

**JURISDICTIONAL BOUNDARY DELINEATION
FOR THE SPOOK HILL ADMP**



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Spook Hill ADMP



\$3 Million to \$5 Million

"A" ALTERNATIVES

I. INTRODUCTION

This study has been completed by CMG Drainage Engineering, Inc., on behalf of the Flood Control District of Maricopa County (FCDMC) under Contract #FCD2000C068, *Oncall Jurisdictional Delineation and Environmental Permitting Services*. The purpose of the study is to develop jurisdictional boundary delineations for waters of the United States, which occur within the boundaries of the Spook Hill Area Drainage Master Plan (ADMP).

II. DESCRIPTION OF PROJECT AREA

The Spook Hill ADMP study boundaries are identified on Figure 1 of this report. The Spook Hill ADMP covers an area of approximately 19 square miles. The study area is located primarily within Township 1 North, Range 7 East, and Township 2 North, Range 7 East, G&SRB&M, Maricopa County. Governmental jurisdictions, which fall within the study area, include the City of Mesa and the Tonto National Forrest as well as unincorporated Maricopa County. Elevations within the study area range from approximately 1570 feet above mean sea level (MSL) in the area of the Spook Hill Flood Retarding Structures (FRS) near Brown Road to 2300 feet above MSL at Pass Mountain. There are no predominant drainage features within the study area although numerous small and moderate size alluvial watercourses cross the desert from northeast to southwest. There are several man-made drainage features within the project area such as floodways, canals, and flood retarding structures that interrupt the

natural drainage patterns. Much of the area can be described as a sheetflow zone because the washes consist of shallow distributary channels that separate and coalesce across an alluvial plain. These drainage conditions have resulted in widespread flooding throughout areas that were developed prior to adoption of local floodplain management ordinances. Roadway drainage is also a significant problem throughout the project area.

III. JURISDICTIONAL BOUNDARY DELINEATIONS FOR WATERS OF THE UNITED STATES

3.1 Delineation Criteria

Definitions

"Waters of the U.S." is defined under 33 CFR Part 328.3(a), paragraphs (1) through (7).

33 CFR 328.4(2)(c) defines the limits of jurisdiction in non-titled waters as follows:

1. In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark; or
2. When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limits of the adjacent wetlands; and
3. When the waters of the U.S. consist only of wetlands, the jurisdiction extends to the limits of the wetlands.

The term "ordinary high water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.

Regional Criteria

Regional criteria have also been developed by the Corps to suit the requirements for arid southwest desert conditions. These criteria, which should be characterized as general guidelines, consider the average sandy bottom channel width for ephemeral

washes and the watercourse hydrology as determined by regionally adopted procedures. These Corps guidelines establish the minimum width of the sandy bottom channel at about 5 feet. Washes, which do not in general maintain this minimum width, are generally considered by the Corps as non-jurisdictional. The point along a wash at which the 100-year discharge decreases to <100 cfs is generally considered by the Corps as the upstream limit of their jurisdiction under Section 404 of the Clean Water Act.

Isolated Waters

The Supreme Court issued a decision in January 2001 in the case of *Solid Waste Agency of Northern Cook County vs. United States Army Corps of Engineers*, 121 S.Ct. 675 (2001)(SWANCC) relating to a municipality's claim that the Clean Water Act extended only to navigable waters as traditionally understood. The Supreme Court concluded that Congress had intended the Clean Water Act to regulate only truly navigable waters and waters or wetlands inseparably bound to them. The Supreme Court's ruling further invalidated the 1986 migratory bird regulation as well as the Corps' assertion of jurisdiction over all waters except for actually navigable waters, their tributaries, and wetlands adjacent to each. This ruling further suggests that waters, which are isolated from navigable waters by natural or man-made features, do not fall under the jurisdiction of Section 404 of the Clean Water Act.

3.2 Applicant's Determination of Jurisdictional Boundaries

CMG Drainage Engineering, Inc., has rendered the applicant's determination of jurisdictional boundaries for waters of the U.S. within the Spook Hill ADMP study area. The scope of the area within which the jurisdictional boundaries have been provided exclude federal lands within the Tonto National Forrest. None of the flood control alternatives are located federal lands nor does Maricopa County have any regulatory authority over these lands.

The jurisdictional boundary delineations also exclude the Spook Hill FRS since the Corps jurisdiction over these flood control facilities has been established as a part of previous applications and CWA Section 404 permits.

In addition to the criteria outlined in Section 3.1 of this report, CMG Drainage Engineering, Inc., has reviewed case files for Corps-adopted jurisdictional delineations within the study area. Most of the previous delineations relate to land development projects that are under design, under construction or already completed. A list of the case files that were reviewed in conjunction with development of the Spook Hill ADMP jurisdictional delineations are outlined in Table 1.

