Open Space Acquisition Priorities City of Albuquerque Parks and Recreation Department Open Space Division December 2015

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The Cerro Colorado Volcano







This Major Public Open Space Priority Acquisition book provides detailed property descriptions for the most significant lands that have been evaluated and placed on the Open Space acquisition list, after review by the Open Space Advisory Board (OSAB).

Each property is unique in its natural and/or cultural resource significance. Their acquisition will preserve and protect the land for the enjoyment of current and future generations and further the mission that Open Space provides to the citizens of this community. Note that these properties are not listed in any specific order of importance, and shall be acquired based on such factors as availability and funding opportunities, in consultation with the OSAB.



Photograph of the Northern Sand Dunes by Dr. Matt Schmader

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City of Albuquerque Open Space Network Map

CITY of ALBUQUERQUE MAJOR PUBLIC OPEN SPACE

Note: For the purposes of this booklet, land parcels are typically defined using City parcel data rather than Bernalillo County data. The only exceptions are where the areas are either un-platted or if the data is significantly incongruent with the County data, such as with the Cerro Colorado Volcano. In this case, Bernalillo County data were used to map the parcels and to calculate acreage.

TOP ACQUISITION PROPERTIES FOR PURCHASE:				
AREA	APPROXIMATE ACRES	FUNCTIONS	COMMENTS	
East Tijeras Arroyo	235	Conservation, Urban Design, Recreation	Quarter-cent property; lands within Tijeras Arroyo Bio- Zone	
Northern Geologic Window (North 1/3)	80	Conservation, Urban Design, Education	Within Petroglyph National Monument; two separate ~40-acre parcels.	
Northern Sand Dunes	640	Conservation, Urban Design, Recreation, Education	Identified in the Comprehen- sive Plan and 1997 Quarter- cent.	
North Rio Puerco Escarpment	6,710	Conservation, Recreation, Urban Design	Identified in the Comprehen- sive Plan; acreage recalculat- ed from slope analyses.	
Volcano Cliffs Sector Development Plan Parcels:	Boca Negra Arroyo: 75 La Cuentista: 59	Conservation, Urban Design, Recreation	Areas identified in Volcano Cliffs Master Plan east along Boca Negra Arroyo and La Cuentista area near Paseo del Norte.	
 Boca Negra Arroyo, Middle Branch 				
 La Cuentista (Volcano Cliffs Sector Develop- ment Plan) 				
TOP ACQUISITION PROPERTIES FOR TRADE:				
AREA	APPROX. ACRES	FUNCTIONS	COMMENTS	
Cerro Colorado Volcano	258	Conservation, Education, Recreation	Quarter-cent property; pos- sible land exchange with adjacent owners.	
State Land Office (within Volcano Heights Master Plan)	76	Conservation, Urban Design, Recreation	Areas identified in Master Plan east of North Geologic Window; proposed land ex- change with State Land Office.	

Top Priority Acquisition Overview Map



Recommended Open Space Priority Acquisitions

East Tijeras Arroyo

Northern Geologic Window

Northern Sand Dunes

North Rio Puerco Escarpment

Volcano Cliffs Sector Development Plan Parcels:

Boca Negra Arroyo Middle Branch La Cuentista

East Tijeras Arroyo



Tijeras Arroyo Priority Acquisition Parcels (See map on the previous page for location of parcels)

Note: The parcel numbers indicated in this chart correspond to the acquisition list in the Tijeras Arroyo Biological Zone Resource Management Plan (TABZ). The TABZ Plan lists a total of 25 parcels recommended for purchase to fully protect the Biological Zone defined by the Plan. This list only includes parcels that were determined to be of high priority for acquisition, and correspond to the sites previous identified by the OSD for purchase as future Open Space. See pages 22-23 for more information.

