

FINAL

**Low-Effect Habitat Conservation Plan
for the
Issuance of an Incidental Take Permit
Under Section 10(A)(1)(b) of the Endangered Species Act
For the Construction of a Single-Family Residence at
The Dahle Property**

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Title Page

Lead Agency: U.S. Fish and Wildlife Service, Department of Interior

Legal Authority: Endangered Species Act of 1973, as amended, Section 10(a), as implemented by 50 CFR 17.32(b)(1) and 17.22(b)(1)

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LOW-EFFECT HABITAT CONSERVATION PLAN FOR THE ISSUANCE OF AN INCIDENTAL TAKE PERMIT UNDER SECTION 10(A)(1)(b) OF THE ENDANGERED SPECIES ACT FOR THE CONSTRUCTION OF A SINGLE-FAMILY RESIDENCE AT THE DAHLE PROPERTY

APRIL 2002

Introduction

Lee J. Dahle, hereinafter referred to as "Applicant," has applied to the U.S. Fish and Wildlife Service (Service) for a permit to allow the incidental take of Preble's meadow jumping mouse (*Zapus hudsonius preblei*), a species listed as threatened under the Endangered Species Act (ESA) of 1973, as amended. The incidental take would be in the form of potential disturbance to and loss of habitat potentially used by Preble's meadow jumping mouse (PMJM). The proposed action involves the construction of a single-family home in an area potentially used by PMJM. The project is located in Colorado Springs, El Paso County, along Monument Creek in T13S, R66W, Section 06, SW 1/4 in the Pikeview quadrangle (**Figure 1**: UTM Zone 13; 4310770N, 515140E). The site is north of Woodman Road, just south of the Air Force Academy and west of I-25, at 17 El Dorado Lane (**Figure 2**). The site is Lot 5, Block 4 in Thunderbird Estates Subdivision. **Figure 3** is a lot sketch.

The intent of this Low-Effect Habitat Conservation Plan (HCP) is to minimize and mitigate the potential incidental take of PMJM. No other federally-listed species are known to be adversely affected by the proposed project. Three alternatives have been identified: 1) the proposed (preferred) alternative, 2) wait for El Paso County Regional Habitat Conservation Plan, and 3) no action alternative.

Background

Lee J. Dahle purchased the .65-acre parcel located at 17 El Dorado Lane, Colorado Springs, Colorado, in March 1982. No construction of any kind has been done at the site.

The Preble's meadow jumping mouse came under the full protection of the Endangered Species Act as a threatened species in May 1998. The Applicant intends to construct a single-family residence at the site during the summer and fall of 2002. Because the proposed building site is within potential habitat for the mouse, construction at the site will be postponed until an incidental take permit for the mouse can be obtained.

Purpose and Need

The purpose of this Low-Effect HCP is to evaluate the environmental impact of the proposed action and to obtain an incidental take permit for the Preble's meadow jumping mouse, a federally threatened species. Section 10 of the ESA requires a Low-Effect HCP in support of the Incidental Take Permit application. The intent of the Low-Effect HCP is to minimize and mitigate the potential incidental take of PMJM to the maximum extent practicable and to reduce the likelihood that the proposed project will negatively affect the survival and recovery of PMJM.

Description of the Affected Environment

Geography

Lot 5 is the last lot to be developed in Block 4 of Thunderbird Estates (**Photos 1, 2, and 3**). Lot 5 is located entirely in the 100-year floodplain of Monument Creek and extends 220 feet from El Dorado Lane, west, to the back lot line. The back of the lot does not meet the creek but stops approximately 60 feet from Monument Creek (**Photo 4**). A platted drainage easement line is found about 25 to 50 feet from the back of the lot (**Photos 5 and 6**). No construction will occur in this platted drainage easement area for reasons of flood control. The building would be located close to El

Dorado Lane, and only grass and two pine trees would be removed to build the house. No riparian vegetation would be affected.

Vegetation

The vegetation on the lot consists of grasses (smooth brome and native species), ponderosa pine, cottonwood, and a few choke cherry shrubs (**Photos 2 and 3**). As one moves closer to Monument Creek, past the drainage easement, the vegetation becomes lush with grasses and forbs (**Photos 5 and 6**). Also willow shrubs, sumac, and choke cherry shrubs are found along Monument Creek (**Photo 4**).

