

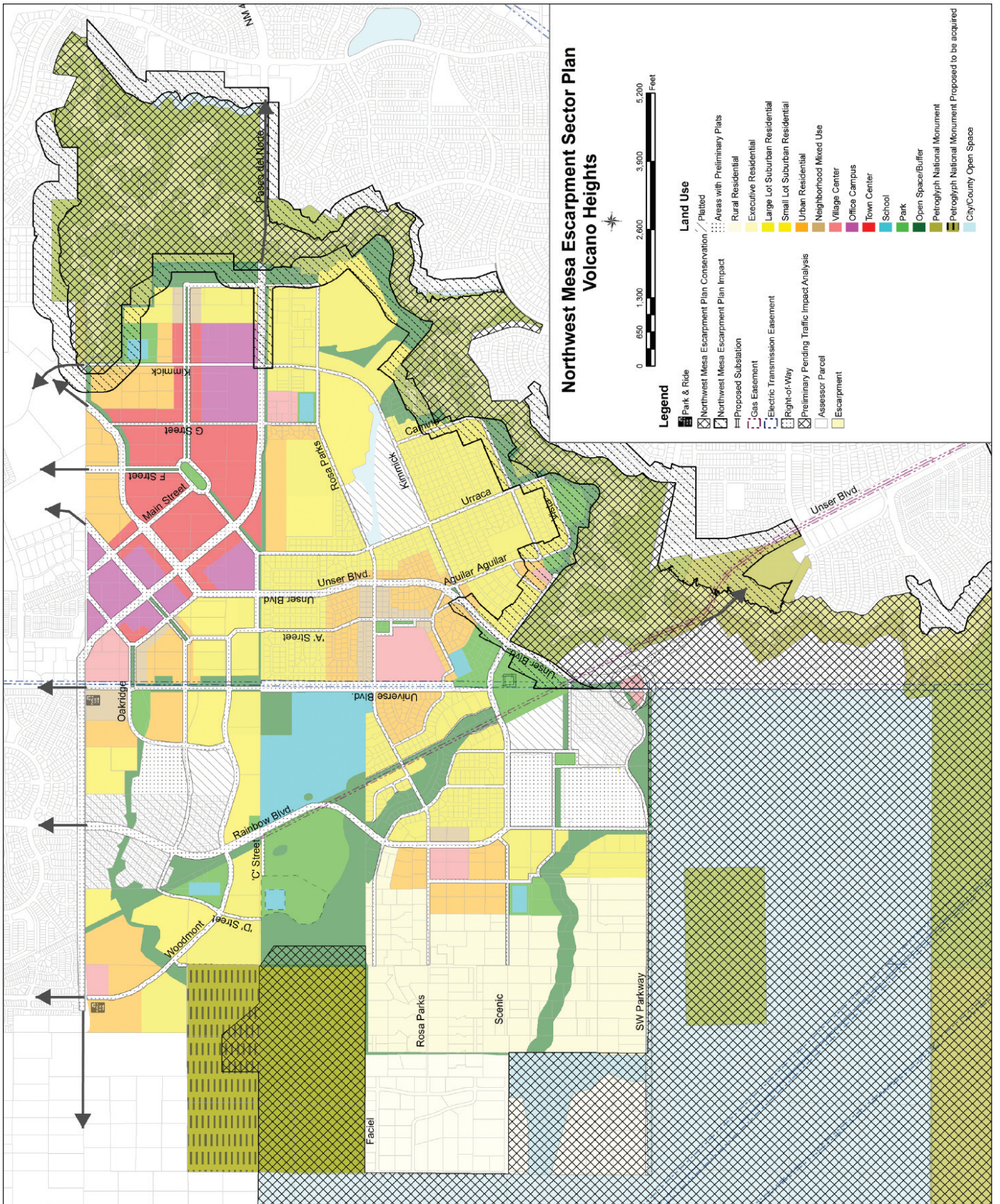
---

# Appendix

---

- A. Northwest Mesa Escarpment Sector Plan .....149
- B. Approved Colors .....150
- C. Appendix - Native Plant List A .....152
- D. Construction Mitigation .....158
- E. Stormwater Design and Management Standards .....160
- F. Definition: Qualified Archaeologist .....161
- G. Kimley-Horn Memorandum .....162

# Appendix A



# Appendix B

## Approved Colors

### *Exterior color and reflectivity standards for residential areas*

All of the illustrated colors have a “light reflective value” (LRV) within the range of 20% to 50% LRV rating and may be used in any residential area. Other colors may be submitted related to a specific site or more detailed plan, but they must have an LRV rating within this range. The material samples shown are of stucco with integrated color as required in the VHSDP.

