?*", "*What would worry you if it happened on the site?*". The draft and final vision statement was shared and verified with community members at the second and third community meetings.

Lamy Open Space + Park Vision Statement

In 2025, the Lamy Open Space and Park is a valued historical resource and a source for education about Lamy and the Galisteo Basin. The archaeological resources are protected in a way that honors and preserves them for future generations. The area is a wildlife corridor with abundant native plant and animal species. The property includes a simple trail loop that provides education, protects the site's resources, and allows visitors to appreciate the views of the landscape.

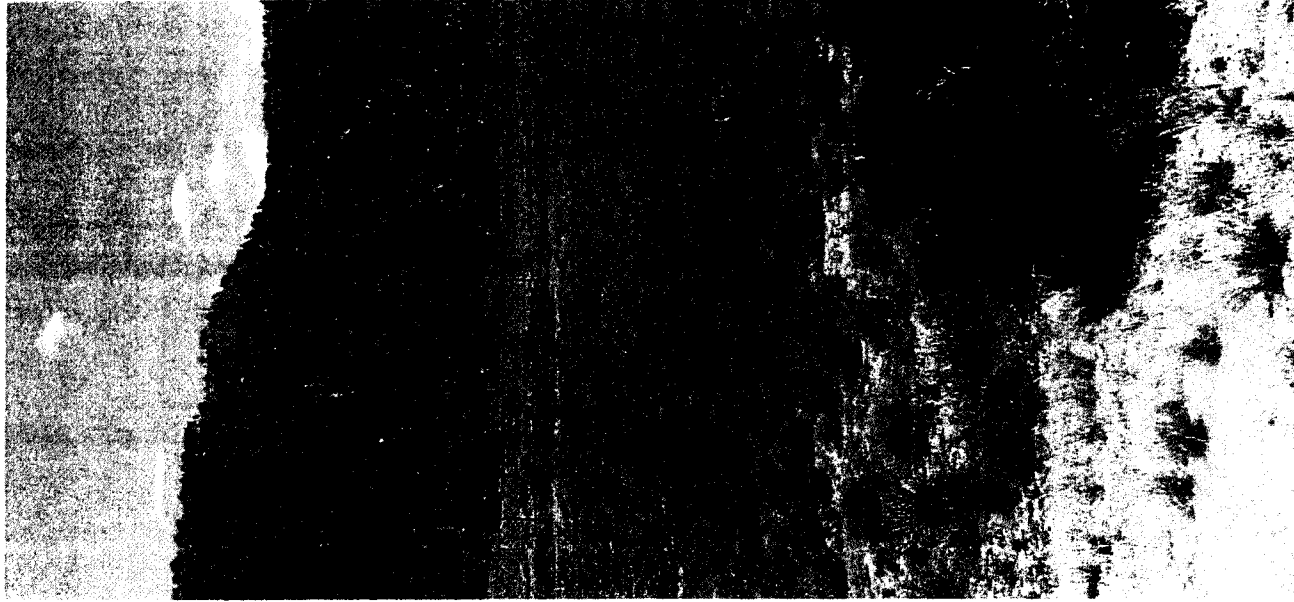
The site may include a small visitors' center with interpretive information about the ecology, wildlife and the history of the Lamy community and the Galisteo Basin. Facilities with water and restrooms could bring families, history aficionados, cyclists, and others to the area and create a tie to the Lamy community. These facilities are designed in a way to protect the land and its history, teach the lessons of the land, and minimize the intrusion on the land.

Preservation of the cultural resources is a high priority for the site, and is reflected in the way people access the site. The community is active in the stewardship of the place, and this stewardship helps facilitate environmental protection and contribute to greater understanding of the value of the area.

Lamy Open Space + Park Management Goal

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

Santa Fe County and the community work collaboratively to protect and preserve the Lamy Open Space + Park and its existing natural and cultural resources, and maintain its walking and passive recreation opportunities. The Lamy Open Space + Park management goal is to monitor the site landscape to guide future management decisions, to manage in a limited sustainable manner, and to develop improvements that enhance the site habitat and protect its cultural resources.



Lamy Open Space + Park Specific Management Goals

Specific management goals in support of the Lamy Open Space + Park (*Lamy OSP*) Vision are:

- A. ***Holistic & Inclusive.*** The Lamy OSP is managed in an inclusive and collaborative manner through on-going consistent discussion with the community, agencies and partners about planning, implementation and maintenance activities for the site.
- B. ***Cultural Resources.*** The cultural resources on the Lamy OSP are protected and preserved through education and interpretation, appropriate boundary improvements, regular monitoring of the resources, and continued collaboration with the State Historic Preservation Office.
- C. ***Ecological Health.*** The ecological health and resilience of the Lamy OSP is maintained through minimizing new impacts, careful enhancement of the wildlife habitat, and nuanced management based on data collected from the site.
- D. ***Natural appearance.*** The Lamy OSP's natural appearance and sweeping scenic views are complimented by using natural design principles and natural materials, and by allowing natural processes to accomplish management goals when possible.
- E. ***Education.*** The Lamy OSP will provide interpretive education opportunities, and encourage education and research about the site, its cultural and wildlife resources, and its relationship to the Galisteo Basin.
- F. ***Access.*** The Lamy OSP will manage site access that balances safety with community desires for passive recreation on the site and the need to protect significant cultural resources and wildlife habitat quality.
- G. ***Infrastructure.*** Infrastructure on the Lamy OSP will be designed, managed and maintained to mitigate impacts from the development, installation or operation of the infrastructure which includes, roads, utilities, structures, fences, and signage.

Monitoring Objective

Monitoring at the Lamy Open Space + Park (*Lamy OSP*) is to document, understand and educate about the wildlife and species on the site. The monitoring objective is to develop a database about the habitat of the Lamy Open Space + Park upon which future management decisions and education activities can be based.

The Lamy OSP is a stable Pinon-Juniper Savannah and Shrub Land habitat. Monitoring the site's habitat will provide the County information that can be used to assess and manage other County properties with similar landscapes.

Santa Fe County does not have the staff nor resources to do the monitoring activities with only its own staff. Santa Fe County will contract with a consultant or a non-profit with experience to develop the basic protocols on where, how and when to monitor the site in a consistent science-based manner. The consultant or non-profit would help the County to organize and hold an annual on-site monitoring activity. Community support is needed to actively help with on-site monitoring activities, data compilation and management. Monitoring is likely to be an annual event done with a wide variety of participants.

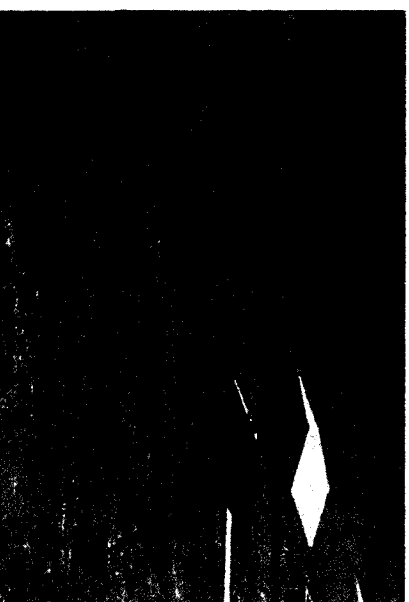
The Lamy OSP habitat monitoring plan specifies how the indicators will be measured or documented, when and where this will be done, who will do the monitoring task, and what equipment or supplies are needed. The first monitoring event will establish the baseline conditions by which the habitat will be monitored for changes, and to develop future management actions as needed.



Well discharge pipes at well tank.



View of riparian plants in well discharge area.



View of mowed area at picnic shelters.



2.2 Conceptual Plan

The Conceptual Plan for Lamy Open Space + Park (*Lamy OSP*) describes proposed management strategies, projects and associated investments to support the Lamy OSP Vision and Management Goal. The Conceptual Plan describes recommended planning, implementation, maintenance activities, specific projects, their purposes, priorities, and suggests a timeline for implementation.

Approach

The Lamy OSP Conceptual Plan aims to protect and preserve the site's significant cultural resources, to conserve the wildlife habitat quality, and the site's scenic beauty. The conceptual plan envisions interpretive education and local recreation improvements in the future.

The most significant assets at Lamy OSP are the historical and cultural resources, along with the property being located within the critical habitat zone of the Galisteo Basin Wildlife Corridor. These assets are best protected by limiting and carefully controlling future development and activities on the Lamy OSP. The recommended management approach is to allow the natural processes of the site to continue as they are now, and to build a database of information to guide future decisions for Lamy OSP. As part of the Galisteo Basin wildlife corridor, the health, quality and richness of the habitat should be monitored annually through a scientific assessment and inventory of the habitat and species. Over time, the data can assist the County in determining best management practices at Lamy OSP as the record indicates local effects of environmental change, and other County open space properties with similar characteristics and features.

This approach of limiting development and activities also protects and preserves the significant cultural resources by limiting the impacts. Currently, New Mexico SiteWatch assists the County in monitoring cultural resources on the Lamy Open Space parcel. They help monitor risks from erosion, management actions, vandalism, looting and other activities. The County should continue to foster its relationship with New Mexico SiteWatch, and expand it to include the Lamy Park site. This partnership exemplifies the increased capacity that communities and the County can gain when skilled and knowledgeable community groups are brought to the table. This is an approach that can and should be applied to other County Open Space properties.

The Conceptual Plan includes: limited site infrastructure improvements for park entry signage, management signage, an information board and accessibility; protective fencing for cultural resource areas; replacement of existing fencing with wildlife friendly fencing; mitigation of small headcuts; and management of well discharge waters. County maintenance will use best management practices (*as outlined in Appendix B*) for the mowed area near the picnic shelters and coordinate with the Eldorado Area Water & Sanitation District to manage erosion on well access drives and utility easements. Future on-site development would be limited to a few educational interpretive improvements and narrow, natural surface paths. Protection for the habitat and the cultural resources includes strictly controlling site access by vehicles and off-trail uses. The Lamy OSP may include a visitor center for interpretive education about the area and the larger Galisteo Basin. The Lamy OSP resource protection needs may preclude a visitor center from being developed on the site. The community supports locating the center in Lamy village.



Development / Projects + Programs

The Conceptual Plan includes interpretive education, research and improvement projects for the Lamy OSP identified during the community planning process. These projects need further detailed planning and review to establish their feasibility. Within the context of this Plan, projects include program development, as well as facility development.

Planning and preparation is required for all projects and programs proposed. Coordination with the State Historic Preservation Office for plan reviews may also be necessary. Implementation will need to be balanced with funding, staff availability, and project schedules.

Community involvement is essential for the planning, implementation and maintenance of future Lamy OSP projects. Public involvement may include feedback on proposed project details during future planning and design sessions; active engagement in the planning and implementation of projects; monitoring efforts; and on-going maintenance of the site.

The following are projects prioritized by their importance to the Lamy OSP Vision, the level of effort to achieve them, and the effective period to accomplish them.

Short Term Phase

1. Monitoring Program

A monitoring program is an important project for the Lamy Open Space Park. It is central to the strategy of information from habitat monitoring to guide the long-term management of the property. Development of a program to help monitor and inventory the site habitat should include:

- assessment of what to monitor, where, and when,
- establish data collection protocols,
- identify how to document and store data (*consider public web-based applications*),
- recommend how to organize citizen volunteers and sustain their long-term engagement with the program,
- recommend budgets and resources for the program.

2. Site Signage + Accessibility Improvements

Upgrade the site entry, install site management signs and a bulletin board, and accessibility improvements to the current County Open Space standards.

3. Fencing Improvements

Improve site fencing to protect site assets, improve safety and reduce maintenance. The project should address adjustments of boundary fencing, no trespass signage, and improving all site fencing for durability, maintainability and wildlife-friendly design. The County will coordinate with SHPO to determine appropriate protections for cultural resources. The County, NMDOT and Rio Metro will discuss the south fence line between Lamy OSP and the rail line.

4. Environmental - Habitat Enhancement

Develop small improvements that enhance or protect the existing habitat. The project will include opportunities to utilize discharge waters from the existing wells for habitat enhancement, and erosion control of small headcuts to avoid impacts to cultural resources.

5. Park Trail Loop

Develop a trail loop on the park site. The project will include:

- design for environmental-sensitive, low-impact, accessible, pedestrian recreational use,
- avoidance or mitigation of impacts to cultural resource areas on the park parcel.

Mid-to-Long Term Phase

6. Cultural Resource Interpretation + Educational Access

Develop a cultural resources interpretive education plan. The project will include:

- policy recommendations on protection of scattered historic artifacts on Lamy OSP,
- recommendations on policies and protocols for access to the cultural resource areas,
- development of cultural resource stewardship, and resource ethics education,
- determination of level of interpretation to occur at the Lamy OSP with agency and stakeholder consultation,
- design and implementation of on-site interpretive signage,
- design and implementation of any educational trail to cultural resource areas.

7. Visitor Center + Education Center

Development of a Visitor Center + Education Center will be a mid-to-long term effort and done in three major steps.

Feasibility Study. Confirm if there is need and support for a visitors/education center; consider location alternatives, describe optimum building program, operational options, identify probable County and local fiscal impacts, and budgets for design, construction and operations.

Operations Plan. If the Feasibility Study determines that a visitors-educational center is feasible, develop a specific operations strategy (consider county, partner agencies, 501-c3 groups, concessionaire) with staffing requirements and operational budgets.

Design + Construction. If the Feasibility Study determines that a visitors-educational center is feasible, fund, design and construct the visitors-education center.

Development - Projects Sequence

Every proposed project requires planning, research, and concept development to be well conceived, funded and implemented. The *Possible Projects Sequence* indicates a possible sequence for the Lamy OSP projects identified in this Plan and the general process that each project will go through. (See the *graph next page*.)

The Possible Projects Sequence

The Possible Projects Sequence indicates a general estimate about the relative timing and complexity of proposed projects. The sequence also conveys the likely overall scale of effort needed to accomplish the proposed project.

The simpler and smaller the project, the shorter the likely time to fund and implement will be. The more complex and costly the project, the longer the budgeting and implementation time takes. Some projects such as major drainage improvements may require several years to secure funding. Community advocacy and support can affect project timing and implementation.

The actual project sequence and timing will vary from what is diagrammed on the chart. Projects may start earlier or later than estimated. The sequence indicates the relative time and effort it may take to prepare a project, plan and design it.

- A. Identify the project.
- B. Determine project schedule and needed level of planning /research / concept plan.
- C. Identify and secure funding source for planning /research / concept plan.
- D. Obtain County approvals to proceed with planning /research / concept plan.

Project	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Mid-Term	End of Project
1. Monitoring Program							
2. Site Signage Improvements							
3. Fencing Improvements							
4. Environmental -Habitat Enhancement							
5. Park Trail Loop							
6. Cultural Resources Interpretation							
7. Visitor-Education Center							
Feasibility Study							
Operation Plan							
Design - Construction							

The Conceptual Plan sequence for project activities follow a prioritization criteria outlined in the Planners' Guide developed for the County Trails and Open Space program. General phasing for Lamy OSP is shown in Figure 3. The time lines are general.

Short term = 1 to 5 years

Mid-term = 6 to 10 years

Long-term = over 10 years

After 10 years, the Conceptual Plan will need to be reviewed and updated for changes that have occurred over time.

Short-Term

- Develop the monitoring program and build a stewardship group to engage in the program.
- Design and installation of entry sign, site signage and bulletin board.
- Maintenance of existing site improvements, including gates, fencing, drainage culverts, and head cuts.
- Design and installation of trail loop on Lamy Park parcel.

Mid-Long Term

- Continue monitoring program.
- Continue maintenance of site improvements.
- Develop and implement interpretive educational plan.
- Plan, design and implement trail loop for cultural resource areas.
- Research feasibility of a visitors center.

SHORT TERM

ENVIRONMENTAL PLANNING

- Plan for environmental monitoring
- Plan for habitat enhancement/resiliency
- Detailed maintenance guidelines

CULTURAL RESOURCES PLANNING

- Policy for surface historic elements
- Interpretive educational materials and policies for docent led site tours
- Feasibility study for visitor center
- Plan for archaeological monitoring (NM SiteWatch)

TRAIL PLANNING

- Plan + fund park trail loop
- Study options for Rail Trail connection
- Plan + fund park interpretive educational signage

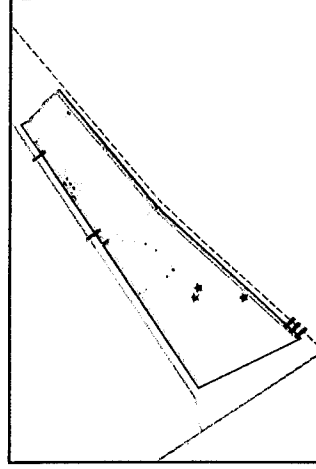
COMMUNITY STEWARDSHIP

- Organize community stewardship activities
 - Citizen scientists program
 - Oral history recording
 - Data collection management
 - Community maintenance program
- Re-establish annual community event

WILDLIFE HABITAT PLANNING

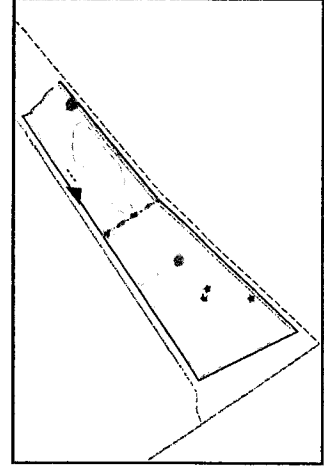
- Establish communication with potential partners + review agencies
 - SHPO / NMDOT Rail / State
 - Galisteo Basin Working Group
 - NPS / BLM / Federal
 - ECWSD / Lamy Water Assoc.

PLANNING



ANNUAL / BI-ANNUAL

- Fence inspection + repair
- Clear debris at culverts
- Trash pick-up at picnic shelters
- Mow area around picnic shelters
- Control erosion at roads
- ★ Maintain erosion control at headcuts



SITE IMPROVEMENTS

- West property fence
- Site signage + bulletin board
- Trail loop on park parcel (alignment TBD)

ENVIRONMENTAL IMPROVEMENTS

- Wildlife habitat improvements (TBD)
- Wildlife-friendly fencing
- Discharge water opportunities at wells
- Erosion control at roads
- ★ Erosion control at headcuts

MAINTENANCE

IMPROVEMENTS

Figure 3. Planning/Maintenance/Improvements Diagram

MID TERM - LONG TERM

ENVIRONMENTAL PLANNING

- Implement habitat enhancement + erosion control

CULTURAL RESOURCES PLANNING

- Master plan for visitor center
- Interpretive educational materials + policies for visitor center
- Fund visitor center design + construction

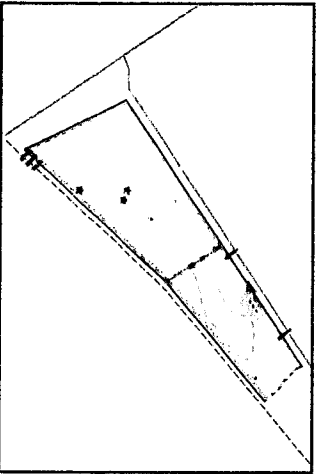
TRAIL + RECREATIONAL PLANNING

- Study options for open space trail + interpretive improvements

COMMUNITY STEWARDSHIP

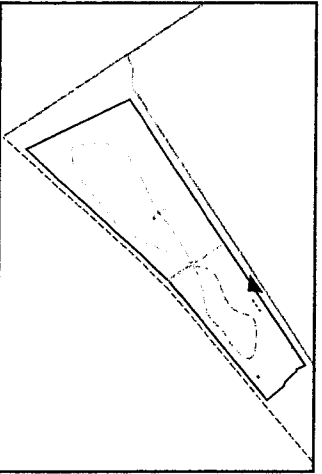
- Strengthen community stewardship group
- Continue community events
- Develop educational + research opportunities

- Maintain communication with potential partners + review agencies



ANNUAL / BI-ANNUAL

- Fence inspection + repair
- - Clear drainage culverts
- ... Trash pick-up at picnic shelters
- ... Mow area around picnic shelters
- Signage and trail maintenance
- - Control erosion at roads
- ★ Maintain erosion control at headcuts



IMPROVEMENT OPPORTUNITIES

- - Visitor and interpretive center (location TBD)
- ... Trail loop to open space parcel / National Registered site (alignment TBD)
- Interpretive educational signage

- Plan and design the visitors center.
- Develop visitors center operations plan.
- Implement the visitors center design and operations.

Community involvement is essential for many of the proposed Conceptual Plan activities and projects. Public involvement may include feedback on the organization and development of the citizen science program, planning and design of future projects, and maintenance activities. Several maintenance activities will be suitable for community or volunteer participation. Community involvement is needed to encourage stewardship, care and maintenance of the Lamy OSP. Outreach to tribal groups on the long-term stewardship of the Lamy OSP will be an important activity.

A comprehensive overview of planning activities along with maintenance activities, Conceptual Master Plan projects, and community stewardship activities is included in Appendix A. The activities are listed by functional group (*planning, maintenance, projects, community services*) relative to Santa Fe County's organization of departments.

2.3 Monitoring + Information Management + Maintenance Approach

Monitoring

Monitoring will play an important role in the long-term management of the Lamy Open Space + Park (*Lamy OSP*). There are three types of monitoring that will be done at Lamy OSP.

A. *Ecological Monitoring*

Monitoring for ecological health will follow the detailed monitoring plan. The aim of ecological monitoring will be to compile a comprehensive species inventory and to conduct a controlled monitoring program to build a longitudinal record of the habitat quality of the site. The information will be used to support the site's role as part of the critical wildlife corridor that spans the Galisteo Basin. It will also be the basis for understanding environmental change and to develop responses to support long-term habitat resilience as the Lamy site evolves in the future.

B. *Cultural Resource Monitoring*

New Mexico SiteWatch currently assists the County to monitor cultural resources at the Lamy OSP. They help monitor risks from erosion, management actions, vandalism, looting and other activities. Santa Fe County will continue its relationship with New Mexico SiteWatch to help protect and preserve the cultural resources at the Lamy OSP. A potential expansion is for the County to work with SiteWatch to help educate and train docents in the future for interpretive education at the Lamy OSP.

C. *Maintenance Monitoring*

Maintenance monitoring is focused on identifying localized drainage, erosion and infrastructure issues for repair or management before site damage occurs. Maintenance monitoring will be done by County staff with support from the community.

Information Management

Santa Fe County will gradually streamline and enhance the procedures that help staff and the community to acquire, store, and share knowledge that is essential for effective resource management of Lamy OSP.

Maintenance Approach

The County will lead in the organization of maintenance activities and maintain the existing on-site improvements, but may face challenges to meet all the maintenance needs that may arise in the future. Strategies to optimize maintenance effort, include:

1. collaboration with civic organizations, other agencies and community stewards to leverage the efficiency of working together;
2. invest in smaller, consistent well-planned maintenance activities;
3. conduct maintenance activities at the optimum time based on monitoring or a regular schedule.

Where	What	Why	When
Location	Monitoring Activity	Goal Relationship	Recommended Frequency
All Site / Monitoring Program	a. Monitor environmental health b. Adjust management based on data	Holistic & Inclusive / Ecological Health	a. Per Monitoring Program Plan b. As identified by monitoring
Cultural Resource Area	a. Monitor cultural resource sites	Cultural Resources	a. Variable
All Site	Inspect and repair: a. Fences, gates b. Signage, bulletin board c. Well access roads and easement	Infrastructure / Access	a. Annually b. Annually c. Annually (w/ EDWSD)
All Site	a. Head cuts b. Culverts, drainage ditches	Ecological Health / Infrastructure	a. Annually, in spring b. Twice a year, spring and fall
Picnic Shelter Area	a. Inspect-repair shelters, tables b. Managed mowing c. Trash management	Ecological Health / Infrastructure	a. Annually b. Twice a year in summer c. Weekly / additional for events

Table 1. Monitoring Matrix

Note:
The table indicates the minimum suggested monitoring 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.

2.4. Community Relations

Santa Fe County intends to develop and maintain productive, collaborative and neighborly relations with the Lamy community and other stakeholders in the implementation of the Lamy Open Space + Park (*Lamy OSP*) Management Plan.

Information Exchange

Santa Fe County plans to expand and develop several methods for information distribution and exchange with community members and stakeholders.

Signage

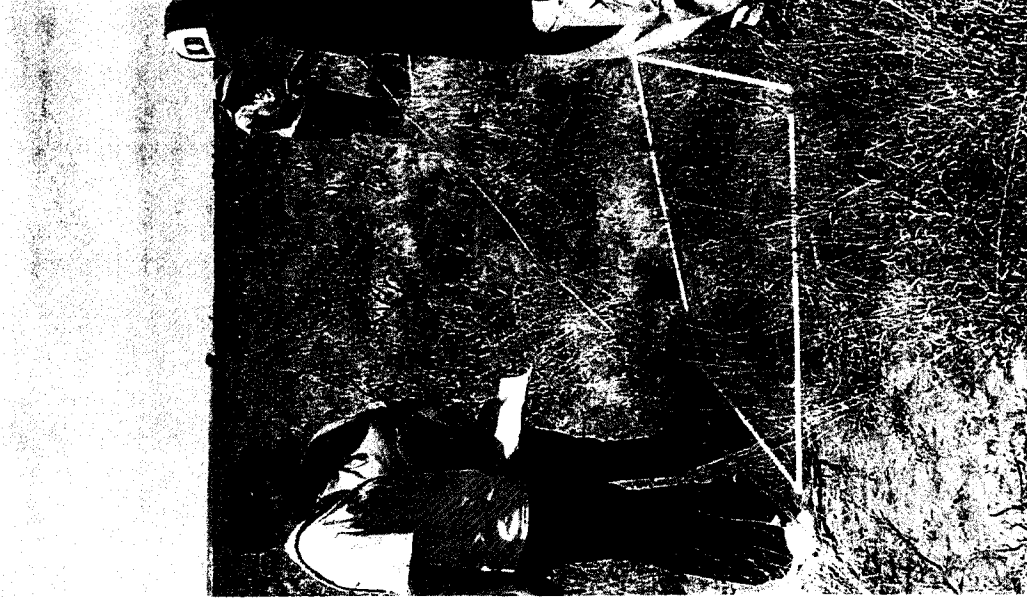
Santa Fe County will install entry signage to identify the Lamy OSP property. Site signage will inform the public about safety aspects, leave-no-trace principles, suggestions for general care and stewardship behavior, and contact information for Santa Fe County. A bulletin board may be placed on the Lamy OS property near the existing picnic shelters for public notices, such as specific events, meetings, and stewardship or management activities.

Website

Santa Fe County maintains the website pages dedicated to the County Open Space & Trails program. The website may be expanded with a specific web page describing the Lamy OSP landscape and history, management plan information and activities, and planned events at the Lamy OSP.

Community Contact

Santa Fe County will work with the community to identify a communication structure and methodology with community members who are available to field comments and questions and contact County staff for follow-up actions. Communications may address site management, cultural resource management, site protection, public safety measures, and maintenance activities.



Education and Collaboration

Santa Fe County and community members understand that it is important to cultivate educational and research activities to raise awareness about the significant cultural resources, ecology and history of the Lamy OSP, as well as to mobilize support for future stewardship. Santa Fe County and community members want to encourage youth engagement and to include school groups in educational activities, site monitoring, and land stewardship.

Part of the educational effort is to develop an information database about the land, history and people of Lamy and the Galisteo Basin as the basis for a citizen science program. A well-organized information database will also be a valuable resource for a possible future visitors center. There are programs and groups that can provide guidance on setting up programs and ready-to-use tools in how to create and manage the database, possible resources include:

- Monitoring Programs Habitat monitoring and potential environmental education docents to be fostered by the County and the local community. Naturalist.org is a website with information on citizen science programs across the nation. *Appendix F lists other resources.*
- New Mexico SiteWatch Cultural resource monitoring, potential cultural docents
- New Mexico StoryCorp Oral history recording
- InteractiveArchivist Community photo sharing information site

A significant portion of the community relations will revolve around citizen science activities, site maintenance, and increasing stewardship of Lamy OSP. Because this site is a stable landscape and because it is recommended that the site be passively managed, the initial focus will be on monitoring to understand what is there now and to observe how environmental change affects the landscape over time.

Collaboration on these activities will be effective if it starts with organizing community partners around specific, tangible projects to foster communication and trust, and to generate additional objectives, priorities, and creative new ideas for problem solving. The following topics are of interest in the community and may serve as pilot projects.

- Field monitoring training and events.
- Development and management of the Lamy OSP database.
- Public and youth education on cultural resources and their preservation.

Santa Fe County intends to engage a diverse group of community stakeholders in stewardship at Lamy Open Space Park:

- Immediate neighbors and adjacent Lamy area neighborhood associations
- Local youth and students (e.g., Eldorado Elementary)
- Native American communities with interests in the site
- SiteWatch - New Mexico Historic Preservation Division
- New Mexico Department of Transportation - Rail Division
- GBASPA Working Group
- Eldorado Area Water & Sanitation District (EAWSD)
- Lamy Mutual Domestic Water Association
- Lamy business owners
- Our Lady of Light Community Center
- Hwy 285 South business groups
- Equestrian groups in the area
- Local bike touring businesses
- Regional conservation, hiking, biking and outdoor organizations interested in Lamy OS.

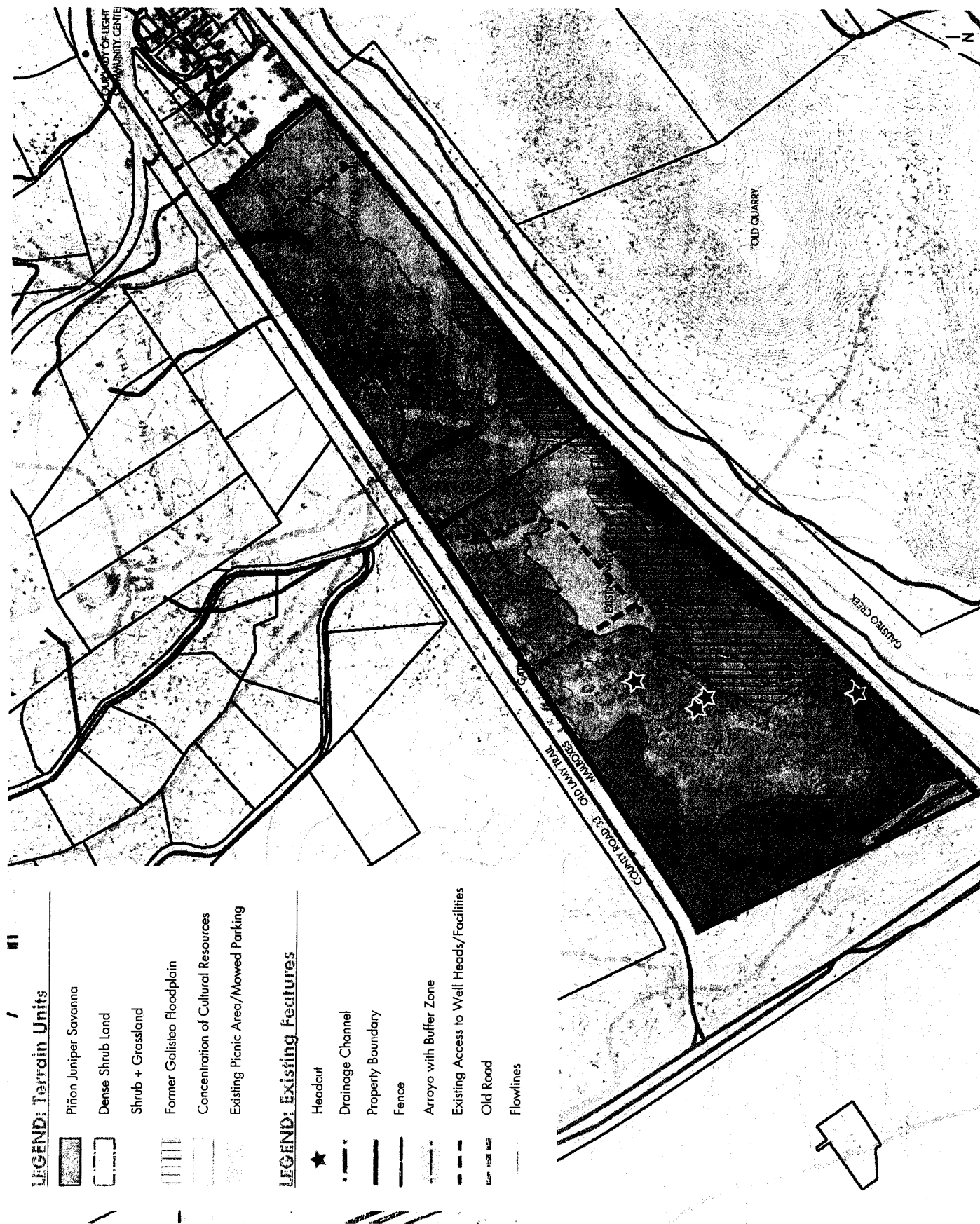


Figure 3. Terrain Units (TU)

Terrain Units

Terrain Units delineated for Lamy Open Space + Park are areas that share characteristics of drainage, vegetation, soils that are observable or have unique assets or uses. These TMUs will facilitate the monitoring plan and future maintenance actions.

