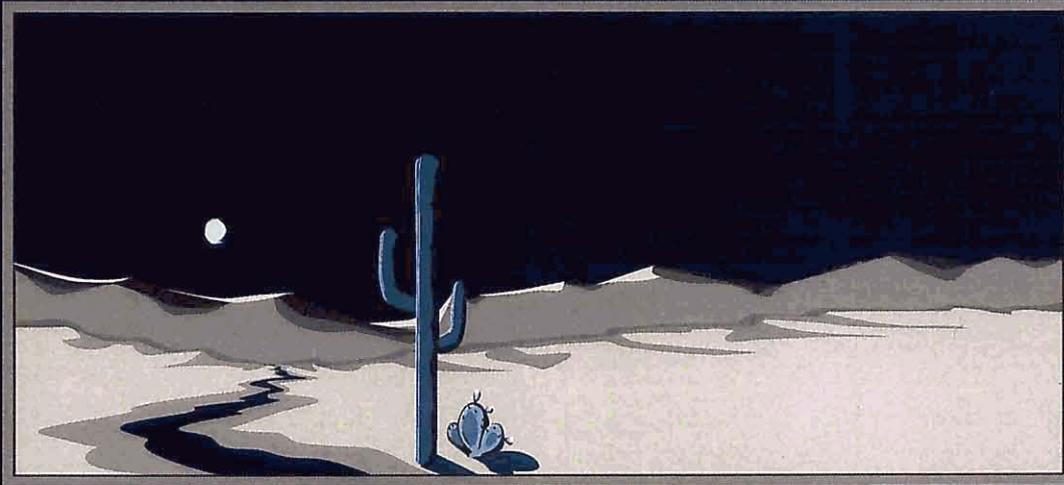


UPPER CAVE CREEK/APACHE WASH



April 2001



Watercourse Master Plan

Attachment 1: Data Collection Report

Attachment 2: Survey and Mapping Report

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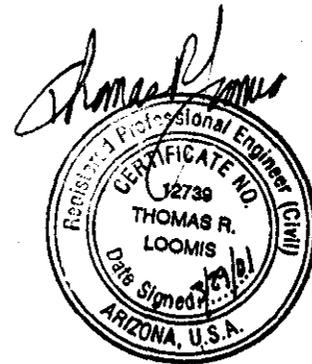
UPPER CAVE CREEK & APACHE WASH WATERCOURSE MASTER PLAN

Attachment 1

Data Collection Report

Prepared By:

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Project Number 2350.0001

March 2001

1-1 Introduction

The following report includes a compilation of the data collected and researched in the course of this project. All data was collected for the purpose of enhancing knowledge and providing additional sources for the completion of the Cave Creek/Apache Wash Watercourse Master Study. Some of the primary sources of data consist of the Flood Control District of Maricopa County (FCDMC), Salt River Project (SRP) Archives, the United States Geological Survey (USGS), the Association of State Floodplain Managers, the United States Department of Agriculture, Natural Resources Conservation Service, Arizona State University (ASU), the Federal Emergency Management Agency (FEMA), the University of Arizona (UofA) and Northern Arizona University (NAU). All of the data herein noted can be viewed by contacting and establishing an appointment with Tetra Tech, Inc.; J.E. Fuller/Hydrology and Geomorphology, Inc.; and Stantec Consulting, Inc.

1-1.1 Purpose of Bibliography

This section presents the data in a bibliography format. This format is intended to site references for any of the gathered data. Once the desired author name has been located, the bibliography will provide the inquirer with any additional authors, the date the document was prepared, the title of the data and the document format of the data. The reader will then be able to locate the data set in the overview to obtain its document number.

1-1.2 Purpose of Overview

The purpose of the overview is to give the reader another means to uncover the desired material. The overview was designed to have a condensed listing, which provides a window into the complete data set. In

the overview, the reader can locate the type of document (i.e. report, maps, aerial photograph, etc.) and then search for the document. They can look at the document number in the list of the data and use this number to find any other pertinent data located in the full data set.

The overview can also be used as a source after the bibliography. If the desired document is found in the bibliography, but additional information is needed on the document, such as its document number, the document can be looked up in the overview according to its document type and then its primary author. Once again, the reader will be able to look at the document number and reference this with the full data set.

1-1.3 Purpose of Full Data Set

The full data set is the complete set of data recorded from each data source. The full data set contains the document number, the preparation date, the source of the material, the people involved in creating the data, the title of the document, the intended recipients of the material, the gatherer of the document, its storage location and any information on the document which will help to define its contents without examining the source personally.