**TABLE 1 - CORPS-ADOPTED JURISDICTIONAL DELINEATION
CASE NUMBERS WITHIN STUDY AREA**

CORPS CASE #	PROJECT NAME	SEC/TSP/RNG
994001400	Walmart	6,T1N,R7E
984041800	Maracay Homes	5,T1N,R7E
984023700	Desert Upland Estates	5,T1N,R7E
974062400	Madrid Subdivision	4,T1N,R7E
974036500	The Fountains	6,T1N,R7E
974027000	Southeast Mesa ADMP	1,3,9,10,11,12,15,16,17,19,20,T1S,R7E 21,27,28,T1S,R7E
974025800	Sierra Heights/Sierra Estates	9&10,T1N,R7E
964054200	Boulder Mt. Highlands Residential Community	3,T1N,R7E
964041700	Saguaro Shadows Subdivision	10,T1N,R7E
964009300	School Site @ McKellips & Ellsworth Rd.	3,T1N,R7E
199916059	Alta Mira Estates	7,T1N,R7E
199916053	Boulder Views	10,T1N,R7E
984022800	Las Sendas	28-32,T2N,R7E
964053600	Red Mt. Freeway from SR 87 to US Route 60	31,T2N,R7E
944091000	Red Mt. Community, Sonoran Land GP Las Sendas	29-32,T2N,R7E
934101300	Maricopa County Dept. of Transportation	Numerous,T2N,R7E
200100184	Range Rider Estates	33,T2N,R7E

The Corps-adopted jurisdictional delineations (where applicable) were used in conjunction with ground surveys and channel width measurements to develop the applicant's determination of the jurisdictional boundaries. Ground photographs of a representative sampling of both natural and man-made watercourses within the Spook Hill ADMP study area are provided in Appendix A of this report. The location of each of

these photographs and the measured jurisdictional channel widths are shown on the jurisdictional boundary delineation maps, sheets 1 through 21, in Appendix B of this report. These jurisdictional boundary delineations are on an aerial photograph dated January 2000 at a scale of 1" = 800'.

The ground surveys of watercourse conditions, review of aerial photographs and related study materials did not identify any wetlands within the boundaries of the Spook Hill ADMP.

APPENDIX A

GROUND PHOTOGRAPHS OF EPHEMERAL WASHES



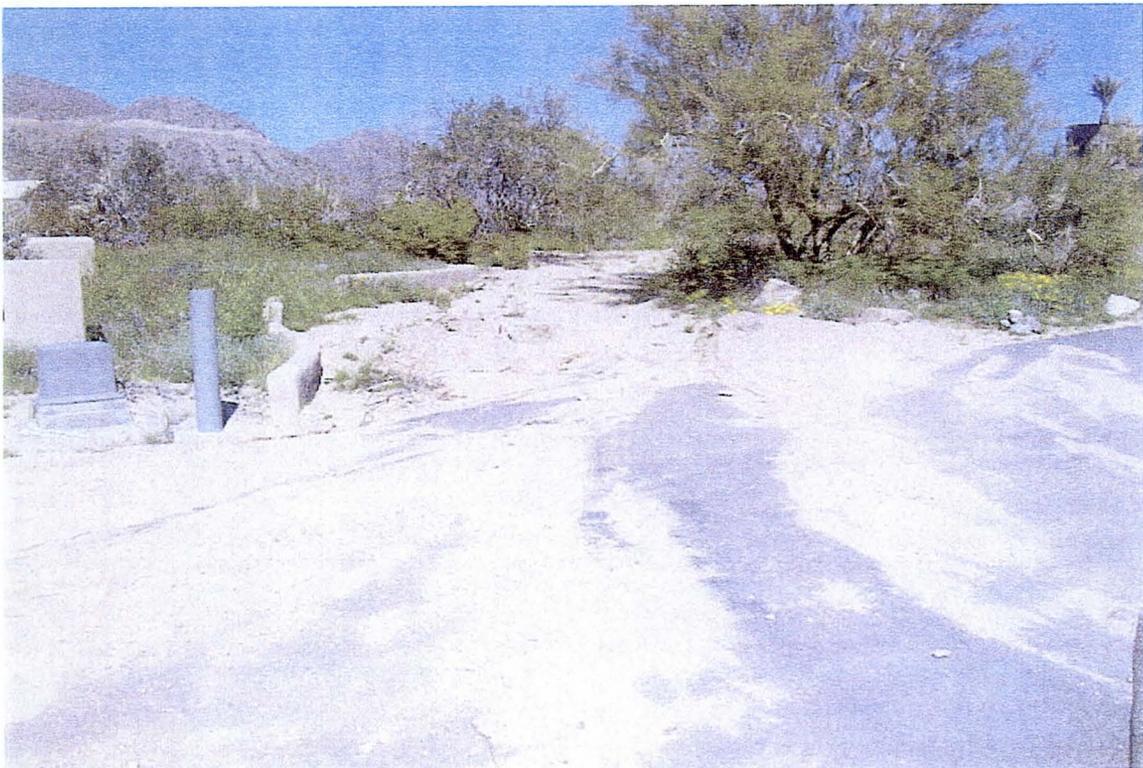
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FCDMC-2