Appendix C. Santa Fe County Open Space Management, Terrain Units Descriptions, Lamy Open Space + Park; Lamy, NM provides detailed descriptions of the Terrain Units.

Pinon-Juniper Savannah

The Pinon-Juniper Savannah areas of the site are mostly in the higher elevations of the site and on sandy, gravelly side slopes around the Cultural Resources areas. The cover is scattered Pinons and One-Seed Juniper with a 50% cover of native grasses, limited forbs, and individual or small stands of shrubs, which include cholla, snakeweed and chamisa.

Dense Shrub Land

Dense Shrub Land is characterized by dense shrub vegetation interspersed with a few patches of grasses and many exposed patches of soil. This unit is a gently sloping zone associated with sheet flows of two drainages entering the site from County Road 33 to the north of the site. Water funnels to the site through culverts and flows to the confluence and into the Former Galisteo Floodplain.

One culvert is near the northeast corner of the site and the second is between the picnic shelter location and the east boundary fence of the open space parcel. There are small dirt channels associated with each culvert location, but little sign of extensive erosion. A pattern of surface flooding deposited piles of small twigs and organic matter can be seen at the ground level under the shrubs. The shrub mix is very dense and difficult to traverse. Four-Wing Saltbush and Apache Plume are the majority of the shrubs with some short forbs and grasses.

Shrub + Grass Land

The Shrub and Grassland Unit is a gently sloping to flat area with loamy soils with some gravel, located between the Dense Shrub Land Unit and the abandoned Galisteo Creek flood zone. The vegetative mix is more open with both shrubs and grasses. The species of shrubs and grasses is not notably different from on the remainder of the site. The soils in this zone are more gravelly and may be remnants of gravel bars from when the lower portion of the site was part of the Galisteo Flood Plain.

Former Galisteo Flood Plain

The area noted as Former Galisteo Flood Plain is the lowest areas of the site. Evidence of a more active floodway in the past is seen in short eroded scour

embankments near the west end of the zone. All drainage from the park parcel and most of the open space parcel flow to this area. The channels are active drainages that collect and carry much of the entire property's runoff to a single outflow point in the far southwestern corner of the property. Locally, there are some pools that temporarily hold standing water in the active channel. Soils are fine sandy and loamy, and covered with dense patches of grass.

Concentrations of Cultural Resources

The Cultural Resource is defined by loosely mapping an area to include all sites identified in archaeological surveys for the open space and park parcels. With the exception of two areas on the park site that were surveyed in the summer of 2016, the sites are all included in the Register of National Historic Sites listing for Lamy Open Space. These areas occupy most of the high ground of the site.

Existing Picnic Area / Mowed - Parking

The existing picnic shelter area is managed by mowing the existing shrub and grass cover on a seasonal basis. A recommendation is to institute best mowing management practices to avoid damage to adjacent natural areas. North of the shelters a thin layer of gravel has been spread to accommodate parking for the picnic shelters.

2.6. Plan Implementation + 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. Prioritization will be based on balancing the tasks at hand, and the staff and funds available to accomplish the tasks.

First Year Implementation

Implementation of this plan will start upon approval of the Lamy Open Space + Park (*Lamy OSP*) Management Plan by the Santa Fe County Board of Commissioners.

Recommended implementation activities for the first year are outlined below.

1. *Community Relations*

- a. Meet with participants from the Management Plan process to identify or create a community liaison group to work with the County to distribute information and encourage involvement in planning and activities at Lamy OSP.
- b. Meet with the community liaison group to discuss the monitoring program and to recruit volunteers for the program.
- c. Participate in an annual meeting with the community to:
 - update regarding on-site activities,
 - review the status of Lamy OS prioritized projects,
 - review and assess the outcome of Year-1 activities and evaluate priorities for Year-2.

2. *Site Monitoring*

- a. Integrate recommendations for site maintenance monitoring into County staff schedules and budgets.
- b. Train County staff in monitoring protocols, as needed.
- c. Engage a consultant or partner group to:
 - work with the community to launch the program,
 - assist in management of activities,
 - grow participants with outreach to community and groups with interests in science education, such as school groups, academic institutions, environmental stewardship groups,
 - after the first year of the program, assess and evaluate adjustments as needed.

3. *Planning Projects*

- a. Plan, design, and install fencing and trespass signage improvements for cultural resource areas. Review of plan will be needed with SHPO.
 - b. Evaluate, plan, design, install head cut controls. Most headcut locations are in cultural resource areas, review will be needed with SHPO.
 - c. Plan, design, install wildlife-friendly fencing improvements to all site.
 - d. Evaluate, design, and install entry sign, and a bulletin board.
 - e. Begin County process to fund planning for:
 - park trail loop
 - interpretive educational plan
 - visitor center feasibility study.
- ### 4. *Maintenance Activities*
- a. Continue maintenance of picnic shelter area. Train staff on best practices for mowing at shelter area. (See Appendix C)
 - b. Repair existing site fencing and gates.
 - c. Clear drainage culverts at CR33, west earthen drainage ditch, as needed.
 - d. With Eldorado Area Water and Sanitation District (EAWSD) examine erosion and maintenance issues at well access roads and utility easements, collaboratively manage corrective actions.
 - e. Notify the NM DOT when rail line culverts need clearing or maintenance.
 - f. Review with NM DOT and Rio Media the condition of the fence line along the rail line boundary. Discuss and coordinate County, NM DOT and Rio Media fence repair and replacement activities as possible.



Eroded access road to EAWSD well.



Example of existing fencing needing replacement.



Example of a head cut needing stabilization.

Financing Mechanisms, Funding Sources + Partners

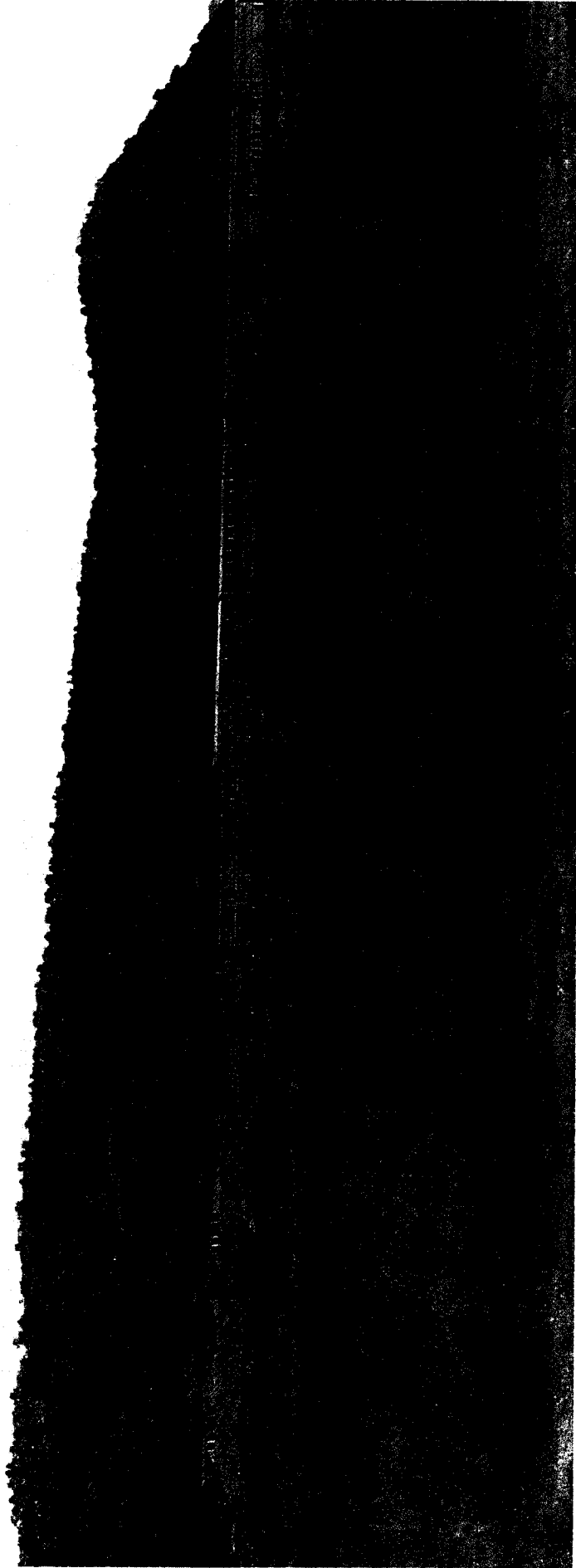
Santa Fe County owns and manages more than 6,600 acres of open space properties and park areas, but it has insufficient funding and staff resources to meet the acquisition and management goals for the properties. Santa Fe County will be able to implement this plan, if it successfully continues to develop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

To implement this plan, Santa Fe County will include neighbors, stakeholders and other partners for monitoring, planning, and implementation of specific projects. This collaborative approach can reduce the need for outside funding for site management, help build neighborly relationships, and increase buy-in from and by the people with the greatest interest in the property.

Santa Fe County will pursue funding sources and explore creative funding mechanisms to ensure the financial viability of managing the Lamy OSP according to the recommendations of this management plan. (See Table 2)

Table 2. Potential Funding Sources / Mechanisms & Collaborations

POTENTIAL FUNDING SOURCES		PURPOSE		ACQUISITION TIME FRAME			
General Fund (Santa Fe County)	Staff costs Staff, contractors, or consultants for various tasks, such as: Fencing Signs, bulletin board Monitoring program - environment Monitoring program - cultural resources Interpretive education research and implementation Trail and recreation master planning For the same as Grants Concession operation of Visitor Center	Annual budgeting process	Dependent on funding source timelines				
Grants							
Gift funds		Annual budgeting process					
FIS (Fee for service)		On a contract basis					
POTENTIAL FUNDING MECHANISMS & COLLABORATIONS				PURPOSE		DEVELOPMENT TIME FRAME	
Hiring a grant writer for OS funding	Pursue more grant funding	Short-term					
Cultivating community stewards	Delegating monitoring to local community stakeholders	Short-mid term					
Organizing social/cultural (fund raising) events with non-profit partners	Generating discretionary income and public outreach	Mid-long term					
Establishing a "Friends of Lamy OS"	Generating discretionary income and public outreach	Mid-long term					
Collaboration with non-profit entities for co-management activities	Sharing the burden with organized stakeholders	Mid-long term					
Voter-approved Revenue Initiatives	Providing a dedicated annual revenue stream for OS, Parks and Trails	Mid-long-term					
Establishing an NGO for overarching support to OS property management	Sharing the burden with organized stakeholders	Long-term					



LAMY OPEN SPACE + PARK APPENDICES (Separate Document)

APPENDIX A: Overview of Management Activities Matrix for Lamy Open Space + Park

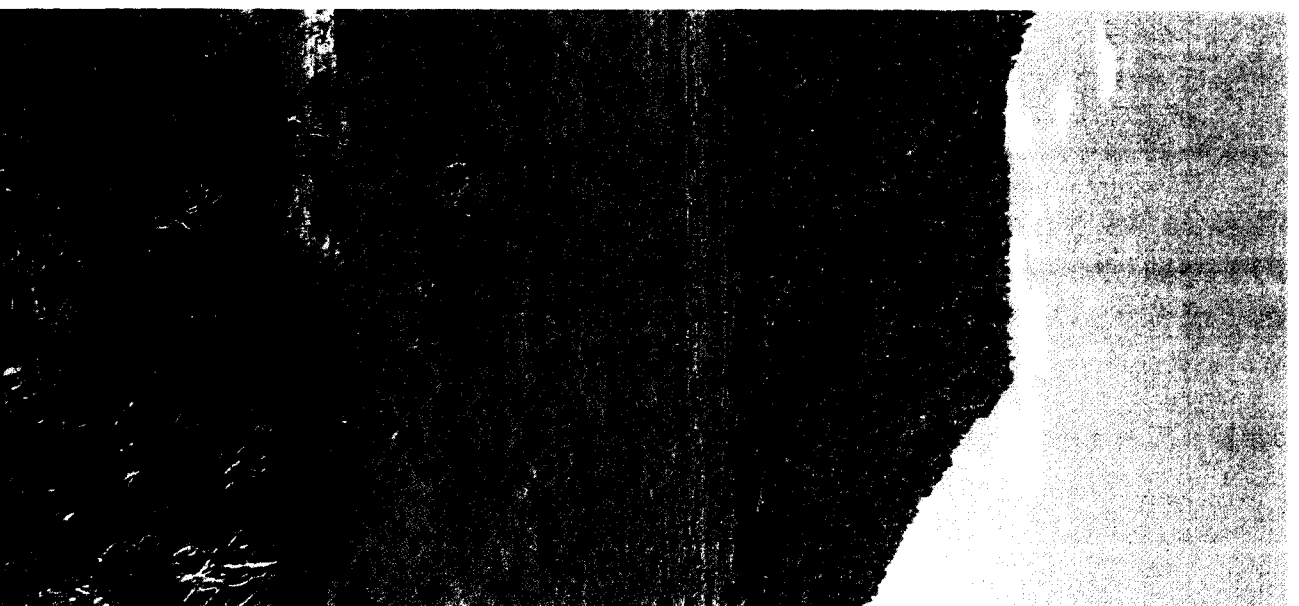
APPENDIX B: Mowing Best Management Practice for Lamy Park

APPENDIX C: Santa Fe County Open Space Management, Terrain Units Descriptions for Lamy Open Space + Park; Lamy, NM

APPENDIX D: Community Stewardship Opportunities.

APPENDIX E: Clark Property Species List, by Cindy and Jack Clark

APPENDIX F: Abstract Of An Archaeological Survey Of Lamy Open Space + Park, Santa Fe County, New Mexico



SANTA FE COUNTY OPEN SPACE AND TRAILS PROGRAM
LAMY OPEN SPACE MANAGEMENT PLAN
APPENDICES

APRIL 2017



surroundings

EXHIBIT

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LAMY OPEN SPACE + PARK APPENDICES

- APPENDIX A: Overview of Management Activities Matrix for Lamy Open Space + Park
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APPENDIX A

***Overview of Management Activities Matrix
Lamy Open Space + Park***

APPENDIX

Overview of Management Activities Matrix

Lamy Open Space + Park



This matrix is a comprehensive overview of maintenance activities, proposed projects, planning activities and community stewardship activities for the Lamy Open Space + Park. Projects and activities are clustered by type of activity Planning/Maintenance/Improvements. Then, the projects are prioritized in each cluster based on Short, Mid and Long Term using an numbering system.

Short Term = 1.0 Series numbers

Mid-Term = 2.0 Series numbers

Long-Term = 3.0 Series numbers

LCOS	# (Term and Priority)	Project or Management Activity	Objective or Purpose	Location Code (See TMU Codes)	Actor	Timeline Short-ST Mid-MT Long-LT	Recurring (R) or Not Recurring (NR)	Labor and Cost Estimates	Funding Source
Planning	1.1	Develop and implement protocols for maintenance work, team coordination, and ongoing fund identification and acquisition	All management goals (effective management)	Entire property	Planning staff	ST-MT	R	TBD (20 h/y)	GF
	1.2	Develop a detailed monitoring plan and gathering base-line data	All management goals (effective management)	Entire property	Planning staff	ST	NR	TBD (60 h/y)	GF
	1.3	Plan and implement community stewardship structure and events	Holistic & Inclusive / Education / Ecological Health	Entire property	Planning & Community Services staff	ST-MT-LT	R	TBD (100 h/y)	GF
	1.4	Develop park entry sign, site management signage and bulletin board at Picnic Area	Holistic & Inclusive / Public Safety / Education	Picnic Area L-GRA-S	Planning & Projects staff	ST	NR	TBD (25 h/y)	GF
	1.5	Plan and design adjustments to protective fencing for cultural resource areas to include 2016 sites	Access Management / Ecological Health / Public Safety	L-GRA-S / L-FLO / L-SHR-D / L-SHR-G	Planning & Projects staff	ST-MT	NR	TBD (60 h/y)	CIP/GF
	1.6	Plan and design Park loop trail and related improvements	Access Management / Ecological Health / Public Safety	L-GRA-S / L-FLO / L-SHR-D / L-SHR-G	Planning & Projects staff	ST-MT	NR	TBD (60 h/y)	CIP/GF
	1.7	Develop feasibility study for visitor center	Access Management / Ecological Health / Public Safety	TBD	Planning & Projects staff	ST-MT	NR	TBD (80 h/y)	CIP/Grants/GF
	2.1	Plan and implement interpretive education plan and improvements	Holistic & Inclusive / Education / Ecological Health	Entire property	Planning & Projects staff	ST-MT	NR	TBD (60 h/y)	CIP/GF
	2.2	Base on feasibility study, plan and design visitors center	Access Management / Ecological Health / Public Safety	TBD	Planning & Projects staff	MT-LT	NR	TBD (60 h/y)	CIP/Grants/GF
	2.3	Base on feasibility study, develop operational plan for visitor center	Access Management / Ecological Health / Public Safety					TBD (60 h/y)	CIP/Grants/GF
	3.1	Implement visitor center improvements (educational plan)	Access Management / Ecological Health / Public Safety					TBD (80 h/y)	CIP/Grants/GF

LCOS	# (Term and Priority)	Project or Management Activity	Objective or Purpose	Location Code (See TMU Codes)	Actor	Timeline Short=ST Mid=MT Long=LT	Recurring (R) or Not Recurring (NR)	Labor and Cost Estimates	Funding Source
Maintenance	1.1	Communication & outreach with neighbors and stakeholders; integrate feedback in planning	Holistic & Inclusive Management	Entire property	SFC-M (Crew) and Planning staff	ST-MT-LT	R	Annually (or more often)	GF
	1.2	Train maintenance staff on mowing BMP for Picnic Area	Public Safety / Ecological Health	Picnic Area L-GRA-S	SFC-M (Crew)	ST-MT-LT	R	1 h for 4 person (4 h/y)	GF
	1.3	Maintenance at picnic area, trash removal, mowing	Public Safety / Ecological Health	Picnic Area L-GRA-S	SFC-M (Crew) or volunteers	ST-MT-LT	R	Weekly: 1 h for 2 people (108 h/y)	GF, VOL
	1.4	Inspection and repair of fences, gates, and trespass signs	Public Safety / Access Management	Entire property	SFC-M (Crew)	ST-MT-LT	R	Annually, up to 4 days for 2 people (32 h/y) + supplies TBD	GF
	1.5	Inspection and cleanup of culverts, stream crossings	Public Safety / Ecological Health	Rail culverts, CR33 two locations	SFC-M (Crew)	ST-MT-LT	R	Twice annually: 2 days for 2 people (32 h/y)	GF
	1.6	With EAWSD inspect and repair of drainage and erosion on well access roads and EAWSD utility easement	Public Safety / Access Management	Access roads-easement L-CUL/L-WOO	SFC-M (Crew) w/ EAWSD	ST-MT-LT	R	Annually: 1 day for 2 people (16 h/y)	GF
	1.7	SW dirt channel, maintain edges, remove woody debris	Ecological Health	L-CUL	SFC-M (Crew) or volunteers	ST-MT-LT	R	Twice annually: 1 days for 2 people	GF, VOL
	2.1	After built, maintain Park loop trail	Ecological Health / Public Safety / Access Management	Entire park parcel	SFC-M (Crew) or volunteers	MT-LT	R	Annually	GF, VOL
	2.2	After installed, maintain interpretive education signs and improvements	Holistic & Inclusive / Education	Entire property	SFC-M (Crew)	MT-LT	R	Annually	GF
	3.1	After built, maintain interpretive education signs and improvements	Ecological Health / Education / Access Management	L-CUL	SFC-M (Crew) or volunteers	MT-LT	R	Annually	GF, VOL
Improvements	1.1	Install park sign, site management signs and bulletin board	Public Safety / Access Management / Ecological Health	Picnic Area L-GRA-S	SFC-M (Crew) or contractor	ST	NR	TBD, based on plan and bid	CIP
	1.2	Change existing property boundary fencing to wildlife friendly fence and install where missing...	Public Safety / Access Management / Ecological Health	Entire property, along boundaries	SFC-M (Crew) or contractor	ST	NR	TBD, based on plan and bid	CIP
	1.3	Install protective fencing for adjusted cultural resource areas	Public Safety / Access Management / Ecological Health	L-CUL	SFC-M (Crew) or contractor	ST	NR	TBD, based on plan and bid	CIP, grant
	1.4	Install Park loop trail and associated improvements	Public Safety / Access Management / Ecological Health	Park Parcel	SFC-M (Crew) or contractor	ST-MT	NR	TBD, based on plan and bid	CIP
	2.1	Implement trail to cultural resource areas and associated improvements	Access Management / Ecological Health	L-CUL	Contractor	ST-MT	NR	TBD, based on plan and bid	CIP, grant
	2.3	Install interpretive education improvements	Education / Access Management / Ecological Health	Entire property	Contractor	ST-MT	NR	TBD, based on plan and bid	CIP, grant
	3.1	Implement visitor center plan as designed	Ecological Health / All Goals	TBD	Contractor	MT-LT	NR	TBD, based on plan and bid	CIP

APPENDIX

***Mowing Best Management Practices
for Lamy Park***

APPENDIX



Mowing Best Management Practices for Lamy Park

Mowing Best Management Practice

Mowing maintenance is recommended for the parking area and park facilities area to allow visitors to walk with more ease, to spot snakes and sharp objects on the land, and to indicate the park facilities area. The vegetation consists of various scattered grasses and snakeweed on the parking area and various grasses in the area with the picnic shelters. All grasses found on site are native, warm-season grasses, and include Sixweeks threeawn, Purple threeawn, Mountain muhly, Burrograss, Little bluestem, and Sanddropseed. Ongoing monitoring should confirm the grass species identified on site, and to assess mowing impacts on the soil, plants, and birds (aiming at increasing native grasses and bird life).

In order to increase efficiency, reduce costs and streamline planning, SF County may want to bundle certain maintenance projects on one site or across multiple properties.

Mowing Times & Frequency: The time and frequency of mowing should be coordinated with ecological time lines (resulting from weather, plant growth, blooming times, etc.) with the goal to stimulate native plant regeneration and remove non-native plants. In sum, it would be best to mow in late March and again in August-September, and in between only to prevent the colonization of unwanted grasses, forbs or shrubs.

- - The best mowing times are between August and late March. Mowing between April and July should be avoided (or limited to non-desirable grasses, such as cheat grass if it were to come up) to encourage colonization of cool season grasses and prevent wind erosion and drying of the soil during the driest and hottest months of the year and to prevent impacts on grassland birds.
- - Patches with snakeweed and cheat grass should be mowed before these plants bloom, ripen and dry (before June) to prevent them from dispersing seed and to stand dry in July and become a fire hazard.
- - The patches of perennial, native, warm-season grasses should be mowed after they bloom and ripen (best in late fall or in the late winter, e.g. February-March).

Orientation of Mower: Mechanical mowing work needs to avoid mower movements up and down the hill top prevent storm water runoff and water and wind erosion in the tracks of the mowing equipment. Instead, mower movements must as much as possible take place in parallel strokes perpendicular with the grade of the hill (i.e., on contour). This will generate equipment tracks that run more or less on contour and stimulate infiltration and grass regeneration in the furrows of the tracks.

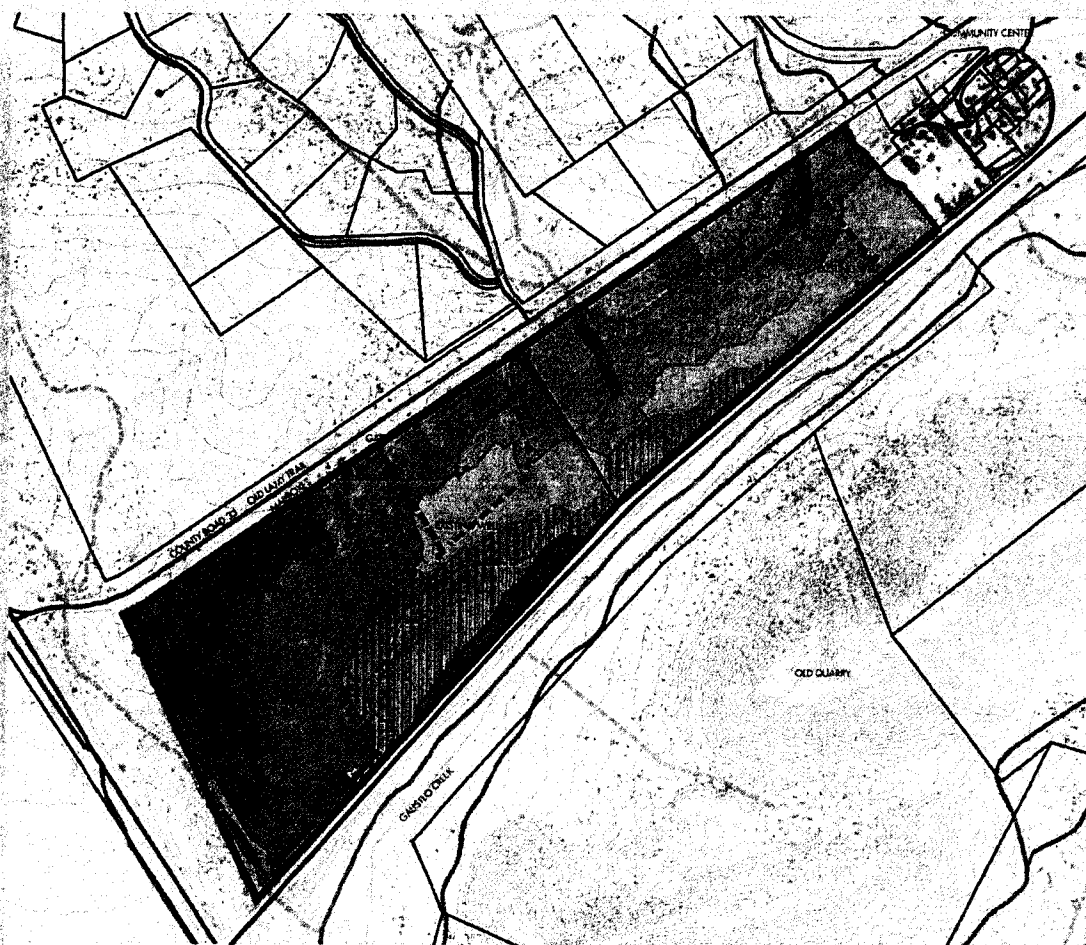
APPENDIX

***Santa Fe County Open Space Management
Terrain Units Descriptions for
Lamy Open Space + Park***

August 2016

APPENDIX

Santa Fe County Open Space Management Terrain Units Descriptions for Lamy Open Space + Park



August 2016

LAMY OPEN SPACE + PARK TERRAIN UNIT DESCRIPTIONS

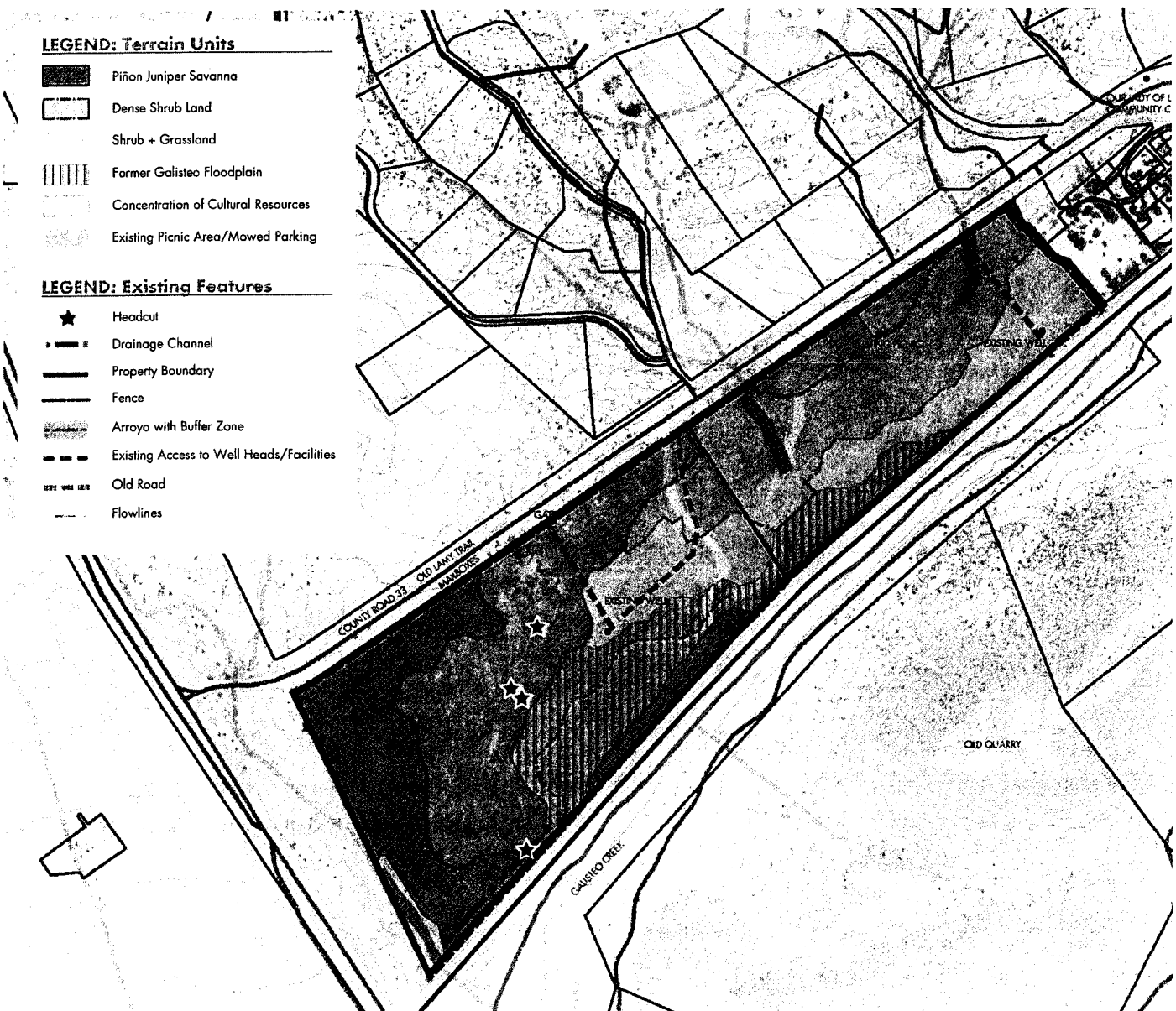
August 16, 2016

Terrain Units delineated for Lamy Open Space + Park are areas that share characteristics of drainage, vegetation, soils that are observable or have unique assets or uses. On the following pages are descriptions of each Terrain Unit.