Wildlife

Small mammal species likely to occur at the property include deer mouse, meadow vole, and western harvest mouse. Other mammal species that may frequent the property include mule deer, striped skunk, red fox, and raccoon. Common bird species that may occur at the property include red-tailed hawk, great-horned owl, American goldfinch, black-billed magpie, American robin, broad-tailed hummingbird, common grackle, European starling, northern flicker, western kingbird, and many others. Reptiles that have the potential to occur at the site include fence lizard, bull snake, plains garter snake, and prairie rattlesnake. Amphibians that have the potential to occur at the property include northern leopard frog, bullfrog, chorus frog, Woodhouse's toad, and tiger salamander.

Threatened or Endangered Species

This reach of Monument Creek, both up- and downstream of this subdivision, has been studied and assessed extensively over the past six years for the presence of Preble's mice. Four Preble's mice captures of several individuals have been documented within a mile upstream of Thunderbird Estates, and three captures of several individuals have been documented within a mile downstream. The downstream captures were associated with work around Woodman Road (Schorr 1997, Greystone 1999) and a study of Pine Creek (Meaney 1998). The upstream

captures were associated with monitoring at the Air Force Academy (Corn et. Al. 1995) and trapping for El Paso County (Dames and Moore 1997). Additionally, the tributaries of Monument Creek, Kettle and Pine Creeks, and an unnamed tributary in between Kettle and Pine Creeks all have Preble's mouse populations.

Wetlands

No wetlands occur within the lot proposed for development.

Geology / Soils

The soils within the project site are primarily Kettle gravely loam sand (HRCS, 1981). Kettle soil is deep, well-drained soil that formed in sandy arkosic deposits on uplands. Permeability of this Kettle soil is rapid, and available water capacity is low to moderate. Surface runoff is slow, and the hazard of erosion is slight to moderate.

Land Use

As mentioned, Lot 5 is the last lot along Monument Creek left to be developed in Thunderbird Estates. Surrounding homes are on lots of approximately .50 to .75 acres. The entire development of Thunderbird Estates consists of single-family residences, most built during the 1960s and 1970s. Covenants require that houses be at least 1500 square feet. Most lots along the creek, including Lot 5, have a drainage easement across the back of the lot upon which no construction can occur. Houses are, therefore, positioned close to the street, usually at the minimal 25-foot setback. The development includes no parks or other public spaces.

Air Quality

The property is located in a suburban portion of El Paso County that meets all relevant air quality standards.

Water Resources and Water Quality

The water and sewer service for the proposed home will come from existing lines of Colorado Springs Utilities. The lot lies within the 100-year floodplain of Monument Creek. The back boundary of the lot lies about 60 feet from the creek.

Cultural Resources

No buildings or other structures have ever been built on this lot, nor does the lot contain any archeological resources.

Alternatives Considered

The alternatives considered include: 1) build the residence at the proposed site (preferred), 2) wait for El Paso County Regional Habitat Conservation Plan, and 3) no action. This section describes each alternative. The environmental consequences of the alternatives are discussed in the "Environmental Consequences" section below.

Alternative 1 – Proposed (Preferred) Alternative

The proposed action is the issuance of a permit under Section 10(a)(1)(B) of the Endangered Species Act to allow the incidental take of Preble's meadow jumping mouse during the construction of a single-family residence at the site. The proposed alternative would allow the Applicant to construct a home at the site as planned. The proposed project will directly affect approximately 0.15 acre of potential habitat for PMJM. The house will be situated such that 0.50 acre of the lot will be preserved. The project would not adversely affect the continued existence of PMJM on the property due to the small area of habitat affected.

The proposed home and associated facilities will consist of a single-family residence (permanent disturbance consisting of 1800 square feet including exterior wood decks) and a concrete driveway and apron (permanent disturbance of 1900 square feet).

An HCP has been developed as part of the preferred alternative. The proposed HCP will allow for the incidental take of PMJM by permitting the house to be constructed in an area that may be periodically used by the mouse as foraging, day-nesting, and hibernation habitat. The incidental take permit application is attached (refer to **Figure 4**). Construction will result in about 0.15 acre of habitat loss or disturbance.

The proposed project minimizes potential effects to PMJM and its habitat while meeting the Applicant's needs. The proposed alternative would result in minimal impacts to potential habitat.