Parcel Number	Acreage
9	5.02
10	0.47
11	6.40
13	6.08
14	1.45
15	9.40
16	13.42
17	34.09
18	24.69
19	60.19
20	3.16
21	2.22
22	0.49
23	2
24	62.28
25	3.11
Total Acreage	234.47



EAST TIJERAS ARROYO

Location: These parcels are located in the Tijeras Arroyo east of Four Hills Road along NM 333 (the frontage road of I-40).

Description: Tijeras Arroyo is the longest tributary arroyo to the Rio Grande in Bernalillo County. It largely remains in a natural and un -channelized state without pavement or major alterations.

The City Council initiated an effort to protect this area of the Tijeras Arroyo. Impacts of urbanization, dumping, and illegal activities such as off-road vehicle use in the area were quickly degrading the riparian habitats of the Arroyo. The Council responded to public concern with an initiative to preserve the site as an Open Space Biological Zone. As of 2014, the Tijeras Arroyo Biological Zone Resource Management Plan (TABZ) was formally adopted by the City Council as a Rank II plan. See pages 22-23 for details on how the TABZ helps define the priority acquisition process in the Tijeras Arroyo.

The City of Albuquerque is actively working to create a biological preservation zone area within existing Open Space Division-managed lands and private lands adjacent to the Tijeras Arroyo. The objective of the proposed Bio-Zone project is to preserve remaining native vegetation and wildlife habitat and restore habitat where feasible within the TABZ study area, and to provide increased opportunities for low-impact recreation. There are important wetland habitats in the area as well.

Functions the property will serve:

Primary functions would be the conservation of landforms, urban design, and low-impact recreation such as hiking, mountain biking, and horseback riding.

Size: Approximately 235 acres

Land Status/Methods of Acquisition:

Areas along the Tijeras Arroyo are identified as possible conservation easements in the Comprehensive Plan. These parcels were previously defined as acquisition properties in the 1997 "1/4 cent" gross-receipts tax for open space. Funding sources have not yet been identified for this area.



The Tijeras Arroyo Bio-Zone Plan and Tijeras Arroyo Acquisitions:

In discussing the Tijeras Arroyo as an area for future Open Space priority acquisition, it is important to review the recent work done by the City of Albuquerque to define the Arroyo as a Bio-Zone in the TABZ Plan.

Acquisition of private parcels is a key recommendation of the TABZ Plan to protect the Bio-Zone. The TABZ Plan recommends that the City acquire control over more land parcels in order to properly manage, restore, monitor, and conduct further studies within the Bio-Zone. The OSD can only improve and manage lands that are acquired by the Division.

Acquisitions were prioritized based on a weighted score that represented the value of the resource and the amount of development pressure on each parcel in the TABZ Plan. The weighted score provides an objective method for determining which parcels are best suited for priority acquisition. Each parcel was given a score of 1 to 5 for both resource value and the amount of pressure to develop. The two scores were added together and divided by two to reach an average overall score for each parcel.

A score of 1 is equal to either low resource value or low pressure to develop the parcel. A score of 3 is equal to moderate for each variable. A score of 5 is considered high in resource value and for development pressure.

The parcels included in this booklet are only those that were considered of high priority for acquisition.

To score the resource value, the following criteria were analyzed qualitatively using the biological studies conducted by the two consulting firms Sites Southwest and Marron and Associates.

- Amount or density of vegetation (disturbance)
- Types of vegetation (native or invasive)
- Amount of biodiversity of vegetation
- Water availability for both vegetation and wildlife
- Food availability for wildlife
- Wildlife cover or habitat
- Proximity of a parcel to an existing COA Open Space tract

The bullets listed above were all factors that went into rating a parcel. For a parcel to get a score of 5, most or all of the biological factors were present. A score of 2 had at least three of the factors listed above. A score of 1 had few to no factors listed. Many of the parcels east of Four Hills Blvd had a score of 5 due to numerous biological factors present. A low score also indicates a disclimax or disturbed area with many invasive species present.