Recommendations for general elements for monitoring for each TMU are noted. The detailed monitoring plan that will be developed for the Lamy Open Space + Park should incorporate these elements.

For monitoring and maintenance recommendations.

*) Asterisk means: Monitoring could be done with citizen scientist volunteers



PINON-JUNIPER SAVANNA UNIT (L-WOO)

The Piñon-Juniper Savanna Unit consists of rolling hills with slopes up to 55% on the west side of the Open Space property, and of a slightly elevated strip of gently sloping land along the railroad grade that constitutes a former alluvial fan originating from the east side of the property. This terrain unit also includes an active gully on the far west side with stormwater originating higher up on the property and along Highway 285, and a deep storm water channel along the railroad on the far southwestern corner of the property. Across much of this terrain unit, storm water infiltrates and runs off readily on the sandy and gravelly soils. However, in small drainages, the risk of head cuts and gully erosion exists and has caused at least 3 small head cuts. In the hilly areas, top-soils are very gravelly and subsoils are loamy mixed with gravels. The flatter areas and drainage channels are mostly sandy. Erosion potential is low unless the gravel component or vegetation are disturbed or removed. Soil tolerance (the natural soil regeneration capacity) is high, except in the drainage channels on the far western side. Vegetation cover is less than 50% and consists of grama grasses, Western wheatgrass, ring muhli, yucca, cholla, snakeweed, and chamisa, with a scattered overstory of one-seed juniper and piñon trees. There are signs of heavy browse; most likely by rabbits, but also possibly by mule deer. This terrain unit includes many signs of pre-historic and historical habitation, land use, and roadways, and much of the area is an important, federally-listed cultural resource site. Recent land use includes an area with remnants of a small trailer-home park at the northwestern corner. Present land use is focused on conservation. Suitability for various recreational uses is primarily limited by the presence of cultural resources. Inside and outside the cultural resource unit, suitability for trails is also very limited by the large stone content and erosion mitigation needs on slopes, and somewhat limited on flatter areas and in drainages due to needs to mitigate occasional heavy flooding (in channels), sheet wash, dustiness, and wind erosion.

Monitoring:

- Plant species composition*
- Wildlife species richness*
- Erosion occurrences*
- Drainage channel and culvert effectiveness*

Maintenance:

- Occasional inspection and clearing of debris from arroyo and culverts
- Headcut stabilization (possibly in the form of community workshops)

DENSE SHRUB LAND (L-SHR-D)

The Dense Shrub Land Unit is a gently sloping zone above an abandoned flood zone of the Galisteo Creek. This terrain unit includes slightly elevated, gravelly ridges as well as flat terrain consisting of loamy sheet flow channels and ponding areas, and two deeper drainage channels that enter the property through culverts beneath the road to Lamy. Drainage is good on gravelly, higher and sloped areas, but moderate where the terrain is flatter and loamier. There are no signs of soil erosion. Erosion risk is low when the soil is covered, but increases to moderate when the soil is denuded. This terrain unit is characterized by dense shrub vegetation interspersed with a few patches of grasses and many bare, exposed patches of soil. Grasses include blue grama, Western wheatgrass, bottlebrush squirreltail, galleta, 3-awns, and alkali sacaton. The dense brush includes mostly four-wing saltbush (75%) and rabbitbrush (25%), and some winterfat, broom snakeweed, spineless horsebrush, and pale wolfberry. This vegetation mosaic is habitat to various burrowing rodents, including rabbits and jack-rabbits, and also coyotes and mule deer. The area is possibly visited as well by bobcats, cougar, and black bear. Past land use features include a scattering of historic artifacts, including many rusted metal household materials and small industrial and agricultural supplies. There are few recent and present land use features. Current uses are geared to resource

conservation. The terrain unit's suitability for recreational uses is mostly limited by scattered artifacts, the occasional presence of sheet flow and ponding, and the need to mitigate muddy and eroding spots on trails that cross loamy patches. In dry times, dustiness of exposed soils in the lower spots and sandiness of the higher ridges, and associated wind erosion risks, may also be limiting factors.

Monitoring:

- Plant species composition*
- Wildlife species richness*
- Arroyo channel and culvert effectiveness*

Maintenance:

- Identification, avoidance, or cleanup of scattered historical artifacts that constitute some safety hazard for visitors (rusty metal, etc.) or be attractive for removal
- Occasional inspection and clearing of debris from arroyo and culverts

SHRUB AND GRASSLAND (L-SHR-G)

The Shrub and Grassland Unit is a gently sloping to flat area (1%-3% slopes) with predominantly loamy soils with some gravel, located between the Dense Shrub Land Unit and the abandoned Galisteo Creek flood zone. Drainage is moderate due to flat and loamy terrain characteristics. Evidence of erosion is minimal. Erosion risk is low if the soil is covered. Denuded or disturbed soils are moderately susceptible to wind and water erosion. The soil is covered with a mosaic of patches of grass, shrubs, and bare ground with a high level of plant litter. Grasses include blue grama, Western wheatgrass, bottlebrush squirreltail, galleta, 3-awns, and alkali sacaton. Brush includes mostly four-wing saltbush and some winterfat, rabbitbrush, broom snakeweed, spineless horsebrush, and clumps of pale wolfberry. At one location in the western parcel, a clump of very large, and presumably old, boxelder (*Acer negundo*), defines the northern edge of the former riverbanks (river right) of an abandoned Galisteo Creek channel. About 100 yards farther to the west, spill water from the Eldorado pumping station feeds a localized wetland patch of about 0.1 acre consisting of mostly Western wheatgrass and some planted cattails. There are many signs of browse in this terrain unit, and wildlife probably includes rabbits and other rodents, as well as coyotes and mule deer. Raptors are also benefitting from this unit. Past land use features include a scattering of historic artifacts in some places (mostly on the park parcel), including many rusted metal household materials and small industrial and agricultural supplies. There are few recent and present land use features. Current uses are geared to resource conservation. The unit's suitability for recreational uses is mostly limited by scattered artifacts and the occasional presence of sheet flow. In dry times, dustiness of exposed soils in the lower spots and sandiness of the higher ridges, and associated wind erosion risks, may also be limiting factors.

Monitoring:

- Plant species composition*
- Vitality of the rare boxelder grove*
- Wildlife species richness*

Maintenance:

- Identification, avoidance, or cleanup of scattered historical artifacts that constitute some safety hazard for visitors (rusty metal, etc.)
- Planting of native, hydrophytic trees, such as boxelder, wild plum, choke cherry, etc., in the watered area near the pumping station
- Fence conditions along perimeter of the park parcel and removal of old fences in the eastern part of the property

FORMER GALISTEO FLOODPLAIN (L-FLO)

The Former Galisteo Floodplain Unit consists of nearly flat terrain that gently slopes down to the southwest, and that includes a few recent, narrow flow channels in the sediments of the abandoned channel. The channels are active drainages that collect and carry much of the entire property's runoff to a single outflow point in the far southwestern corner of the property. Locally, there are some pools that temporarily hold some standing water in the active channel system. Soils are fine sandy and loamy, and covered with dense patches of grass. Grass species include blue grama, sideoats grama, Western wheatgrass, bottlebrush squirreltail, galleta, threeawn species, muhli species, little bluestem, sanddropseed, and alkali sacaton. Occasional patches of brush include winterfat, rabbitbrush, broom snakeweed, spineless horsebrush, and pale wolfberry. This terrain unit is probably habitat to a variety of rodents, coyotes, and mule deer, and possibly also to bobcat, cougar, bear, and some amphibians. Beside the presence of utility lines along the fence (including the water lines of the Eldorado Community Water & Sanitation District), there are few recent and present land use features. Current uses are geared to resource conservation. The unit's suitability for recreational uses is limited by occasional flows of water a topographical variation between higher banks and deep channel pools. In dry times, dustiness of exposed soils in the lower spots and sandiness of the higher ridges, and associated wind erosion risks, may also be limiting factors.

Monitoring:

- Plant species composition*
- Wildlife species richness*

Maintenance:

- Identification, avoidance, or cleanup of scattered historical artifacts that constitute some safety hazard for visitors (rusty metal, etc.)
- Fence conditions along the railroad grade, also in association with hazardous proximity of the power lines along the railroad tracks

CONCENTRATION OF CULTURAL RESOURCES (L-CUL)

The Concentration of Cultural Resources Unit consists mostly of hilly terrain of the Piñon-Juniper Savanna Unit with further terrain variation caused by soil disturbances from prehistoric settlements and historic roads and trails. In some locations these cultural resource disturbances have led to erosion on cut slopes and in drainages. Otherwise, the same drainage, soil, and erosion characteristics apply as described for the Piñon-Juniper Savanna Unit. Vegetation and wildlife habitat characteristics are also similar to those of the Piñon-Juniper Savanna Unit, although there seem to be slight differences in plant composition and dominance among grasses and forbs. Past land use features include several, mostly buried, prehistoric pueblo ruins and many associated artifacts as well as historic road and trail alignments. Current uses are strictly geared to cultural resource conservation and protection, with some emphasis on research and education. The suitability of this terrain unit for recreational uses is greatly limited by the important cultural resource presence. However, after more research, some road and trail alignments may become available for contemporary use as trails through the unit.

Monitoring:

- Plant species composition*
- Wildlife species richness*
- Erosion rates of eroded slopes and 3 headcut sites*

Maintenance:

- Fence conditions along the road and perimeter of the Open Space parcel

FINE-SANDY, SLOPED GRASSLAND UNIT (L-GRA-S)

The Fine-Sandy, Sloped Grassland Unit [L-GRA-S] includes the existing parking and picnic area, the fine-sandy grassland to the west of the picnic area, and a rock outcrop with sandy and gravelly slopes to the east of the picnic area. The total unit comprises approximately 4 acres. The gently sloping (2%-8%) part of the unit consists of alluvial, fine-sandy loam that serves as a transition area (ecotone) between the rock outcrop to the northeast of it and the loamy shrub and grassland units lower down the slope. The rock outcrop on the property has steep, gravelly slopes (up to 50%) and a narrow, flat top. The rock outcrop probably has a rocky (sandstone) core, covered with gravels and sand, which are highly susceptible to wind erosion. Water-borne erosion risk is moderately high, and natural soil regeneration of the rock outcrop area is very low. At present, evidence of erosion is minimal. Soil erodibility on the gentle slopes is rather low, but wind erosion potential is moderately high when the soil becomes denuded. Soil regeneration capacity is moderately high on the mildly sloped areas and low on the steep slopes. The unit is well covered with native grasses, such as blue grama and Western wheatgrass. Grasses in the developed park area and parking lot include sixweeks threeawn, purple threeawn, mountain muhly, burrograss, little bluestem, and sanddropseed. Vegetation cover on the rock outcrop area is sparse and limited to native grasses dominated by blue grama and threeawns. Wildlife presence is unknown and probably limited to rabbits and other rodents, and possible some raptors. Past land use features and cultural resource values are poorly visible and are presently under study. Recent and current uses include a graveled, grassy parking area and a developed picnic area with three shelters in a mowed grassy area, together measuring about 1.5 acres, concentrated in the central part of this terrain unit. The eastern and western parts of the unit are not used. The suitability of this terrain unit for additional recreational uses, including the development of a visitors' center, is relatively high due to its location along the road and the presence of the already developed park. Suitability limitations include moderate dustiness and considerable wind erosion when soils become exposed. Possible limitations may also include some cultural artifacts, if and when they are identified in the ongoing study.

Monitoring:

- Plant species composition*
- Wildlife species richness*
- Soil loss from wind and water (estimated based on modeling with vegetation cover data)*

Maintenance:

- Identification, avoidance, or cleanup of scattered historical artifacts that constitute some safety hazard for visitors (rusty metal, etc.)
- Garbage collection and cleanup of the park facilities
- Mowing and other vegetation management of the picnic area and parking lot (see mowing recommendations below)
- Fence and gate inspection and maintenance

Wildlife Corridor Information

According to the corridor model for cougars that was developed by K. Menke (2008) for New Mexico Department of Game and Fish Wildlife, corridors link core habitats for sustaining populations across landscapes. This model is used as a surrogate model for multiple species pending development of additional species-specific models.

The Lamy Open Space + Park (*Lamy OSP*) is part of a regional wildlife corridor that spans between the Sangre de Cristo Mountains and the Sandia and Manzano Mountains, across the Galisteo Basin and Ortiz Mountains valley and west out to the Rio Grande. The LOSP is likely habitat to mountain lion, bobcat, mule deer, and other large wildlife species and smaller mammals as listed in the following table.

Wildlife habitat and corridor qualities on the Lamy OSP are moderate due to the grasslands, rolling landforms and relative lack of recent human disturbances. This increases the area's function for shrub cover, foraging, and roaming grounds. The variation between open land, denser vegetation offer opportunities for shelter, nesting, and bedding for various animals. Following in this report is the result of preliminary query of the likelihood of threatened, rare or endangered species for this area of the County.

Ambient conditions at Lamy OSP are favorable for the presence of wildlife. The area is moderately remote; there is little pedestrian traffic and no off-road vehicle use.



Most Crucial Wildlife Corridor
 Least Crucial Wildlife Corridor
 Ortiz Open Space Boundary
 Source: New Mexico Crucial
 Habitat Assessment Tool, New
 Mexico Dept. of Game & Fish

ORTIZ MOUNTAIN OPEN SPACE

Wildlife Corridor

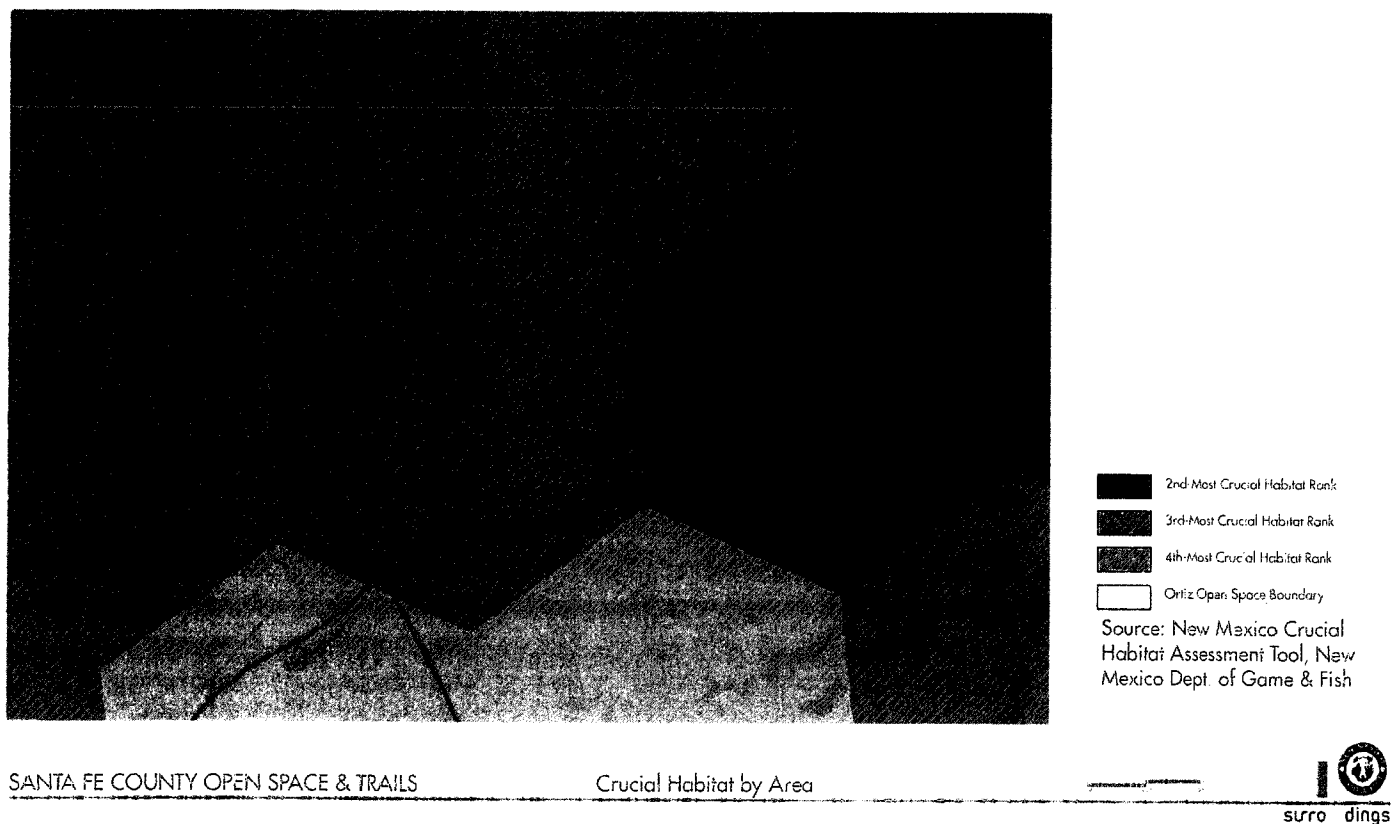
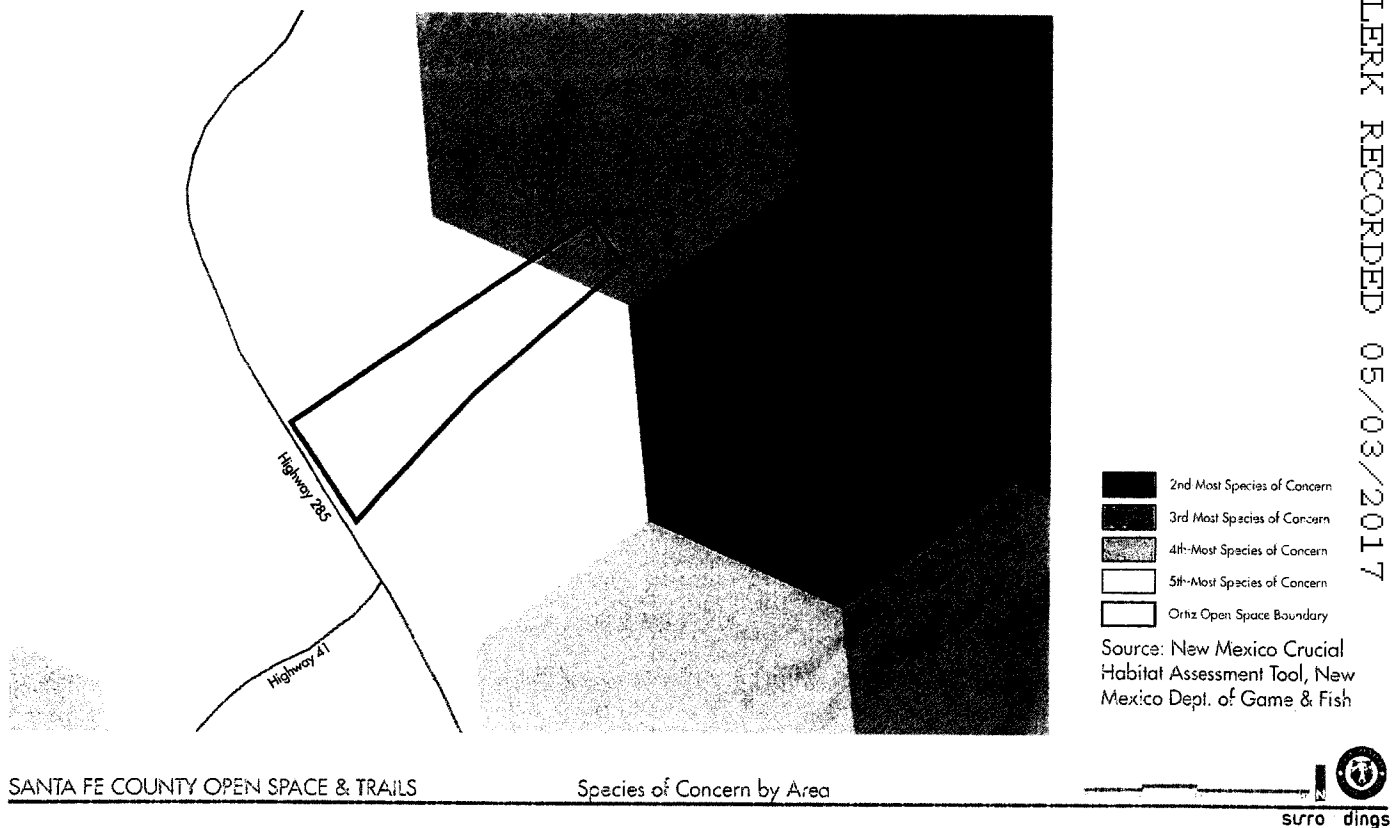


Most Crucial Wildlife Corridor
 Least Crucial Wildlife Corridor
 Ortiz Open Space Boundary
 Source: New Mexico Crucial
 Habitat Assessment Tool, New
 Mexico Dept. of Game & Fish

SANTA FE COUNTY OPEN SPACE & TRAILS

Wildlife Corridors





Fauna	Threatened-Endangered Status	Occurrence	Season
Mountain Lion		Sighted	
Black Bear		Sighted	
Sharp-shinned Hawks		Sighted	
Bull Snake		Sighted	
Mule Deer		Sighted	
Bobcat		Sighted	
Black-footed Ferret		May Occur	
Bald Eagle		Likely	Wintering
Mexican Spotted Owl	Threatened	Likely	
Peregrine Falco		Likely	Year-Round
Southwestern Willow Flycather	Endangered	Likely	Breeding
Golden Eagle		Likely	Year-Round
Northern Goshawk		Likely	
Townsend's Big-eared Bat		Likely	
Pinon Jay		Likely	Year-Round
Ferruginous Hawk		Likely	
Yellow-billed Cuckoo	Threatened	May Occur	
Bendire's Thrasher		May Occur	Breeding
Black Rosy-finch		May Occur	Year-Round
Brown-capped Rosy-finch		May Occur	Year-Round
Burrowing Owl		May Occur	Breeding
Chest-collared Longspur		May Occur	Wintering
Flammulated Owl		May Occur	Breeding
Fox Sparrow		May Occur	Wintering
Grace's Warbler		May Occur	Breeding
Gray Vireo		May Occur	Breeding
Juniper Titmouse		May Occur	Year-Round
Lewis's Woodpecker		May Occur	Year-Round
Loggerhead Shrike		May Occur	Year-Round
Long-billed Curlew		May Occur	Breeding
Mountain Plover		May Occur	Breeding
Olive-sided Flycatcher		May Occur	Breeding
Prairie Falcon		May Occur	Year-Round
Red-headed Woodpecker		May Occur	Breeding
Rufous-crowned Sparrow		May Occur	Year-Round
Short-eared Owl		May Occur	Wintering
Swainson's Hawk		May Occur	Breeding
Virginia's Warbler		May Occur	Breeding
Western Grebe		May Occur	Breeding
Williamson Sapsucker		May Occur	Breeding
NM Meadow Jumping Mouse	Endangered	May Occur	

APPENDIX

***Lamy Open Space + Park
Community Stewardship Opportunities***

APPENDIX

Lamy Open Space + Park

Community Stewardship Opportunities



Community Stewardship Opportunities

Activities + Resources

Community members can make a big impact on the health and resilience of the Santa Fe Open Space properties and Trails by keeping an eye on the land and engaging in caring for it. Local residents truly have the best close-up perspective in identifying the problems that need attention and opportunities to improve conditions. And Santa Fe County has very limited staff for daily observations. So, Santa Fe County needs the help of local people with an intimate relationship with the land. Here are ways that people can get involved by becoming a steward for nearby open spaces.

Create a Local Stewardship Team for Your Neighborhood Open Space

“Many hands make light work,” and neighbors collectively gathering to care for unique local greenspaces makes these efforts easier, more effective and fun. Some of the key activities are:

- Create a data-gathering-to-information system for caring for the land – A basic plan for what, how, who, when, where data will be collected and shared makes Citizen Science efforts fun and effective. A key aspect of the system is how to use the data to make a difference. For instance, a plan will define when and how often to observe road culverts and whom to contact at Santa Fe County if they become clogged with debris, so destructive flooding is avoided.
- Keep the land resilient – Doing trail maintenance, periodic clean-ups, and removing non-native/invasive weeds helps maintain land health and is a fun way for people to learn and share their experiences. Don't forget the donuts to keep people energized!
- Improve land, water and wildlife conditions – Stewardship team host workdays for improving land health such as building rain garden projects, creating erosion control structures at eroding arroyos, and planting willows on denuded streambanks.

See resources and some examples of local groups below in this document.

Keeping An Eye On The Land and Documenting Change Using Citizen Science

Open space stewards gather and document a variety of useful information about natural areas such as bird surveys, repeat photography, and vegetation and soils. The most effective citizen science efforts have a good data-to-information system, so the insights helps educate the broader community and inform land managers to maintain and improve land resilience. A growing number of Citizen Science programs offer ways to help people get started and do ongoing studies. Here are just a few:

PicturePost – A picture tells a thousand words and repeating them at the same places becomes a story. PicturePost enables repeat photography so people can visualize environmental change from the same place over time. A picture post is an eight-sided platform to take repeat photography of trails, grasslands, forests and parks to monitor changes in the environment. People can use a smartphone or a camera and computer. This is a project of NASA and the University of New Hampshire. Go to <http://picturepost.unc.edu/index.jsp> to get started by creating your own PicturePost.

eBird—As birds are good indicators of land health, eBird was developed to offer a way to track bird presence, absence and abundance over time. Stewards can record the birds people see, keep track of birds lists, and help aggregate bird observations at particular sites. Go to <http://ebird.org/concept.html> to get started. A related project is the Great Backyard Bird Count which generates useful information about the region on birds as an indicators of ecosystem health. Go to <http://gbbc.birdcount.org/>

Both projects are coordinated by the Cornell Lab of Ornithology and the Audubon Society.

New Mexico Watershed Watch – The health of running waters can be tracked youth and adults in the program that collects the quality, quantity and ecology information about local streams. The program focuses primarily on perennial waters but can be adapted for ephemeral arroyos. Go to <http://river-source.net/gallery/watershed-watch> for more information.

iNaturalist.org – A web-supported nationwide program to record, share, and discuss Citizen Science programs and their findings; go to <http://www.inaturalist.org/> for more information.

Land Maintenance

Use of open spaces can cause wear and tear on trails, parking areas, and other gathering spots. Land maintenance work may involve periodic clean-ups, repairing broken water bars on trails, or fixing fences. For instance, road culverts are located on both the Madrid and Lamy Open Space properties and can get clogged periodically. Having a communication system with County staff and local residents can identify when a culvert gets clogged early on and resolve the problem promptly to avoid flooding. In many cases, County staff can help to resolve issues, such as having volunteers collect trash and then have County maintenance haul garbage bags to the dump. Or trail erosion problems can be fixed with limited guidance from County staff or a contractor significantly aided by local volunteers.

Ecological and Wildlife Habitat Improvements

Some open spaces have good potential for improving conditions for wildlife, particularly where water can be slowed down or used to grow cool and green areas that harbor wildlife. Activities that can improve conditions include stopping erosion on headcuts that are eroding soil, planting native vegetation that improves bird habitat like coyote willows, and changing strand distances in wire fences and replacing barbed wire strands on a fence with smooth wire to ensure safe passage by deer and antelope.

Examples of Stewardship Groups

- **Conservation Committee of Eldorado Community Improvement Association** – The Committee and Association manage a community preserve of over 4,000 acres of greenbelts, undeveloped land in Preserve areas, and trails ranging from Eldorado and in around the Galisteo Creek. They gather to work on trail improvements and maintenance, do erosion control, and improve wildlife habitat. Contact Jim Daniel, Chair, jdaniel@temple.edu; or Mark Young, Compliance Coordinator, MYoung@hoamco.com.
- **Master Naturalist Program of Bernalillo County** – the program promotes life long learning and environmental stewardship through trainings and service dedicated to open space properties. Contact Colleen McRoberts, (505) 314-0398 or colangar@bernillo.gov.
- **Santa Fe Conservation Trust and the Trails Alliance of Santa Fe (TAOSF)** – The SF Conservation Trust helps organize trail maintenance for open spaces around SF County. Contact Tim Rodgers, the Trails Program Manager at (505) 629-5647 or tim@sfct.org.

Resources:

- **Carol Branch** – Santa Fe County Volunteer Coordinator and Adopt-an-Open Space: 505-992-3053
- **Tim Rodgers** - Trail Program Manager of Santa Fe Conservation Trust: (505) 629-5647 or tim@sfct.org
- **Scot Pipkin** - Director of Community Education at New Mexico Audubon in Santa Fe: 505-983-4609, ext. 27 or scot@nm-audubon.org
- **Rich Schrader** – River Source and New Mexico Watershed Watch: 505-660-7928 or rich@river-source.net

For Community Organization Support and Funding:

- The New Mexico Community Foundation offers management and support services for nonprofits: <http://www.nmcf.org/qauntis-services/endowment-management/>
- Some of the McCune Foundation priorities may align with those of the Lamy community, including capacity building in the nonprofit sector, economic development and family asset building, and strategies for rural development: http://nmccune.org/foundation_priorities
- The Santa Fe Community Foundation hosts workshops and events to support nonprofits, and may provide some useful resources: <http://www.santafecf.org/what-we-do/hub/np-events>
- United Way of Central New Mexico's Center for Nonprofit Excellence provides trainings and resources for nonprofits: <https://www.centerfornonprofitexcellence.org>
- The Sonoran Institute supports community conservation and sustainability efforts throughout the west. There has not been much recent work in New Mexico, but it might be a resource: <https://sonoraninstitute.org>
- The Resilient Communities Starter Kit was produced by the Sonoran Institute in 2015. Though focused on addressing climate change, it also includes ideas about community organization and priority-setting: <https://sonoraninstitute.org/resource/resilient-communities-starter-kit-08-29-2015/>
- The Orton Family Foundation Community Heart and Soul Field Guide, published in 2015, makes recommendations for community outreach and engagement based on the foundation's "Community Heart and Soul" approach: <http://www.orton.org/download-community-heart-soul>
- Ioby is a website like Kickstarter that focuses on community projects. It seems to be more popular in other areas of the country, but could provide an opportunity: <https://www.ioby.org/about>

For Community Information-Sharing:

- <http://Nextdoor.com> has greatly increased in popularity in the last few years, and is one of the most popular methods for connecting neighbors. You invite neighbors to participate, and they register with their address, so only community members are included.

For Citizen Science:

- <https://www.citizenscience.gov> is a website to promote crowdsourcing and citizen science on federally supported projects. It includes resources that could be used by local projects as well: <https://crowdsourcing-toolkit.sites.usa.gov/resource-library/>
- Conservation tools software: <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/nrcs/mc/?cid=st042193>. Wildlife Habitat Index may be of interest.