Alternative 2 – Wait for El Paso County Regional Habitat Conservation Plan

This alternative involves waiting for approval of the El Paso County Regional Habitat Conservation Plan. The proposed construction of the residence might be able to proceed under a countywide HCP. However, it is unknown when this regional HCP will be approved or if it will address the proposed project. This alternative assumes that Applicant could wait for the regional HCP to be approved and implemented.

Alternative 3 – No Action Alternative

The no action alternative consists of not constructing the home. This alternative would avoid any incidental take of PMJM at the site. This alternative would not allow Applicant to use the property for a home site, as originally intended. Under this alternative, no application for incidental take would be submitted.

Environmental Consequences

Alternative 1 – Proposed (Preferred) Alternative

Vegetation

The proposed action will result in the alteration of approximately .085 acre of mixed grassland vegetation during construction. Of this total, .01 acre will be

temporary disturbance that will be replaced with appropriate native species after completion of construction.

Wildlife

The small amount of disturbance associated with the proposed project should have little direct affect on wildlife. A few rodents or birds may be directly displaced by the proposed project. Some increased competition for nesting or foraging habitat may result. The majority of the property will remain in its current state.

Threatened and Endangered Species

The stretch of Monument Creek associated with Thunderbird Estates is likely Preble's mouse habitat or at least a corridor for movement between Kettle Creek, Pine Creek, and the Air force Academy Grounds. The Colorado Division of Wildlife map of Preble's Mouse Potential Habitat indicates this area as "high potential." In reviewing this information, two interesting facts emerge regarding Lot 5 in Block 4. The subdivision was platted in the 1960s; therefore, at least some of the homes are 30+ years old; and all the lots, except Lot 5, were developed at least by 1980. The impacts associated with the development of all the other lots on the west side of El Dorado Lane happened around that time, when the homes were constructed. Yet, relatively recent captures of Preble's mice up- and downstream of Thunderbird Estates indicates that individuals persist even after previous development of the subdivision. The significant impacts to mouse habitat occurred prior to its being federally listed. Impacts associated with previous development affected a much larger area. However, a population of Preble's mice still occurs in the area. It seems unlikely that the development of the one remaining lot would create a significant impact.

What appears to be the case today is that Monument Creek along Thunderbird Estates is perhaps an important corridor for mice to move between Kettle and Pine Creeks. This is based on recent habitat mapping for the El Paso County HCP and supported by an earlier mapping effort by the Colorado Division of Wildlife. This

stretch of Monument Creek contains a thin, but contiguous strip, of riparian habitat. It seems logical that maintaining the corridor is an important consideration.

Wetlands

No wetlands will be affected by the proposed project.

Geology / Soils

No significant alterations to geology or soils at the site are expected to result from the project.

Land Use

This area of El Paso County is zoned residential. The proposed residence will not significantly change land use in the area.

Air Quality

Air quality will not be significantly affected because of the small construction area and limited duration of construction. Emissions from construction-related activities would be localized and limited to short periods of time.

Water Resources and Water Quality

Water quality of the area should not be affected because ground-disturbing activities will be conducted away from Monument Creek.

Cultural Resources

No known cultural sites, including historical or archeological sites, exist on the lot; therefore, no impacts to cultural resources are anticipated.

Cumulative Effects

There will be no significant adverse cumulative effects to resources due to the small area of disturbance and short period of construction.

Recreation and Visual Resources

The property is not open to public access, so the proposed project will have no affect on recreational resources. The proposed residence will blend in visually with the rest of the development.

Indirect Effects

Indirect effects to PMJM or its potential habitat may be expected in the form of increased competition, increased predation, and other effects related to human presence.

Alternative 2 – Wait for El Paso County Regional Habitat Conservation Plan

This alternative was considered non-practicable because of uncertainties about the timing of the El Paso County Regional HCP. It is unknown when the regional HCP will be approved or if it will address the proposed project.

Alternative 3 – No Action Alternative

This alternative would not result in any disturbance at the site or potential take of PMJM. This alternative was considered non-practicable because it would not allow Applicant to develop a home site on his property. Without the ability to build on the property, Applicant would not have purchased the property.