Light and color work together. White reflects the radiant energy rays of the sun and black absorbs them. This principle has a significant impact on a house. Light colored reflective coatings are like a white shirt for a house and cut cooling costs. Dark colors are less reflective but can significantly increase the surface temperature of a wall. Finish coat colors with Light Reflective Values of 20% or lower are highly absorbent and will, in typical conditions, result in surface temperatures higher than acceptable sustained service temperature. Higher reflective values on external coatings reduce energy consumption and create higher performance buildings.

At the same time, the higher reflectivity value of lighter colors is a consideration for Volcano Heights because of the need to minimize the visual effect of development in the area on views from the rest of the city. In 1993 the High Desert Plan required an upper limit of 40% reflectivity. A balance between reflectivity and light absorption is recommended for Volcano Heights through a mid-range of color reflectivity.

The third consideration is the emphasis on the natural landscape in the VHSDP. The recommended colors are selected to be in harmony with the natural setting and at the same time provide choice in color selection.

VOLCANO HEIGHTS PLAN  
**APPROPRIATE COLORS from the Natural Landscape**  
 for  
 BUILDINGS WITHIN RESIDENTIAL AREAS

LIGHT REFLECTANCE VALUES			
Chart Color	LRV %	Chart Color	LRV %
122 Straw	41.83	135 Sahara	34.63
106 Buckskin	34.73	116 Adobe	24.03
118 Suede	37.67	124 Coral	34.93
117 Fawn	45.48	115 Cottonwood	32.18

LRV data is from El Rey Stucco; El Rey does not guarantee the LRV data provided. Colors are illustrative from El Rey Standard Color for Premium Stucco Finish. Color reproduction in this Plan is not an exact representation of the El Rey color chart.

In keeping with New Mexico tradition, accent colors on front doors, window sash, and other incidental elements is allowed as long as the accent color does not overwhelm the building's basic color or create a visual distraction from the adjacent streets, lots or public areas.

The color sample is for El Rey traditional cementitious stucco manufactured locally in Albuquerque. El Rey Premium Stucco Finish is a compound of cement, hydrated lime, sand aggregates and iron oxide pigments. Since the stucco is integrally colored it will never need to be painted. Like many natural landscapes, the traditional cement stucco is breathable and appears slightly different during each season and at alternate times of the day.

Other types of stucco with similar colors may be used, as long as they have integral color and meet the standards for reflectivity and harmony with the natural landscape.

# Appendix C

## Native Plant List A

List of Plant Species of Petroglyph National Monument - Plants found by Bleakly during a survey from August 1994 through September 1995. One hundred and ninety-two (192) plants from 40 families were identified. Arrangement is alphabetical by family, genus, and species with some synonyms and common names. An asterisk (\*) before the name indicates plants listed in Barlow-Irlick (1993). Nomenclature according to Kartesz (1994). Common names from various sources. Number of species in each family are in parentheses after family name. A "pound sign" (#) indicates that a voucher is housed at the UNM Herbarium.

**ADIANTACEAE** Maidenhair Fern Family (1)

*Cheilanthes feei* T. Moore SLENDER LIPFERN #

**AGAVACEAE** Agave or Yucca Family (1)

*Yucca glauca* Nutt. SMALL SOAPWEED

**AMARANTHACEAE** Pigweed Family (3)

*Amaranthus acanthochiton* Sauer GREENSTRIPE #

*Amaranthus wrightii* S. Wats. WRIGHT'S AMARANTH #

*Tidestromia lanuginosa* (Nutt.) Standl. WOOLLY TIDESTROMIA

**ANACARDIACEAE** Sumac Family (1)

*Rhus trilobata* Nutt. SKUNKBUSH, SKUNKBUSH SUMAC

**APIACEAE** (=UMBELLIFERAE) Parsley or Carrot Family (1)

*Cymopterus acaulis* (Pursh) Raf. var. *fendleri* (Gray)