Many factors were analyzed qualitatively to score each parcel for the amount of development pressure. Such factors include:

- Existing infrastructure like roads, power lines, water lines, gas, etc.
- Proximity to existing developments
- Privately-owned parcels (more likely to be developed)
- Zoning
- Profitability
- Steepness of slopes
- Within the floodplain (hazardous)

For a parcel to get a score of 5 with regard to development pressure, the parcel must include the majority of the factors listed and means the parcel has a high chance of being developed due to these factors. A score of 3 means a parcel would have some factors, such as infrastructure, but lack others, such as steep slopes. Certain aspects would make development difficult for these parcels ranked with a score of 3. A score of 1 means the parcel is very unlikely to be developed due to certain factors like steep sloes, location within the floodplain, and no infrastructure.

All 47 parcels within the TABZ Plan except the parcels already owned by the COA were scored for these two variables. To get a total score, the two variables were added and then averaged. The results show that the parcels with the highest scores tend to be located east of Four Hills Rd. SE.

Parcels with an average score of 5 are considered high priority and should be acquired first. Properties with a score of 3 are considered moderate priority and should be acquired second and a score of 1 is low priority.



North 1/3 of Northern Geologic Window

NORTH 1/3 OF THE NORTHERN GEOLOGIC WINDOW

Location:

West Mesa of Albuquerque, east of the northern volcanoes and west of the escarpments in Petroglyph National Monument.

Description:

The Northern Geologic Window was placed within the Congressionally authorized boundary of Petroglyph National Monument when it was established in 1990. At present, two of the three 40 acre parcels in the northern one-third of the Northern Geologic Window are still in private ownership. Acquisition of the two remaining parcels is crucial in order to complete these land acquisitions within the National Monument. The geology of the "Window" is unique to the West Mesa. Basalt lava rock, including important petroglyphs, line the Northern Geologic Window. Wildlife and native vegetation are abundant, and excellent habitat is found throughout the area. Every year housing developments are built closer to this mesa-top canyon.

Functions the property will serve:

The property will serve to protect unique landforms, view sheds, natural and cultural resources, and critical wildlife habitat. The property also functions to define the urban landscape as nearby housing developments encroach on the area. The "Window" also provides opportunities for outdoor education and low impact recreation.

Size: Approximately 80 acres

Land Status/Methods of Acquisition:

This is a high-priority acquisition to protect archaeological sites and geologic features. This is an area of rapid development. Off-road vehicle use and dumping are prevalent on these private lands. The "Window" is designated in the 1988 Comprehensive Plan and is part of the City's acquisition and management responsibility of Petroglyph National Monument. Funds for acquisition could come from General Obligation bonds, impact fees, or potential



federal sources through the Land and Water Conservation Fund. Earlier attempts to acquire the properties by the City of Albuquerque and the National Park Service have not been successful.

Northern Sand Dunes



NORTHERN SAND DUNES

Location:

Southwest of Double Eagle II Airport and Shooting Range State Park, and north of I-40. For acquisition purposes, boundaries have been refined to obtain all dune areas, portions of steep slopes on the Rio Puerco escarpment, and an adequate buffer or setback along the east edge of the dunes.

Description:

The Northern Sand Dunes are an area of fragile and unique formations at the eastern edge of the Rio Puerco escarpment. Strong winds have blown the sand from the Rio Puerco Valley eastward where it settles along the top of the escarpment. Unique plants adapted to dune habitats include Indian Rice Grass, Heliotrope, Bush Muhly, Dove Weed and Small Flower Sand Verbena. Current impacts are from off-road vehicles, shooting, trash dumping, and unregulated use. Protecting these sand dunes is imperative to their preservation and survival.

Functions the property will serve:

The unique and unusual landforms, view sheds, habitat, endemic plant species, urban edges, and archaeological sites make conservation the most important function of this property. The property will also function to define the urban landscape as Albuquerque develops west towards the dunes. If acquired, the property will be fenced with boundary signage with limited access and parking while allowing minimal trail development. Low impact recreation and environmental education will be significant public benefits.