FCDMC-3



FCDMC-4



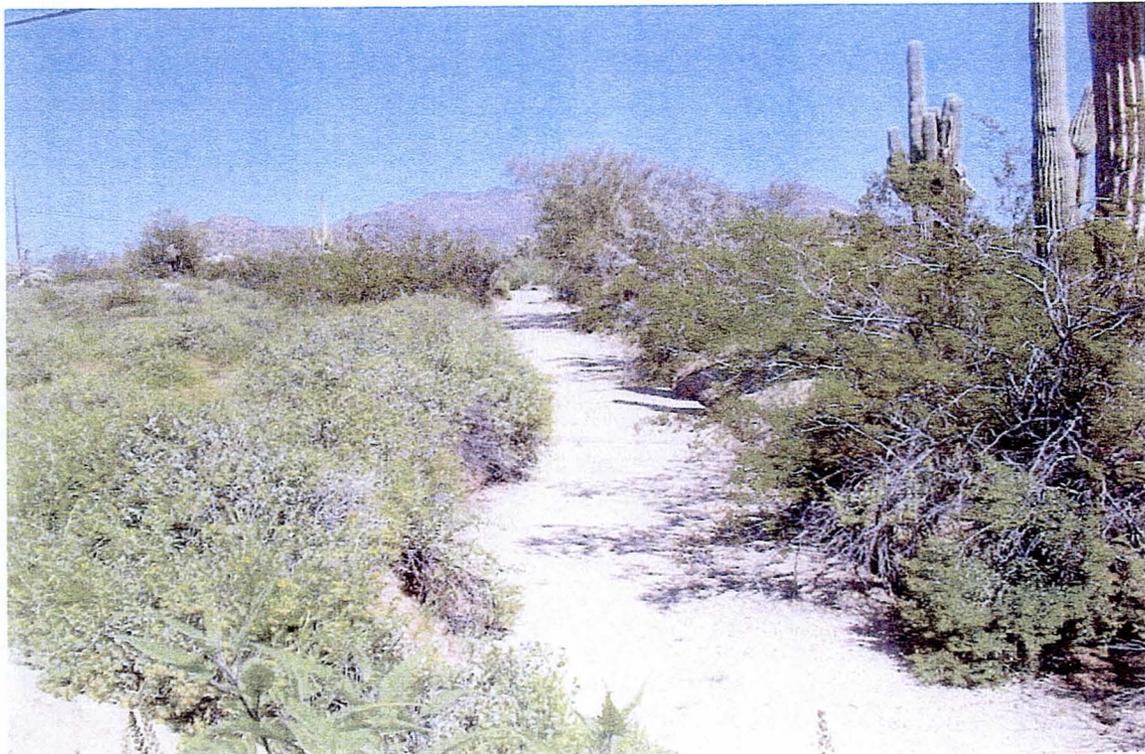
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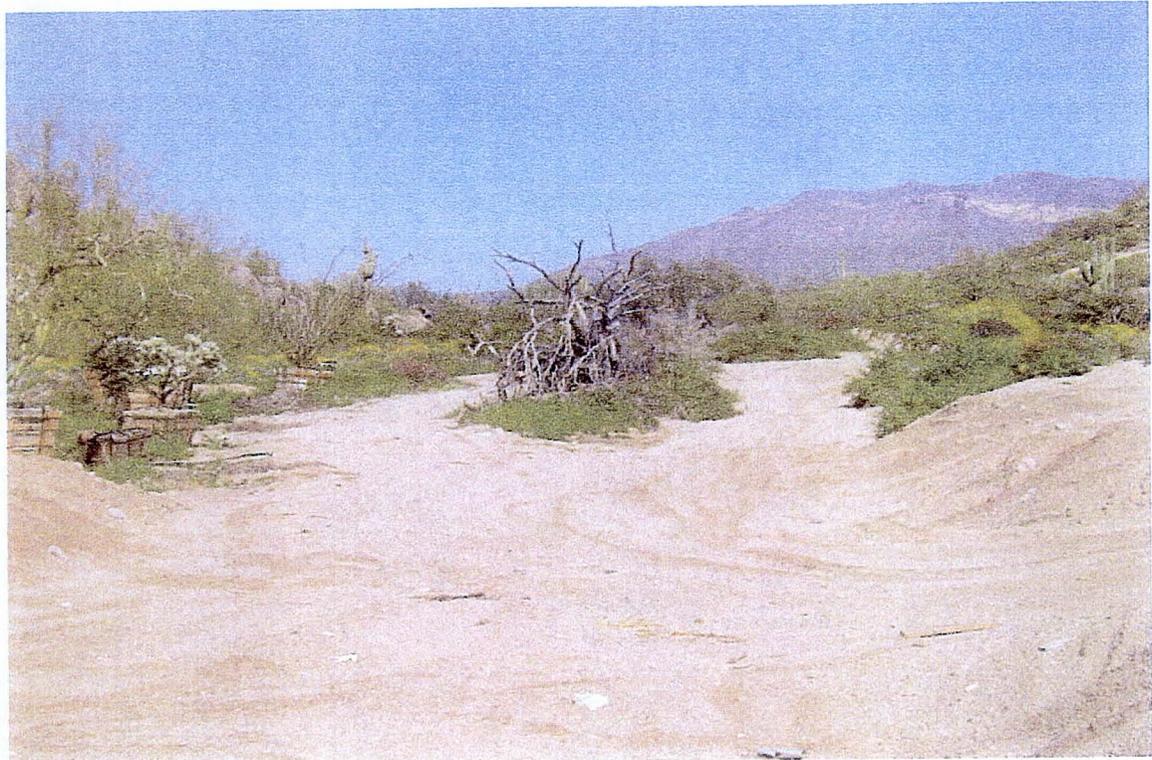
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FCDMC-10