Goodrich (*Cymopterus fendleri* Gray) FENDLER SPRINGPARSLEY #

**ASCLEPIADACEAE** Milkweed Family (1)

*Asclepias subverticillata* (Gray) Vail WHORLED MILKWEED

**ASTERACEAE** (=COMPOSITAE) Sunflower Family (42)

*Acourtia nana* (Gray) Reveal & King (*Perezia nana* Gray) DWARF  
DESERT HOLLY, DWARF DESERTPEONY #

*Aphanostephus ramosissimus* DC. PLAINS DOZEDAISY #

*Artemisia bigelovii* Gray BIGELOW'S SAGEBRUSH #

*Artemisia filifolia* Torr. SANDSAGE, SAND SAGEBRUSH

*Artemisia frigida* Willd. FRINGED SAGE

*Artemisia ludoviciana* Nutt. ssp. *albula* (Woot.) Keck WHITE SAGE-  
BRUSH #

\* *Bahia absinthifolia* Benth. #

\* *Bahia dissecta* (Gray) Britt.

*Bahia pedata* Gray BLUNTSCALE BAHIA #

*Baileya multiradiata* Harvey & Gray ex Gray DESERT MARIGOLD #

\* *Berlandiera lyrata* Benth.

*Brickellia californica* (Torr. & Gray) Gray CALIFORNIA BRICKELLBUSH #

*Chaetopappa ericoides* (Torr.) Nesom (*Leucelene ericoides* (Torr.) Greene)  
WHITE ASTER

- \* *Chrysothamnus nauseosus* (Pallas ex Pursh) Britt. ssp. *bigelovii* (Gray) Hall & Clements #  
*Chrysothamnus pulchellus* (Gray) Greene ssp. *pulchellus*  
 SOUTHWESTERN RABBITBRUSH #  
*Conyza canadensis* (L.) Cronq. CANADIAN HORSEWEED  
 \* *Gaillardia pinnatifida* Torr. #  
*Gaillardia pulchella* Foug. FIREWHEEL  
*Gutierrezia sarothrae* (Pursh) Britt. & Rusby BROOM SNAKEWEED #  
*Helianthus petiolaris* Nutt. PRAIRIE SUNFLOWER  
*Hymenopappus flavescens* Gray var. *canotomentosus* Gray YELLOW-FLOW-  
 ERED WHITE RAGWEED, COLLEGEFLOWER #  
*Machaeranthera canescens* (Pursh) Gray HOARY TANSYASTER #  
 \* *Machaeranthera gracilis* (Nutt.) Shinnery (*Haplopappus gracilis* (Nutt.) Gray) #  
*Machaeranthera pinnatifida* (Hook.) Shinnery (*Haplopappus spinulosus* (Pursh) DC.) LACY TANSYASTER  
*Malacothrix fendleri* Gray FENDLER DESERTDANDELION #  
*Melampodium leucanthum* Torr. & Gray PLAINS BLACKFOOT #  
 \* *Microseris* sp. *Palafoxia sphaelata* (Nutt. ex Torr.) Cory OTHAKE #  
*Parthenium incanum* Kunth MARIOLA #  
*Pectis angustifolia* Torr. var. *angustifolia* NARROWLEAF PECTIS #  
*Ptilostrophe tagetina* (Nutt.) Greene WOOLLY PAPERFLOWER  
*Sanvitalia abertii* Gray ABERT'S CREEPING ZINNIA #  
*Senecio flaccidus* Less. var. *flaccidus* (*Senecio douglasii* DC. ssp. *longilobus* (Benth.) L. Benson THREADLEAF GROUNDSEL #  
*Senecio multicapitatus* Greenm. ex Rydb. RAGWORT GROUNDSEL #  
*Senecio riddellii* Torr. & Gray RIDDELL'S RAGWORT OR GROUNDSEL #  
*Stephanomeria pauciflora* (Torr.) A. Nels. BROWNPLUME WIRELETTUCE #  
*Thelesperma megapotamicum* (Spreng.) Kuntze HOPI TEA, GREENTHREAD  
*Thymophylla acerosa* (DC.) Strother (*Dyssodia acerosa* DC.) PRICKLYLEAF DOGWEED #  
*Verbesina encelioides* (Cav.) Benth. & Hook. f ex Gray GOLDENCROWNBEARD, COWPEN DAISY  
*Xanthium strumarium* L. COCKLEBUR  
*Zinnia grandifolia* Nutt. ROCKY MOUNTAIN ZINNIA #