APPENDIX

Clark Property Species List
Lamy, NM
by Cindy and Jack Clark

APPENDIX

Clark Property Species List

Lamy, NM

by Cindy and Jack Clark



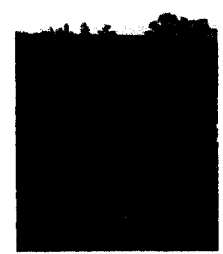
Clark Property List

Lamy, New Mexico; Cindy and Jack Clark, 7-2-16

In order of discovery, beginning Thanksgiving 2011

Birds

1. Gray-headed Junco
2. Oregon Junco
3. House Finch
4. White-crowned Sparrow
5. Chipping Sparrow
6. Canyon Towhee
7. Spotted Towhee
8. Western Scrub Jay
9. Pinyon Jay
10. Mountain Chickadee
11. Western Bluebird
12. American Robin
13. Curve-billed Thrasher
14. Evening Grosbeak
15. Red-tailed Hawk
16. Northern Flicker (Red-shafted)
17. Juniper Titmouse
18. White-winged Dove
19. Sharp-shinned Hawk
20. American Crow
21. Turkey Vulture
22. Scaled Quail
23. Broad-tailed Hummingbird
24. Say's Phoebe
25. Townsend's Solitaire
26. Lesser Goldfinch
27. Rose-breasted Grosbeak
28. Eurasian-collared Dove
29. Cooper's Hawk
30. Swan
31. Black-headed Grosbeak
32. Black-chinned Hummingbird
33. Ash-throated Flycatcher
34. European Starling
35. Mourning Dove
36. Bushtit
37. Brown-headed Cowbird
38. Brown-crested Flycatcher
39. Bullock's Oriole
40. Lazuli Bunting
41. Lark Sparrow
42. Western Tanager
43. Ladder-backed Woodpecker
44. Western Wood-peewee
45. Scott's Oriole
46. Violet-green Swallow
47. Common Raven
48. Blue Grosbeak
49. Red-winged Blackbird
50. Greater Roadrunner
51. Rufous Hummingbird
52. Black-throated Gray Warbler
53. Common Nighthawk
54. Wilson's Warbler
55. Hairy Woodpecker
56. Black-billed Magpie
57. Green-tailed Towhee
58. White-breasted Nuthatch
59. Chihuahuan Raven
60. Pink-sided Junco
61. Pine Siskin
62. Indigo Bunting
63. Gray Vireo
64. Yellow-throated Vireo
65. Hermit Thrush
66. American Kestrel
67. Common Poorwill
68. Bewick's Wren
69. Ruby-crowned Kinglet
70. Steller's Jay (Interior West race)
71. Slate-colored Junco
72. Red-breasted Nuthatch
73. Canyon Wren
74. Western Kingbird



- 75. House Sparrow
- 76. Lark Bunting
- 77. Inca Dove
- 78. Gray Flycatcher
- 79. Sage Thrasher
- 80. Wood Thrush (heard)
- 81. Brewer's Sparrow
- 82. Yellow-rumped Warbler
- 83. Williamson's Sapsucker

- 84. Cassin's Finch
- 85. Mountain Bluebird
- 86. Rock Dove
- 87. American Pipit (Rocky Mountain subspecies)
- 88. Black-tailed Gnatcatcher
- 89. Blue-gray Gnatcatcher

Insects

- 1. Desert Tarantula
- 2. Armored Stink Beetle
- 3. Antlion
- 4. Miller's Moth
- 5. Desert Cicada
- 6. Ground Beetle
- 7. Tarantula Hawk
- 8. Red Mound Ant
- 9. House Fly
- 10. Common Snakefly
- 11. Lady Beetle
- 12. Cabbage White Butterfly
- 13. Black Ant
- 14. Blue-eyed Darner Dragonfly
- 15. Velvet Ant
- 16. Ground Mantis
- 17. May Beetle
- 18. Thistledown Velvet Ant
- 19. Pallid-winged Grasshopper
- 20. Dainty Sulphur
- 21. Jerusalem Cricket
- 22. Leaf-footed Bug
- 23. Mourning Cloak Butterfly
- 24. Gold-Spotted Spider (?)
- 25. Bees
- 26. Wind Scorpion
- 27. Ten-lined June Beetle
- 28. Miner Bee
- 29. Eyed Sphinx Moth
- 30. Mescalero Shield-back Katydid
- 31. Mesquite Moth
- 32. Selenopid Crab Spider
- 33. White-lined Sphinx
- 34. Keeled Shield-back Katydid
- 35. Margined Burying Beetle
- 36. Tomato Hornworm Caterpillar
- 37. Inch Worm
- 38. House Cricket
- 39. Mexican Amberwing Dragonfly
- 40. Black Saddlebags Dragonfly
- 41. Broad-winged Katydid
- 42. Cat-faced Spider
- 43. Giant Robber Fly
- 44. Leaf-footed Bug
- 45. Spotted Blister Beetle
- 46. Stink Bug
- 47. Burying Beetle
- 48. Two-tailed Swallowtail Butterfly
- 49. Pine Sawyer
- 50. Praying Mantis
- 51. Common Desert Centipede

Mammals

1. Coyote
2. Rock Squirrel
3. Spotted Ground Squirrel
4. Desert Cottontail Rabbit
5. Black-tailed Jackrabbit
6. "Pack Rat" White-throated Woodrat
7. Cactus Mouse
8. Bobcat
9. Least Chipmunk
10. Mule Deer
11. Kangaroo Rat
12. Mountain Lion (scat and prints)
13. Deer Mouse

Plants

1. Colorado Pinyon Pine
2. Utah Juniper
3. Whipple Cholla Cactus
4. Scarlet Globe Mallow
5. Tufted Evening Primrose
6. Yarrow
7. Desert Prickly-pear Cactus
8. Beehive Cactus
9. Banana Yucca
10. Soaptree Yucca
11. Claretcup Cactus
12. Chamisa
13. Apache Plume
14. Rose-heath
15. Shooting Star (?)
16. Mexican Gold Poppy
17. Purple Three-awn
18. Desert Four O'clock
19. Mexican Hat
20. Blue Grama
21. Indian Ricegrass
22. Lichen
23. Singleleaf Ash
24. Velvet Ash
25. Birch-leaf Mountain Mahogany
26. Winter Fat
27. Purple Aster
28. Prairie Zinnia
29. Budsage
30. Haircap Moss
31. Juniper Mistletoe
32. Brown Mushroom (1-3", brown gills; look similar to lawn mushrooms)
33. White Mushroom (2-4", like Horse mushrooms, all end of September)
34. Wavy Mushroom (~ 4" wide, brown, look like Oyster mushroom)
35. Tidy tips
36. Rattlesnake Weed
37. Pale Trumpets
38. Four-winged Saltbush
39. Russian Thistle
40. Mexican Blanket
41. Foxtail Chess
42. Common Mullein
43. Hoary Cress
44. Yellow Salsify

Reptiles

1. Sage Lizard
2. Bull Snake
3. Desert Grassland Whiptail
4. Garter Snake
5. Horned Lizard
6. Chihuahuan Spotted Whiptail
7. Collard Lizard
8. Tree Lizard
9. Coach Whip

Reference Books

1. *National Audubon Society Field Guide to the Southwestern States*. Peter Alden and Peter Friederichi, editors. NY: Alfred A. Knopf, 1999.
2. *National Geographic Society Field Guide to the Birds: Arizona & New Mexico*. Jonathan Alderfer, editor. Washington, DC: National Geographic Society, 2006.
3. *The Sibley Field Guide to Birds of Western North America*. Written and illustrated by David Allen Sibley. NY: Alfred A. Knopf, 2003.
4. *Nature a Day at a Time: An Uncommon Look at Common Wildlife*. Written and illustrated by Cathie Katz. San Francisco: Sierra Club Books, 2000.

APPENDIX

***Abstract Of An Archaeological Survey
Of Lamy Open Space + Park
Santa Fe County, New Mexico***

Tamarch 20.05

**Abstract Of An Archaeological Survey
Of Lamy Open Space + Park**
Santa Fe County, New Mexico

**Tamarch
2016**

Lamy Open Space & Park Archeological and Historic Survey

Tamach
2016

ABSTRACT

In May and June 2016, TAMARCH CRM Services conducted a cultural resource survey of the Santa Fe County-owned 57.1-hectare (ha) [141.2-acre (ac)] Lamy Park and Open Space property located partly within the Village of Lamy in the Galisteo Basin of Santa Fe County, New Mexico (refer to Figures 1-2). The two adjacent parcels border the south side of County Road (CR) 33 (formerly NM 41) and are bounded on the south by the Atchison Topeka & Santa Fe (AT&SF) Southern Railroad that runs parallel to Galisteo Creek, and on the west by US 285 (Figure 3). Santa Fe County owns the 37-ha (91.2-ac) Lamy Open Space parcel containing Lamy Junction Archaeological District and the adjacent 20.2-ha (50-ac) Lamy Park parcel, and requested the archaeological survey in order to better understand the location and boundaries of the cultural resources within the entire 57.1-ha (141.2-ac) area (Figures 1-2). The two parcels are located on unplatted land in the Bishop John Lamy Grant in projected Section 5, Township 14 North, Range 10 East, N.M.P.M. on the Galisteo, NM Quadrangle (Figures 1-2).

Lamy Junction Archaeological District, contained within the Lamy Open Space parcel, was listed on the National Register of Historic Places (NRHP) in June 2016 (NR #16000388) (Figure 8). No other properties listed on the State Register of Cultural Properties (SRCP) or on the NRHP are located within the parcel boundaries or vicinity, defined as a 1.6-kilometer (km) [1.0-mile (mi)] radius around the parcels. Farther to the northeast within the Village of Lamy, the Mission Chapel of Our Lady of Light, built in 1926, is listed on the SRCP (SR # 1949).

A check of the New Mexico Cultural Resource Information System (NMCRIS) revealed 25 previously recorded archaeological sites within the two adjacent County parcels under study (Table 1). Sixteen sites comprise Lamy Junction Archaeological District in the 37-ha (91.2-ac) western tract adjacent to US 285 (LA 27, LA 361-368, LA 31774-31779, LA 112329) (Figure 3). The district includes 19 pueblo mounds, a possible great kiva, and four associated features that together comprise the ancestral Puebloan settlement, occupied during the Coalition period between about A.D. 1175 and the early 1300s (Head 2008; Stewart 2015; Wiseman 1981). At least two late 19th through mid-20th century roads once ran roughly north-south and east-west through this parcel, the old roads to Galisteo and Clines Corners forming an important crossroads in the northwestern portion of the property (Figure 9). The 16 sites that comprise the archaeological district and the two historic road alignments are considered significant cultural resources that are listed on the NRHP and should be avoided (Head 2008; Stewart 2012, 2015). Nine archaeological sites that include a historic road alignment, numerous historic artifact scatters, a former historic well site, and two adjacent prehistoric fieldhouses, have been previously recorded on the adjacent 20.2-ha (50-ac) Lamy Park parcel (Figure 3) (Brown and Brown 1999). Two of these sites, the fieldhouses (LA 126174) and the road alignment (LA 126169), are recommended as potentially eligible for inclusion on the NRHP and should be avoided. A previously recorded historic artifact scatter (LA 126170) could not be relocated, vegetation having become very dense in this area. LA 126173, a previously recorded historic windmill/well site that appears on a 1966 USGS map, has been removed and no longer exists. No new archaeological sites were discovered within the County property.

Thirteen previously recorded sites are located in a 1.6-km (1.0-mi) radius vicinity of the property: LA 10-11, LA 31044-31048, LA 78943, LA 103861, LA 107266-107267, LA 115269, and LA 126174, consisting of prehistoric mounds and prehistoric and historic artifact scatters. None of these sites are listed on the SRC or the NRHP.

One hundred sixty-six isolated occurrences (IOs) were identified within the property, consisting of prehistoric and historic artifacts and small artifact scatters associated with the prehistoric Lamy Junction Archaeological District, the historic roads that pass through the property, historic ranching and homesteading practices, and late 19th century through recent historic railroad activities associated with the railroad that bounds the property on the south (Table 3, Figure 4). The information potential of the IOs is considered to have been exhausted through in-field recordation. Santa Fe County should avoid significant identified sites within the property boundaries. Additional archaeological investigations may be required at any significant archaeological sites that cannot be avoided.



OPEN SPACE
& TRAILS



ACKNOWLEDGEMENTS

The plan was made possible through the support of the Santa Fe County Board of County Commissioners.

2017 Commissioners

Henry Roybal – District 1

Anna Hansen – District 2

Robert Anaya – District 3

Anna Hamilton – District 4

Ed Moreno – District 5

2016 Commissioners

Henry Roybal – District 1

Miguel Chavez – District 2

Robert Anaya – District 3

Kathleen Holian – District 4

Liz Stefanics – District 5

The County Open Lands, Trails, and Parks Advisory Committee (COLTAPAC) for its strategic guidance and review.

The knowledge and expertise of the County Open Space and Trails (OS+T) planning, project development, and maintenance staff was invaluable in developing this plan.

Maria Lohmann, OS+T Senior Planner

Paul Olafson, Planning Project Manager

Colleen Baker, OS+T Project Manager

Shane Martinez, OS+T Maintenance Technician, Lead

Special appreciation to the many community members who provided the time, local wisdom and sense of the community needed to achieve this management plan. Their participation in a series of three community work sessions, interviews and in providing information about the project site and its history, environment and the surrounding community are fundamental to this plan.

Thank you to the Santa Fe County Fire Department and the Madrid Volunteer Fire Fighters for providing the Madrid Fire Station to host public meetings for this plan.

Thank you to the following organizations for allowing plan presentations at their regular meetings.

Madrid Landowners Association

Madrid Cultural Projects

Madrid Volunteer Fire Fighters

Madrid Village Water Cooperative

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Steve Carson, Rangeland Hands, Inc.

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Wetherbee Dorshow

Tonya Fallis

EXECUTIVE SUMMARY**1.0 INTRODUCTION**

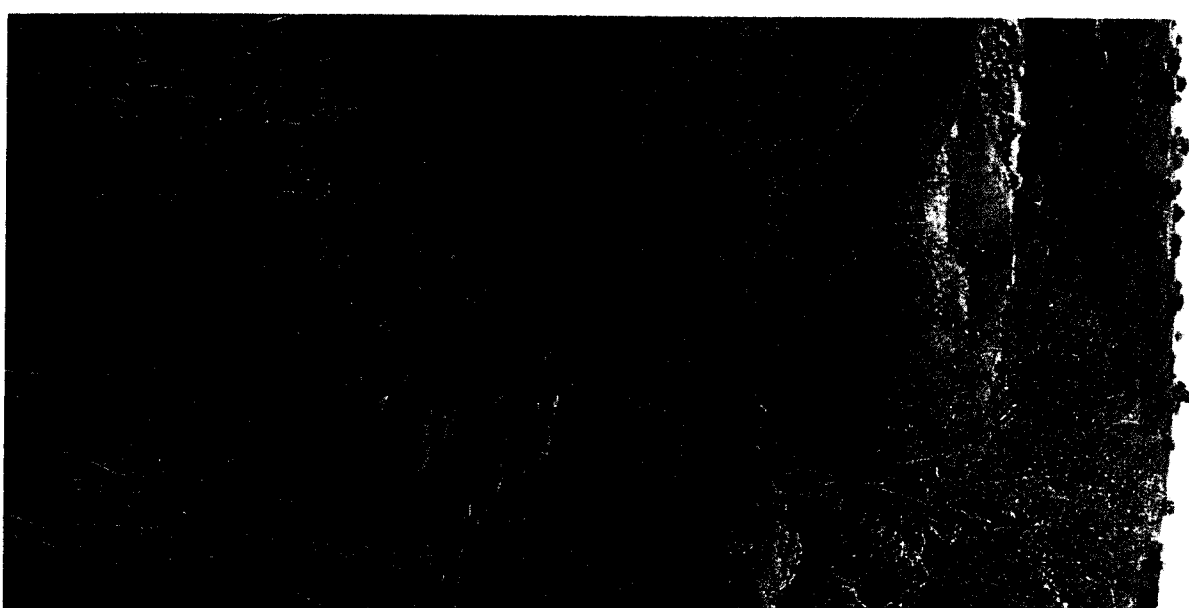
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MADRID OPEN SPACE MANAGEMENT PLAN APPENDICES

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The Madrid Open Space (*Madrid OS*) consists of fifty-seven acres of open land on three contiguous properties that run through the center of Madrid, NM. The goal of this plan is to create a practical and effective management plan to maintain the environmental function, cultural resources, and recreation opportunities of the Madrid OS. This plan was developed based on input gathered in three community meetings, interviews with key stakeholders, site analysis, and research. Community participants are very supportive of collaboration with the County to address floodplain management, general site maintenance, preservation of cultural resources, and minor habitat and trail improvements.

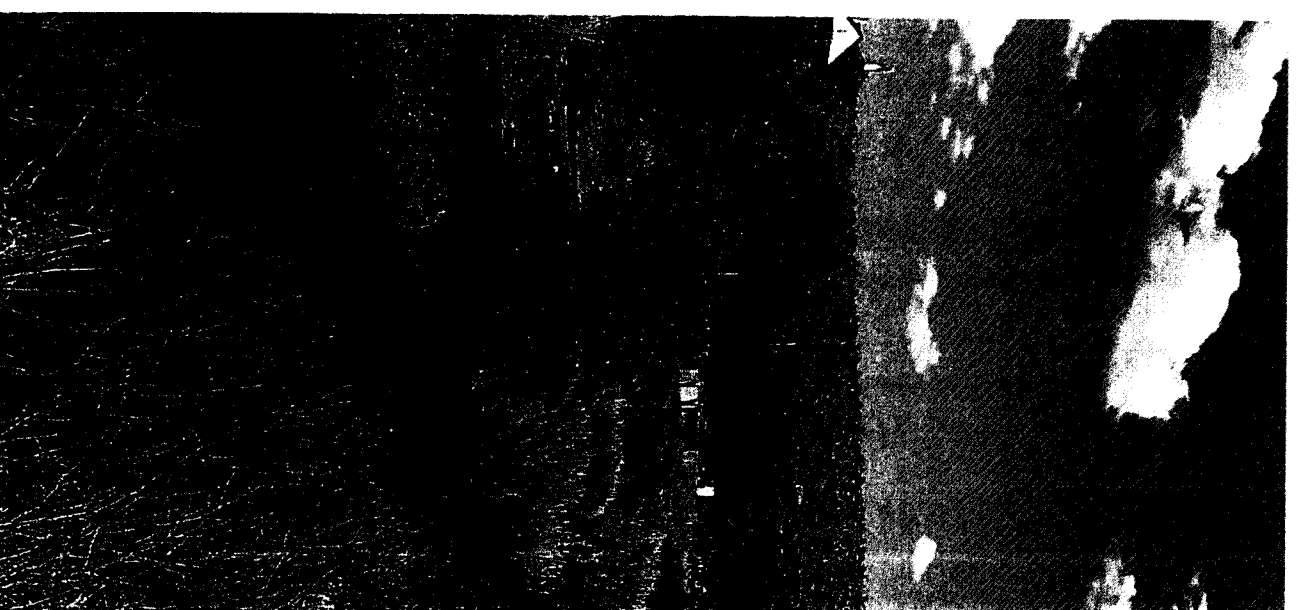
The ecological function of the Madrid Open Space is that it is the active floodplain of the Madrid Gulch. Potential flooding risks to the Greenbelt area of the Madrid Open Space are substantial and will always be on-going. Reducing risks related to future storm related erosion in the open space is important.

Management goals include collaborative management with the Madrid community to address floodplain issues, protection of existing cultural resources, small-scale enhancement of the site habitat, improving site signage, boundary markings and clarifying access issues. The plan outlines a vision, maintenance goals, projects and improvement priorities, and involvement in stewardship of the Madrid OS.

The Madrid OS Management Plan identifies short-term, mid-term, and long-term management priorities for the property. In the short-term Santa Fe County will work with the community on floodplain maintenance activities, small-scale habitat enhancements, and to find ways to celebrate the unique history, geology and ecology of the open space with the Madrid community.

An important project is to develop a comprehensive floodplain management plan with the Madrid community and other partner agencies or groups. This activity will begin initial planning in the short-term phase and will likely continue into the mid-to-long-term phases of this Plan, as some of the follow-on actions may require several years to accomplish.

The Management Plan emphasizes collaboration with existing Madrid community organizations for floodplain maintenance and land stewardship. Due to the complexity and interlocked nature of the Madrid OS parcels and adjacent community-owned properties, collaboration with the community is essential to achieve appropriate and practical management of the Madrid OS.





Madrid Open Space
aerial looking from
south to north.

The purpose of this plan is to manage the site and its resources in a way that is consistent with the community and the County's goals.

1.1. Plan Purpose and Need

The purpose of the Madrid Open Space (*Madrid OS*) Management Plan is to:

- describe a vision, goals, and objectives for management of the Madrid OS,
- help understand existing environmental conditions of the Madrid OS,
- clarify priorities for the maintenance and protection of the Madrid OS,
- identify projects for future investments at the Madrid OS,
- describe a coordinated management approach to planning, implementation and maintenance activities,
- identify community stewardship and educational opportunities for the Madrid OS.

This Plan was developed in response to clear and strong support for enhanced management planning for open space properties from the County Open Lands, Trails, and Parks Advisory Committee (*COLTPAC*) and from the Board of County Commissioners (*BCC*).

The Plan arose from a growing need for:

- strategic management plans that include meaningful input from the community,
- a strong vision with clear objectives and strategies for resource conservation, preservation, passive recreation, and public access,
- an overview of existing conditions and site-specific inventories,
- maintenance plans with best management practices,
- identifying priorities and actions for developing key projects,
- identification of potential funding sources to implement the plan.

Management Plan Need

From 2009 to 2012, the New Mexico Abandoned Mine Land Program (*AML*) worked with the Madrid community to develop plans and preliminary designs to mitigate historic mining effects on the community. During that process, Santa Fe County staff worked with AML to identify opportunities for County cooperation related to that plan. The Board of County Commissioners unanimously passed Resolution 2011-81 in support of the AML Program's Madrid Mining Landscape (*MML*) Plan and directed staff to implement MML Plan projects that further County goals and objectives. This Plan is needed to define County management goals and objectives for the Madrid Open Space and identify investments and actions that support the Madrid OS and relevant MML projects.

1.2. PROPERTY DESCRIPTION + EXISTING CONDITIONS ASSESSMENT

The Madrid Open Space consists of fifty-seven acres on three contiguous properties,

a) the Madrid Wilderness is a forty-five acre parcel at the northern end of Madrid, purchased in 2000; b) the Madrid Church Lot is a one-acre parcel in front of the historic church, purchased in 2001; and c) the Madrid Greenbelt is an eleven acre parcel that runs through the center of Madrid which was purchased in 2005.

The Community

In 1896, the Colorado Fuel and Iron Company gained control of the Madrid mines area, and built most of the historic buildings and structures seen today. After a brief period of mining growth, Madrid slowly declined through the 20th century. In the 1950's the whole town was put up for sale as a single unit, but this strategy was not successful. Instead in 1975, the buildings and land were offered piecemeal to any interested resident or buyer. There are local stories of buying a home and site for as little as a ten dollar down payment.

This land ownership expansion created a rather unique civic relationship between the individual property owners and the land within Madrid. Most of the roads and infrastructure of the community is owned and operated by Madrid landowner entities. There are five active civic entities that are involved in various ways. They are the Madrid Landowners Association, Madrid Cultural Projects, Madrid Volunteer Fire Fighters, Madrid Village Water Cooperative, and the Madrid Merchants Association. Most hold meetings on a monthly schedule.

The Madrid Landowners Association (MLA) was the original holder of the open space tracts after the purchase from the Albuquerque Coal & Mine. In the early 2000's a lack of funds to pay a loan led the MLA and the community to recommend purchase of the three open space parcels by Santa Fe County for the open space program. The goal was to retain the properties as community open space and to protect the environmental and cultural assets within them.

The original ownership by the MLA means there is a very personal relationship between the Madrid community and the Open Space that continues to the present-day. The Greenbelt section has immediate proximity to many homes. The Greenbelt is the community's "backyard". This heightens community sensitivity to who and how the Greenbelt area is used. The community enjoys the quiet solitude of the Greenbelt, and many residents use it for daily walks. The community has a strong preference for little or no improvements throughout the Greenbelt. Prior to County ownership, the community held community events on the site. Some, such as an Easter Egg Hunt, are still held there today.

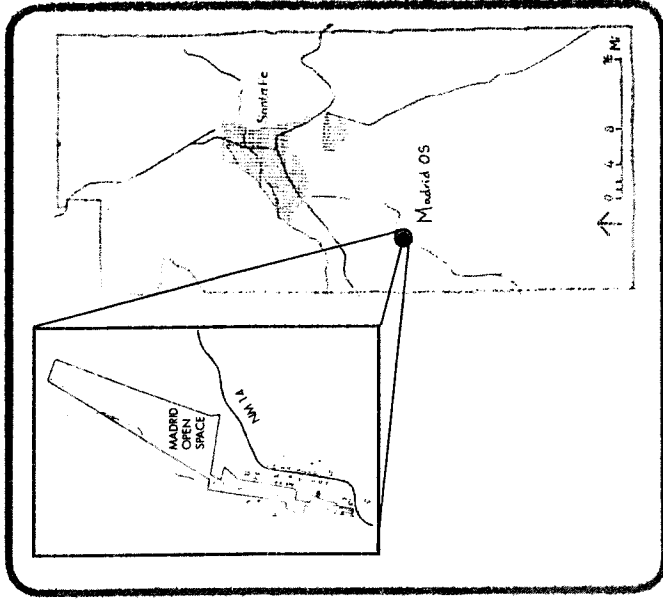


Figure 1. Location Map - Madrid Open Space

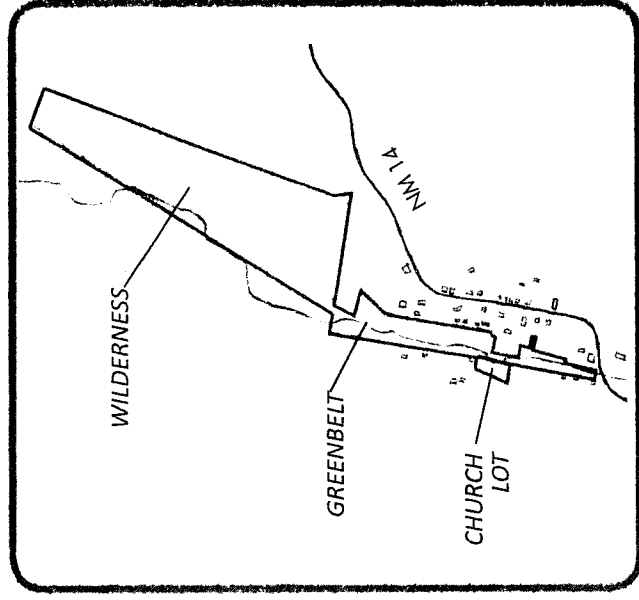


Figure 2. Madrid Open Space Parcels Map



LEGEND: Existing Features

- Open Space Boundary
- Access-Utility Easement
- Road Culverts
- Existing Fire Water Line
- Historic - Gob Piles
- Historic District Boundary
- Buffer Zone/Historic Gob Piles
- Historic Rail Alignment
- Madrid Community Controlled Property
- 50-year Floodzone (2%)
- Boundary 100-year Flood Zone (1%)
- Floodplain - Abandoned

DRAINAGE + EROSION MANAGEMENT ISSUES

- FLOW IMPEDIMENTS**
 - Scrub stands
 - Seedling tree stands
 - Berms - unengineered
 - Large non-native trees
- EROSION ISSUES**
 - Headcut
 - Bank Erosion

Map 1. Madrid Open Space - Greenbelt Area



Residences overlooking erosion at south end of Greenbelt.



Trees growing in active channel impede flood flows.



Channel modifications on community Garden Plot after 2013 floods.

Collaborative opportunities with community support include: a) small-scale water harvesting improvements for habitat in the open space; b) inclusion of the Garden Lot in comprehensive flood management planning and as a possible location for composting of woody debris; and c) coordination with Santa Fe County regarding future development of the one-acre community controlled lot at the north end of the Greenbelt.

The Greenbelt

The Madrid Greenbelt runs through the center of Madrid and is within the National Registered Historic Madrid District. The Greenbelt parcel is a long narrow north-south oriented site. The property boundary is complex and interlocked with properties controlled by various Madrid community entities (see *Map 1*). Several major community access and utility easements also run through the Greenbelt. This complex physical relationship means that activities on the Greenbelt directly affect adjacent community controlled properties; and conversely, activities on community-controlled properties affect the open space.

The Greenbelt section of the Madrid Open Space is the active floodplain of the Madrid Gulch. Flood events periodically affect the floodplain. As recently as 2012 and 2013, major flood events substantially altered the landscape of the Greenbelt portion of the Madrid OS. As the bottom of the local watershed, the Greenbelt will always experience high-volume storm events. The Madrid Gulch flows from the south to the north.

Addressing flood concerns in the Greenbelt is a community priority. The community engaged in an extensive process with the NM Abandoned Mine Lands Program (AML) during 2009-2012 to develop plans for the Madrid area to mitigate hazards related to the past mining activities and drainage improvements that related to those plans. Some of that plan was implemented by AML, but not in the Greenbelt. There is a strong community desire to see drainage management implemented for the Greenbelt now that the Madrid OS Management Plan is being developed. Although the AML Program is not currently planning further improvements in the Madrid area, they remain open to discussions about opportunities to assist on projects that further the AML plan and the Madrid OS plan.

Major management issues for the Greenbelt fall into three main categories.

- A. **Debris and Vegetation.** In the past, residents disposed of brush and other woody materials in the active arroyo channel and along its banks. The debris likely exacerbated channel

damage during recent flooding by clogging culverts and constricting flows. The dumping appears to have mostly discontinued, but remnant wood and debris piles still exist. In addition, there are brush stands and seedling trees that have sprouted and are growing in the active arroyo channel. Brush, trees and debris in the active channel reduces channel capacity and contributes to bank stress and erosion. Best management practice is to remove loose debris, brush stands and trees within the active flow channel.

B. Erosion in the active channel and its stream banks. There are three areas in the Greenbelt where bank and channel erosion concerns are highlighted. The Greenbelt's erosion issues are substantive and require comprehensive planning and management to achieve a sound solution. Planning of this scale requires a sustained investment of time and funds to accomplish and may be an opportunity to coordinate with other entities including AML.

- South End of the Greenbelt is a deep narrow earthen channel. The channel is approximately 15 feet deep with almost vertical dirt banks on both sides. Homes, businesses and utility lines sit above the banks on both sides of the channel. Evidence of past erosion is very visible in this section. The potential for future erosion in this section is "high/extreme" based on the bank heights, bank angle, root density, soil stratification and particle size. Future erosion of this channelized section could impact the adjacent roads and properties. This narrow channel section runs from the State Route 14 crossing to a pedestrian bridge several hundred feet to the north.

- East Side of the Church Lot has an eroding bank adjacent to the active arroyo channel. The bank ranges from 3 to 7 feet high. Further erosion of this bank into the Church Lot could risk historic artifacts in the area above the bank. A greater concern is that the migration of the flood plain into the Church Lot could affect the course of the floodplain as it travels north. Several residential properties immediately north of the Church Lot experienced flood effects from the 2012 and 2013 storm events. There is concern that erosion of the Church Lot cut bank could cause the active flow channel to more directly impact those lots.