This report is organized according to document number. Therefore, material will be easy to locate after having searched for the record in the bibliography or the overview. Upon finding the document number, the inquirer can look at the storage location and contact that company in order to make an appointment to access the data.

1-1.4 Sand and Gravel Mining Operations for Cave Creek

This report depicts the mining operations transpiring in the Cave Creek region from approximately 1987 to 1998. The compendium is separated into nine appendices according to excavation company or governmental program. Each appendices includes descriptions of the construction and restoration processes, contracts and legal documents, land appraisals for the purchase of land and the mining of materials in the land, land and surface restoration requirements as per the Arizona State Land Department (ASLD) and the Bureau of Land Management (BLM) and schematics of the dig sites along the wash. Aside from the information in the appendices, there is an additional listing in the report cataloging the excavating company, their years of active excavation, their total quarry estimates by weight and the steps taken in the restoration of the wash upon completion of digging. This report also contains a bibliography of the permits obtained from the State Land Department in order to drill and mine in the wash area. The corporations involved in the mining and extraction of material from Cave Creek wash were: Wheeler Construction, Inc.; Cave Creek Sand and Rock; Blue Circle Atlantic, Inc.; Tanner Land Company and Arizona Crusher, Inc.; and D. Steffan.

This report will be helpful in identifying the type of work done to Cave Creek wash over the course of the last fifteen years. This compendium serves as a reference source for the geotechnical aspects of the wash such as soil types, compaction allowances, erosion hazards and land value.

1-1.5 Purpose of Partnering Workshop

This workshop occurred on June 2, 1998 and gave a listing of the workshop expectations, the benefits of partnering, the characteristics of an

effective and ineffective team, good communication skills, the main elements of communication, typical communication barriers, listening tips and room for any notes taken during the session. This workshop and report are especially helpful for teams that wish to improve their communication skills and eliminate barriers that are lowering productivity.

1-1.6 Purpose of Initial Draft Public Involvement Plan

The vision of this report involves integrating the community in the project and incorporating their input in the construction phases while informing the public of the project agenda. Some of the targeted groups for the meetings include Sonoran North, Don't Waste Arizona, the Audubon Society, the Sierra Club, the Central Arizona Homebuilders Association, the Realtors Association and the Desert View Village Planning Committee. This plan comprises a schedule of meetings, potential meeting locations, possible project logos and a contact list for anyone who has questions or comments about the project.

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1-3 Overview

Data Collection Report for Upper Cave Creek and Apache Wash Watercourse Master Plan

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-45

3.0 Overview

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| CH2HILL | River Stability Study, Virgin River, Santa Clara River, and Ft. Pierce Wash, Vicinity of | December 1996 | 204 |
| ASCE Task Committee on Hydraulics, Bank M | River Width Adjustment: Process and Mechanisms and Modeling | September 1991 | 210 |
| Maricopa County Planning and Zoning Depart | A planning report for Cave Creek, Arizona | 1962 | 068 |
| Hoggan, D.H. | Computer Assisted Floodplain Hydrology & Hydraulics, Second Edition | 1997 | 263 |
| Salt Lake County, Utah | An Ordinance Enacting Chapter 17.10 of the Salt Lake County Code of Ordinances 19 | July 20, 1994 | 261 |
| U.S. Environmental Protection Agency | Background for Nepa Reviewers: Grazing on Federal Lands | February 1994 | 200 |
| Riley, A.L. | Restoring Streams in Cities | 1998 | 199 |
| Federal Emergency Management Agency | Flood Insurance Study, Maricopa County, Arizona and incorporated areas - 1993 | 1993 | 029 |
| Federal Emergency Management Agency | Flood Insurance Study, Maricopa County, Arizona and incorporated areas - 1991 | 1991 | 028 |