**BIGNONIACEAE** Bignonia Family (1)

*Chilopsis linearis* (Cav.) Sweet DESERT WILLOW

**BORAGINACEAE** Borage Family (4)

*Cryptantha cinerea* (Greene) Cronq. var. *cinerea* (*C. jamesii* Payson var. *multicaulis* (Torr.) Payson) JAMES' CATSEYE #

*Cryptantha crassisejala* (Torr. & Gray) Greene var. *elachantha* I.M. Johnst. THICKSEPAL CATSEYE #

*Heliotropium convolvulaceum* (Nutt.) Gray PHLOX HELIOTROPE

*Lappula occidentalis* (S. Wats.) Greene var. *occidentalis* (*L. redowskii* (Hornem.) Greene) FLATSPINE STICKSEED #

**BRASSICACEAE** (=CRUCIFERAE) Mustard Family (7)

*Descurainia pinnata* (Walt.) Britt. WESTERN TANSYMUSTARD #

*Dimorphocarpa wislizenii* (*Dithyrea wislizenii*)

SPECTACLE POD; TOURISTPLANT

*Lepidium lasiocarpum* Nutt. var. *lasiocarpum* SHAGGYFRUIT  
PEPPERWEED #

\* *Lepidium montanum* Nutt.

*Lesquerella fendleri* (Gray) S. Wats. FENDLER BLADDERPOD #

**CACTACEAE** Cactus Family (6)

*Echinocereus fendleri* (Engelm.) F. Seitz PINKFLOWERED  
HEDGEHOG CACTUS

*Escobaria vivipara* (Nutt.) Buxbaum (*Coryphantha vivipara* (Nutt.) Britt. & Rose) SPINYSTAR

*Opuntia clavata* Engelm. CLUB CHOLLA

*Opuntia imbricata* (Haw.) DC. TREE or WALKINGSTICK CHOLLA

*Opuntia phaeacantha* Engelm. BROWNSPINE PRICKLYPEAR

*Opuntia polyacantha* Haw. PLAINS PRICKLYPEAR

**CAPPARACEAE** Caper Family (1)

*Polanisia dodecandra* (L.) DC. ssp. *trachysperma* (Torr. & Gray) Ilitis  
SANDYSEED CLAMMYWEED #

**CHENOPODIACEAE** Goosefoot Family (5)

*Atriplex canescens* (Pursh) Nutt. FOURWING SALTBUCH

\* *Chenopodium desiccatum* A. Nels. #

*Chenopodium fremontii* S. Wats. FREMONT'S GOOSEFOOT #

*Krascheninnikovia lanata* (Pursh) Guldenstaedt (*Ceratooides lanata* (Pursh)

J.T. Howell; *Eurotia lanata* (Pursh) Moq.) WINTERFAT

**CUCURBITACEAE** Gourd Family (1)

*Cucurbita foetidissima* Kunth COYOTE or MISSOURI GOURD

**CUPRESSACEAE** Cypress Family (1)

*Juniperus monosperma* (Engelm.) Sarg. ONESEED JUNIPER

**EPHEDRACEAE** Jointfir Family (1)

*Ephedra torreyana* S. Wats. TORREY JOINTFIR or MORMON TEA #

**EUPHORBIACEAE** Spurge Family (7)

*Chamaesyce parryi* (Engelm.) Rydb. PARRY'S SANDMAT or SPURGE #

*Chamaesyce serpyllifolia* (Pers.) Small THYMELEAF SANDMAT or  
SPURGE #

*Chamaesyce serrula* (Engelm.) Woot. & Standl. SAWTOOTH SANDMAT  
or SPURGE #

*Croton texensis* (Klotzsch) Muell.-Arg. TEXAS CROTON #

*Euphorbia dentata* Michx. TOOTHED SPURGE #

\* *Tragia ambylodonta* (Muell.-Arg.) Pax & K. Hoffmann

*Tragia ramosa* Torr. BRANCHED NOSEBURN

**FABACEAE** (=LEGUMINOSAE) Bean or Pea Family (14)

*Astragalus amphioxys* Gray var. *amphioxys* CRESCENT MILKVETCH #

*Astragalus ceramicus* Sheld. var. *ceramicus* PAINTED MILKVETCH #

*Astragalus lentiginosus* Dougl. var. *diphysus* (Gray) Jones SPECKLEDPOD  
MILKVETCH #