- North End and Cave Road Crossing. The Cave Road Easement crosses the active arroyo channel near the north end of the Greenbelt. A double-culvert privately owned by the Cave Road Easement holders constricts flows at this point. This constriction blocks and concentrates flood flows which tends to increase erosion damage during large storms. The downstream apron of this culvert was heavily damaged in the 2012 and 2013



Large bank undercut south of pedestrian bridge.



Examples of debris build up from floods



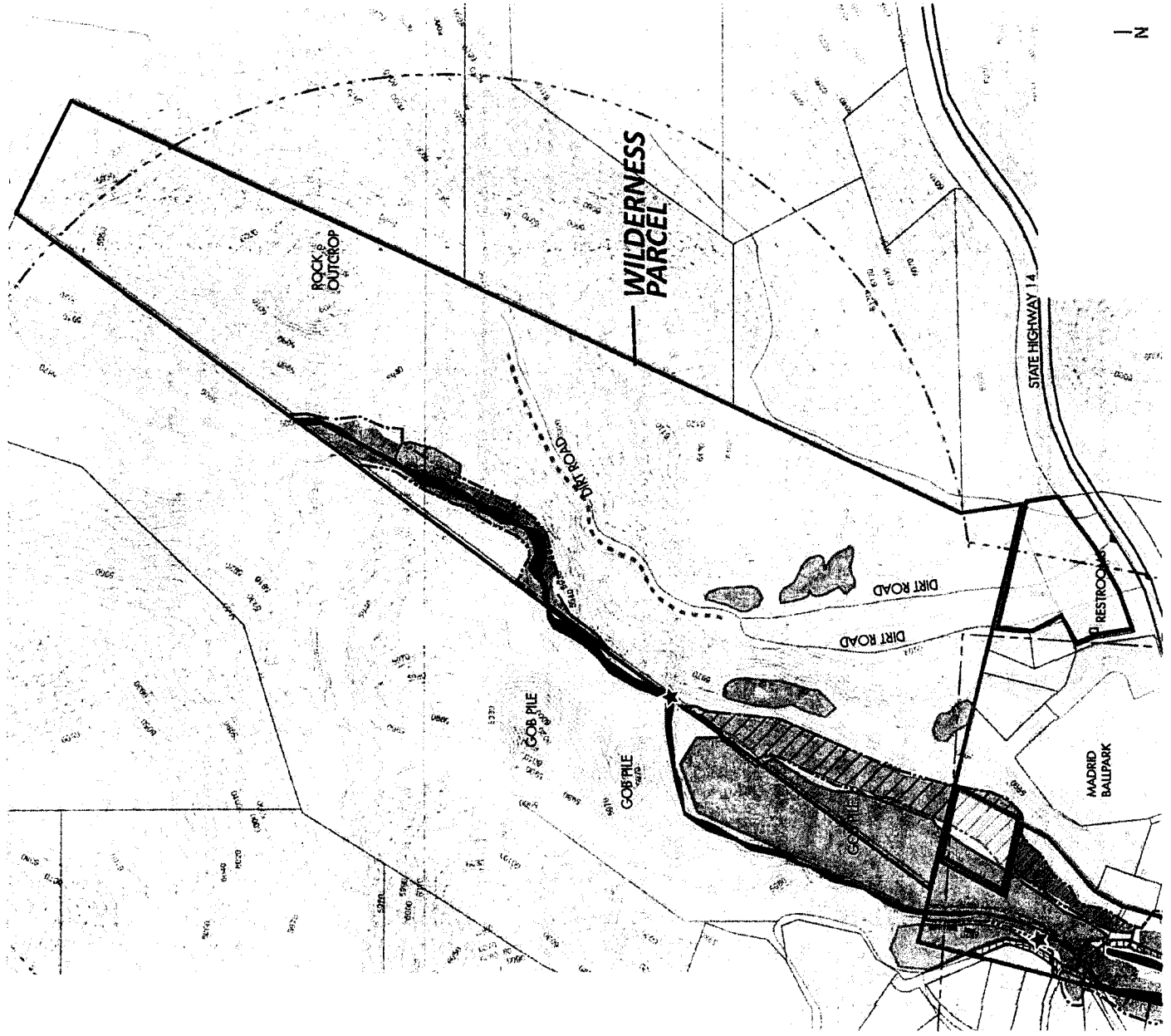
Culverts at Cave Rd. crossing, right-hand culvert clogged.

LEGEND: Existing Features

- Open Space Boundary
- Access-Utility Easement
- Road Culverts
- Existing Fire Water Line
- Historic Gob Piles
- Historic District Boundary
- Buffer Zone/Historic Gob Piles
- Historic Rail Alignment
- Madrid Community Controlled Property
- 50-year Floodzone (2%)
- Boundary 100-year Flood Zone (1%)
- Floodplain - Abandoned

DRAINAGE + EROSION MANAGEMENT ISSUES

- EROSION ISSUES
- ★ Headcut
- Bank Erosion
- Wilderness Trail Erosion



Map 2. Madrid Open Space - Wilderness Area

downcutting of between 5 and 7 vertical feet from the 2012 and 2013 storm events. If future flooding further compromises the culvert and leads to structure failure, it will cause substantial disruption to the day-to-day life of Madrid. Migration of the deep erosion cut southward into the Greenbelt would threaten the open space itself and have significant detrimental impacts on its ecological and hydrologic functions.

C. Complex Land Ownership and Use. The management of the Greenbelt as noted before is complicated in that community-owned properties control portions of the active arroyo channel and directly affect flows in the Greenbelt. There are earthen berms that were built on community-owned sections of the active arroyo channel after the recent 2012 and 2013 flooding. These berms may not have been engineered and need to be reevaluated to see if they will function properly during future floods. In some places, debris from previous floods has been piled up in the floodplain. Coordination with the Madrid community is needed to evaluate and adjust the berms, debris piles and other items if needed.

In the middle section of the Greenbelt, the channel widens and becomes a rocky, braided flood plain. To the east side lies the historic stagecoach and coal train route. The old stagecoach-rail alignment is part of the Cave Road easement and is an important north-south auto and pedestrian connection for the community. Several dirt alleyways on the east connect to the Cave Road easement. The easement also contains the main fire line that serves the community. The historic railroad bed is used daily by residents for walking and recreation. Smaller informal dirt paths also crisscross the site and link residences west of the Open Space to the commercial area and homes on the east.

The whole of the Greenbelt was originally utilized for mining operations. Historic remnants from building foundations to small pieces of historic mining material are heavily scattered throughout the Greenbelt. Those historic elements as well as the Madrid OS being located in the heart of the National Registered Historic Madrid District means that coordination with the NM State Historic Preservation Office will be needed to implement improvements in the Greenbelt.

The Wilderness

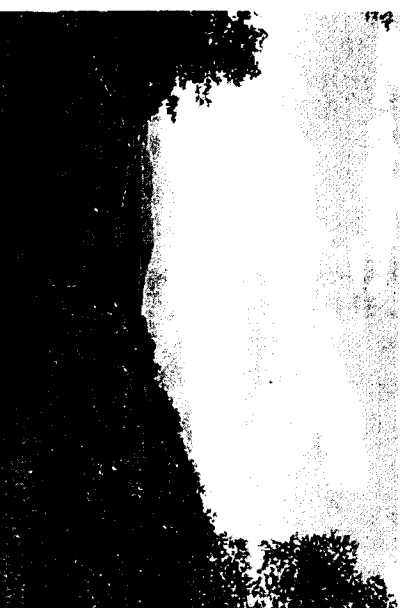
The Wilderness area is a triangular shaped parcel running in a north-south direction (see Map 2). It has a very small shared boundary with the Greenbelt. A lack of boundary markers in this area causes trail users by mistake to wander onto adjacent private properties. A one-acre lot next to this narrow connection point is controlled by Madrid civic entities. There are community desires to develop the acre site for community infrastructure. Coordination should



Largest of historic mining gob piles as seen from Wilderness area.



Limestone hillside which is east side of the Wilderness parcel.



Looking from Wilderness area toward Cerillos Hills.

occur between the County and the Madrid community if any future development of the site is proposed.

The Wilderness parcel does not have formal access to any public road or easement. County maintenance access to the Wilderness is currently through two parcels that are the overflow parking areas for the Madrid Ballpark. The two parcels are controlled by two different Madrid civic entities. Actions to formalize this access point to the Wilderness should be addressed.

In the southwest area of the Wilderness is a large gob pile. Gob piles are mounds of overburden or other waste soils removed during coal and ore mining operations. They are often distinct because of the black coal dust on their surfaces. The gob piles are historic landscape features and have a defined buffer zone to limit development in the zone, and to protect the integrity of the gob piles and the views to them.

Along the east side of the large gob pile is an abandoned portion of the original Madrid Gulch floodplain. At the north end of the abandoned floodplain is a headcut that is moving into the abandoned floodplain. Migration of the headcut would damage the open space and contribute to large movements of erosion materials onto downstream properties. Controlling this headcut is important to protecting the abandoned floodplain. The abandoned floodplain contains many scattered historic structure and mining artifacts such as building footings, equipment fragments, metal shards, and cables.

The east and north areas of the Wilderness are a steeply sloped, exposed limestone hillside. Two dirt roads cut into the hillside and run from the south to north. The higher elevation road is used by the County for site maintenance. There are small erosion points along the edges of the road. Currently, maintenance of the erosion points is controlling damage from surface runoff. The dirt road at its northern tip ends at a blocked off gate that leads to private property beyond. The community feels undesirable ATV and off-road vehicle use in the Wilderness area is related to this gate. This gate is not a platted access and could be considered for closure.

The dirt roads are used by locals for walking and biking in the Wilderness. The roads offers expansive views up and down Madrid Gulch. Any new trail development in the Wilderness should be limited and use the two existing road alignments to avoid increasing erosion on the steep hillside. A notable feature at the north end of the Wilderness is a prominent limestone rock outcrop. The rock outcrop provides remarkable views northward to the Cerrillos Hills and the west end of the Galisteo Basin. During the planning process, the Wilderness area was noted by the community as a good location for locals and visitors to walk and enjoy the views.

EXISTING CONDITIONS NEEDS ASSESSMENT

Condition

- Erosion and Drainage

Needs Assessment

- Need to remove scrub, trees and excess debris in the active arroyo channel.
- Need management of large scale head cuts, down cutting and bank erosion in the active arroyo channel.
- Need a comprehensive approach to floodplain management in the Greenbelt. A limiting factor is that the site is the bottom of the watershed and does not control properties upland or upstream.
- Need to identify and engage other agencies and partners to help fund planning and improvements as scope and scale are likely to be beyond the capacity of the Santa Fe County Open Space Program.

- Archeological Resources

- Need plan to monitor cultural resources to protect against loss due to scavenging and migration caused by floods.
- Long-term need for educational-interpretive plan.
- Need clarification of process with NM State Historic Preservation Office for review of future plans.

- Plant-Wildlife Habitat

- No active management for wildlife habitat needed. But community desires exploration of water harvesting opportunities in the open space.

- Infrastructure

- Need open space management signage and information board.
- Need access agreement for the Wilderness parcel with Madrid entities.
- Need access control gate to reduce off-road and ATV use in the Wilderness.

- Community

- Need to establish a collaborative process with Madrid civic entities to manage the Madrid Gulch floodplain and maintain the open space.

1.3 Management Plan Process

The Madrid Open Space Management Plan was informed by the County's initial goals for acquisition of the Madrid Open Space and a set of planning principles. The planning principles were formulated based on goals for the Santa Fe County Open Space and Trails Program.

INITIAL GOALS FOR ACQUISITION OF MADRID OPEN SPACE

- Assist the community to keep the area as a public open space for hiking and wilderness uses.
- Protect the cultural and historic resources.
- Maintain the environmental and aesthetic qualities of the site.

PLANNING PRINCIPLES

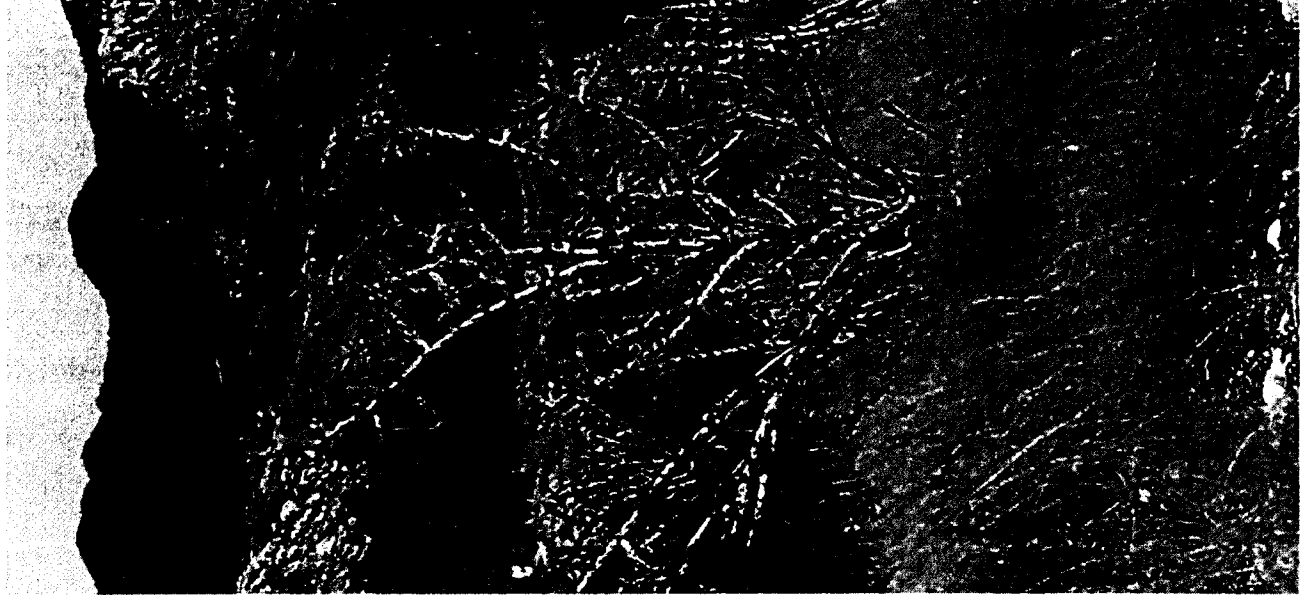
- Adhere to the goals and purpose of the Open Space program.
- Ensure public safety and access based on the reasons for acquiring the property.
- Keep maintenance needs to a minimum (commensurate with County capacity and community-based stewardship capacity).
- Invest in strategic, cost effective, long-term improvements.
- Minimize the disturbance of cultural and ecological resources.
- Involve youth and create educational opportunities.

PLANNING PROCESS

The plan process included three phases:

Scoping and Reconnaissance Phase

- Interviews with key stakeholders, community members, and County staff regarding current community interest in the site and how to engage the community in the management plan process.
- Review of relevant Santa Fe County plans and policies.
- Review of relevant plans and documents from other agencies.
- 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.
- Additional site visits to confirm terrain management units and the development of management recommendations.
- Mapping of findings of the Scoping/Reconnaissance and Research phases.
- Conduct second public input meeting to present first draft of vision statement, management goals, research findings, and to generate management ideas.

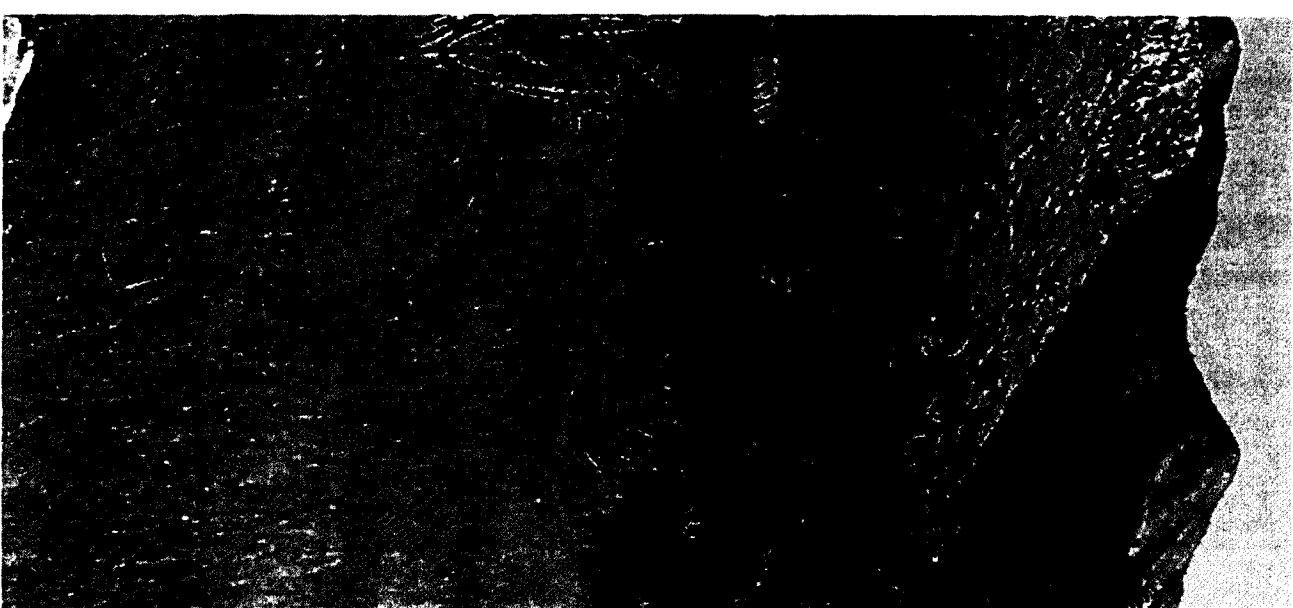
Planning Phase

- Develop initial management plan recommendations for Madrid OS planning, implementation, and maintenance.
- Conduct third public meeting to confirm the vision statement and management goals, review the components of the management plan, and identify stewardship opportunities.
- Write the first draft of the management plan.
- Review with County staff to confirm plan implementation and funding opportunities.
- Submit the draft management plan for public review and comment.
- Revise plan draft based on public comments and submit final draft plan for official approval.

PLAN UPDATING

The time scope of this Management Plan is approximately 15-20 years. Plan information is more specific for the short-term (*years 1-5*), descriptive for the mid-term (*years 6-10*), and preliminary for the long-term (*beyond 10 years*).

Changing community needs, environmental conditions, and County management capacity will lead to the need for adjustments to the plan. After the mid-term span of 10 years, this plan will need updating.





2. MADRID OPEN SPACE MANAGEMENT PLAN

2.1. Vision + Goals for Madrid Open Space Management Plan

Vision Statement

The Madrid Open Space (Madrid OS) vision statement is based on responses from community participants to these questions, such as *"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 second and third community meetings.

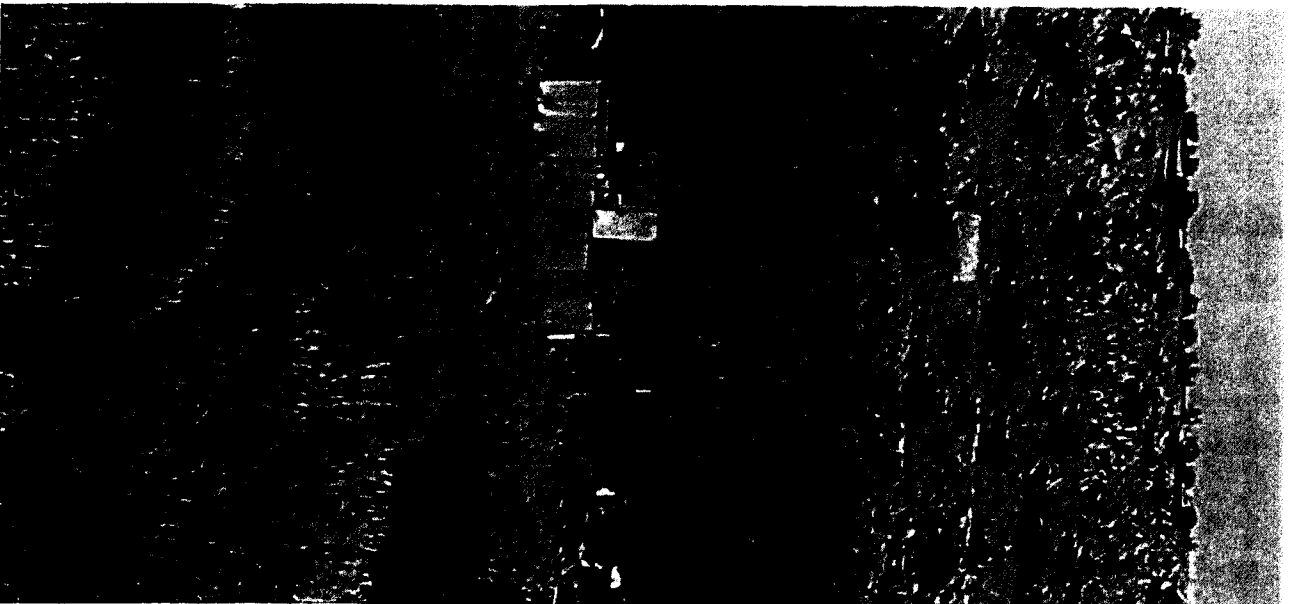
Madrid Open Space Vision Statement

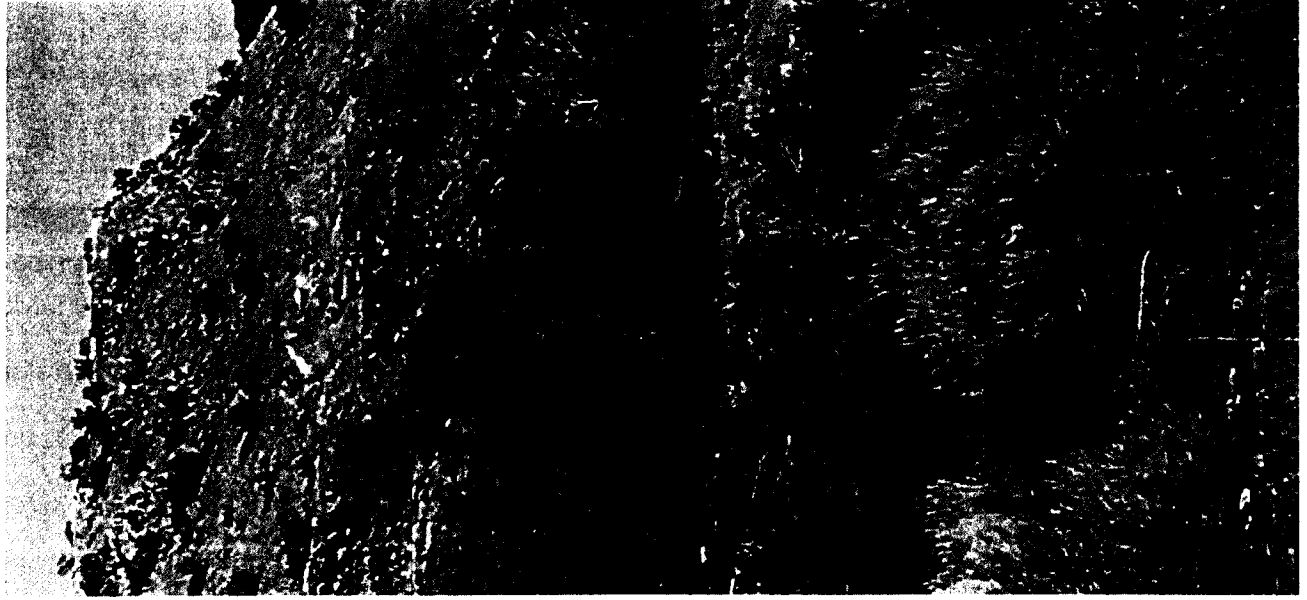
In 2025, the Madrid Open Space is a treasured part of the everyday life of the community. The Greenbelt is a place where community members walk on natural paths and connect with neighbors. Ongoing attention is paid to the way water moves through the arroyo to support native vegetation and decrease flooding and erosion. The rough and tumble remnants of the community's mining history are carefully retained in place with a few signs to tell stories about the open space history and its environment. The wilderness area is a quiet place for community members and visitors to walk and enjoy the exceptional vistas and natural landscape. Archaeological assets are protected.

The area is carefully maintained, and the community and County are engaged together in maintenance and stewardship of the land. Local materials and skills are utilized to care for the land and sustain the arroyo.

Madrid Open Space Management Goal

The Madrid Open Space Management Goal is that Santa Fe County and the Madrid community will collaboratively work to monitor, enhance, and maintain the safe functioning of the Madrid Gulch. The management goal is to be sustainable, encourage community stewardship, involve citizens in monitoring and maintenance, and protect the cultural, habitat and recreation resources of the site.





Madrid Open Space Specific Management Goals

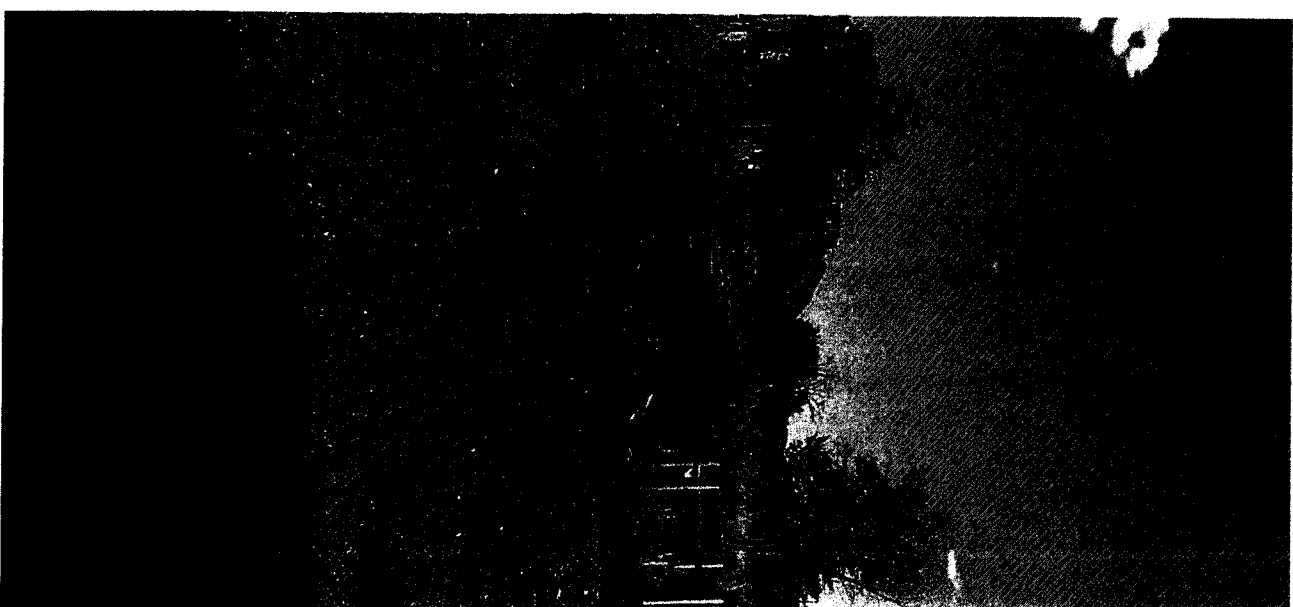
Specific management goals in support of the Madrid Open Space Vision are:

- A. **Holistic & Inclusive.** The Madrid OS is managed in an inclusive and collaborative manner through on-going consistent discussion with the community, agencies and partners about planning, implementation and maintenance activities for the site.
- B. **Ecological Health.** The ecological health and resilience of the Madrid OS is maintained through reducing risks from flood events, minimizing new impacts, and careful enhancement of the habitat.
- C. **Natural Appearance.** The Madrid OS appearance and mining history are complimented by using natural design principles and materials that reflect the history and environment of the site.
- D. **Cultural Resources.** The cultural resources on the Madrid OS are protected and preserved through appropriate boundary improvements, regular monitoring of the resources, and review with the State Historic Preservation Office.
- E. **Education.** The Madrid OS will encourage education and research about the site's role related to the local watershed, the historic resource of the site, and its environment.
- F. **Access.** The Madrid OS will manage access to balance community safety and desires for local resident uses in the Greenbelt area and County public ownership of the open space.
- G. **Site Improvements.** Site improvements such as signage, boundary markers, fencing and gates on the Madrid OS will be limited, be built of materials that fit the context of the community, and minimize impacts from the design, installation or maintenance of the improvements.

Monitoring Objective

The monitoring objective for the Madrid Open Space is to use floodplain and habitat monitoring to track the status of the floodplain and to indicate when management is needed to address changes as they arise. The monitoring data is regularly reviewed by the County to identify priority management activities and coordinate management activities with the Madrid community.

A specific floodplain monitoring plan will establish what will be measured or documented, when and where this will be done, who will do the monitoring, and what equipment or supplies are needed. The specific monitoring plan will describe the thresholds conditions that will serve to indicate whether and where the floodplain or habitat requires management actions.





2.2 Conceptual Plan

The Conceptual Plan for the Madrid Open Space (*Madrid OS*) proposes management strategies, projects and associated investments to support the Madrid OS vision. The Conceptual Plan recommends planning, implementation, and maintenance activities; and specific projects, their purposes, priorities; and a possible sequence for implementation.

The focus of the Conceptual Plan is to manage and maintain the efficient hydrologic function of the Madrid Gulch as it flows through the Madrid OS. The first action is to begin maintenance of the active arroyo flow channel in the Greenbelt section of the Open Space. The work will be a joint-effort between Santa Fe County and the Madrid community to conduct annual scheduled maintenance to remove debris, scrub patches and seedling trees in the active arroyo channel. The County with the Madrid civic entities will establish an agreed upon process to organize and implement the arroyo channel maintenance activities. This collaborative approach was identified by the Madrid community as the most effective and practical way to handle needed arroyo channel maintenance. As the relationship matures, maintenance activities could expand to include other maintenance needs within the floodplain that both parties identify as needed.

A second important project is development of a comprehensive plan for floodplain management of the Madrid Gulch as it traverses the Greenbelt and the Wilderness parcels. Because the scope and scale of this project is beyond the capabilities of the Santa Fe County Open Space program to conduct alone, identifying partner departments, agencies and groups to assist or take on parts of the project process will be necessary. In the short-term, the project activities will be to contact stakeholders; organize discussions to define the project scope and process; and identify and secure funding for the initial planning activities for the comprehensive plan. The Madrid community and other affected groups or agencies such as the NM Abandoned Mine Lands Program will be engaged for this project. Once a viable project process is identified, detailed follow-up actions will be determined and acted upon.

Site management activities beyond the floodplain will be modest. The Plan is to maintain existing improvements and trails; design and install a small number of site and educational signs; develop a monitoring plan for historic cultural resources with community partners; engage consultants to assist the community in planning and executing small habitat improvements; and formalize an access agreement to the Wilderness and install an access control gate there.



Development / Projects + Programs

The Conceptual Plan includes drainage, site infrastructure, and interpretive education projects identified during the planning process with the community. These projects will need further planning and review to establish their feasibility. Within the context of this Plan, “project” means programs and built projects.

Planning and preparation is required for all projects and programs proposed. Coordination with the State Historic Preservation Office may also be necessary for some projects.