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-45

3.0 Overview

| <i>Primary Author</i> | <i>Title</i> | <i>Preparation Date</i> | <i>Doc. No.</i> |
|--|--|-------------------------|-----------------|
| Federal Emergency Management Agency | Flood Insurance Study, Maricopa County, Arizona and incorporated areas - 1989 | 1989 | 027 |
| Doorn, P.L. | Geologic and gravimetric investigations of the Carefree Basin, Maricopa County, Arizo | 1991 | 026 |
| Doorn, P.K. | Geologic and gravimetric investigations of the Carefree Basin, Maricopa County, Arizo | 1989 | 025 |
| Davidson, E.S. | Index and description of flood-prone area maps in the Tucson-Phoenix area | 1973 | 024 |
| Town of Cave Creek | Memorandum RE: Resolution No. 97-31, Text and Map Amendment to the Town of C | November 17, 1997 | 258 |
| City of Phoenix | The City of Phoenix Sonoran Master Plan: "An Open Space for the Phoenix Sonoran D | January 15, 1998 | 257 |
| Reeter, R.W. | Depth to eater and altitude of the water level, maps showing groundwater conditions in | 1984 | 080 |
| Maricopa County Board of Supervisors | Desert Foothills technical guide: supplement to: Desert Foothills policy & development | 1982 | 067 |
| | PRINTED FILES FOR CAVE CREEK HABITAT MAPS | | 352 |
| Maricopa County Planning and Zoning Depart | A General plan for the Desert Foothills area of Cave Creek and Carefree, Arizona | 1966 | 069 |
| Maricopa County Planning and Zoning Depart | A report upon a general land use plan for the Desert Foothills area of Cave Creek and | 1973 | 070 |
| Willdan Associates | Technical Data Notebook Volume 5, Cave Creek Below Carefree Highway FIS | June 20, 1997 | 109 |
| Maricopa County Planning Department | U.S. Soil Conservation Service and Tonto National Forest Soil associations, Maricopa | 1977 | 071 |
| McCord, V.A.S. | Augmenting flood frequency estimates using flood-scarred trees | 1990 | 072 |
| McCord, V.A.S. | Magnitude threshold of floods recorded by flood-scarred trees (abs.) | 1991 | 073 |
| Mouat, D.A. | The use of remote sensing imagery for environmental land use and flood hazard mapp | 1976 | 074 |
| Nemecek, E.A. | Study of the adequacy of the water supply for the Carefree-Cave Creek area | 1976 | 075 |
| OConnor, J.E. | Flood paleohydrology and paleohydraulics, Salt and Verde Rivers | 1984 | 076 |
| John Carollo Engineers | Report on Condition of the superstructure of Old Cave Creek Dam | April, 1969 | 342 |
| flood Control District of Maricopa County | A Report on the Condition the superstructure of Old Cave Creek Dam | April, 1969 | 341 |
| Parker, J.T.C. | Channel change and sediment transport in two desert streams in central Arizona 1991- | 1995 | 077 |
| Maricopa County Board of Supervisors | Desert Foothills policy & development guide | 1979 | 066 |

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-45

3.0 Overview

| <i>Primary Author</i> | <i>Title</i> | <i>Preparation Date</i> | <i>Doc. No.</i> |
|---|--|-------------------------|-----------------|
| <i>Document Type</i> VIDEO | | | |
| Flood Control District of Maricopa County | Cave Creek North and South of Carefree Highway, Tape 1 and 2 | 1998 | 267 |

1-4 Full Data Set

Data Collection Report for Upper Cave Creek and Apache Wash Watercourse Master Plan

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 046 **Preparation Date:** 1973 **Source:** Arizona, U.S. Department of Agriculture, Soil Conservation Service

Primary Author: Hartman, G.W. **Title:** General soil map Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Scale: 1:500,000
page 49

Document Number: 059 **Preparation Date:** 1995 **Source:** Lawrence, University Press of Kansas

Primary Author: Jackson, D.C. **Title:** Building the ultimate dam: John S. Eastwood and the control of water in the West

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 336

Document Number: 006 **Preparation Date:** February 1961 **Source:** FCDMC

Primary Author: Flood Control District of Maricopa County **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Series #:
Coverage: Partial
Scale: 1:12000
Description: B&W, stereo, coverage @ Cave Creek Dam only, includes oblique photographs looking upstream from Dam

4.0 Full Data Set

Document Number: 005 **Preparation Date:** May 8, 1953 **Source:** USGS - EROS

Primary Author: U.S. Geological Survey **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: Series #: VV BE M25 AMS
Coverage: Complete
Scale: 1:28,800
Description: B&W, stereo, 14 photos, 4/10/53: 1959-1961, 2036-2039, 2042-2045, 5/8/53: 3198-3200

Document Number: 004 **Preparation Date:** September 7, 1940 **Source:** FCDMC

Primary Author: Flood Control District of Maricopa County **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: Series #: COU-2-11, 64, 66, 68, 70, 116, 118, 120, 122
Coverage: Partial
Scale: 1:16,700
Description: B&W, partial stereo, 9 photos,

Document Number: 003 **Preparation Date:** 1974 **Source:** SRP Archives

Primary Author: Dittert, A.E. Jr. **Title:** An Archaeological Survey in the Gila River Basin, New River and Phoenix City Streams Arizona Project Area