*Astragalus nuttallianus* DC. SMALLFLOWERED MILKVETCH #

*Caesalpinia jamesii* (Torr. & Gray) Fisher JAMES' HOLDBACK

*Dalea compacta* Spreng. var. *compacta* COMPACT PRAIRIECLOVER #

*Dalea formosa* Torr. FEATHERPLUME

*Dalea lanata* Spreng. var. *terminalis* (Jones) Barneby WOOLLY  
PRAIRIECLOVER #

*Dalea nana* Torr. ex Gray var. *carnescens* Kearney & Peebles DWARF PRAIRIECLOVER #

*Dalea scariosa* S. Wats. (*Petalostemon scariosa* (S. Wats.) Wemple) ALBUQUERQUE PRAIRIECLOVER #

*Hoffmannseggia glauca* (Ortega) Eifert INDIAN RUSHPEA

*Pediomelum hypogaeum* (Nutt.) Rydb. (*Psoralea hypogaea* Nutt.) SCURFPEA #

*Psoralea scoparius* (Gray) Rydb. (*Dalea scoparia* Gray) BROOM DALEA; PURPLE SAG

**FUMARIACEAE** Fumitory Family (1)

*Corydalis aurea* Willd. GOLDEN CORYDALIS, SCRAMBLED EGGS, GOLDENSMOKE, BUTTER AND EGGS

**GROSSULARIACEAE** Gooseberry Family (1)

*Ribes* sp. GOOSEBERRY

**HYDROPHYLLACEAE** Waterleaf Family (4)

*Nama hispidum* Gray BRISTLY NAMA

*Phacelia crenulata* Torr. var. *crenulata* CLEFTLEAF WILDHELIOTROPE #

*Phacelia integrifolia* Torr. GYPSUM SCORPIONWEED #

*Phacelia ivesiana* Torr. IVES PHACELIA #

**LINACEAE** Flax Family (2)

*Linum aristatum* Engelm. BRISTLE FLAX

\**Linum australe* Heller #

**LOASACEAE** Stickleaf Family (2)

*Mentzelia albicaulis* (Dougl.) Dougl. WHITESTEM BLAZINGSTAR

*Mentzelia pumila* (Nutt.) Torr. & Gray DWARF MENTZELIA #

**MALVACEAE** Mallow Family (5)

*Sida abutilifolia* P. Mill. (*Sida filicaulis* Torr. & Gray) SPREADING FANPETALS #

\* *Sida neomexicana* Gray

*Sphaeralcea angustifolia* (Cav.) G. Don ssp. *lobata* (Woot.) Kearney COPPER GLOBEMALLOW #

*Sphaeralcea hastulata* Gray (*Sphaeralcea subhastata* Coult.) SPEAR GLOBEMALLOW #

*Sphaeralcea incana* Torr. ex Gray GRAY GLOBEMALLOW #

**NYCTAGINACEAE** Four O'clock Family (7)

*Abronia fragrans* Nutt. ex Hook. FRAGRANT WHITE SAND VERBENA

\* *Allionia choyisia* Standl. #

*Allionia incarnata* L. TRAILING WINDMILLS #

*Boerhavia spicata* Choisy (*B. torreyana* (S. Wats.) Standl.) CREEPING SPIDERLING #