Implementation will need to be balanced with funding, staff availability and project schedules.

Community involvement is essential for the planning, implementation and maintenance of future Madrid OS projects. Public involvement may include review and input during the project design, participation in the implementation of projects, and engagement in on-going maintenance of the site.

The following are projects prioritized by the level of effort to achieve them, the effective period to accomplish them, and their importance to the Madrid OS Vision.

Short-Term

1. **Maintenance Activities Plan.** Develop a collaborative plan with the Madrid civic entities for the on-going maintenance of the active arroyo channel and other maintenance activities for the Madrid Open Space. Establish protocols for communications, agreements, coordination of annual maintenance activities and schedules.

2. **Comprehensive Drainage Plan + Improvements (Short-Mid-Long Term)**

Develop a comprehensive floodplain management plan for the Madrid Gulch as it flows through the Madrid OS and adjacent Madrid community controlled properties.

Engineering Analysis + Preliminary Plan. Update engineering and hydrologic information to reflect current conditions and propose an integrated plan for County and Madrid community properties. A detailed recommendation for the engineering analysis scope is provided in *Appendix D - Recommendation Drainage Assessment and Preliminary Plan for Madrid Open Space*.

Design + Construction. Fund, design and construct plan improvements. The County will determine with its partners and Madrid civic entities which implementation projects can be done jointly and which can be done by a specific agency, entity or group.



3. **Wilderness Access and Control**

Formalize access and control vehicle access to the Wilderness parcel. The project should:

- establish a formal access agreement for the Wilderness maintenance road with the Madrid entities that control the parcels between State Highway 14 and the Wilderness.
- install gate to control vehicle access on the dirt maintenance road.

4. **Site Signage**

Upgrade site signage to:

- install County Open Space standard signage with open space use regulations and operations information and a bulletin board,
- design and install site identification signage,
- add small signs and boundary markers to clearly indicate open space boundaries with community owned properties and other private lands.

5. **Environmental - Habitat**

Develop small improvements that enhance and support the existing habitat. The project would include:

- opportunities to utilize low-flow arroyo water for habitat support or vegetation enhancement.
- opportunities for small-scale water harvesting and small-scale surface erosion repair.

6. **Trails Stabilization**

Repair small-scale erosion and use issues on dirt paths and trails in the Open Space. The project would include:

- developing a plan with the community on environmentally-sensitive, low-impact, accessible trail and path design and how to maintain the trails,
- implementation of open space trail repairs and stabilization with the community.

Mid - Long Term

7. **Cultural Resource Interpretation**

Develop a cultural resources interpretive plan. The project should include:

- policy recommendations on protection of scattered historic debris at Madrid OS.
- develop, design and implement a small educational interpretive signage plan for the Madrid OS.



Development - Projects Sequence

Every proposed project requires planning, research, and concept development to be well conceived, funded and implemented. The *Possible Projects Sequence* indicates a possible sequence for the Madrid OS projects identified in this Plan and the general process that each project will go through. (See the graph next page.)

The Possible Projects Sequence

The Possible Projects Sequence indicates a general estimate about the relative timing and complexity of proposed projects. The sequence also conveys the likely overall scale of effort needed to accomplish the proposed project.

The simpler and smaller the project, the shorter the likely time to fund and implement will be. The more complex and costly the project, the longer the budgeting and implementation time takes. Some projects such as major drainage improvements may require several years to secure funding. Community advocacy and support can affect project timing and implementation.

The actual project sequence and timing will vary from what is diagrammed on the chart. Projects may start earlier or later than estimated. The sequence indicates the relative time and effort it may take to prepare a project, plan and design it.

Project Identification

A. Identify the project.

B. Determine project schedule and needed level of planning /research / concept plan.

C. Identify and secure funding source for planning /research / concept plan

D. Obtain County approvals to proceed with planning /research / concept plan.

Planning + Concept Plan

E. Prepare a concept plan, a description of the project and its anticipated impacts on the community, and a preliminary schedule for the project.

F. Prepare a preliminary design and engineering plan for the project.

G. Conduct a preliminary research and design study for the project.

H. Obtain approval of the plan and schedule for the project from the County.

I. Identify and secure funding for implementation of plan, design and/or construction.

Funding for Implementation

Project Identification

A. Identify the project.

B. Determine project schedule and needed level of planning /research / concept plan.

C. Identify and secure funding source for planning /research / concept plan

D. Obtain County approvals to proceed with planning /research / concept plan.

Planning + Concept Plan

E. Prepare a concept plan, a description of the project and its anticipated impacts on the community, and a preliminary schedule for the project.

F. Prepare a preliminary design and engineering plan for the project.

G. Conduct a preliminary research and design study for the project.

H. Obtain approval of the plan and schedule for the project from the County.

I. Identify and secure funding for implementation of plan, design and/or construction.

Funding for Implementation

The *Planning/Maintenance/Improvements* chart on this page and the next, shows the transition of planning, maintenance, and improvements activities over the short term (1 to 5 years) and mid-to-long term (6 to 10 years) (long-term beyond 10 years).

Refinements to the projects and management activities will be made as necessary to achieve the intended Vision and Management Goal for the Madrid OS. Factors that may influence activities and timing are: staff availability, funding availability, management priorities, and operational or policy changes.

Short-Term

- Establish the process and protocols for County and Madrid community collaboration on arroyo channel maintenance activities.
- Begin discussions and planning with the community and potential partner agencies to fund and develop a comprehensive floodplain management and projects plan.
- Formalize an access agreement to the Wilderness and install control gates.
- Design and installation of entry sign, site signage and information board.
- Maintenance of existing site improvements, including pedestrian bridge, boundary markers, Wilderness trail.

SHORT TERM

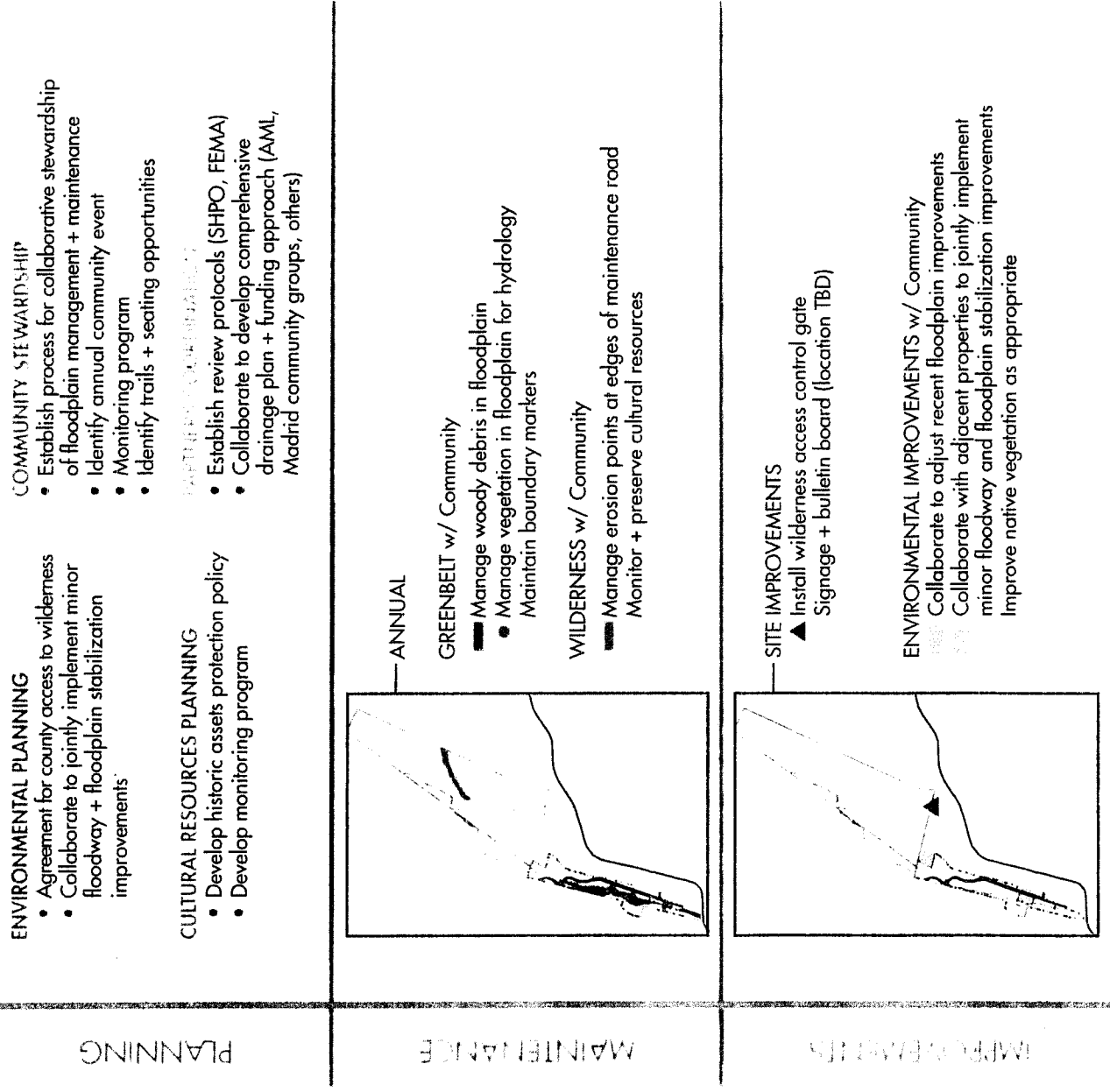


Figure 3-A. Planning/Maintenance/Improvements Diagram

MID TERM - LONG TERM

ENVIRONMENTAL PLANNING

- Fund County portion of drainage plan including improvements for headcuts A + B

COMMUNITY STEWARDSHIP

- Continue to strengthen community collaboration
- Continue to develop community monitoring + database

CULTURAL RESOURCES PLANNING

- Interpretive educational signage or materials
- Monitoring program for cultural resources

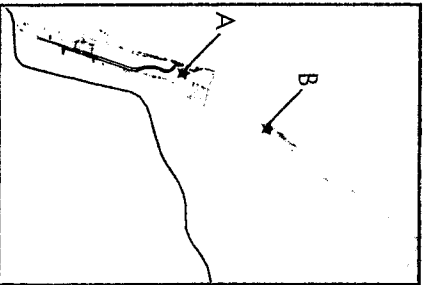
COOPERATION + COLLABORATION

- Collaborate to fund comprehensive drainage plan (AML, others)



ANNUAL / BI-ANNUAL - CONTINUE

- Remove woody debris in flood plain
- Maintain wilderness access road edge
- Maintain boundary markers
- Maintain wilderness gate and signage
- Monitor + preserve cultural resources



CONTINUE IMPROVEMENT OPPORTUNITIES

- ★ Implement plans for headcuts A, B and other floodplain improvements
- Install Interpretive educational signage (locations TBD)

Mid-Term

- Implement comprehensive floodplain management plan with a priority for erosion control improvement to address the major headcut north of Cave Road and the headcut at the north end of the abandoned floodplain on the Wilderness parcel.
- Continue County and Madrid community collaboration on maintenance and management activities.
- Continue maintenance of site improvements.

Long-Term

- Continue implementing comprehensive floodplain management plan prioritizing erosion control improvements.
- Continue County and Madrid community collaboration on maintenance and management activities.
- Continue maintenance of site improvements.
- Plan and Implement an educational interpretive signage plan for the Madrid OS.

Changing community needs, environmental conditions, and County management capacity 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 expand. After 10 years, this plan will need updating.

Figure 3-B. Planning/Maintenance/Improvements Diagram

2.3 Monitoring + Information Management

Monitoring

Monitoring will play an important role in the management of the Madrid Open Space (*Madrid OS*). There are three types of monitoring that will be done at Madrid OS.

Because of the inter-related nature of the County open space with adjacent properties, monitoring needs to be done jointly by Santa Fe County and Madrid community entities. A collaborative approach will create a more coordinated response to changing circumstances as they arise.

A. *Environmental Monitoring*

Environmental monitoring will be a specific monitoring program for erosion risks in the Greenbelt and the abandoned floodplain in the Wilderness and will be developed as part of the comprehensive floodplain management plan.

B. *Cultural Resource Monitoring*

Mapping of current observable features and a general characterization of scattered artifacts will be developed. Given limited County resources, this activity will be done by fostering local community stewardship of this activity. The County will find an appropriate community partner such as Madrid Cultural Projects or NM SiteWatch to help develop a cultural resources monitoring plan and conduct monitoring activities with community members.

C. *Maintenance Monitoring*

Maintenance monitoring is focused on repair and management of site improvements not related to the floodplain improvements. Included in this category are boundary markers, access control gates, signage and the Wilderness maintenance road. County staff will lead in this monitoring with assistance from local community civic groups.

Information Management

Santa Fe County will gradually streamline and enhance procedures that help staff and community participants to acquire, store, and share knowledge that is essential for effective management of the Madrid OS.

Maintenance Approach

The County may face challenges to meet all the maintenance needs that may arise in the future. Strategies to optimize maintenance effort include:

- collaboration with Madrid civic organizations, other agencies and community stewards to leverage the efficiency of working together,
- invest in smaller, consistent well-planned maintenance activities,
- conduct maintenance activities at the optimum time based on monitoring data or a regular schedule.

Note: The table indicates the minimum suggested monitoring 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.

2.4. Community Relations

Santa Fe County intends to develop and maintain a productive and collaborative relationship with the Madrid community and other stakeholders as a critical activity in the implementation of the Madrid Open Space (*Madrid OS*) Management Plan.

Information Exchange

Santa Fe County plans to expand and develop several methods for information distribution and exchange with community members and stakeholders.

Signage

Santa Fe County will work with the community to place appropriate signage to identify the Madrid OS property.

Website

Santa Fe County will maintain the website pages dedicated to the County Open Space & Trails program. The website may be expanded with a specific web page describing the Madrid OS landscape, history, and management plan information.

Community Contact

Santa Fe County will work with the community to identify a communication structure and methodology with community members or groups to be available to field comments and questions about the open space and to contact County staff for follow-up actions. Communication may address site maintenance, site protection, public safety measures, and in particular, collaborative Greenbelt management activities.

Madrid Community Profile

Madrid is notable for its rich history, its dominant presence in the region, and its ability to embrace change. The history of the community, its priorities, and its vision for the future are all reflected in the community's events, its organizations, and its daily life. Meetings, conventions, and other community events are held in the community, and the community is active in the region. The community is a vibrant and growing community, and it is the responsibility of the community to ensure that it remains so.

During the Madrid Open Space process, the community strongly expressed that it sees itself as a partner in the maintenance of the Madrid Open Space. They want the County to coordinate with the community. Community coordination through existing civic organizations was identified as most effective.



Only 10% of groups

-2

2.5. Terrain Unit Descriptions

Terrain Units

Terrain Management Units delineated for the Madrid Open Space are areas that share characteristics of drainage, vegetation, soil or other characteristics that are observable or have unique assets or functional uses. Management activities for arroyo channel and flood plain areas are identified in the Conceptual Plan. The remaining areas require only general management for existing elements within those zones, observation for abrupt changes and to limit improvements in the zones. These identified TMUs will facilitate the monitoring plan and future maintenance actions.

See Appendix C - Santa Fe County Open Space Management, Terrain Unit Descriptions, Madrid Open Space; August 14, 2016 for more detailed descriptions.

Active Arroyo Channel

This unit is the active arroyo channel in the Greenbelt area and typically experiences small floods several times each year. The slope of the channel is 1-2 percent overall, except north of Cave Road. Several recently created levees constrain the ability of the arroyo to disperse storm water flows into normal overflow areas. The floodplain widens north of the existing wooden pedestrian footbridge to the Cave Road crossing. Where the floodplain widens, the active channel can

overbank into adjacent land. At the north end of the Greenbelt, there is a large headcut and deep downcutting occurring in the active arroyo channel.

50-Year Floodzone

This unit makes up nearly the entire Greenbelt area. Historically, the entire area was an active floodplain. Runoff rates are moderate and high in areas where the soils are compacted by roads or trails. Several levees were built in response to flooding in 2013 and appear to be causing flow constriction.

Abandoned Floodplain

Located in the southwest area of the Wilderness, the area was historically the location of the active arroyo channel. The active channel was diverted to the west to enable ore processing and, as a result, historical artifacts are widely scattered in the landscape in this unit. The soils and the vegetation are largely the same as in the 50-year Floodzone. A small active headcut is located on the north end of this zone where the abandoned floodplain meets up again with the active channel.

Concentration Of Cultural Resources

This unit consists of historic coal gob piles, which are low-grade coal waste mounds. These gob piles are a historic feature in the Madrid Historic District and will need to be protected from detrimental effects and

retained as part of the historic landscape of the site. Vegetation cover in the gob piles is sparse to non-existent due to high soil temperatures and lack of organic matter. The primary land use is conservation and archaeological values.

Heavily Impacted Area – Sparse Vegetation

This heavily impacted unit in the Wilderness area is a result of significant disturbance from roads, historic rail beds, and on-going foot and vehicle traffic. Runoff rates are high where soils are compacted by roads or trails except in the Church lot where the soil compaction and runoff are low.

Piñon Juniper Savanna Unit

The Piñon-Juniper Savanna Unit consists of moderate to steep slopes located in the Wilderness area on the northern portion of the Open Space. Soil erosion potential is very high in areas that are disturbed by off-road vehicles and along the steep hiking trail.

Rock Outcrop

The Rock Outcrop is in the north Wilderness area and consists entirely of bedrock material of sedimentary rock located in the wilderness area on the north section of the property. Vegetation is composed of sparse juniper and varieties of grama grasses, galleta, and Indian Ricegrass. A barely visible dirt route provides pedestrian access to the outcrop.



2.6. Plan Implementation and Financing Mechanisms

Plan implementation will start with identified priorities for projects and tasks, and be balanced with staff capacity and funds available to accomplish the tasks.

Implementation of this plan will begin upon approval of the Madrid Open Space Management Plan by the Santa Fe County Board of Commissioners.

A matrix of recommended management activities over the short, mid, and long term phases is contained in *Overall Management Activities Matrix for Madrid Open Space* (see *Appendix A*).

Year-1 Implementation

Recommended implementation activities for Year-1 are outlined below.

Community Relations

- a. Meet with the Madrid community civic entities to identify a community liaison group to work with the County to distribute information and help coordinate maintenance and planning for the Madrid OS.
- b. Coordinate with the community liaison group to identify maintenance activities for Year-1.
- c. Meet with the general community to:
 - update on-site County activities,
 - review the status of Madrid OS prioritized projects, review and assess the outcome of Year-1 activities and evaluate priorities for Year-2.

Operations + Monitoring

- a. Integrate recommendations for maintenance monitoring into County staff schedules, and budgets.
- b. Identify appropriate community groups who can assist with cultural resource monitoring and headcut erosion at critical locations after storm events with County staff and establish process to implement that monitoring.

Planning Projects

- a. Begin planning and budgeting for a comprehensive floodplain management plan and projects for the Madrid OS. Initial Year-1 tasks are:
 - consult with possible partner agencies on requirements for drainage plan,
 - explore opportunities for match funding or grants from AML and other agencies,
 - develop engineering scope (see Appendix D - Recommendation Drainage Assessment and Preliminary Plan for Madrid Open Space),
 - begin discussion with adjacent landowners on drainage planning process.
 - b. Formalize access agreement for Wilderness through parcels controlled by the Madrid Landowners Association and Madrid Volunteer Fire Fighters.
 - c. Design and install access control gate for Wilderness parcel.
 - d. Evaluate, design and install additional boundary markers, and open space signage.
- Maintenance Activities***
- a. Schedule and conduct open space maintenance activities with community liaison group.
 - b. Evaluate soundness of wooden components of the bridge, and repair or replace as needed.
 - c. Discuss and encourage the private owners of Cave Road Easement to establish a process the owners can use to keep the double culverts clear of debris.



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 all the management goals for the properties. Santa Fe County will be able to implement this plan, 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. This collaborative approach will reduce the need for outside funding for property management and it will help build neighborly relationships and increase buy-in from and stewardship by the people with the greatest interest in the property.

Santa Fe County will pursue funding sources and explore creative funding mechanisms to ensure the financial viability of managing the Madrid OS according to the recommendations of this Management Plan. (See *Table 2 on the next page.*)

Table 2. Potential Funding Sources / Mechanisms & Collaborations



MADRID OPEN SPACE MANAGEMENT PLAN APPENDICES (*Separate document*)

- APPENDIX A: Overview of Management Activities Matrix for Madrid Open Space
- APPENDIX B: New Mexico Abandoned Mine Lands, Madrid's Mining Landscape, Reports + Web Links
- APPENDIX C: Terrain Management Units Descriptions for Madrid Open Space
- APPENDIX D: Recommendation for Madrid Open Space: Drainage Assessment and Preliminary Plan Scope
- APPENDIX E: National Historic District Registration Madrid District, Santa Fe County, New Mexico



EXHIBIT

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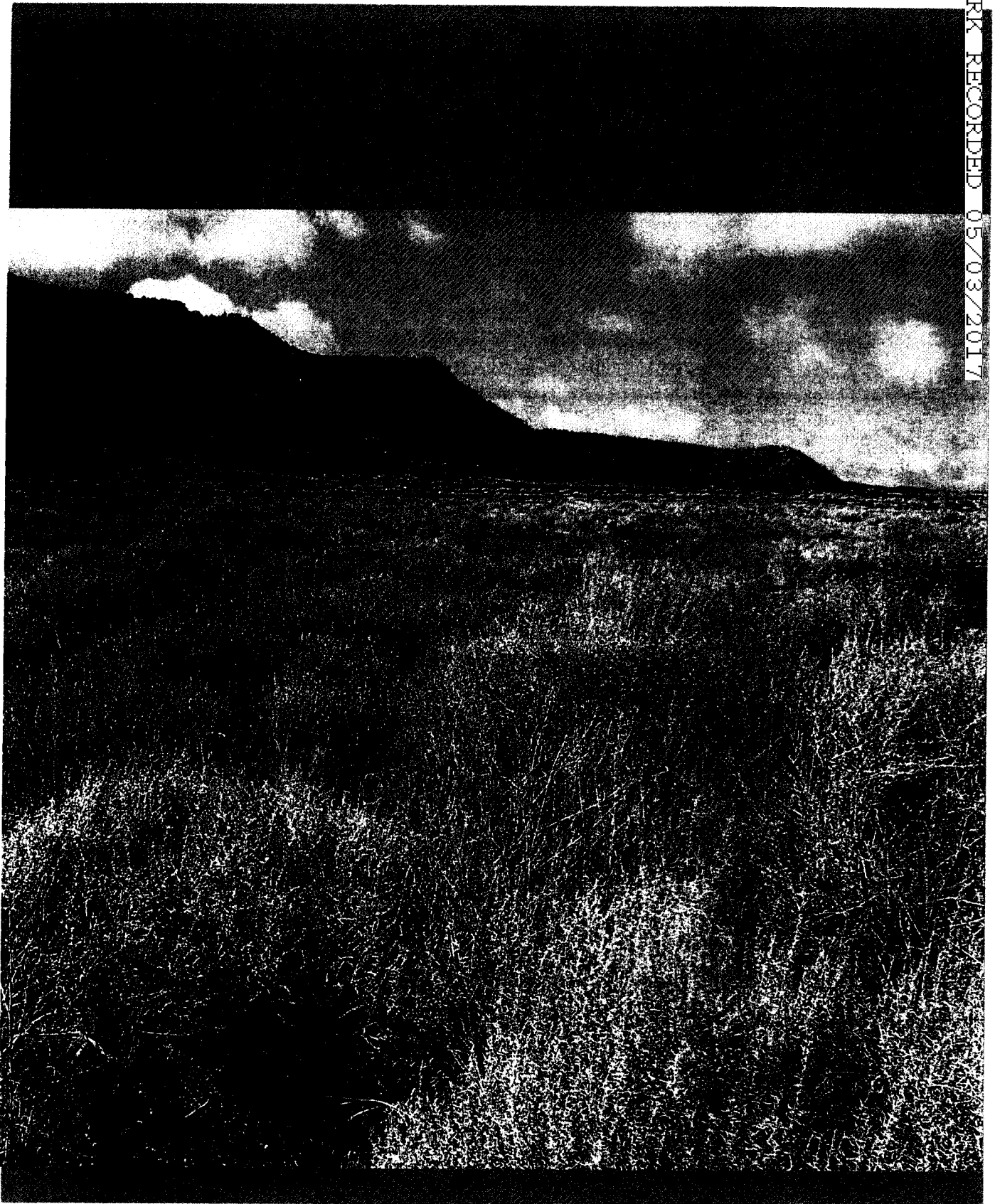
MADRID OPEN SPACE MANAGEMENT PLAN - APPENDICES

- APPENDIX A: Overview of Management Activities Matrix for Madrid Open Space
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APPENDIX D: Recommendation for Madrid Open Space: Drainage Assessment and Preliminary Plan Scope
APPENDIX E: National Historic District Registration Madrid District, Santa Fe County, New Mexico

APPENDIX A

Overview of Management Activities Matrix Madrid Open Space

APPENDIX A



This matrix is a comprehensive overview of maintenance activities, proposed projects, planning activities and community stewardship activities for the Madrid Open Space. Projects and activities are clustered by type of activity Planning/Maintenance/Improvements. Then, the projects are prioritized in each cluster based on Short, Mid and Long Term using an numbering system.

Short Term = 1.0 Series numbers

Mid-Term = 2.0 Series numbers

Long-Term = 3.0 Series numbers

Madrid OS	# (Term and Priority)	Project or Management Activity	Objective or Purpose	Location Code (See TMU Codes)	Actor	Timeline Short=ST Mid=MT Long=LT	Recurring (R) or Not Recurring (NR)	Labor and Cost Estimates	Funding Source
Planning	1.1	Develop and implement protocols for maintenance work, team coordination, and ongoing fund identification and acquisition	All management goals (effective management)	Entire property	Planning staff	ST-MT-LT	R	TBD (20 h/y)	GF
	1.2	Plan and implement Madrid stewardship structure and activities on debris and vegetation management in floodway	Holistic & Inclusive / Education / Ecological Health	Entire property	Planning / Community Services / SFC M (Crew)	ST-MT-LT	R	TBD (80 h/y)	GF
	1.3	Develop collaboration group for comprehensive floodplain management plan Include: Madrid entities, State or Federal agencies	Access Management / Ecological Health / Public Safety	Entire property	Planning & Projects staff	ST-MT	NR	TBD (60 h/y)	CIP/GF
	1.4	Contract for updating of floodway assessment and engineering.	All management goals (effective management)	Entire property	Planning staff	ST	NR	TBD (60 h/y)	CIP /GF
	1.5	Develop a detailed erosion monitoring plan and gather base-line data	All management goals (effective management)	Entire property	Planning staff	ST	NR	TBD (60 h/y)	GF
	1.6	Negotiate access agreement or MOU for Wilderness.	Access Management / Ecological Health / Public Safety	Wilderness	Planning staff	ST	NR	TBD (20 h/y)	GF
	1.7	Develop park entry sign, site management signage and bulletin board for Greenbelt and Wilderness	Holistic & Inclusive / Public Safety / Education	Access points	Planning & Projects staff	ST	NR	TBD (25 h/y)	GF
	1.8	Develop cultural resource monitoring and protection plan	Cultural Resources / Public Safety	Entire property	Planning	ST-MT	NR	TBD (20 h/y)	CIP/Grants/GF
	2.1	Identify, fund and design prioritized erosion control improvements	Access Management / Ecological Health / Public Safety	TBD	Planning & Projects staff	MT-LT	NR	TBD (80 h/y)	CIP/Grants/GF
	2.2	Plan and implement interpretive education plan and improvements.	Holistic & Inclusive / Education /	Entire property	Planning &	MT-LT	NR	TBD (60 h/y)	CIP/GF
	3.0	Complete signage project, trailhead facility improvements	Public Safety / Education / Public Safety				NR	TBD (60 h/y)	CIP/Grants/GF

Madrid OS	# (Term and Priority)	Project or Management Activity	Objective or Purpose	Location Code (See TMU Codes)	Actor	Timeline Short=ST Mid=MT Long=LT	Recurring (R) or Not Recurring (NR)	Labor and Cost Estimates	Funding Source
Maintenance	1.1	Communication & outreach with neighbors and stakeholders; integrate feedback in planning	Holistic & Inclusive Management	Entire property	SFC-M (Crew) and Planning staff	ST-MT-LT	R	Annually (or more often)	GF
	1.2	Review Cave Road crossing culverts with easement holders and encourage clearing as needed by easement holders	Public Safety / Ecological Health	Cave Road	SFC-M (Crew) and Planning Staff	ST-MT-LT	R	Twice annually: 4 hr for 2 people (8 hr/yr)	GF
	1.3	Monitoring of erosion points as per a detailed erosion monitoring plan	Public Safety / Ecological Health	Entire property	SFC-M (Crew) and volunteers	ST-MT-LT	R	Twice annually: 2 days for 2 people (32 hr/y)	GF
	1.4	Monitor debris and vegetation buildup in floodway for collaborative maintenance with community entities	Ecological Health / Public Safety / Access Management	Floodway	SFC-M (Crew) and Planning Staff	ST-MT-LT	R	Twice annually: 2 days for 2 people (32 hr/y)	GF
	1.3	Monitoring walking trails with communities entities for collaborative management activities	Public Safety / Ecological Health	Entire property	SFC-M (Crew) and volunteers	ST-MT-LT	R	Twice annually: 2 days for 2 people (32 hr/y)	GF
	1.5	Inspect pedestrian bridge for materials soundness and safety	Public Safety / Access Management	Pedestrian bridge	SFC-M (Crew)	ST-MT-LT	R	1 h for 4 person (4 h/y)	GF
	1.6	Inspection and repair of boundary markers, gates, and site signs	Public Safety / Access Management	Entire property	SFC-M (Crew)	ST-MT-LT	R	Annually, up to 1 days for 2 people (16 h/y) + supplies TBD	GF
	2.1	Continue maintenance as per above	Ecological Health / Public Safety / Access Management	Entire property	SFC-M (Crew) or volunteers	MT-LT	R	Annually	GF, VOL
	2.2	Monitor and repair as needed erosion and floodway improvements	Ecological Health / Public Safety / Access Management	Entire property	SFC-M (Crew) or volunteers	MT-LT	R	Annually	GF, VOL
	3.1	Continue maintenance as per above	Access Management				R	Annually	GF, VOL
Improvements	1.1	Install park sign, site management signs and bulletin board	Public Safety / Access Management / Ecological Health	Greenbelt & Wilderness access points	SFC-M (Crew) or contractor	ST	NR	TBD, based on plan and bid	CIP
	1.2	Implement prioritized erosion and floodway improvements identified in comprehensive floodway management plan	Public Safety / Access Management / Ecological Health	Entire property, along boundaries	SFC-M (Crew) or contractor	ST-MT-LT	NR	TBD, based on plan and bid	CIP, grant
	2.1	Install interpretive education improvements	Education / Access Management / Ecological Health	Entire property	Contractor	ST-MT	NR	TBD, based on plan and bid	CIP, grant
	2.2	Continue to implement prioritized erosion and floodway improvements identified in comprehensive floodway management plan	Public Safety / Access Management / Ecological Health	Entire property	SFC-M (Crew) or contractor	ST-MT-LT	NR	TBD, based on plan and bid	CIP, grant
	3.1	Continue to implement prioritized erosion and floodway improvements identified in comprehensive floodway management plan	Public Safety / Access Management / Ecological Health	Entire property	SFC-M (Crew) or contractor	ST-MT-LT	NR	TBD, based on plan and bid	CIP, grant

APPENDIX B

New Mexico Abandoned Mine Lands Madrid's Mining Landscape Reports + Weblinks

APPENDIX 3



MADRID'S MINING LANDSCAPE REPORTS + WEBLINKS

New Mexico Abandoned Mine Landscapes

Madrid's Mining Landscapes

Reports + Weblinks

The Madrid Mining Landscape Project that was initiated by the New Mexico Abandoned Mines Land Program (AML). This project helped to identify many of the central concerns regarding drainage and floodplain issues in the Madrid Open Space. The Madrid community participated heavily in this process. The community expressed during the Madrid Open Space Management Plan process strong disappointment that improvements in that plan were not achieved. They felt the AML plan did capture their community hopes. The AML reports are important background reference for any future planning of erosion and flood plain improvements in the Madrid Open Space.