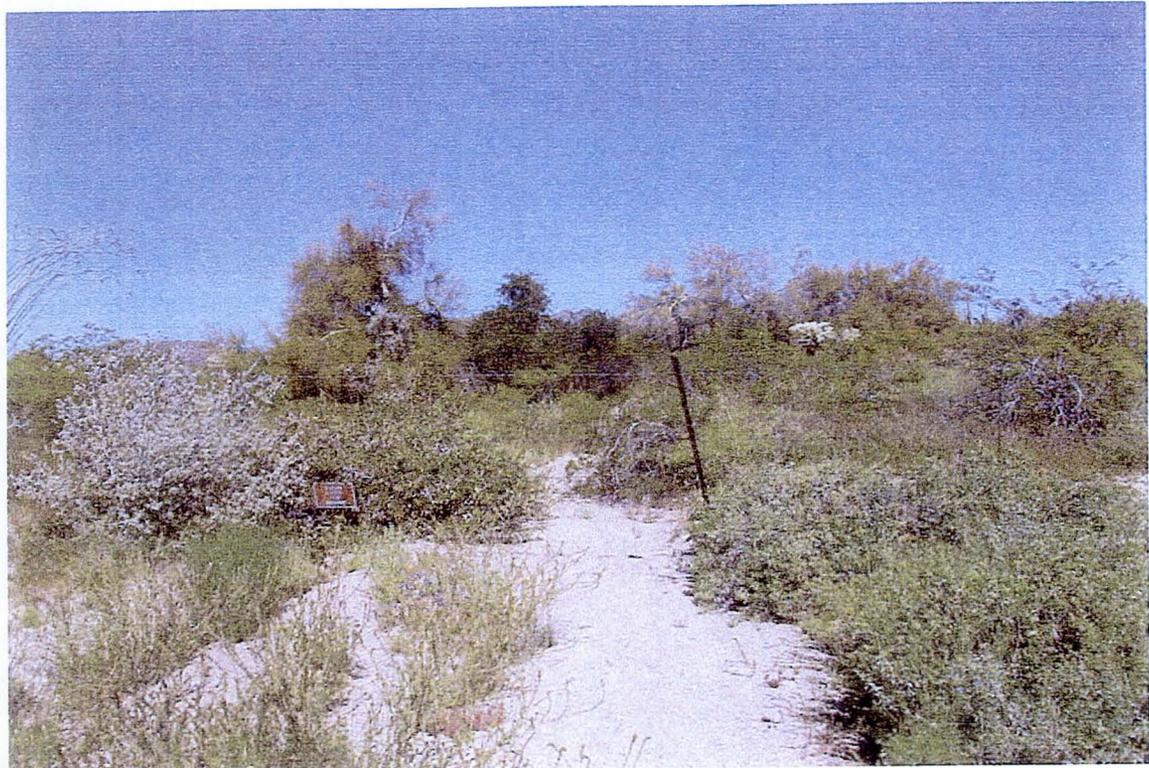
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FCDMC-13



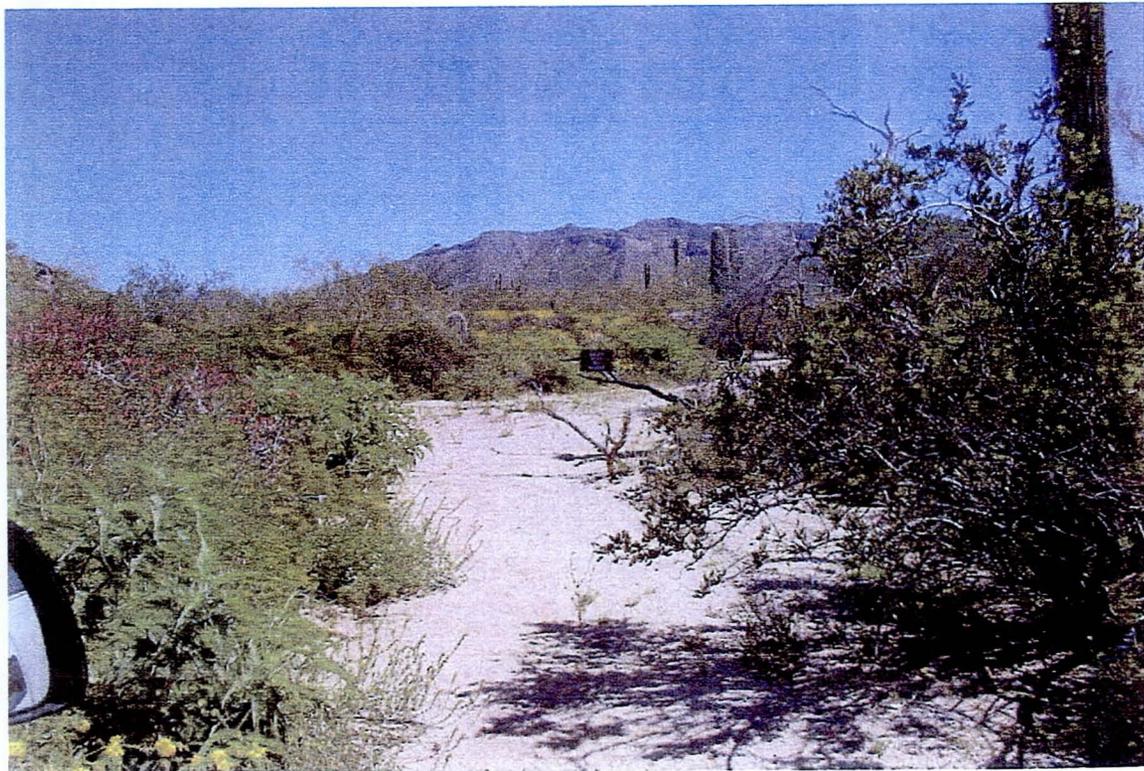
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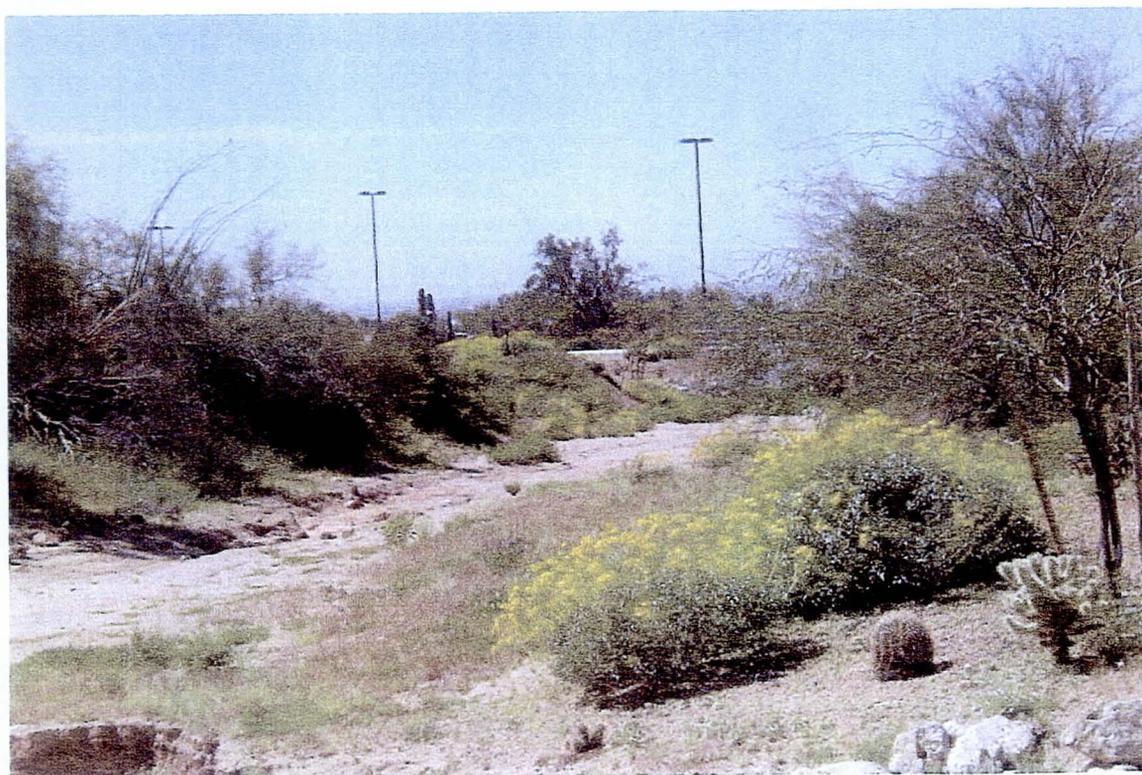
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FCDMC-18