Size: Approximately 640 acres



Land Status/Methods of Acquisition:

This land is currently administered by Western Albuquerque Land Holdings. The Northern Sand Dunes were identified in the 1988 Albuquerque/ Bernalillo County Comprehensive Plan and the 1997 "1/4 Cent for Open Space" grossreceipts tax that was overwhelmingly approved by voters. Property owners are willing sellers and have cooperated to allow the City to define customized

parcel boundaries. The owners have been willing to proceed with a replat of the property to create new parcel boundaries.

North Rio Puerco Escarpment



NORTH RIO PUERCO ESCARPMENT

Location:

This property is located on the far western extent of the West Mesa, on the eastern edge of the Rio Puerco Valley north of I-40 and west of Nine-Mile Hill.

Description:

This area consists of steep gravel slopes, caliche caprocks, and escarpments on the eastern Rio Puerco Valley.



Acquisition area of the North Rio Puerco Escarpment was revised and studied with a slope analysis in 2011. The acreage of land recommended for acquisition by the City has increased since the Albuquerque / Bernalillo County Comprehensive Plan was originally drafted due to this slope analysis.

Functions the property will serve:

The primary functions of the property will be conservation of land forms, habitats, archaeological sites, view sheds, defining urban edges, and protection from the hazards of erosion. The area would be fenced and signed along the eastern perimeter and access, parking and trails would be limited. Low impact recreation would be available in the area.

Size: 6,710 acres

Land Status/Methods of Acquisition:

The property is designated by the Albuquerque/Bernalillo County Comprehensive Plan for future acquisition. Updated site visits by Open Space Division staff are needed to determine the current land health and level of current and future urban development in the area. Funding sources will need to be identified.

Boca Negra Arroyo (Middle Branch)



La Cuentista Parcels





Boca Negra Arroyo (Middle Branch) and La Cuentista

Location: East of the North Geologic Window of the Petroglyph National Monument in the east section of the Boca Negra Arroyo, and in the La Cuentista Subdivision.

Description:

The parcels are defined in the Volca-

no Cliffs Master Plan and contain archaeological sites and other important cultural and geologic features. As development moves closer to the area, protecting these sites will create a buffer to help protect the Petroglyph National Monument while conserving more land in an increasingly urbanized part of the city. As the area builds out and people move closer to the Petroglyph National Monument, high impact recreation such as off-road vehicle use is increasing. If not prevented, motorized vehicles and other high impact uses such as illegal dumping can continue to cause damage to the natural and cultural resources of the area.

Functions the properties will serve:

The main function the property will serve is conservation. These properties have culturally significant sites and are geologically and geographically connected to Petroglyph National Monument. The second function the property serves is helping to define the urban edge. If acquired, these parcels help shape development around them. The Middle Branch of the Boca Negra Arroyo forms a continuous corridor leading from the West Mesa escarpment to the volcanoes. La Cuentista is adjacent to the narrowest part of Petroglyph national Monument. The third function is low impact recreation. Trail corridors and connections will be enhanced in both areas upon acquisition.

Size:

- Boca Negra Arroyo Parcels: 75.08 acres
- La Cuentista: 59.25 acres

Land Status/Methods of Acquisition: As of August 2012, the City had acquired 11 lots along the middle branch of the Boca Negra Canyon Arroyo, totaling 23 acres. These lots are located in the Volcano Cliffs area. These parcels have been identified in the Volcano Heights Master Plan east along the Boca Negra Arroyo and in La Cuentista to be protected as Open Space. No funding sources are currently identified but land-owners along the Arroyo are proposing some internal land exchanges with the City.

Recommended Acquisitions Properties for Land Exchange

Cerro Colorado Volcano

State Land Office Parcel (Volcano Heights Master Plan)

Cerro Colorado Volcano



CERRO COLORADO VOLCANO

Location: South of I-40 just east of the Route 66 Casino on the eastern edge of the Rio Puerco Valley. For the purposes of this booklet, the Cerro Colorado Volcano has been defined in two ways. The "Area of Interest" was defined as the main geologic features of the volcano that would be ideal to protect. Adjacent land parcels were also identified on the map, which indicate those parcels that would need to be re-platted to protect the entire volcano.