DESCRIPTION OF MADRID MINING LANDSCAPES REPORTS + WEBLINKS

AML undertook the Madrid Mining Landscapes project to address the legacy of coal mining in Madrid. AML created a community-based plan to comprehensively address the environmental impacts of coal mining on Madrid's landscape. Over an eighteen month period in 2010 and 2011, a plan was articulated. Three reports resulted from that process.

The Task One Report summarized the process and strategy for implementing a community plan. It also presented precedent projects in other communities that could be useful to developing solutions in Madrid. The Task Two Report focused on the results of the three community meetings held in 2010. The Task Three Report has four parts:

1. Introduction – Overall summary of the project's goals and objectives
2. Community Outreach – Summary of the results of the community input and meetings
3. Proposed Projects – Detailed discussion of two watershed restoration/stormwater management projects including existing conditions, objectives and reclamation strategies
4. Implementation Steps – General overview of the community and agency roles and responsibilities for successful completion of the proposed projects.

Copies of these reports can be accessed at: <http://www.nm.madridmininglandscape.org/projects.html>

APPENDIX

Santa Fe County Open Space Management Terrain Management Units Descriptions for Madrid Open Space

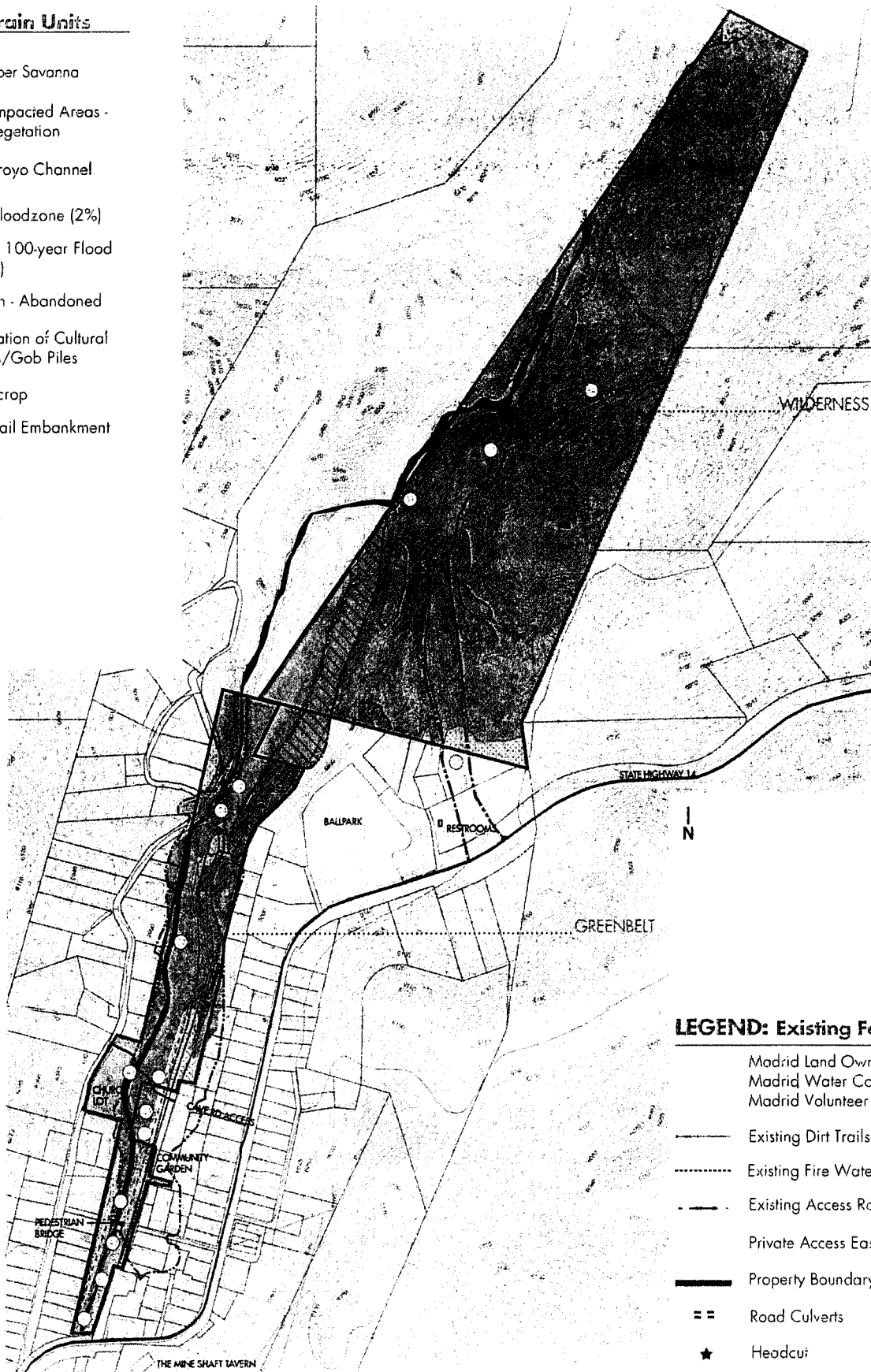
August 2015

APPENDIX C



LEGEND: Terrain Units

-  Piñon-Juniper Savanna
-  Heavily Impacted Areas - Sparse Vegetation
-  Active Arroyo Channel
-  50-year Floodzone (2%)
-  Boundary 100-year Flood Zone (1%)
-  Floodplain - Abandoned
-  Concentration of Cultural Resources/Gob Piles
-  Rock Outcrop
-  Historic Rail Embankment



LEGEND: Existing Features

- Madrid Land Owners Assoc.
- Madrid Water Cooperative
- Madrid Volunteer Fire Dept.
-  Existing Dirt Trails
-  Existing Fire Water Line
-  Existing Access Road
-  Private Access Easement
-  Property Boundary
-  Road Culverts
-  Headcut

MADRID OPEN SPACE TERRAIN MANAGEMENT UNIT DESCRIPTIONS

August 16, 2016

Terrain Units delineated for Madrid Open Space are areas that share characteristics of drainage, vegetation, soils that are observable or have unique assets or uses. On the following pages are descriptions of each Terrain Unit.

Recommendations for general elements for monitoring for each TMU are noted. A detailed erosion and habitat monitoring plan will be developed for the Madrid Open Space with the comprehensive erosion management and improvements plan.

For monitoring and maintenance recommendations.

*) Asterisk means: Monitoring could be done with volunteers

PIÑON JUNIPER SAVANNA UNIT (M-WOO)

The Piñon-Juniper Savanna Unit consists of moderate (5% to 25%) to steep slopes (up to 55%) that fall mostly in the Wilderness area on the northern portion of the Open Space with exception of a small strip of land west of the Ballpark. The soils of this unit are very gravelly and sandy with a shallow profile of 2 inches or less before reaching bedrock on the mesas, hills and ridges. There are also a few areas of deeper soils interspersed that include loamy soils. Stormwater runoff rates vary from low to moderately high with a few rock outcrop areas that have low permeability. Soil erosion potential is very high in areas that are disturbed by off-road vehicles, have poorly designed and/or maintained roads and trails, and where the gravel component of the soils gets removed. A steep trail leading to the Rock Outcrop unit demonstrates how high soil erosion rates occur when trails are built directly up hillslopes. The grassland plants consist primarily of galleta, blue and sideoats grama, Indian ricegrass and sand dropseed. The tree and shrub component is dominated by One-seed juniper. Piñon trees can be found on cooler, north-facing slopes. Piñon are probably becoming less common with climate change. Cholla, pricklypear cactus and four-wing saltbush occur in patches, often in areas that have been disturbed. Common wildlife sightings include birds such as curve-billed thrasher, western and mountain bluebirds, and piñon jay. Bobcat, coyote, and mule deer can also be found.

The present land use is for conservation and non-vehicular traffic on trails. There is an unpaved maintenance road through the property and some good examples of erosion control in the fill slope of the road where small rills and gullies have developed. Any new trails need to avoid steep slopes and be constructed to prevent erosion.

Monitoring:

- Inspect trails (especially the one leading to the rock outcrop area) for hazardous soil erosion and an uneven tread.*
- Look for indications of illegal waste dumping and off-road vehicle use.*
- Wildlife and plant species richness*

Maintenance:

- Construction of fence and gate access to the Wilderness area on the south side of the unit to prevent unwanted vehicular access and illegal dumping.
- Maintain and add erosion control structures to the fill slope along the existing road to prevent erosion.*

ROCK OUTCROP (M-ROC)

The Rock Outcrop area consists entirely of bedrock material of sedimentary rock. The soils are thin to non-existent. Runoff rates are very high. Vegetation is composed of sparse juniper and varieties of grama grasses, galleta, and Indian ricegrass. The primary land use is conservation and pedestrian access for the great view. The land is suitable for limited non-motorized vehicle access on the maintained trail.

Monitoring:

- Inspect the trail segment to the top of the rock outcrop for soil erosion and uneven treads.*
- Wildlife and plant species richness*

Maintenance:

- Maintain or reroute trail segment to the top of the rock outcrop to prevent and avoid erosion.

CONCENTRATION OF CULTURAL RESOURCES (M-CUL)

Lands in this unit consist of historic artifacts and coal gob piles which consist of low grade coal waste mounds. Runoff from the gob piles tends to be acidic, though the higher pH of the native soils tend to neutralize the acidic runoff so that impacts tend to be localized. Vegetation cover in the gob piles are very sparse or non-existent because the soil temperatures can get very hot and the lack of organic matter prevents water retention for recruiting new plants. The primary land use is conservation and archaeological values.

Monitoring:

- Observe existing historic dump areas do not grow because of contemporary illegal dumping.*

Maintenance:

- The gob piles on the Open Space are historic features of the site and are to be protected in situ with no active management.

HEAVILY IMPACTED AREAS – SPARSE VEGETATION – (M-IMP)

The heavily impacted unit consists of lands in the Greenbelt area with significant disturbance from roads, historic railbeds, and on-going foot and vehicle traffic. One area of less disturbance is located in the Church lot. The soils consist of alluvium that are well drained and are coarse-to-medium textured with slopes of 1 to 5 percent. Runoff rates are high in areas where the soils are compacted by roads or trails except in the Church lot where the soil compaction and runoff are low. Soil erosion is a concern in some areas where roads and trails come close to steep banks of the Madrid floodway. Areas of particular concern for soil erosion are the dirt road west of the arroyo road crossing on Cave Road and the roads on both sides of the Madrid arroyo at the south side of the property near the Highway 14 crossing. Trees and shrubs found include four-wing saltbush, few junipers, algerita, chamisa, cholla and pricklypear cactus. Grasses include blue and sideoats grama, needlegrass, sand dropseed, and galleta. Non-native and invasive plants can also be found including Siberian elm and kochia.

The present land use is focused on vehicle traffic and trails. Undesirable land uses include motorcycle and ATV recreational uses of trails and roads and dumping of yard waste and garbage. The unit has suitable for limited recreational trails.

Monitoring:

- Monitor for larger invasive plants such as Siberian elm and remove them if needed.*
- Observe to make sure yard waste and garbage does not get dumped in the area.*
- Watch for major erosion patterns coming from roads and trails and causing arroyo bank erosion or flooding hazards. *
- Wildlife and plant species richness*

Maintenance:

- Identification, avoidance, or cleanup of scattered historical artifacts that may constitute a safety hazard (rusty metal, etc.)

ACTIVE ARROYO CHANNEL (M-ARR)

The active arroyo unit makes up the land inside the channel that typically floods several times each year. The soils consist of moderately to rapidly draining alluvium with coarse gravels and medium textured sands. The slope of the channel is 1-2 percent overall with a very steep section immediately below the Cave Road crossing. Several poorly-sited levees have been installed which constrain the ability of the arroyo to disperse stormwater flows into appropriate areas and this has led to bank erosion, particularly in the west river bank by the Church lot. The floodplain access is very narrow for most of the property which leads to high erosion rates on the arroyo banks and causes excessive force by the stormwater on the channel bed. The exception to generally narrow floodplain access occurs in the stream segment downstream of the pedestrian footbridge and upstream of the Cave Road crossing where the active channel can go overbank into adjacent areas. The two culverts for the Cave Road crossing are undersized for the magnitude of floods and one of the culverts is currently clogged. The trees that can be found include Siberian elm, chamisa, and some four-wing saltbush. Grasses and forbs include yellow sweet clover, kochia, and Canadian wildrye. Dense growth of woody vegetation inside the active channel, particularly Siberian elm, is undesirable as soil erosion in the arroyo banks and flooding increases when the channel becomes filled with trees.

The present land use is for conservation and conveying stormwater flows. The unit is suitable primarily for floodplain protection and very limited recreation. The active channel is suitable for informal trails crossings over the arroyo from one side of the floodplain to the other side.

Monitoring:

- Keep an eye out for undesirable stands of Siberian elms particularly in the areas with narrow floodplain access such as the Highway 14 and Cave Road crossings.*
- Watch for major erosion patterns cutting into stream banks and for vertical soil erosion cutting down into the active channel.*
- Observe to make sure yard waste and garbage does not get dumped and gets removed. *
- Wildlife and plant species richness*

Maintenance:

- Develop a long-term floodplain maintenance plan.
- Regularly observe and remove debris from the Cave Road culverts.*
- Cut back the profile of a stormwater culvert to match the bank profile on the east side of the arroyo just downstream of Highway 14 crossing to reduce soil erosion problems downstream.
- Remove Siberian elms growing directly in active channel as needed.*

50-YEAR FLOODZONE (M-50Y)

This unit makes up nearly the entire Greenbelt area and includes a significant portion of land on the east side of Madrid that is adjacent to the Open Space. The soils are made up of coarse to fine textured materials with slopes of 1 to 5 percent. Historically the entire area was in or near the active floodplain so the soils consist mostly of alluvium that are well drained. Runoff rates are high in areas where the soils are compacted by roads or trails, otherwise the stormwater runoff is moderate in less impacted areas. Hydrologically this area is projected to flood every 50 years but future flooding may occur more often since weather projections during climate change suggest that storms may bring more intense rainfall in the coming years. Levees have been built in response to flooding in 2013 in several locations and these have caused erosion problems and may cause flooding damage to adjacent properties and built infrastructure. Two stands of white poplar (sometimes confused with cottonwoods) grow just downstream of the Highway 14 crossing and just east of the Cave Road crossing. Non-native trees and grasses include Siberian elm, tamarisk or salt cedar and cheatgrass. Native shrubs include algerita, chamisa, four-wing saltbush, and American currant. Grasses include blue and sideoats grama, sand dropseed, galleta, and Indian ricegrass. Common wildlife sightings include birds such as curve-billed thrasher, western and mountain bluebirds, and piñon jay. Bobcat, coyote, and mule deer can also be found. Great Horned Owls have been noted as nest

Historic land uses include the railway to carry coal for processing and dumping of mining waste. Current land uses include vehicular traffic on Cave Road, trails, dog walking, and access to the Community Garden. Undesirable land uses include dumping of yard waste, off-road vehicle use and poorly managed/coordinated construction of levees. The land is suitable for trails for non-vehicular traffic and conservation, particularly to convey flood flows and protect the floodplain from residential or commercial development.

Monitoring:

- Observe to make sure yard waste and garbage does not get dumped in area and act to remove. *
- Watch for major erosion patterns cutting into stream banks.*
- Monitor for construction of any new floodplain earthworks that could lead to soil erosion and flooding problems.
- Wildlife and plant species richness.*

APPENDIX
Recommendation for
Drainage Assessment + Preliminary Plan Scope
for Madrid Open Space

SFC CLERK RECORDED 05/03/2017



RECOMMENDATION DRAINAGE ASSESSMENT AND PRELIMINARY PLAN SCOPE FOR MADRID OPEN SPACE

Project Objectives

The project includes assessment and preliminary design services for the Santa Fe County Open Space parcels located within Madrid, NM. The assessment and preliminary design will focus on the Madrid Gulch arroyo channel and associated floodplain corridor. The main objectives of the project are to develop a holistic plan to improve channel and floodplain function, improve public safety, and improve property protection along the corridor, while maintaining the distinct character of the community of Madrid.

Project Scope Outline

A formal scope of work will be developed after consultant selection. The consultant contract for assessment and preliminary engineering is expected to include the following elements:

- Literature Review & Field Inventory
 - Compile and review existing studies completed by AML, the County, and their consultants.
 - Complete a detailed supplementary survey of the project reach corridor to augment the existing County topographic dataset and develop a contour basemap for design.
 - Complete a stream inventory of the arroyo, as required, to characterize stream morphology, to evaluate stream channel stability, and to determine stream potential. Stream inventory may include geomorphic surveys (dimension, pattern, & profile), pebble count and bar sample collection, and the collection of stream stability indices (vegetation, flow regime, Pfankuch stability rating, etc.).
- Geomorphic and Hydraulic Analysis of the Channel
 - Complete Bank Assessment for the Non-point source Consequences of Sediment (BANCS) model to predict streambank erosion rates and quantities.
 - Complete stream channel succession predictions.
 - Complete a hydraulic assessment of the existing and proposed channel to determine velocity, shear stress, and stream power relationships.
 - Complete sediment modeling to determine competence, entrainment, and transport capacity for the existing and proposed channels.
 - Develop channel improvement plans using an appropriate combination of analog, empirical, and analytical methodologies.
- Hydraulic Analysis of the Floodplain
 - Evaluate the existing conditions flood extents for a range of flows including effective discharge/bankfull, 2, 5, 10, 25, 50, and 100 year flows.
 - Evaluate the proposed conditions flood extents including channel and floodplain improvements for the same range of flows. Floodplain improvements may include the strategic removal and or/ relocation of floodplain impediments such as berms or historical artifacts, the construction of flood protection embankments on the edge of the floodplain, and/or the creation of flood relief diversions to an abandoned/historic reach of the arroyo located along the east side of the project area.

- Other Analysis
 - o Culvert/road crossing improvement.
 - o Pedestrian access.
 - o Integrated low impact drainage design for stormwater entering the open space from offsite.
 - o Utility design coordination.
 - o Invasive species management and native re-vegetation potential.
- Feasibility-Level Design and Community Outreach
 - o Based on field inventory and analysis, complete feasibility level plans and costs.
 - o Feasible alternatives will be evaluated during the preliminary design process and will be presented to the community for review as part of collaborative process lead by the County.
- Preliminary Design and Community Outreach
 - o Based on feedback from the County and community, develop an integrated, holistic preliminary plan and present to the community.
- Other Work Elements
 - o Identify all Local Agency, State and Federal permits that will be required as well as right of way needs.
 - o Identify Potential Funding Sources
 - o Aid the County in developing a phased implementation plan to complete the final design and construction for the entire corridor.

The consultant is to address the many challenges in working in this sensitive historic area. Such issues and constraints include Madrid's listing on the National Register of Historic Places and the prevalence of culturally significant objects within the study corridor, proximity of public and private property to the active channel and floodplain; and private and public access. It is expected that the consultant will need to provide creative solutions to these issues to meet the project objectives.

Qualifications

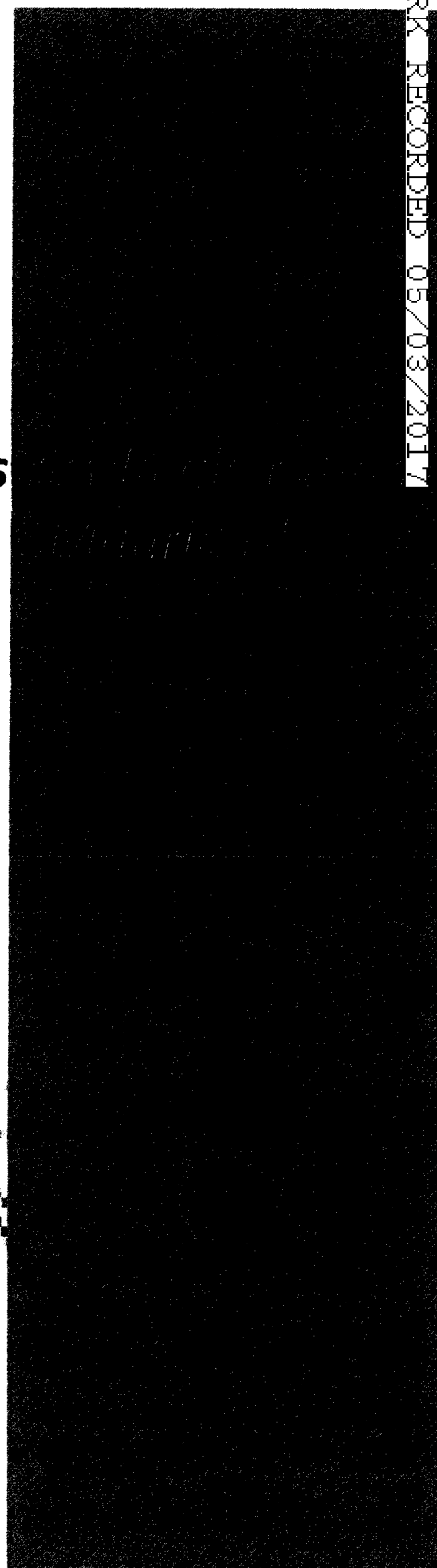
This project will require the firm to have the following qualifications:

- Five (5) or more years of related experience.
- Experience working with municipal and regulatory entities.
- Familiarity with the Madrid community dynamics.
- Extensive experience working with public outreach including effective communication with private property owners, special interest groups and other stakeholders.
- Experience with Low Impact Development (LID) and Natural Channel Design (NCD) practices.

APPENDIX

National Historic District Registration Madrid District Santa Fe County, New Mexico

APPENDIX E



UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICENATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

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RECEIVED NOV 16 1976

DATE ENTERED NOV 9 1977

SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS**1 NAME**

HISTORIC

Madrid Historic District

AND/OR COMMON

CO 356

2 LOCATIONSTREET & NUMBER Approximately 25 miles southwest of Santa Fe, New Mexico
on State Highway #14.

CITY, TOWN

Madrid

VICINITY OF

NOT FOR PUBLICATION
CONGRESSIONAL DISTRICT

#1

STATE

New Mexico

CODE
35COUNTY
Santa FeCODE
049**3 CLASSIFICATION**

CATEGORY

☒ DISTRICT☐ BUILDING(S)☐ STRUCTURE☐ SITE☐ OBJECT

OWNERSHIP

☐ PUBLIC☒ PRIVATE☐ BOTH

PUBLIC ACQUISITION

☐ IN PROCESS☐ BEING CONSIDERED

STATUS

☒ OCCUPIED☐ UNOCCUPIED☐ WORK IN PROGRESS

ACCESSIBLE

☒ YES: RESTRICTED☐ YES: UNRESTRICTED☐ NO

PRESENT USE

☐ AGRICULTURE☒ COMMERCIAL☐ EDUCATIONAL☐ ENTERTAINMENT☐ GOVERNMENT☐ INDUSTRIAL☐ MILITARY☒ MUSEUM☐ PARK☒ PRIVATE RESIDENCE☐ RELIGIOUS☐ SCIENTIFIC☐ TRANSPORTATION☐ OTHER:**4 OWNER OF PROPERTY**

NAME

Various private property owners

STREET & NUMBER

CITY, TOWN

Madrid

VICINITY OF

STATE

New Mexico

5 LOCATION OF LEGAL DESCRIPTIONCOURTHOUSE
REGISTRY OF DEEDS, ETC.

Santa Fe County Clerk's Office

STREET & NUMBER

CITY, TOWN

Santa Fe

STATE

New Mexico

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

New Mexico State Register of Historic Properties

DATE

December 6, 1974

☐ FEDERAL ☒ STATE ☐ COUNTY ☐ LOCALDEPOSITORY FOR
SURVEY RECORDS

State Planning Office, 505 Don Gaspar

DESCRIPTION

CONDITION

— EXCELLENT
 X GOOD
 — FAIR

— DETERIORATED
 — RUINS
 — UNEXPOSED

CHECK ONE

— UNALTERED
 X ALTERED

CHECK ONE

X ORIGINAL SITE
 — MOVED DATE _____

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Situated in a deep gulch amid the arid, cactus covered foothills of the Ortiz Mountains in central New Mexico, the village of Madrid is an excellent example of a company-owned western coal mining town. The townsite, which is twenty-five miles southwest of Santa Fe and forty miles northeast of Albuquerque, is bisected by New Mexico Highway #14 which runs along the bottom of the gulch and is also the community's main street where the buildings which housed the coal company offices, general store and more impressive residences are located. Running parallel to Main or Front Street and across the railroad right of way to the west is Back Street, the town's other thoroughfare on which most of the miners' houses still stand. Besides the townsite, the Madrid Historic District also includes the tipples, breakers, mine shafts, powder houses and auxiliary structures erected on both sides of the gulch when the mines were in production.

Except for some small operations which continued into the 1960's, the mines have been closed since 1954 and the town has been all but abandoned for twenty years. The years of disuse and neglect have taken their toll, and it is largely due to the dry climate that the structures have been preserved. There has been considerable settling of the buildings, but they are still in relatively good structural condition and are generally reparable, which is evidence of the quality of the original construction. Recently many of them have been sold and the new owners are undertaking extensive rehabilitations.

During the early years, the few miners conducting independent operations in the gulch constructed small stone and adobe houses whose foundations can still be seen on the hillsides outside the Historic District. Although Madrid became a town on its present location with the advent of the railroad spur into the gulch in 1892, it was not until control of the mines passed to the Colorado Fuel and Iron Company in 1896 that the community began its long history of monolithic company control. Dominated by the Rockefeller interests, CF&I was not known for generous treatment of its employees and life was primitive and difficult for the miners in Madrid.

The tree lined Main Street was the one redeeming feature of the otherwise typically drab coal mining town in the early 1900's. The company store, mine offices and tavern were set among simple two-story frame houses of five rooms which had been moved in by the CF&I from Carthage, another coal mining town southeast of Socorro, New Mexico. It is said that each house was cut into three pieces, transported to Madrid by flatcar and then reassembled. At this time, the houses rented for two dollars for each room per month. They were badly in need of repair and paint, only those along the main street had running water and none had bath tubs or inside toilet facilities. One of the three boarding houses had showers in the basement for the miners. The buildings were of frame construction with board and batten siding finished inside with tongue and groove paneling and oak floors. The ceilings of the recreation hall and other company buildings were covered with pressed metal. The company buildings and offices and the boarding houses had electric lights but the miners' houses were lighted by oil lamps or candles and were heated by coal-burning stoves. There were no telephones except one in the mine office and they were used only for company business.

(See Continuation Sheet Page 1)

SFC CLERK RECORDED 05/03/2017

SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
HISTORIC	☐ ARCHEOLOGY-PREHISTORIC	☒ COMMUNITY PLANNING	☐ LANDSCAPE ARCHITECTURE	☐ RELIGION
☐ 1400-1499	☐ ARCHEOLOGY-HISTORIC	☐ CONSERVATION	☐ LAW	☐ SCIENCE
☐ 1500-1599	☐ AGRICULTURE	☐ ECONOMICS	☐ LITERATURE	☐ SCULPTURE
☐ 1600-1699	☒ ARCHITECTURE	☐ EDUCATION	☐ MILITARY	☐ SOCIAL/HUMANITARIAN
☐ 1700-1799	☐ ART	☐ ENGINEERING	☐ MUSIC	☐ THEATER
☒ 1800-1899	☒ COMMERCE	☐ EXPLORATION/SETTLEMENT	☐ PHILOSOPHY	☒ TRANSPORTATION
☒ 1900-	☐ COMMUNICATIONS	☒ INDUSTRY	☐ POLITICS/GOVERNMENT	☐ OTHER (SPECIFY)
		☐ INVENTION		

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Madrid Historic District, which includes the entire village of Madrid, New Mexico is part of one of the oldest mining areas in the western United States where turquoise, gold and finally coal were extracted at various times. Situated in the rugged hills on the north slope of the Ortiz Mountains, it is approximately five miles southwest of Mount Chalchihuitl where Pueblo Indians worked extensive turquoise diggings circa 900-1100 A.D. Most important in later years as a coal producing district, it is unique in that both anthracite and bituminous beds are found in close proximity and at one time were taken from the same shaft. Although there was some settlement in the area as early as 1869, Madrid did not become an established community until 1892 when subsidiaries of the Atchison, Topeka and Santa Fe Railroad built a "company town" to exploit the mineral deposits there. During the 1950's economic conditions forced the closing of the mines and since then Madrid has been in decline. For many years the whole town was offered for sale as a unit but because this approach was unsuccessful, the lots and houses still standing in 1975 were offered piecemeal which resulted in extensive sales. Individual ownership has given the community a new sense of purpose which may prevent further deterioration and destruction of the remaining structures.

A brief 1828 gold strike in the Ortiz Mountains during Mexican sovereignty in New Mexico led to the first use of coal from the Madrid district. By the 1830's Mexican miners in the area, using primitive carts powered by mules or simple windlasses were digging the small amounts necessary to fire the crude vassos (furnaces) in which the gold bearing ore was then refined. With U.S. occupation of New Mexico in 1846 there was some demand for fuel at army posts such as Fort Marcy in Santa Fe and Fort Union north of Las Vegas, but it was not until after the arrival of the railroad in 1880 that a significant market developed. The deposits in Miller Gulch and Waldo Gulch just south of the Santa Fe right of way were the first to be exploited but following discovery of the size and quality of the coal fields at Madrid three miles further south, the older mines were abandoned.

Because the town's location lies within an area claimed by two conflicting Spanish and Mexican land grants, the Ortiz Mine Grant to the south and the Mesita de Juana Lopez to the north, extensive litigation was necessary before the Cerrillos Coal and Iron Company was able to establish title to 26000 acres in 1884-5. In 1892 a Santa Fe subsidiary, the Cerrillos Coal Railroad, contracted for all mining rights in the area, built a six mile standard gauge spur from Waldo on the main line and erected the town of Madrid on its present site. At first the greatest demand was for

(See Continuation Sheet Page 3)

Territorial Archives of New Mexico, State Records Center and Archives,
Santa Fe, New Mexico.

Records of the Secretary of the Territory, 1851-1911, Records of
Incorporations.

Santa Fe County Records, Santa Fe County Courthouse, Santa Fe, New
Mexico. Deed Record Books J, N, X, J-1, N-1, 40.

(See Continuation Sheet Page 5)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY Approx. 200 acres.