Habitat Conservation Plan

Conservation Measures

As part of the proposed project, an HCP has been proposed to avoid or minimize potential adverse effects of the proposed project on PMJM and its habitat. The following measures will be taken to protect and preserve wildlife habitat, including PMJM, at the site —

- > Locate the building within 90 feet of El Dorado Lane.
- > Preserve 0.50 acre of the lot in a native and unmowed condition, preserving the corridor and habitat for the mouse.
- > Implementation of best management practices during construction such as:
 - Locate spoils piles away from the back of the lot during excavation.
 - Limit access to the construction area to only front and sides of the lot through the use of a temporary construction fence.

Applicant will implement the following additional measures to assure that the proposed action does not reduce the potential for survival and recovery of PMJM in the wild: Applicant will **enhance** 0.50 acre of habitat within the site that currently supports PMJM habitat. The enhancement would consist mainly of weed control and some sprigging willows within areas that currently do not support this type of habitat but would support such vegetation.

Maintenance, Monitoring, and Reporting

A monitoring period will be in effect for three full growing seasons or until success is achieved. At the end of each growing season, a brief letter report will be submitted to the Service before December 31 of that year describing the status of any mitigating work performed. The willow planting will be considered successful when 67% of the willows are established. The willows will be considered established when 67% of the planted willows survive a full growing season without supplemental irrigation. Weed control will be considered successful when a 50% reduction of individual weed plants is achieved. The letter report will include photographs of the

site and will be cosigned by an appropriate local government official or an environmental consultant.

Unforeseen or Extraordinary Circumstances

Unforeseen or extraordinary circumstances are defined as "changes in circumstances surrounding an HCP that were not, or could not have been, anticipated to occur by the HCP participants (landowner) or Service, that result in a substantial and adverse change in the status of a covered species." Consistent with the Department of Interior's "No Surprises" policy, the Service will not require Applicant to provide additional mitigation measures in the event of unforeseen or extraordinary circumstances affecting Preble's meadow jumping mouse. However, floods and drought are considered foreseeable events in a riparian area. Applicant shall ensure that the success criteria are achieved despite such foreseeable setbacks.

This HCP does not authorize incidental take for any species other than Preble's meadow jumping mouse. In the event any other currently listed species, or species that are listed in the future, are impacted by implementation of this HCP, Applicant will consult with the Service and take appropriate action, as necessary, to comply with the ESA.