FCDMC-19



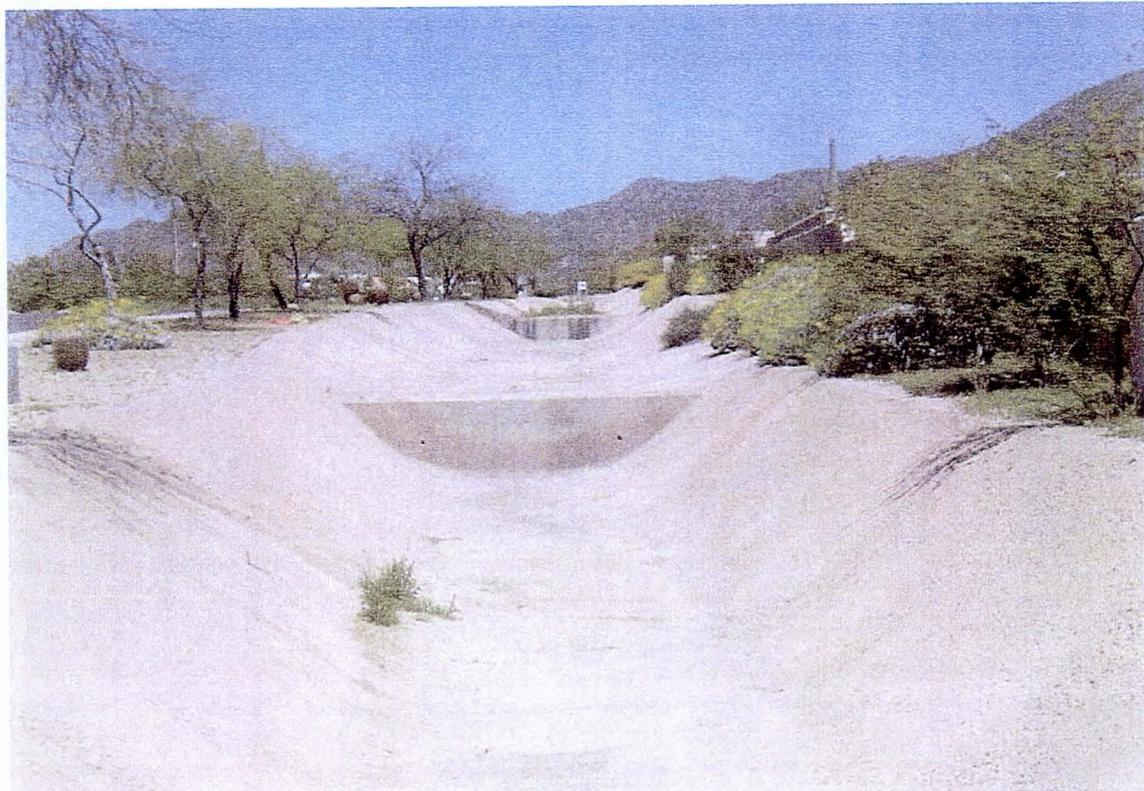
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FCDMC-21