\* *Mirabilis glabra* (S. Wats.) Standl. (*Oxybaphus glaber* S. Wats.) #

*Mirabilis linearis* (Pursh) Heimerl NARROWLEAF FOUR O'CLOCK

*Selinocarpus diffusus* Gray SPREADING MOONPOD #

**OLEACEAE** Olive Family (1)

*Menodora scabra* Gray ROUGH MENODORA

**ONAGRACEAE** Evening Primrose Family (2)

*Gaura coccinea* Nutt. ex Pursh SCARLET BEEBLOSSOM

*Oenothera pallida* Lindl. PALE EVENINGPRIMROSE #

**OROBANCHACEAE** Broomrape Family (1)

*Orobanche ludoviciana* Nutt. (*O. multiflora* Nutt.) LOUISIANA BROOMRAPE #



**PEDALIACEAE** Sesame Family (1)

*Proboscidea louisianica* (P. Mill.) Thelleng COMMON DEVILSCLAW,  
DEVILSHORN, RAM'S HORN

**PLANTAGINACEAE** Plantain Family (1)

*Plantago patagonica* Jacq. (*P. purshii* Morris) WOOLLY PLANTAIN #  
*Plantago lanceolata* L. NARROWLEAF PLANTAIN

**POACEAE** (=GRAMINAE) Grass Family (42)

*Aristida adscensionis* L. SIXWEEKS THREEAWN #

\* *Aristida arizonica* Vasey

*Aristida havardii* Vasey HAVARD'S THREEAWN #

\* *Aristida pansa* Woot. & Standl.

*Aristida purpurea* Nutt. var. *fendleriana* (Steud.) Vasey  
FENDLER'S THREEAWN #

\* *Aristida purpurea* Nutt. var. *neallyi* (Vasey) Allred #

\* *Aristida purpurea* Nutt. var. *purpurea* #

\* *Bothriochloa barbinodis* (Lag.) Herter #

*Bothriochloa laguroides* (DC.) Herter ssp. *torreyana* (Steud.) Allred & Gould  
(*Andropogon saccharoides* Sw.) SILVER BEARDGRASS or SILVER  
BLUESTEM #

*Bouteloua aristoides* (H.B.K.) Griseb. var. *aristoides* NEEDLE GRAMA #

*Bouteloua barbata* Lag. var. *barbata* SIXWEEKS GRAMA #

*Bouteloua curtipendula* (Michx.) Torr. SIDEOATS GRAMA

*Bouteloua eriopoda* (Torr.) Torr. BLACK GRAMA #

*Bouteloua gracilis* (Willd. ex Kunth) Lag. ex Griffiths BLUE GRAMA

*Bouteloua hirsuta* Lag. HAIRY GRAMA

\* *Cenchrus carolinianus* Walt. (*Cenchrus incertus* M.A. Curtis)

\* *Digitaria californica* (Benth.) Henr.#

*Elymus elymoides* (Raf.) Swezey (*Sitanion hystrix* (Nutt.) J.G. Sm.; *Elymus longifolius* (J.G. Sm.) Gould) SQUIRRELTAIL #

*Enneapogon desvauxii* Beauv. NINEAWN PAPPUSGRASS #

*Erioneuron pulchellum* (Kunth) Tateoka (*Dasyochloa pulchella* (Kunth) Willd.  
ex Rydb.) FLUFFGRASS, LOW WOOLLYGRASS #

*Hilaria jamesii* (Torr.) Benth. (*Pleuraphis jamesii* Torr.) GALLETA #

\* *Koeleria macrantha* (Ledeb.) J.A. Schultes

(*Koeleria cristata* auct. p.p. non Pers.)

\* *Lycurus phleoides* Kunth

*Monroa squarrosa* (Nutt.) Torr. (*Munroa squarrosa* (Nutt.) Torr.)  
FALSE BUFFALOGRASS #

\* *Muhlenbergia arenacea* (Buckl.) A.S. Hitchc.

*Muhlenbergia arenicola* Buckl. SAND MUHLY #

*Muhlenbergia porteri* Scribn. BUSH MUHLY #

*Muhlenbergia pungens* Thurb. SANDHILL MUHLY #

*Muhlenbergia torreyi* (Kunth) A.S. Hitchc. ex Bush RING MUHLY

*Oryzopsis hymenoides* (Roemer & J.A. Schultes)

Ricker ex Piper INDIAN RICEGRASS

\* *Poa bigelovii* Vasey & Scribn.