Description:

The Cerro Colorado Volcano could be protected as a significant natural gateway feature to the western edge of the City of Albuquerque. It is a prominent geologic feature laying within the Rio Puerco Valley just a few miles west of the city's limits. It is by far the largest volcano in Bernalillo County. It is part of the Zuni-Bandera Volcanic Field and could potentially have geothermal properties.

Geomorphically, the volcano is known as a diatreme. A diatreme is a basalt breccia (breach) filled pipe formed by a gas-like explosion. When the diatreme breeches it normally will form a crater known as a Maar. Many times the volcanic material around the "pipe" or diatreme will erode away leaving a very rocky and needle like formation. Shiprock in Northern New Mexico s another good example. The volcano has special cultural significance to the Pueblo peoples of the region and is considered a sacred site.

Functions the property will serve:

After acquisition, the property would mainly function for land conservation. New Mexico has more volcanic features than any other state and conservation of the Cerro Colorado is important in protecting this unique landform. Another important function the property will serve is for educational purposes. Preserving such a significant geologic feature provides the chance to educate visitors and the public about the landscape around them. The volcano would also function as a low impact recreational use area. Multi-use sustainable trails could be designed to accommodate users wishing to exercise while maintaining the sensitivity of the land.

Size: Area of Interest: 258 acres; All Parcels: 1266

Land Status/Methods of Acquisition:

This property was designated in the 1997 "1/4 Cent" gross-receipts tax for Parks and Open Space. The Cerro Colorado Volcano is privately owned but a land exchange is possible for acquisition. Nearby Elena Gallegos trust lands in the Rio Puerco Valley Trade could be used for the acquisition.



OSD staff made a site visit to the area in August of 2012. The volcano has been mined in the past for volcanic gravel material and could be mined again in the future if not preserved. There is evidence of dumping in the area and off-road vehicle use. Staff noted artifacts at the base of the volcano and unusual stone corrals and/or altars at the top.


Volcano Heights Master Plan (State Land Office Parcel)



Location of State Land Exchange Parcel and Open Space Edgewood Trade Lands



STATE LAND OFFICE (WITHIN VOLCANO HEIGHTS MASTER PLAN)



Location:

The area to be acquired is just east of the Northern Geologic Window (NGW) and is drained by the northern branch of the Boca Negra Arroyo.

Description:

This parcel contains archaeological sites and other important cultural features. With urban development working its way closer to the NGW, this property can act as a buffer to help protect the NGW while

conserving more land in an ever growing area.

If not protected, motorized vehicle use and other high impact uses such as illegal dumping can cause damage to the natural and cultural resources found in the area.

Functions the property will serve:

Land conservation of this parcel is the main function for the property. The property has several sites of cultural significance and is geologically and geographically connected to Petroglyph National Monument. The second function of the property is to help define the urban area. If acquired, this parcel helps to guide all development around it. Another function is low impact recreation and environmental education. Its location near three schools could have this parcel serve as a natural outdoor classroom and act as a relief for recreation demands on the nearby fragile areas within the Northern Geologic Window.

Size: Approximately 76 acres

Land Status/Methods of Acquisition:

This parcel has been identified by the Volcano Heights Master Plan as an area to preserve for current and future generations. The parcel is only partially fenced and experiences severe impacts from off-road vehicles and trash dumping. The land is owned by the State Land Office and acquisition is very likely if an exchange can be pursued between the City of Albuquerque and the State Land Office as previously planned. The City of Albuquerque owns a parcel of land near the Town of Edgewood in Torrance County which is held in the Open Space Land Bank as a property to be sold or traded. A portion of the Exchange Land would be traded for the State Land parcel.