FCDMC-22



FCDMC-23



FCDMC-24



FCDMC-25



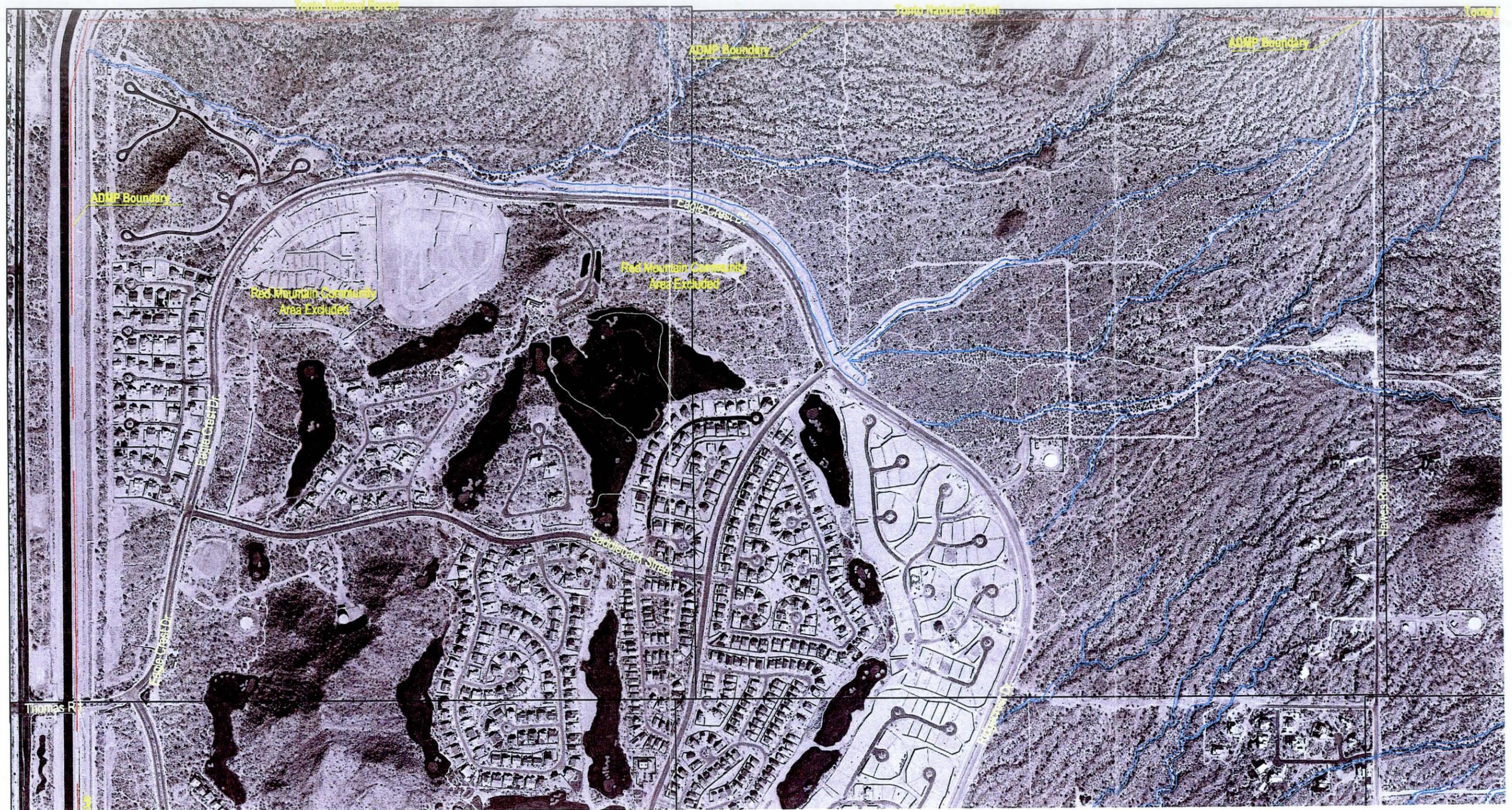
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FCDMC-27