*Scleropogon brevifolius* Phil. BURROGRASS #

*Setaria leucopila* (Scribn. & Merr.) K. Schum.  
STREAMBED BRISTLEGRASS #

\* *Setaria lutescens* (Weigel) F.T. Hubbard ?

*Sporobolus contractus* A.S. Hitchc. SPIKE DROPSEED  
*Sporobolus cryptandrus* (Torr.) Gray SAND DROPSEED #  
 \* *Sporobolus flexuosus* (Thurb. ex Vasey) Rydb. #  
*Sporobolus giganteus* Nash GIANT DROPSEED #  
*Stipa comata* Trin & Rupr. var. *comata* NEEDLEANDTHREAD #  
 \* *Stipa neomexicana* (Thurb. ex Coult.) Scribn.  
*Stipa spartea* Trin. PORCUPINEGRASS #  
*Vulpia octoflora* (Walt.) Rydb. (*Festuca octoflora* Walt.)  
 SIXWEEKS FESCUE #

**POLEMONIACEAE** Phlox Family (1)

*Ipomopsis pumila* (Nutt.) V. Grant DWARF GILIA #

**POLYGONACEAE** Knotweed Family (4)

*Eriogonum abertianum* Torr. var. *abertianum* ABERT BUCKWHEAT #  
 \* *Eriogonum effusum* Nutt.  
*Eriogonum polycladon* Benth. SORREL BUCKWHEAT #  
*Eriogonum rotundifolium* Benth. ROUNDEAF BUCKWHEAT #  
*Rumex hymenosepalus* Torr. CANAIGRE; DOCK #

**PORTULACACEAE** Purslane Family (1)

*Portulaca* sp. PURSLANE

**RANUNCULACEAE** Crowfoot Family (1)

*Delphinium* sp. LARKSPUR

**ROSACEAE** Rose Family (1)

*Fallugia paradoxa* (D. Don) Endl. ex Torr. APACHE PLUME

**SALICACEAE** Willow Family

*Salix* sp. WILLOW

**SCROPHULARIACEAE** Figwort Family (3)

*Epixiphium wislizenii* (Engelm. ex Gray) Munz (*Maurandya wislizenii*  
 Engelm. ex Gray) BALLOONBUSH #  
*Penstemon ambiguus* Torr. GILIA PENSTEMON or BEARDTONGUE  
 \* *Penstemon* sp.

**SOLANACEAE** Potato Family (6)

*Chamaesaracha coronopus* (Dunal) Gray GREENLEAF FIVE EYES #  
*Datura innoxia* P. Mill. THORNAPPLE; JIMSONWEED #  
*Lycium pallidum* Miers PALE WOLFBERRY  
*Nicotiana trigonophylla* Dunal DESERT TOBACCO #  
*Physalis acutifolia* (Miers) Sandw. (*P. wrightii* Gray) SHARPLEAF  
 GROUNDCHERRY #  
*Solanum elaeagnifolium* Cav. SILVERLEAF NIGHTSHADE

**VERBENACEAE** Vervain Family (2)

*Aloysia wrightii* Heller ex Abrams WRIGHT'S BEEBRUSH #  
 \* *Tetradlea coulteri* Gray #

**ZYGOPHYLLACEAE** Caltrop Family (2)

*Kallstroemia* sp. CALTROP

# Appendix D

## Construction Mitigation

Policy CM: Any damage to the vegetation, slope, or placement of boulders due to or related to construction shall be mitigated as provided herein.

Policy CM-1: Prior to beginning construction, the property owner shall construct a temporary fence at the site boundary adjacent to the Escarpment Buffer, Major Open Space Area, archeological site or public or private conservation area to be maintained in natural desertscape to effectively barricade it from heavy equipment and vehicles. Photographs of the site in its original condition shall be submitted with the application for building permit, subdivision and/or site development plan.

Policy CM-2: Prior to beginning construction, the property owner shall construct a temporary fence at the Development Envelope boundary and at the parcel boundary (except for the interior lot lines of parcels developed at the same time) within the Rural Residential, Executive Residential, and Suburban Residential–Large Lot Zones to protect natural desertscape in the Conservation Easement area to effectively barricade it from heavy equipment and vehicles.