Prepared By 2: Arizona State University Dept. of Anthropology

Prepared By 3:

Prepared By 4:

Prepared For: U.S. Army Corps of Engineers,
Los Angeles District, Contract
No. DAC W09-74-C-0016

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments:

4.0 Full Data Set

Document Number: 038 **Preparation Date:** 1993 **Source:** Phoenix, Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Floodplain regulation for Maricopa County: as adopted August 4, 1986, and amended September 20, 1993

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 37 **Storage Box Number:**

Document Number: 039 **Preparation Date:** 1992 **Source:** Association of State Floodplain Managers

Primary Author: Fuller, J.E. **Title:** The alluvial fan data collection and monitoring study, Maricopa County, Arizona, Proceedings of the conference on arid west floodplain management issues, land use and flood damages in arid and semi-arid areas

Prepared By 2: Waters, S.D.

Prepared By 3: French, R.H.

Prepared By 4: Walker, S.R. **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 39-42 **Storage Box Number:**

Document Number: 040 **Preparation Date:** 1991 **Source:** U.S. Geological Survey Water Resources Investigations 91-4041

Primary Author: Garrett, J.M. **Title:** Basin characteristics and streamflow statistics in Arizona as of 1989

Prepared By 2: Gellenbeck, D.J.

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 612 **Storage Box Number:**

4.0 Full Data Set

Document Number: 041 **Preparation Date:** 1979 **Source:** Maricopa County,
Arizona: U.S. Geological
Survey Open-File Report
79-1312

Primary Author: Gomez, E. **Title:** Geology of the south-central part of the New River
Mesa Quadrangle Cave Creek area

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 156

Document Number: 042 **Preparation Date:** 1979 **Source:** Flagstaff, Northern
Arizona University

Primary Author: Gomez, E. **Title:** Geology of the south central part of the New River
Mesa Quadrangle Cave Creek area, Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: M.S. Thesis
page 144

Document Number: 043 **Preparation Date:** 1990 **Source:** Tempe, Arizona State
University

Primary Author: Gorey, T.L. **Title:** Stream terraces of middle Cave Creek, Maricopa
County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: M.S. Thesis
page 96

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 037 **Preparation Date:** 1990 **Source:** Phoenix, Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Dreamy Draw, Cave Buttes, Adobe, New River: Dams of the Phoenix, Arizona and vicinity (including New River) project

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 8 **Storage Box Number:**

Document Number: 045 **Preparation Date:** 1988 **Source:** New York, John Wiley & Sons

Primary Author: Graf, W.L. **Title:** Definition of flood plains along arid-region rivers - Flood geomorphology

Prepared By 2: Baker, V.R.

Prepared By 3: Kochel, R.C.

Prepared By 4: Patton, R.C. **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 231-242 **Storage Box Number:**

Document Number: 036 **Preparation Date:** 1989 **Source:** Phoenix, Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Floodplain regulation for Maricopa County: as adopted August 4, 1986, and amended September 18, 1989

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 28 **Storage Box Number:**

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 047 **Preparation Date:** 1977 **Source:** Central Part, U.S.
Department of
Agriculture, Soil
Conservation Service

Primary Author: Hartman, G.W. **Title:** Soil survey of Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Scale: 1:500,000
page 117

Document Number: 048 **Preparation Date:** 1984 **Source:** Geological Society of
America Abstracts with
Programs

Primary Author: Hays, M.E. **Title:** Analysis of historic channel change as a method for
evaluating flood hazard in the semi-Arid Southwest
(abs.)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 16
page 535

Document Number: 049 **Preparation Date:** 1988 **Source:** New York, John Wiley &
Sons

Primary Author: Hirschboeck, K.K. **Title:** Flood hydroclimatology, Flood geomorphology

Prepared By 2: Baker, V.R.

Prepared By 3: Kochel, R.C.