APPENDIX B

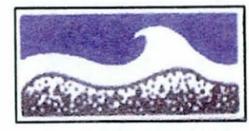
JURISDICTIONAL BOUNDARY DELINEATIONS



Aerial Photo Flown 1/28/00

Spook Hill CWA Section 404 Jurisdictional Boundaries

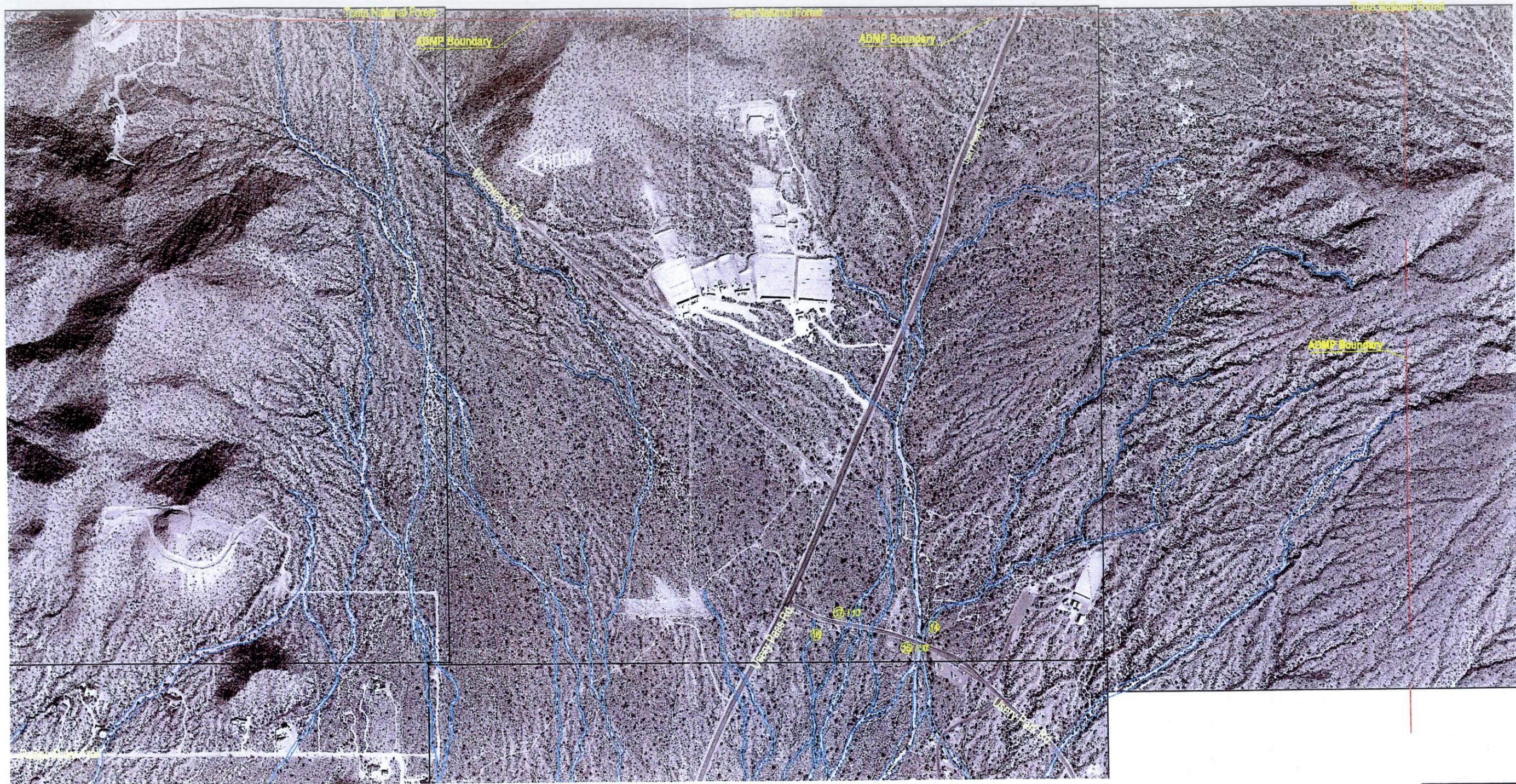

 Scale: 1" = 800'



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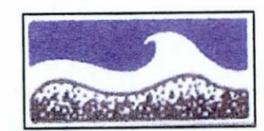


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Spook Hill CWA Section 404 Jurisdictional Boundaries