Appendices

Petroglyph National Monument Area Acquisitions



Proposed Open Space and WALH Lands

REPLACE WITH 11 X 17 FOLD OUT MAP



City of Albuquerque Open Space Lower-Priority Acquisitions*

	APPROX.		
AREA	ACRES	FUNCTIONS	COMMENTS
Calabacillas Arroyo	150	Conservation Urban Design Recreation	Comprehensive Plan and Facility Plan for Arroyos; areas west of Unser Blvd.
Private Bosque (Accretion Lands North of I-40)	60 (approx)	Conservation Urban Design	Multiple land-owners; possible conservation ease- ments or management agreements.

SOUTHWEST QUADRANT					
AREA	APPROX. ACRES	FUNCTIONS	COMMENTS		
Private Bosque (Accretion Lands South of I-40)	17 (approx)	Conservation Urban Design	Multiple land-owners; possible conservation easements or management agreements.		
South Rio Puerco Escarpment	1,670	Conservation Urban Design Recreation	Comprehensive Plan; multiple ownership. Possible County participation.		
Southern Sand Dunes	340	Conservation Urban Design Education	Quarter-cent property; multiple ownership. Possible County participation.		
Southwest Mesa Edge/ "Ceja"	1,760	Urban Design Conservation Recreation	Quarter-cent property; Within Santolina Master Plan area; possible County participation.		

*<u>NOTE</u>: THERE IS NO PRIORITIZATION WITHIN QUADRANTS OF THE CITY. PROPERTIES ARE LISTED IN ALPHABETICAL ORDER.

Draft List from January 2015.

City of Albuquerque Open Space Lower-Priority Acquisitions*

	APPROX.		
AREA	ACRES	FUNCTIONS	COMMENTS
La Cueva Arroyo	50	Conservation	Comprehensive Plan areas;
	50	Urban Design	possible dedication as part
		Recreation	of Planned Community.
Pino Arroyo	50	Conservation	Comprehensive Plan areas;
		Urban Design	possible dedication as part
		Recreation	of Planned Community.

SOUTHEAST QUADRANT					
AREA	APPROX. ACRES	FUNCTIONS	COMMENTS		
Mesa del Sol—Steep slopes and playa areas	300	Conservation Urban Design Recreation	Comprehensive Plan areas; proposed dedication as part of Planned Community.		
Tijeras Arroyo West	730	Urban Design Recreation Conservation	Quarter-cent property (partly); no appraisals. Possible land exchanges with State/UNM.		

*<u>NOTE</u>: THERE IS NO PRIORITIZATION WITHIN QUADRANTS OF THE CITY. PROPERTIES ARE LISTED IN ALPHABETICAL ORDER.

Draft List from January 2015.

Other Lower-Priority Open Space Acquisitions REPLACE WITH 11 X 17 FOLD OUT MAP



All City of Albuquerque Open Space Including Trust Lands



LIST OF ACRONYMS

- **AMAFCA**: Albuquerque Metropolitan Arroyo Flood Control Authority
- **COA**: City of Albuquerque
- **MPOS**: Major Public Open Space
- MRGCD: Middle Rio Grande Conservancy District
- **NGW**: North Geologic Window
- **OSAB:** Open Space Advisory Board
- **OSD**: City of Albuquerque Open Space Division
- **RMP**: Resource Management Plan
- WALH: Western Albuquerque Land Holdings

RELEVANT PLANNING DOCUMENTS

- Albuquerque/Bernalillo County Comprehensive Plan Rank 1 (2003 as Amended)
- Northwest Mesa Escarpment Plan (1987)
- Archaeological Resource Report (1986)
- Mesa del Sol Level A Master Plan w/Addendum
- Major Public Open Space Facility Plan 1999
- Facility Plan for Arroyos
- Tijeras Arroyo Bio-Zone Resource Management Plan—Rank II (20014)
- Northwest Mesa Escarpment Plan (1987)
- Volcano Cliffs Sector Development Plan
- Volcano Trails Sector Development Plan
- Westland Master Plan-2009