Prepared By 4: Patton, P.C. **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 27-49

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 050 **Preparation Date:** 1978 **Source:** Arizona, U.S. Geological Survey Miscellaneous Investigations Series Map I-843-B

Primary Author: Hjalmarson, H.W. **Title:** Delineation of flood hazards in the Cave Creek Quadrangle, Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Scale: 1:24,000

Document Number: 051 **Preparation Date:** 1980 **Source:** Arizona, U.S. Geological Survey Miscellaneous Investigations Series Map I-843-C

Primary Author: Hjalmarson, H.W. **Title:** Delineation of flood hazards in the Biscuit Flat Quadrangle, Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: 2 sheets

Document Number: 052 **Preparation Date:** 1988 **Source:** Transportation Research Record

Primary Author: Hjalmarson, H.W. **Title:** Flood-hazard zonation in Arid lands

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 1201
page 1-8

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 053 **Preparation Date:** September 16-20, 1991 **Source:** Tucson, Arizona, U.S. Geological Survey Open-File Report 91-0254

Primary Author: Hjalmarson, H.W. **Title:** Flood hydrology of Arid basins in Southwestern United States Proceedings of the United States - People's Republic of China bilateral symposium on droughts and Arid-region hydrology

Prepared By 2: Kirby, W.H.

Prepared By 3: Weiyan, T.

Prepared By 4: compilers

Prepared For:

Storage Location: JEF

Gathered By: JEF

Storage Box Number:

Comments: page 59-64

Document Number: 054 **Preparation Date:** 1992 **Source:** Association of State Floodplain Managers

Primary Author: Hjalmarson, H.W. **Title:** Flood characteristics of alluvial fans in Arizona Proceedings of the conference on Arid west floodplain management issues, land use and flood damages in Arid and semi-Arid areas

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: JEF

Gathered By: JEF

Storage Box Number:

Comments: page 317-326

Document Number: 055 **Preparation Date:** 1994 **Source:** Arizona, U.S. Geological Survey Water-Resources Investigations 93-1469

Primary Author: Hjalmarson, H.W. **Title:** Potential flood hazards and hydraulic characteristics of distributary-flow areas in Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: JEF

Gathered By: JEF

Storage Box Number:

Comments: page 51

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 056 **Preparation Date:** 1991 **Source:** U.S. Geological Survey
Water-Resources
Investigations 91-4171

Primary Author: Hjalmarson, H.W. **Title:** Flood hazards of distributary-flow areas in
southwestern Arizona

Prepared By 2: Kemna, S.P.

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 51

Document Number: 057 **Preparation Date:** 1992 **Source:** Geological Society of
America Abstracts with
Programs

Primary Author: House, P.K. **Title:** Geological insights into deficiencies in federal
procedures for flood hazard assessment on alluvial
fans (abs.)

Prepared By 2: Pearthree, P.A.

Prepared By 3: Vincent, K.R.

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 24
page 284

Document Number: 058 **Preparation Date:** 1995 **Source:** U.S. Geological Survey
Open-File Report 95-0752

Primary Author: Ingersoll, T.L. **Title:** Chemistry and toxicity of urban sediments, Maricopa
County, Arizona, data and summary statistics

Prepared By 2: Parker, J.T.C.

Prepared By 3: Fossum, K.D.

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 27

4.0 Full Data Set

Document Number: 044 **Preparation Date:** 1984 **Source:** Water Resources
Research, Arizona State
University

Primary Author: Graf, W.L. **Title:** A probabilistic approach to the spatial assessment of
river channel instability

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 20
page 953-962

Document Number: 028 **Preparation Date:** 1991 **Source:** Washington, D.C.,
Federal Emergency
Management Agency

Primary Author: Federal Emergency
Management Agency **Title:** Flood Insurance Study, Maricopa County, Arizona and
incorporated areas - 1991

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 161

Document Number: 023 **Preparation Date:** 1986 **Source:** Journal of Hydraulic
Engineering

Primary Author: Chang, H.H. **Title:** River channel changes, Adjustments of equilibrium

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 112
page 43-55

4.0 Full Data Set

Document Number: 022 **Preparation Date:** 1988 **Source:** Scottsdale, Encanto Press
Primary Author: Carlson, F.C. **Title:** Cave Creek and Carefree Arizona: A history of the
desert foothills
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: page 204

Document Number: 021 **Preparation Date:** 1986 **Source:** Arizona, U.S. Department
of Agriculture
Primary Author: Camp, P.D. **Title:** Soil survey of Aguila-Carefree area, Parts of Maricopa
and Pinal counties
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: Soil Conservation Service
Scale: 1:24,000 and 1:506,880
page 306

Document Number: 019 **Preparation Date:** 1988 **Source:** Association of State
Floodplain Managers
Primary Author: Bond, L.A. **Title:** Some thoughts on the 1992 Arid West conference
Proceedings of the conference on arid west floodplain
management issues, Land use and flood damages in
arid and semi-arid areas
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: page 3-8

4.0 Full Data Set

Document Number: 018 **Preparation Date:** 1994 **Source:** New York, John Wiley & Sons

Primary Author: Baker, V.R. **Title:** Geomorphological understanding of Floods, Geomorphology

Prepared By 2: Kochel, R.C.