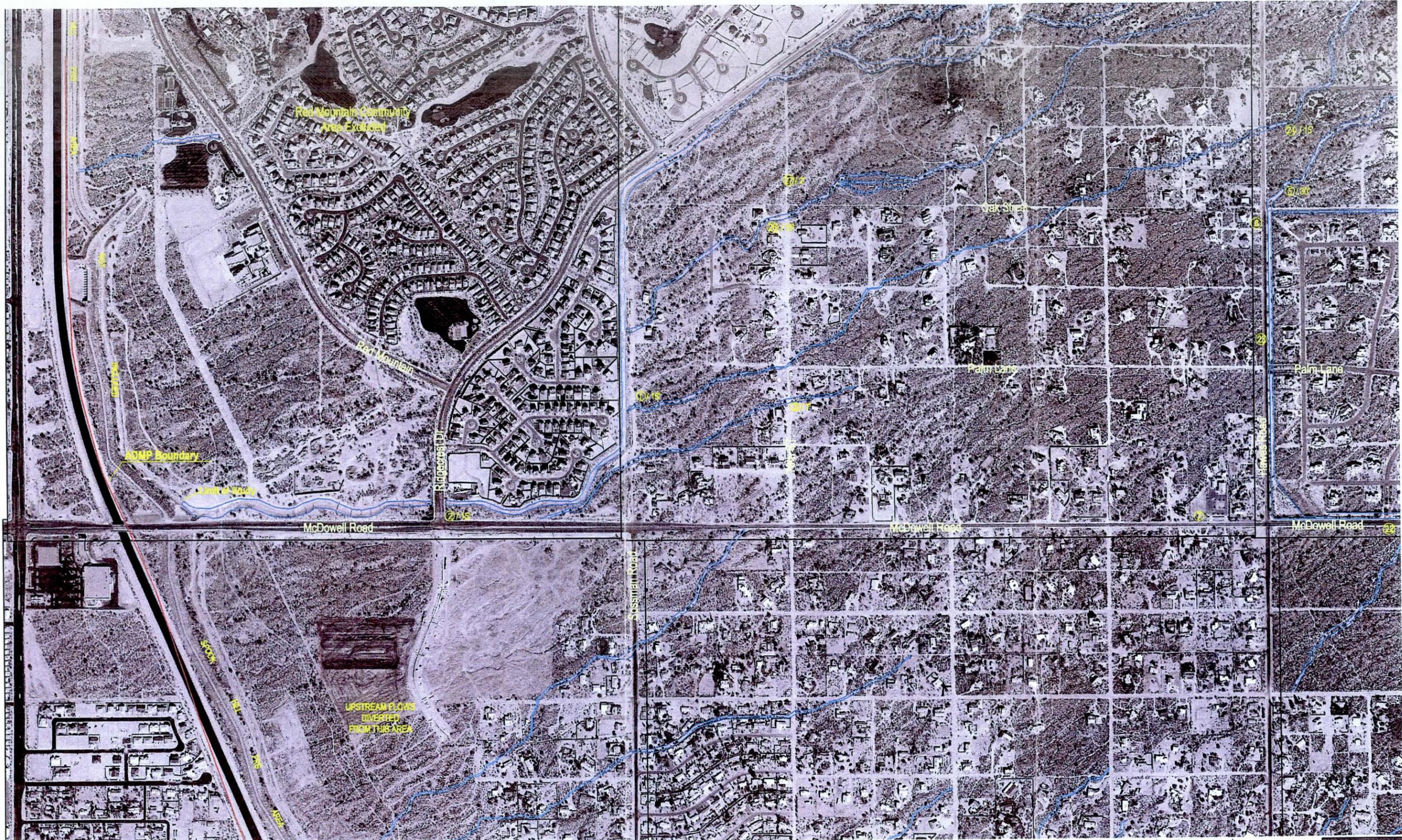
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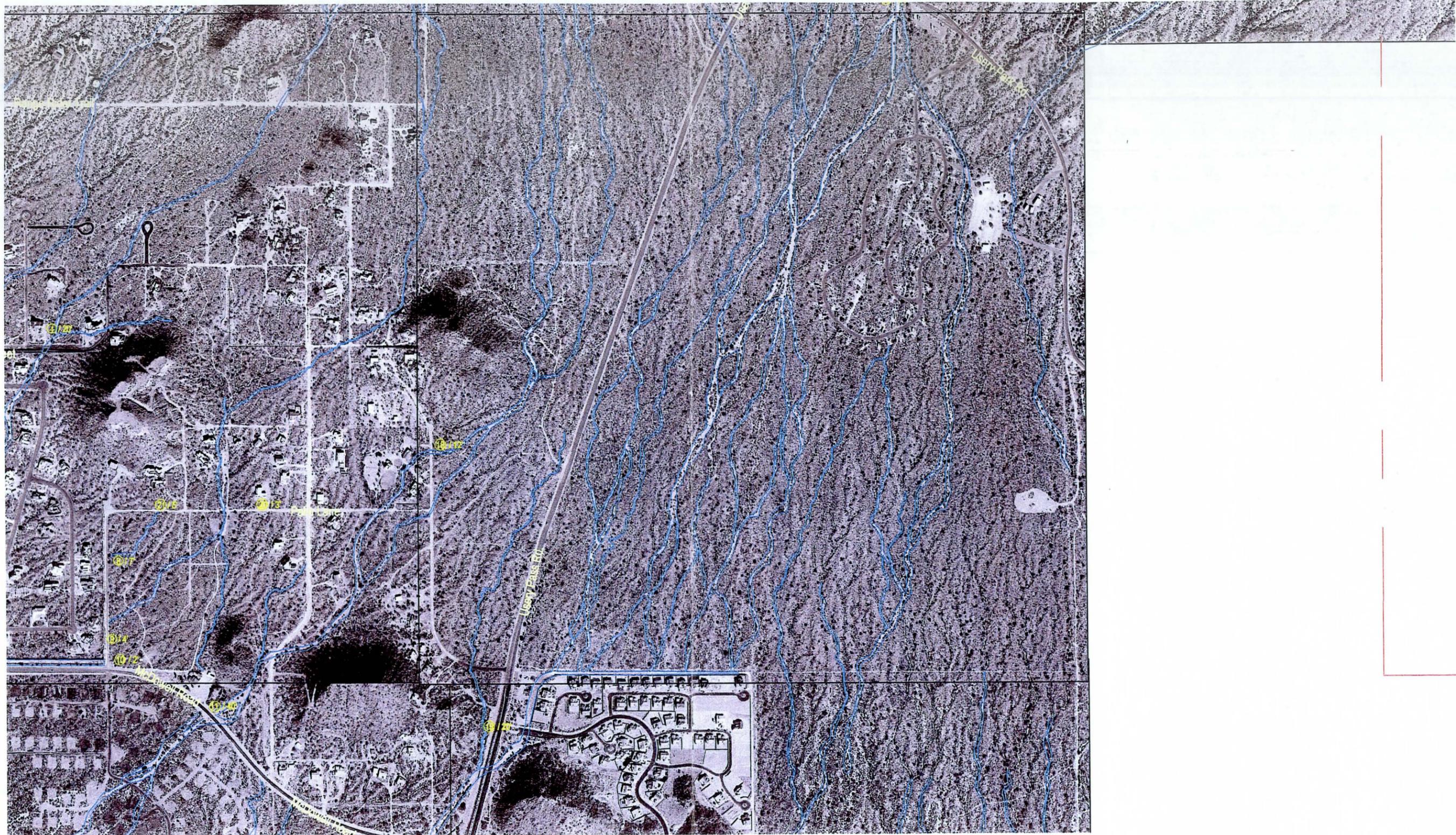


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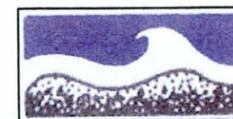


Aerial Photo Flown 1/28/00



Scale: 1" = 800'

Spook Hill CWA Section 404 Jurisdictional Boundaries



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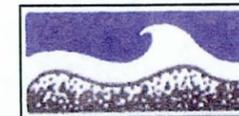


Aerial Photo Flown 1/28/00



Scale: 1" = 800'

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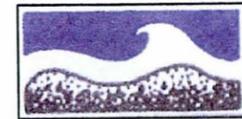


Aerial Photo Flown 1/28/00



Scale: 1" = 800'

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