Policy CM-3: Public- and private-sector projects within the Conservation Area and the Impact Area facing the Escarpment and adjacent to archeological sites must include geotechnical data and analysis that demonstrates to the satisfaction of the City Engineer that proposed trenching or blasting will not affect the face of the Escarpment, potentially causing erosion or caving of the slopes and boulders and thereby threatening the public safety or welfare or otherwise damage archeological resources.

Policy CM-4: The following applies in the selection of alignment and in site design.

- a Grading plans shall demonstrate that cut and fill has been kept to a minimum consistent the standards in this Plan. Generally, the overall topography of the site is not to be substantially altered.
- b Minimum width of disturbance to slopes and vegetation and minimum cut and fill, balanced against the need to provide for bikeways or other amenities within the right-of-way.

Policy CM-5: Replacement of boulders shall be to the approximate the original location, angle and surface exposure. Revegetation to approximate original cover with appropriate native or naturalized plants as identified in Plant List A is required within 90 days of project completion. A variance may be granted if the type of vegetation or time of year make revegetation within 90 days impossible. For infrastructure projects on public lands, the construction company shall post a warranty bond effective for three years after completion of the infrastructure work to insure successful revegetation.

Policy CM-6: The City shall be responsible for restoring existing damaged areas which lie within public open space. The property owner shall be responsible for restoring damaged areas on lands accepted by the City to meet open space requirements if that damage occurred after the adoption of the Volcano Heights Sector Development Plan; this shall occur prior to title transfer if the land is to be deeded to the City, and shall be an ongoing responsibility of the property owner if the land remains private open space.

Policy CM-7 Existing cuts which are used as trail locations shall be stabilized and revegetated at the time of trail construction.

Policy CM-8: As public open space is acquired by the City, damaged areas shall be protected from further abuse and reseeded.

# Appendix E

## Stormwater Design and Management Standards

The 300 foot drainage corridor of the North and Middle Forks of the Boca Negra Arroyos shall remain as undisturbed desert with natural vegetation, rock formations, and drainageway intact. Only minimal alterations are permissible if essential for stormwater management or for the initial construction of a trail or recreational amenity.

Policy SDM-1: Channel treatments shall meet the following requirements:

Limited stabilization of natural channels, according to the policies contained in the “Facility Plan for Arroyos,” unless such treatment is determined to be infeasible by the City or the Albuquerque Metropolitan Flood Control Authority as appropriate.

Use of many small, unobtrusive structures, such as check dams or small drop structures, rather than larger, more obtrusive structures, when structural solutions are required.

Use of materials in treated channels which blend visually with the escarpment and adjacent open space. Naturalistic treatments, such as rip-rap, gabions, or tinted concrete, are the preferred treatment types.

Protection of canyons from erosion through control of developed flows and through stabilization techniques which are consistent with the visual character of the open space.

Policy SDM-2: Developed flows shall be managed to minimize their impact on the open space, North Geologic Window, archeological sites, and the Escarpment Face. The potential impacts of water retention should be thoroughly studied prior to use of detention areas to control flows.

Policy SDM-3: Within the large areas of open space, developed flows shall be modified through check dams or other means to approximate undeveloped flows to minimize impacts on the escarpment and to minimize the intensity of channel treatment required. However, the impact of check dams as a method of controlling flows should be thoroughly studied prior to their use.

# Appendix F

## **DEFINITION: QUALIFIED ARCHAEOLOGIST:**

(This definition remains in affect until superceded by future adopted City Ordinance.)

An individual who meets the following minimum professional standards:

1. a graduate degree in archeology, anthropology, or closely related field, or equivalent training acceptable for accreditation purposes by the Society of professional Archeologists; and
2. demonstrated ability to carry research to completion, evidenced by timely completion of theses, research reports or similar documents; and
3. at least 16 months of professional experience and/or specialized training in archeological field research, laboratory research, administration or management, including at least 1 year of experience or specialized training in the kind of activity the individual proposes to practice, and at least 6 months of field experience within the region where the project will be undertaken, or demonstrable competence based on analogous experience. Persons engaged to do archival or documentary research, as part of the permitted activity, should have either a graduate degree in history or ethnohistory or at least two years of graduate education in either of these fields, or equivalent professional experience including publications.”