Funding Availability

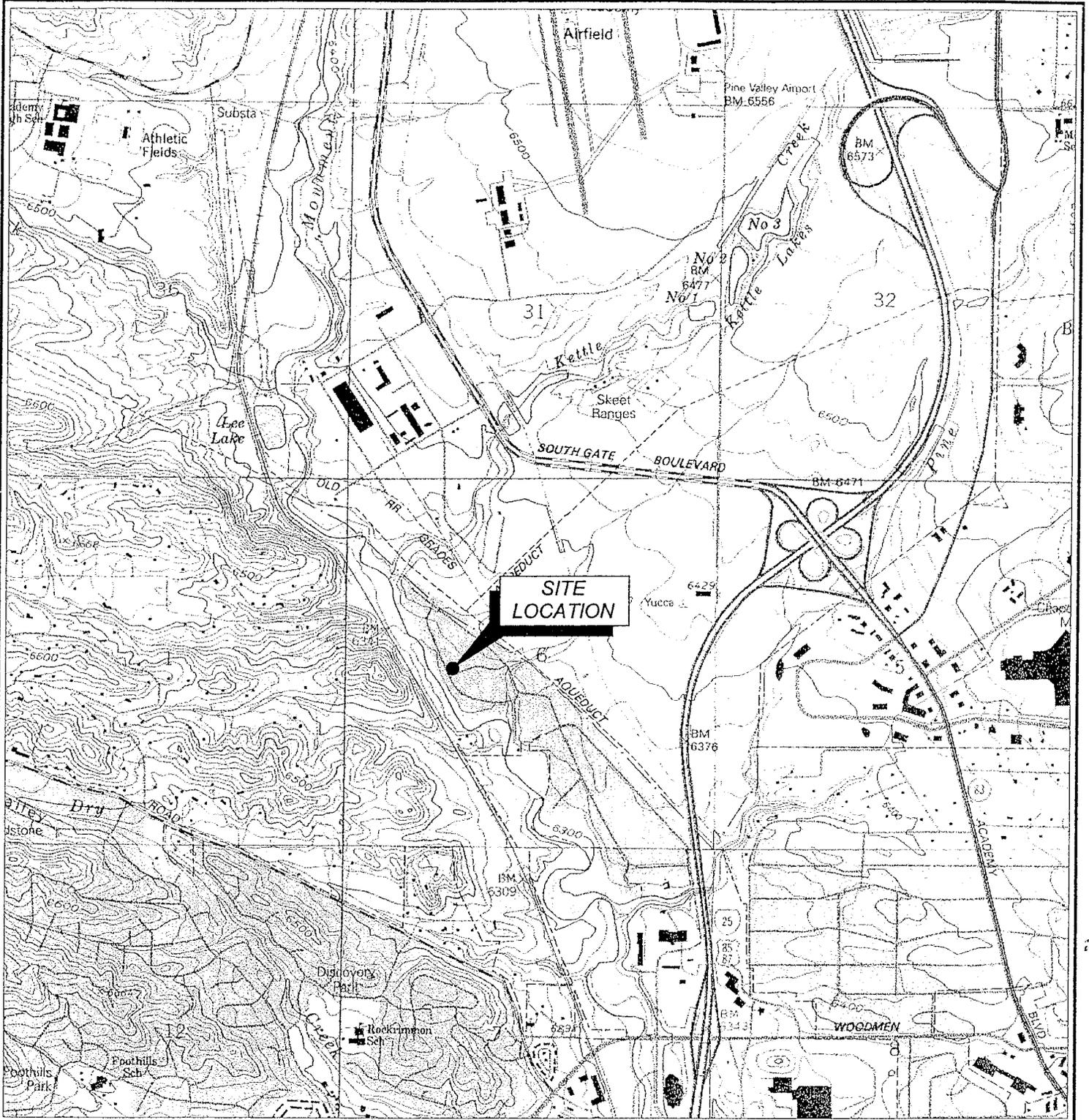
Applicant will provide the funding necessary for the completion of the activities and conservation measures required under this HCP. Due to the short term (3 years or until success is achieved) of this HCP, long-term funding assurances will not be required. Funding assurances for habitat mitigation and monitoring will be met by Applicant.

Additional Measures and Concerns

There are no additional measures or conditions being proposed under this HCP.

References

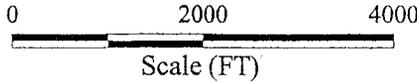
- Armstrong, D.M., M.E. Bakeman, A. Deans, C.A. Meaney, and T.R. Ryon. 1997. Report on habitat findings of the Preble's meadow jumping mouse. Boulder, Colorado. Report to the U.S. Fish and Wildlife Service and Colorado Division of Wildlife.
- Corn, J.G., C.A. Pague, A.R. Ellingson, M. Sherman, T. Zwięjac, G. Kittel, and C. Fleming. 1995. Final report on the geographic extent of the Preble's meadow jumping mouse population on the United States Air Force Academy. Presented to the U.S. Air Force Academy. 44 pp.
- Dames and Moore. 1997. Preble's meadow jumping mouse trapping survey along Monument Creek at the South Boundary of the Air Force Academy. Colorado Natural Heritage Database.
- Greystone. 1999. Preble's meadow jumping mouse trapping survey along Monument Creek at the confluence of Pine Creek. Final report prepared for Colorado Springs Utilities. 6 pp. + appendix.
- Meaney, C.A. 1998. Preble's meadow jumping mouse trapping survey for the I-25 Highway expansion at the confluence of Cottonwood Creek. Prepared for the Colorado Department of Transportation. Colorado Natural Heritage Database.
- Schoor, R. 1997. Preble's meadow jumping mouse trapping survey for Colorado Springs Utilities along Monument Creek at the confluence of Cottonwood Creek. Colorado Natural Heritage Database.
- Shenk, Tanya M. and M.M. Sivert. 1999. Movement patterns of Preble's meadow jumping mouse (*Zapus hudsonius preblei*) as they vary across time and space. Colorado Division of Wildlife Report.
- U.S. Fish and Wildlife Service. 1999. Interim survey guidelines for Preble's meadow jumping mouse. Revised May 19, 1999.