Prepared By 3: Patton, P.C.

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Volume 10
page 139-156

Document Number: 017 **Preparation Date:** 1993 **Source:** New York, John Wiley & Sons

Primary Author: Baker, V.R. **Title:** Flood Hazards, learning from the past, Nature

Prepared By 2: Kochel, R.C.

Prepared By 3: Patton, P.C.

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Volume 361
page 42-403

Document Number: 016 **Preparation Date:** 1988 **Source:** New York, John Wiley & Sons

Primary Author: Baker, V.R. **Title:** Flood Erosion, Flood Geomorphology

Prepared By 2: Kochel, R.C.

Prepared By 3: Patton, P.C.

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 81-95

4.0 Full Data Set

Document Number: 015 **Preparation Date:** 1963 **Source:** Tempe, Arizona Historical Foundation

Primary Author: Arizona Historical Foundation **Title:** An Historical survey of Cave Creek Regional Park, Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Parks & Recreation

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 30

Document Number: 014 **Preparation Date:** **Source:**

Primary Author: N/A **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Series #: NASA JSC
Coverage:
Scale:
Description: False color

Document Number: 024 **Preparation Date:** 1973 **Source:** Arizona, U.S. Geological Survey Misc. Investigations

Primary Author: Davidson, E.S. **Title:** Index and description of flood-prone area maps in the Tucson-Phoenix area

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Series #: I-0843-A
Scale: 1:500,000

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 013 **Preparation Date:** March 18, 1996 **Source:** FCDMC - AMC

Primary Author: Flood Control District of Maricopa County **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: Series #: 95142
Coverage: Complete
Scale: 1:12,000
Description: B&W, stereo, many photos

Document Number: 012 **Preparation Date:** August 2, 1989 **Source:** FCDMC

Primary Author: Flood Control District of Maricopa County **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: Series #: 89077
Coverage: Partial
Scale: 1:18000
Description: B&W, Stereo, coverage area is upstream of Carefree Highway

Document Number: 011 **Preparation Date:** February 5, 1984 **Source:** USGS - EROS

Primary Author: U.S. Geological Survey **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: Series #: 028584
Coverage: Complete
Scale: 1:31,680
Description: False color, stereo, 8 photos: 4195, 4236, 4237, 4238, 4194, 4196, 4248, 4249

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 010 **Preparation Date:** March 7, 1978 **Source:** FCDMC
Primary Author: Flood Control District of Maricopa County **Title:** Aerial Photographs of Cave Creek Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: Series #: PCC-78-1
Coverage: Partial
Scale: 1:12,000
Description: B&W, stereo, 4 photos: 1,3,5,6

Document Number: 009 **Preparation Date:** 1972 **Source:** USDA - SCS
Primary Author: National Resource Conservation Service **Title:** Aerial Photographs of Cave Creek Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: Series #: Orthophoto Quads
Coverage: Complete
Scale: 1:24000
Description: B&W

Document Number: 008 **Preparation Date:** September 30, 1962 **Source:** USGS - EROS
Primary Author: U.S. Geological Survey **Title:** Aerial Photographs of Cave Creek Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: Series #: GS - VAOB
Coverage: Complete
Scale: Not Given
Description: B&W

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 030 **Preparation Date:** 1994 **Source:** Tucson: University of Arizona

Primary Author: Field, J.J. **Title:** Surficial Processes, channel change, and geological methods of flood-hazard assessment on fluvially dominated alluvial fans in Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Ph. D. dissertation
page 258

Document Number: 031 **Preparation Date:** 1991 **Source:** Geological Society of America Abstracts with Programs

Primary Author: Field, J.J. **Title:** Geomorphic mapping of flood hazards on desert piedmonts, a case study from the White Tank Mountains Arizona (abs.)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 23
page 121

Document Number: 032 **Preparation Date:** 1997 **Source:** Journal of Geoscience Education

Primary Author: Field, J.J. **Title:** Geomorphologic flood-hazard assessment of alluvial fans and piedmonts: Journal of Geoscience Education

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 45
page 27-37

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 034 **Preparation Date:** 1982 **Source:** Phoenix, Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Annual Report

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page unknown **Storage Box Number:**

Document Number: 026 **Preparation Date:** 1991 **Source:** Arizona Bureau of Geology and Mineral Technology Special Paper 8

Primary Author: Doorn, P.L. **Title:** Geologic and gravimetric investigations of the Carefree Basin, Maricopa County, Arizona

Prepared By 2: Pewe, T.L.