UTM REFERENCES

A	13	8 00	3 00	B	13	7 00	7 50
	3	9,508,00	3,919,03,0		3	9,507,0	3,918,07,5
	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
C	13	8 00	3 00	D	13	7 00	7 50
	3	9,508,00	3,917,07,5		3	9,407,5	3,917,08,5
	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING

VERBAL BOUNDARY DESCRIPTION:
The boundary of the Madrid Historic District begins at a point on the north side of the village of Madrid at the intersection of the entrance to the baseball park from State Highway #14. It extends 350 yards in a northerly direction to a point on the cliff directly west of the north tipple at the bottom of the gulch; thence in a westerly direction to a point at the top of the first level of hills west of the tipple; thence in a southerly

(See Continuation Sheet Page 6)

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	① Lon = -106° 18' 52"	CODE	COUNTY	② Lon = -106° 09' 14"	CODE
	Lat = 35° 24' 13"			Lat = 35° 23' 49"	
STATE	③ Lon = -106° 08' 55"	CODE	COUNTY	④ Lon = -106° 09' 32"	CODE
	Lat = 35° 24' 24"			Lat = 35° 23' 54"	
				⑤ Lon = -106° 04' 04"	
				Lat = 35° 24' 43"	

FORM PREPARED BY

NAME/TITLE John O. Baxter, Archivist, State Records Center and Archives;
Sylvia Cook, Architectural Historian, State Planning Office

ORGANIZATION

DATE

December 3, 1976

STREET & NUMBER

404 Montezuma

TELEPHONE

827-2321 (505)

CITY OR TOWN

Santa Fe

STATE

New Mexico

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ☒

STATE ☐

LOCAL ☐

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

Thomas W. Hester

TITLE

State Historic Preservation Officer

DATE

12-9-76

FOR NPS USE ONLY	
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER	
SIGNATURE OF NPS OFFICIAL	DATE
ESTABLISHED	DATE

Form No. 10-300a
Rev. 10-74)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICENATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY	
RECEIVED	DEC 15 1976
DATE ENTERED	NOV 9 1977

CONTINUATION SHEET

ITEM NUMBER 7

PAGE 1

In 1906, after control of the mines and the town was taken over by George A. Kaseman's newly formed Albuquerque and Cerrillos Coal Company, living conditions began to improve in Madrid whose population had grown to approximately 1200. Employing the electrician gang from the mines, the houses were wired for electricity and then had a single light bulb hanging from a drop cord in the center of the ceiling of each room. At this time a Catholic Church was built and a priest came from the nearby town of Cerrillos to celebrate Mass. The church, a simple, rectangular building with a gabled roof and central bell tower still stands on the hillside at the western edge of town, although services are no longer held there. There was a Protestant Sunday School and for a short time a Baptist Church conducted services. A tract of land was donated to the Methodist Episcopal Church for a church and rectory but this was never used. A recreation hall was maintained on the first floor of a large frame building. The company store supplied the miners with general merchandise and the post office was located in the mine office. The company employed a doctor who treated the miners and their families. The first four grades of school were taught in one-story frame building.

When Oscar Huber became superintendent of the mines in 1919, additional improvements were made. Houses were repaired, modernized and painted, and a number of new one-story ones with varying floor plans were built by carpenter gangs and other crews from the mines. One group was rectangular in plan, others were rectangular with a porch at the center of the house sheltering the front door, and a third group was symmetrical with one room projecting towards the front with a porch in the resulting corner. The houses typically had two bedrooms, kitchen and living room. Of frame construction on pier foundations, the houses were sided with vertical board and batten, a builders' design known as "Stick Style" which had reached its zenith of popularity in the East in the last half of the nineteenth century. Finished inside with lathe and plaster walls, the exteriors were painted a "light, harsh blue" and were topped by roofs of red or green composition shingles.

The houses on Front Street had running water but those on Back Street had only outdoor faucets. There were two separate water systems: one recycled water previously used in the mines for the yards and gardens; the other piped drinking water to the houses after it had been transported by railroad tank car from the siding at Waldo six miles north. The town did not have its own well until 1967.

During the 1920's Front Street was paved. The first four grades of school were moved to a larger two-story building adjoining the recreation hall. Grades five through eight were taught on the second floor of the recreation hall, which also housed the motion picture theatre. In 1929 a

(See Continuation Sheet Page 2)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

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NOV 9 1977

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05/03/2017

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PAGE 2

a frame and stucco elementary school was built and nine years later a store high school was erected next to it.

By the late 1920's, when coal production was at its peak, the town had a population of 2500. The last houses built in Madrid were constructed during this period. They were substantial, comfortable bungalows erected for company officials and foremen along Front Street, in some cases replacing older frame houses. Unlike the earlier buildings, the new bungalows were stuccoed. Rooms and indoor plumbing were added to the older houses as the miners' families grew with materials supplied by the company and labor by the miners.

Fire was a constant danger at Madrid both in the mines and the town. Many buildings were destroyed including the largest boarding house which burned down in 1929. It was immediately rebuilt and later converted into apartments for couples without children. The hospital burned more recently. One group of houses at the north end of town, which was called "Hollywood" has been destroyed by various fires over the years.

The company town was probably inevitable in the development of the coal industry. There was little incentive for home ownership near the mines, since there was no assurance that they would not someday close. Many miners arrived in the coal fields practically penniless and the system offered credit in the company store and a place to live. Manager-owner Oscar Huber explains the economic situation thus:

It would have been difficult to operate the property other than as a company town. . . Many men came to work thru the instigation of friends and came direct from Italy, Czechoslovakia, etc. to Madrid and in most instances with practically no funds whatever. If the mines were to work this was about the only class of help that was available so somebody had to provide a place for them to live and finance them until such time as they produced coal. . . If anyone would have suggested at this time that a miner purchase his own home the miner would have thought it ridiculous, and the company, of course, wanted to maintain the town as a unit which they controlled.

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NATIONAL PARK SERVICENATIONAL REGISTER OF HISTORIC PLACES
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PAGE 3

bituminous coal to fuel the Santa Fe's locomotives but a market soon developed both in New Mexico and adjoining states for the anthracite, which was of extremely high quality, as a home heating fuel. After finding that some of the bituminous coal was of coking quality, ovens were built at Waldo and the coke was sold to smelters in Pueblo and El Paso. The coal mines at Madrid and other New Mexico locations developed rapidly and as one author has noted "by the end of the century this relatively unromantic, little prospected, industrial mineral became the leading product of New Mexico mining" due to high demand for coal and the collapse of silver prices in 1893.

Extensive production of coal and impressive sales did not guarantee profits, however, and because the mines and town were intimately associated with the fortunes of the Santa Fe and other national corporations, their early history is characterized by frequent changes in ownership and management. Following a reorganization of the Santa Fe in 1895 the mines were leased to the Colorado Fuel and Iron Company of Pueblo who operated them for ten years. At that time George A. Kaseman, a rising Albuquerque businessman who had been conducting a large wholesale and retail coal business in that city as president of W. H. Hahn and Company, formed the Albuquerque and Cerrillos Coal Company to take over the CF&I leases at Madrid. In 1919 Kaseman selected one of his salesman, Oscar Huber, to be superintendent of the mines and it was Huber who dominated Madrid's history for the next forty years. Following Kaseman's death in an oil well explosion in 1938, Huber arranged to continue the leases until 1948 when he purchased both the mines and the entire town from the Cherokee and Pittsburg Coal and Mining Company, another subsidiary of the Santa Fe.

Throughout its history Madrid has been owned and operated as a company town in which the corporation or individual who ran the mines also controlled every aspect of life in the town. The company allocated housing, provided all municipal services and owned all commercial enterprises including the local garage, bar and general store. In lieu of credit the company issued its own coinage or scrip in various denominations from one cent to five dollars which could be used by employees at all company businesses. If a miner who was deeply in debt failed to report for work, a company representative was dispatched to find out why he was not on the job. Those workers who were known to be making substantial earnings were encouraged to purchase automobiles or major appliances, all through the company store, of course. The company provided and controlled all medical and recreational facilities. It also sponsored a semi-professional baseball team which was a source of great pride in the community.

Descriptions of life in Madrid vary considerably depending on whether the author is sympathetic to the company or to the miners. Although rents were
(See Continuation Sheet Page 4)

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NATIONAL PARK SERVICENATIONAL REGISTER OF HISTORIC PLACES
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PAGE 4

low (\$8.90 to \$17.80 per month during the thirties) deductions for living costs incurred during summer lay-offs plus expenses for miners' lamps, powder and fuse and medical fees eroded monthly pay checks which for many men were no more than \$50 during this period. A local of the United Mine Workers, #6920, was organized in Madrid in 1934 but was not recognized as an official bargaining agent for ten years and was never particularly effective. Following the defense buildup prior to World War II many miners left Madrid permanently seeking positions offering not only higher pay but more personal freedom.

Between the two World Wars Madrid was best known for the large and elaborate Christmas displays erected annually by the townspeople. Beginning in about 1922 with simple electric lights and small trees in front of individual miner's houses, the concept was soon taken up by the company and the decorations grew rapidly in both complexity and notoriety. During the 1930's they covered not only Madrid itself but also featured large illuminated tableaux of the Nativity, angels and similar scenes which were placed on the steep hillsides flanking the town. During this era it is estimated that the display was seen by 100,000 visitors each year and was so popular that airline pilots detoured their flights so that the passengers could enjoy the view.

Although the display was enthusiastically supported by the Madrid Employees Association, some of the miners resented the check-off which was used to purchase the decorations and the fact that they were required to put up the display on their own time without pay. In addition, the employees were charged \$1.25 each for the small evergreens which decorated their houses even though the surrounding hills were covered with them. The program was ended in 1941 because of problems associated with World War II and was not resumed when peace was restored.

Throughout the war years demand for Madrid's coal exceeded the capabilities of the diminished labor force to dig it. This situation was accentuated by the high priority needs of the nearby Los Alamos laboratories where the federal government was conducting the atomic bomb experiments. Filling these government contracts often meant that regular customers were neglected. In the late 1940's and 1950's, however, coal markets rapidly dwindled following the dieselization of most railroads and the growing use of natural gas and fuel oil for home heating. In early 1954, sales had declined so much that the main mining operation was closed and the population of Madrid rapidly drifted away although production continued on a limited scale until 1961 when Huber was badly injured in an automobile accident. On June 17, 1954 the following advertisement appeared in the Real Estate for Sale column of the Wall Street Journal:

(See Continuation Sheet Page 5)

Form No. 10-300a
(Rev. 10-74)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICENATIONAL REGISTER OF HISTORIC PLACES
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CONTINUATION SHEET

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Entire Town

200 houses, grade and high school, power house, general store, tavern, machine shop, mineral rights, 9000 acres, excellent climate, fine industrial location. . .

At various times during the 1960's and early 1970's a number of proposals were advanced for the sale or utilization of Madrid. The residents of the community which by then had reached "ghost town" status consisted primarily of dropouts from conventional life drawn to the area by the rural setting and cheap rents asked for the crumbling houses. When the Huber heirs determined that sale of the entire town was probably not possible, these tenants were given the first opportunity to purchase the rental properties which many of them did. This group has joined other purchasers, many of whom are interested in the community as a location for vacation or retirement homes, in efforts to solve such vexing problems as providing an adequate water supply and acceptable sewage disposal facilities. If these efforts are successful and the small crafts enterprises which now characterize the town's economy are viable, Madrid may enjoy a renaissance and again experience the community spirit which characterized the town of its hey-day. Perhaps new mining technology and demand for coal created by present energy shortages will make it economically feasible to resume exploitation of the estimated 50 million tons of coal remaining at Madrid.

Margaret McKittrick Papers. State Records Center and Archives, Santa Fe, New Mexico.

The New Mexican. Santa Fe, December 21, 1975.

The Santa Fe Reporter. Santa Fe, February 6, May 8, 1975.

Interview, Mr. Joe Huber, November 4, 1976.

Allen, James B. The Company Town in the American West. Norman, 1966.

Christiansen, Paige W. The Story of Mining in New Mexico. Socorro, 1974.

Harrington, Eldred. An Engineer Writes about People and Places and Projects. Albuquerque, n.d.

Jones, Fayette. Old Mines and Ghost Camps of New Mexico. Fort Davis, 1968.

Lee, Willis Thomas. "The Cerrillos Coal Field - Santa Fe County, New Mexico," U.S. Geological Survey, Bulletin #531, Washington, D.C., 1913.

Melzer, Richard. Madrid Revisited: Life and Labor in a New Mexican Mining Camp in the Years of the Great Depression. Santa Fe, 1976.

Myrick, David F. New Mexico's Railroads---An Historical Survey. Cincinnati, 1970.

New Mexico Business Directory. Denver, 1905-6, 1915, 1923.

United States Geological Survey "Mineral and Water Resources of New Mexico" Bulletin #87, Socorro, 1965.

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DATE ENTERED NOV 9 1977

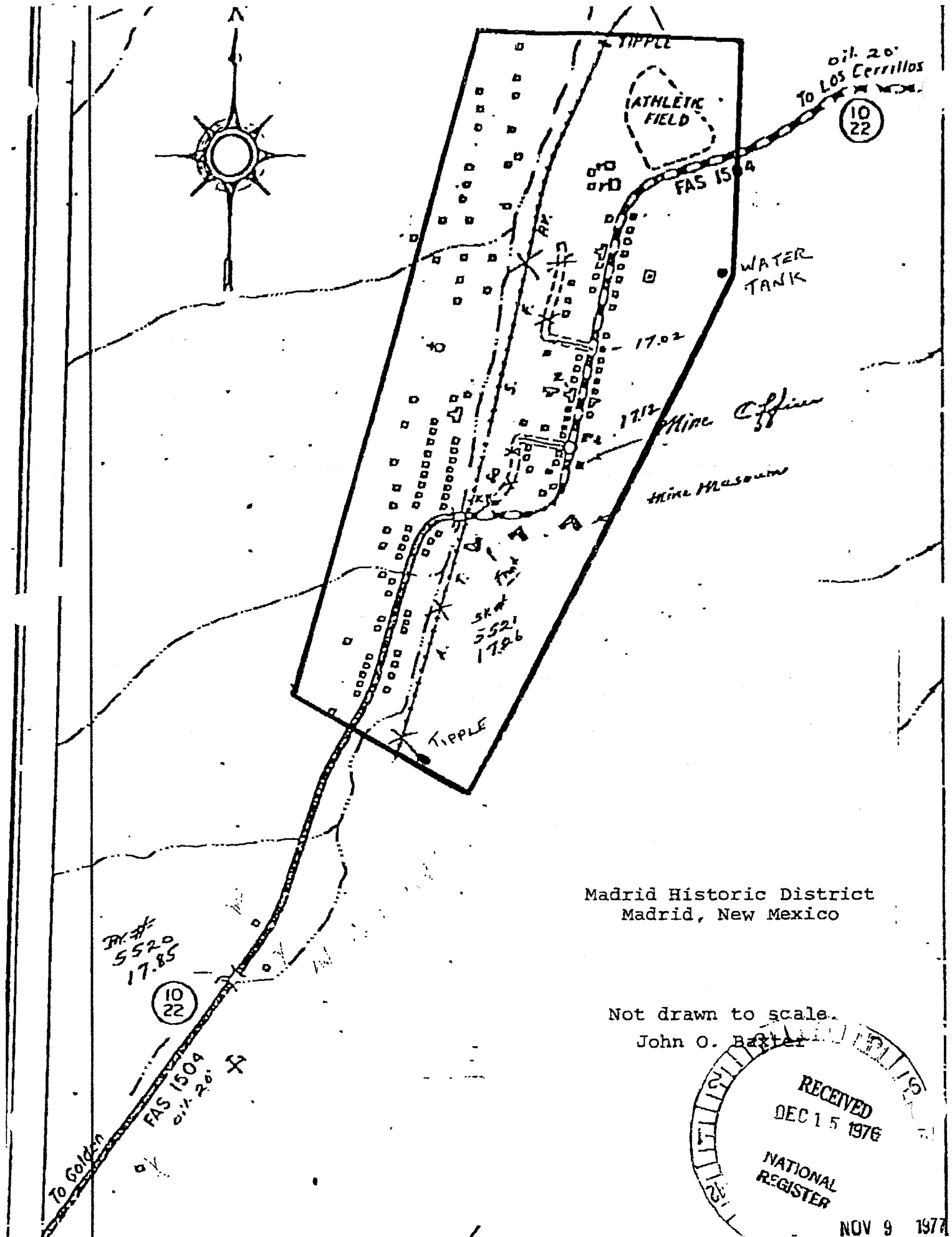
CONTINUATION SHEET

ITEM NUMBER 10

PAGE 6

direction approximately 2000 yards; thence in a southeasterly direction across State Highway #14 passing to the south of the hoist engine house and the south tipple up the slope to the highest level of the old road bed of the mine railway; thence in a northeasterly direction approximately 1400 yards following the road bed around the contour of the hills to the water storage tank; thence in a northerly direction to the point of beginning.

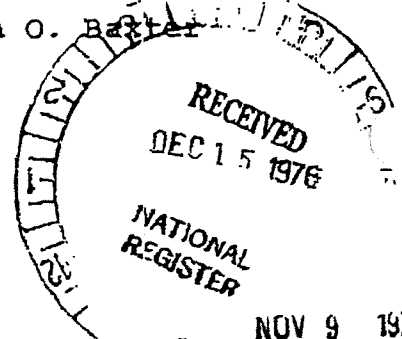
SEC CLERK RECORDED 05/03/2017



Madrid Historic District
Madrid, New Mexico

Not drawn to scale.

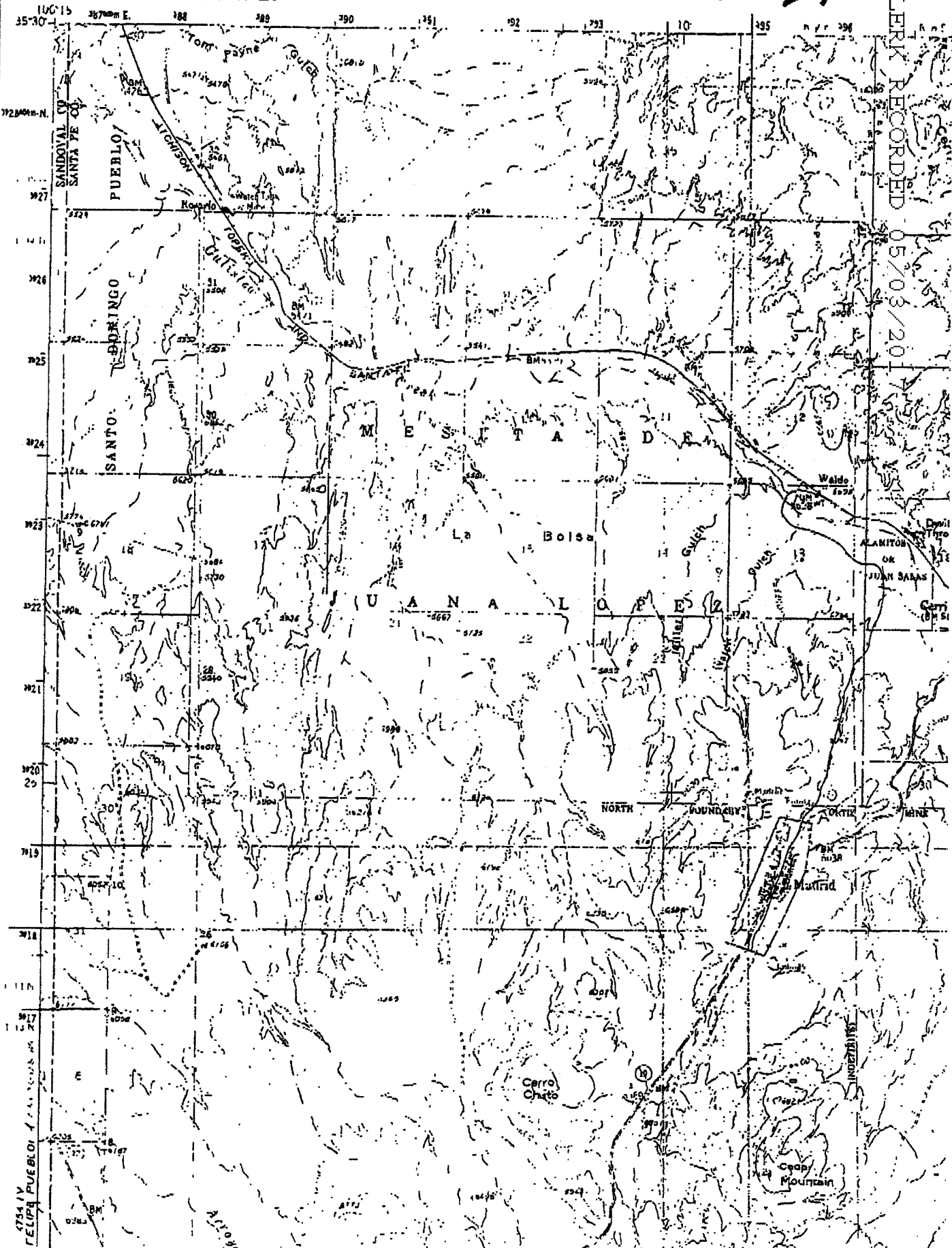
John O. Batten

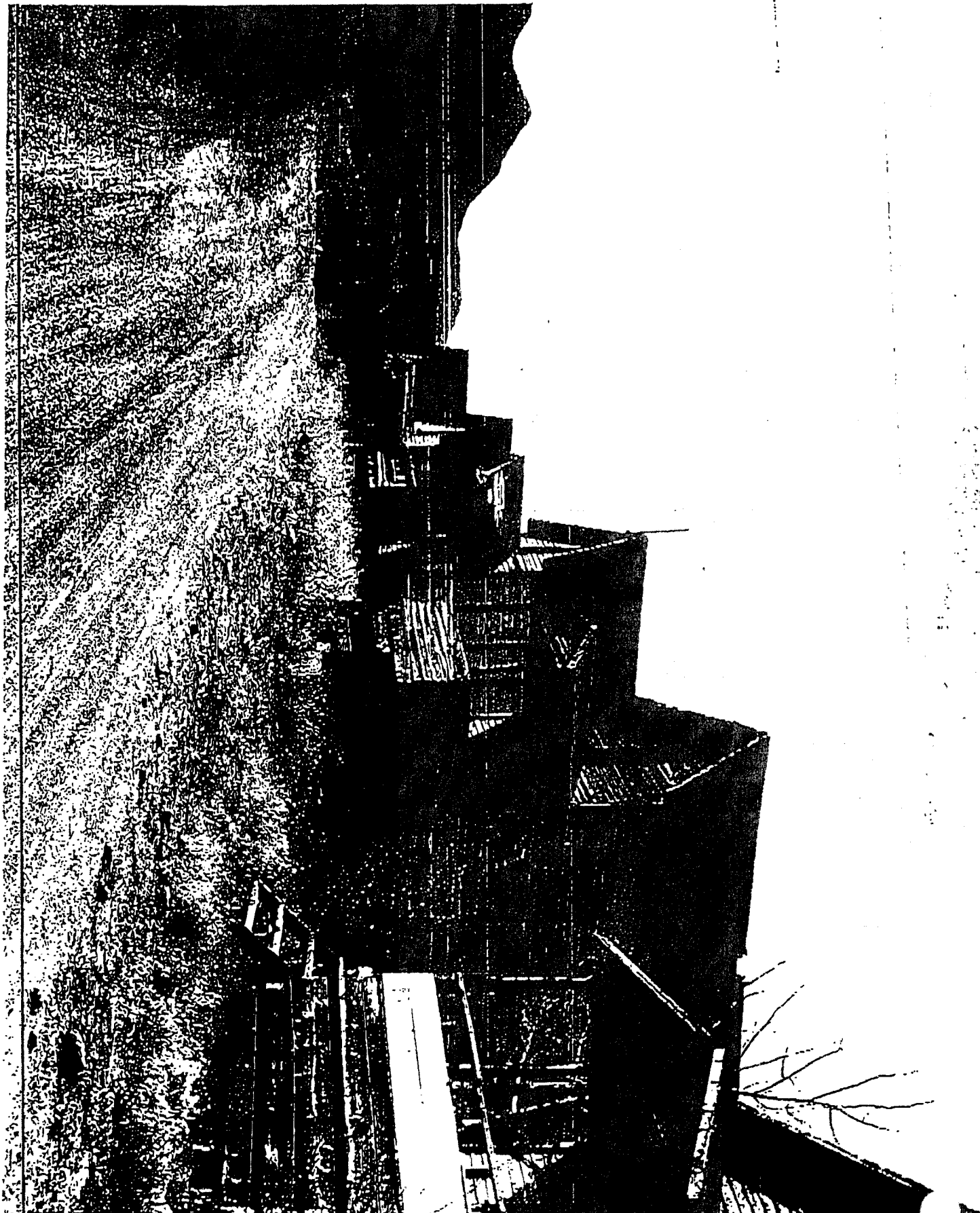


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

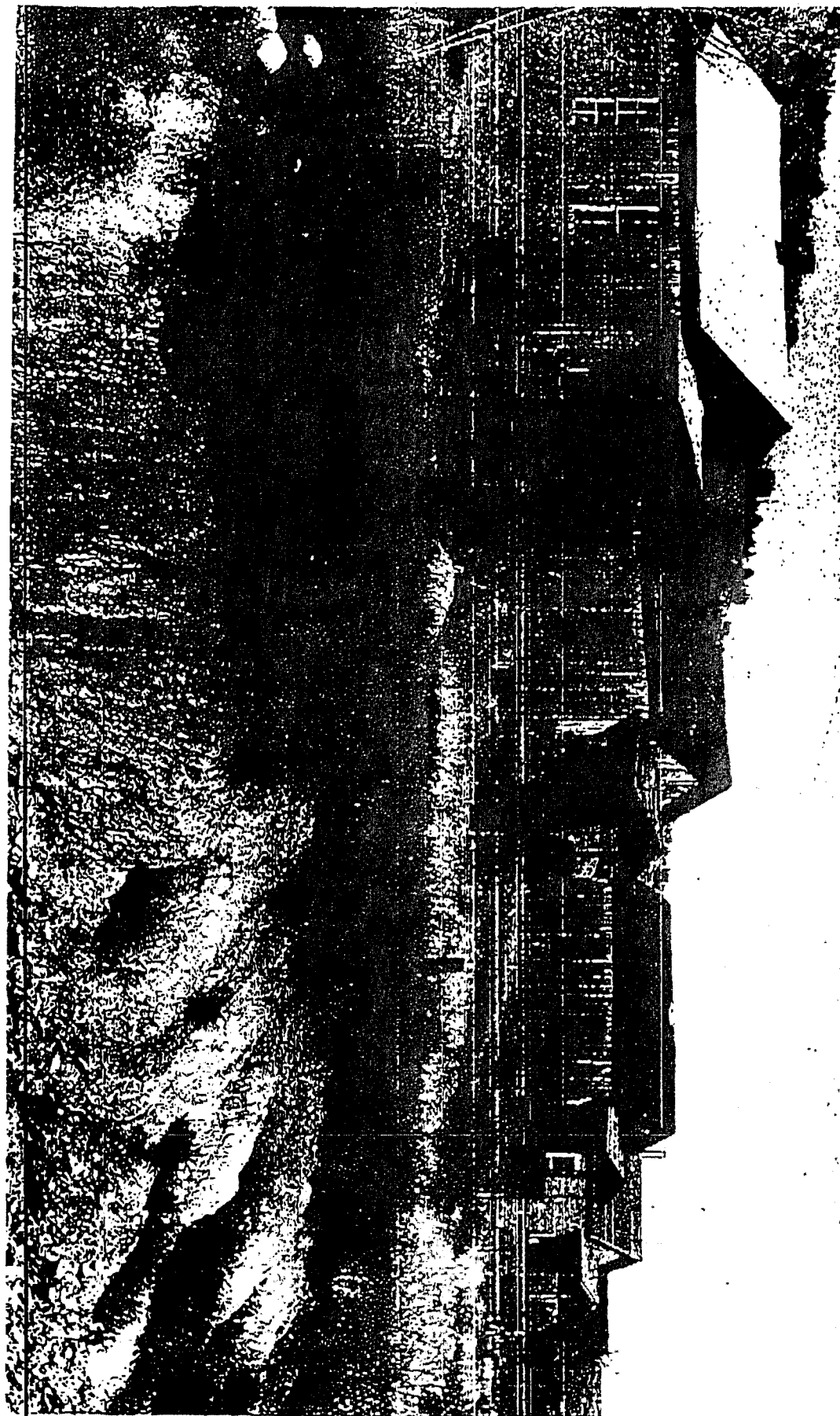
THE MADRID HILLS
MADRID, NEW MEXICO

RECORDED
05/03/2011





SFC CLERK RECORDED 05/03/2017

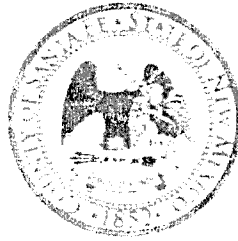


"Row" House
- to side

Henry P. Roybal
Commissioner, District 1

Anna Hansen
Commissioner, District 2

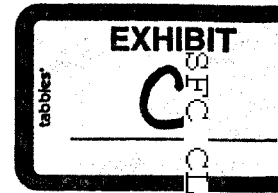
Robert A. Anaya
Commissioner, District 3



Anna T. Hamilton
Commissioner, District 4

Ed Moreno
Commissioner, District 5

Katherine Miller
County Manager



RECORDED 05/03/2017

MEMORANDUM

Date: April 11, 2017
To: Board of County Commissioners
From: County Open Lands, Trails, and Parks Advisory Committee (COLTPAC)
Re: Recommendation to adopt Lamy Open Space and Park Management Plan and Madrid Open Space Management Plan

The County Open Land, Trails and Parks Advisory Committee (COLTPAC) recommends that the Santa Fe Board of County Commissioners adopt the management plans created for the Lamy Open Space and Park and Madrid Open Space.

Adoption and the subsequent implementation of these two plans is an important step in Santa Fe County's continued work in moving open space properties purchased over the past several decades into a phase of active management that is focused on restoration, protection and recreational use. Well-managed open spaces, trails and parks improve quality of life for our residents and promote outdoor life in Santa Fe County.

In 2016, with direction from COLTPAC, the Santa Fe County Planning Division/ Open Space Planning initiated the development of Management Plans for Lamy Open Space and Park and Madrid Open Space. These management plans were completed with strong public participation and support from community members, stakeholders, County staff and relevant public agencies. COLTPAC recognizes the thorough work by county staff and consultants in developing the plans.

COLTPAC reviewed drafts of these management plans, conducted site visits, reviewed community input on the plans and discussed key issues and statements provide by community members. COLTPAC's perspective on the goals and emphasis of these plans is as follows:

The Lamy Open Space and Park plan aims to preserve the important natural and cultural resources present in the Galisteo Basin area and it clarifies the maintenance needs specific to the property. The plan outlines an opportunity to establish a community partnership with Lamy residents in monitoring natural resources and wildlife on the property.

The Madrid Open Space plan outlines a project to improve drainage and the environmental function of the Madrid Greenbelt which includes collaborative management with the Madrid community. The drainage project will require interdepartmental and interagency collaboration as well and should not be considered solely an open space function. The plan also identifies opportunities for enhanced recreational opportunities with trails on the Madrid Wilderness parcel and potential regional trail connections to Cerrillos and other areas of the County.

COLTPAC is very excited to see forward progress on Santa Fe County open space, trails and parks program. Property management plans are a critical step in this process. We look forward to continuing to work with county staff and the Commission in further developing this important program.

A handwritten signature in black ink, appearing to read "Dave Dannenberg", followed by the date "9-11-17".

Dave Dannenberg, COLTPAC Chair