Source: 7.5', USGS Quadrangle, Pikeview, Colorado

LEGEND

● SITE LOCATION



GREYSTONE®

Site Map

Location of 3/4 acre lot
along Monument Creek
in the Thunder Bird Estates

Scale: 1" = 2000'

Date: 11.07.01

Figure 1

THUNDERBIRD ESTATES

EL PASO COUNTY, COLORADO

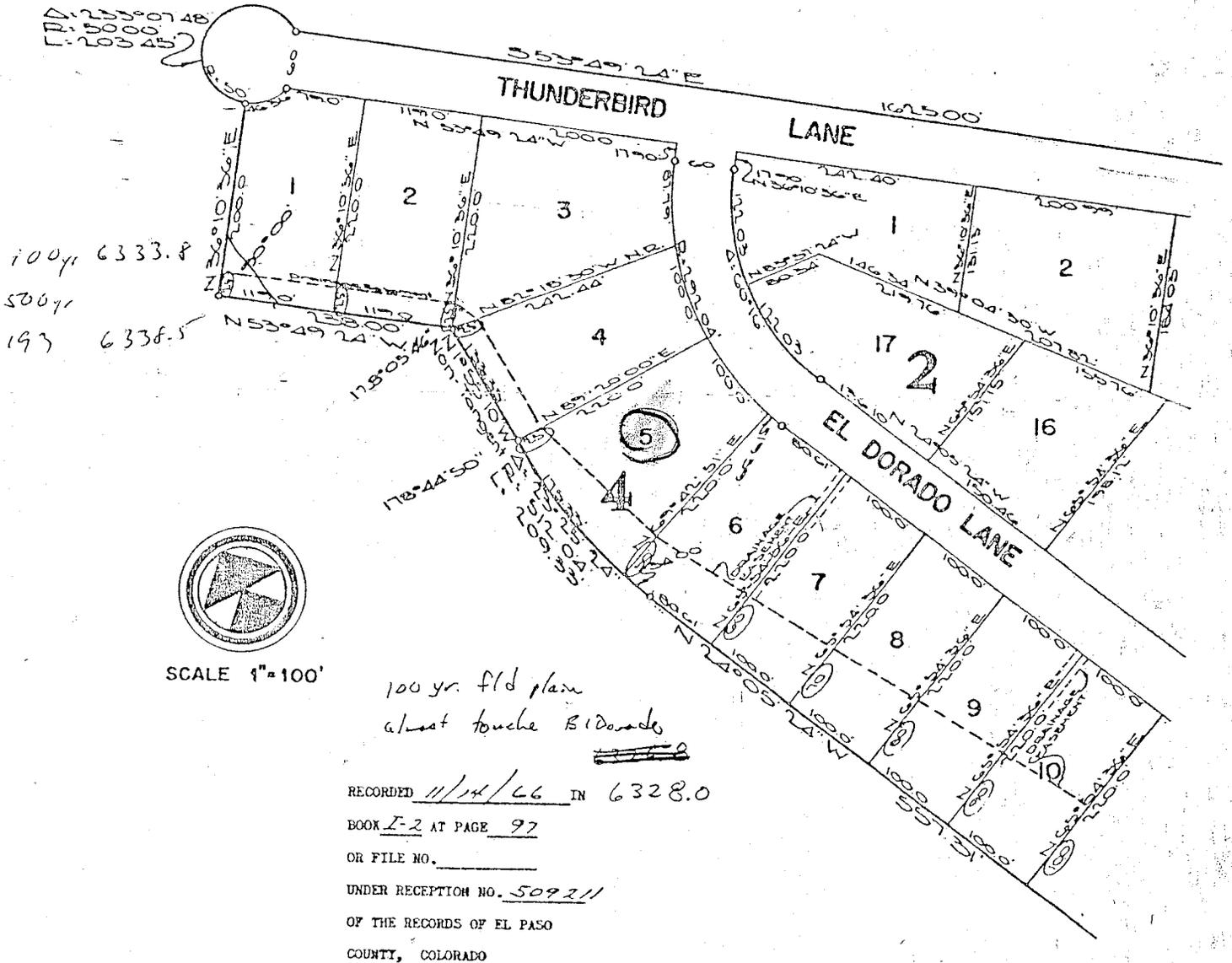


Figure 2. Platting of Block 4, Thunderbird Estates