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 187 **Storage Box Number:**

Document Number: 093 **Preparation Date:** 1991 **Source:** Washington, D.C., United States Congress House Committee on Interior and Insular Affairs

Primary Author: United States Congress house Committee on Interior and Insular Affairs **Title:** United States Congress House Committee on Interior and Insular Affairs, Cave Creek Protection Act of 1991: Report together with additional views to accompany H.R.2790, including cost of estimate of the Congressional Budget Office

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 9 **Storage Box Number:**

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 082 **Preparation Date:** 1991 **Source:** Association of State Floodplain Managers

Primary Author: Smutzer, D.A. **Title:** Managing erosion hazard setbacks and stabilization techniques, Multi-objective river corridor planning, proceedings of the urban stream corridor and storm water mgt. workshop and the multi-objective mgt. of river corridors and their restoration workshop

Prepared By 2: Grunfest, E.

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: page 49-53

Document Number: 084 **Preparation Date:** 1979 **Source:** Water Resources Research

Primary Author: Tasker, G.D. **Title:** Analysis of Arizona flood data network for regional information

Prepared By 2: Moss, M.E.

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: volume 15
page 1791-1796

Document Number: 086 **Preparation Date:** 1991 **Source:** Arizona, Flood Control District of Maricopa County

Primary Author: Thomsen, B.W. **Title:** Estimated Manning's roughness coefficients for stream channels and flood plains in Maricopa County

Prepared By 2: Hjalmarsen, H.W.

Prepared By 3: U.S. Geological Survey, Water Resources Division

Prepared By 4:

Prepared For:

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: page 126

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 087 **Preparation Date:** 1994 **Source:** Utah and Arizona (abs.),
Geological Society of
America Abstracts
Programs

Primary Author: Topping, D.J. **Title:** Controls on hydraulic geometry in flood-dominated,
ephemeral river system, examples from the Paria River

Prepared By 2: Smith, J.D.

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 26
page 235

Document Number: 088 **Preparation Date:** 1964-1967 **Source:** Los Angeles, U.S. Army
Corps of Engineers

Primary Author: U.S. Army Corps of Engineers **Title:** Flood-plain information study for Maricopa County,
Arizona, Cave Creek Report

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County, Arizona

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: volume 2
page unknown

Document Number: 089 **Preparation Date:** 1971 **Source:** Los Angeles, U.S. Army
Corps of Engineers

Primary Author: U.S. Army Corps of Engineers **Title:** Flood Hazard information: Cave Creek, Arizona Canal
to 19th Avenue, Phoenix

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** District of Maricopa County,
Arizona

Gathered By: JEF **Storage Location:** JEF
JEF

Storage Box Number:

Comments: page 15

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 092 **Preparation Date:** 1977 **Source:** Los Angeles, U.S. Army Corps of Engineers

Primary Author: U.S. Army Corps of Engineers **Title:** Amplification to the final environmental impact statement, New River and Phoenix, City Streams Flood Control Project, Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County, Arizona

Storage Location: JEF

Gathered By: JEF **Storage Box Number:**

Comments: page unknown

Document Number: 083 **Preparation Date:** 1975 **Source:** Arizona (abs.), Geophysics

Primary Author: Sumner, J.S. **Title:** Gravity Analysis of the Cave Creek-Carefree Basin, Maricopa County

Prepared By 2: Schmidt, J.S.

Prepared By 3: Aiken, C.L.V.

Prepared By 4: Koenen, K.H. **Prepared For:**

Storage Location: JEF

Gathered By: JEF **Storage Box Number:**

Comments: volume 40
page 157

Document Number: 094 **Preparation Date:** 1993 **Source:** Washington, D.C., United States Congress House Committee on Interior and Insular Affairs

Primary Author: United States Congress House Committee on Interior and Insular Affairs **Title:** Cave Creek Protection Act of 1991: report together with additional views, to accompany H.R. 843, including cost estimate of the Congressional Budget Office

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Storage Location: JEF

Gathered By: JEF **Storage Box Number:**

Comments: page 7

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 095 **Preparation Date:** 1992 **Source:** Washington, D.C., United States Congress State Committee on Energy and Natural Resources

Primary Author: United States Congress senate Committee on Energy and Natural Resources **Title:** United States Congress Senate Committee on Energy and Natural Resources Cave Creek Canyon Protection Act: to accompany H.R. 2790

Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF
Storage Box Number:

Comments: page 4

Document Number: 096 **Preparation Date:** 1993 **Source:** Washington, D.C., United States Congress Senate Committee on Energy and Natural Resources

Primary Author: United States Congress Senate Committee on Energy and Natural Resources **Title:** Cave Creek Protection Act: to accompany H.R. 843

Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF
Storage Box Number:

Comments: page 4

Document Number: 060 **Preparation Date:** 1990 **Source:** The Quarterly Journal of Engineering Geology

Primary Author: Kenny, R. **Title:** Hydrogeomorphic flood hazards evaluation for semi-Arid environments

Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF
Storage Box Number:

Comments: volume 23
page 333-336

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 033 **Preparation Date:** 1973 **Source:** Phoenix, Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Flood control

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 22 **Storage Box Number:**

Document Number: 099 **Preparation Date:** 1983 **Source:** Phoenix, Water Resources Associates

Primary Author: Water Resources Associates **Title:** Probable maximum flood, Salt and Verde River Basins

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Arizona Public Service Company

Gathered By: JEF **Storage Location:** JEF

Comments: page 84 **Storage Box Number:**

Document Number: 098 **Preparation Date:** 1979 **Source:** Tucson, University of Arizona

Primary Author: Wagner, C.G. **Title:** A geophysical study of the Cave Creek basin, Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: M.S. Thesis page 61 **Storage Box Number:**

4.0 Full Data Set

Document Number: 097 **Preparation Date:** 1976 **Source:** Geoexploration
Primary Author: Van Nostrand, R.G. **Title:** An example of the use of gravity in ground-water exploration
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: volume 14
page 262-263

Document Number: 091 **Preparation Date:** 1976 **Source:** Los Angeles, U.S. Army Corps of Engineers
Primary Author: U.S. Army Corps of Engineers **Title:** New River & Phoenix city streams, Maricopa County, Arizona: final environmental impact statement
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: page 331

Document Number: 064 **Preparation Date:** 1991 **Source:** U.S. Geological Survey Water-Resources Investigations 90-4162
Primary Author: Majure, J.J. **Title:** Using a geographic information system to determine physical basin characteristics for use in flood-frequency equations from: U.S. Geological Survey national computer technology meeting, proceedings, Phoenix, Arizona, Nov 14-18, 1988
Prepared By 2: Soenksen, P.J.
Prepared By 3: Balthrop, B.H.
Prepared By 4: Terry, J.E. **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments: page 31-40

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 077 **Preparation Date:** 1995 **Source:** U.S. Geological Survey
Water-Resources
Investigations 95-4059

Primary Author: Parker, J.T.C. **Title:** Channel change and sediment transport in two desert
streams in central Arizona 1991-1992

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 42

Document Number: 067 **Preparation Date:** 1982 **Source:** Phoenix, Maricopa
County Board of
Supervisors

Primary Author: Maricopa County Board of
Supervisors **Title:** Desert Foothills technical guide: supplement to: Desert
Foothills policy & development guide

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 106

Document Number: 076 **Preparation Date:** 1984 **Source:** Central Arizona (abs.),
EOS, Transaction of the
American Geophysical
Union

Primary Author: OConnor, J.E. **Title:** Flood paleohydrology and paleohydraulics, Salt and
Verde Rivers

Prepared By 2: Partridge, J.B.

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 893

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 069 **Preparation Date:** 1966 **Source:** Phoenix, Acme Blueprint & Photocraft Co.

Primary Author: Maricopa County Planning and Zoning Department **Title:** A General plan for the Desert Foothills area of Cave Creek and Carefree, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 32 **Storage Box Number:**

Document Number: 085 **Preparation Date:** 1979 **Source:** U.S. Geological Survey Professional Paper 1150

Primary Author: Tasker, G.D. **Title:** Analysis of flood-data network for regional information

Prepared By 2: Moss, M.E.

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: page 270 **Storage Box Number:**

Document Number: 063 **Preparation Date:** 1977 **Source:** Arizona, U.S. Geological Survey Open-File Report 79-1068

Primary Author: Littin, G.R. **Title:** Maps showing ground-water conditions in the New River Cave Creek area, Maricopa and Yavapai Counties

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Comments: Scale: 1:126,720 **Storage Box Number:**

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 071 **Preparation Date:** 1977 **Source:** Phoenix, Maricopa
County Planning and
Department

Primary Author: Maricopa County Planning
Department **Title:** U.S. Soil Conservation Service and Tonto National
Forest Soil associations, Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page unknown

Document Number: 065 **Preparation Date:** 1982 **Source:** Tempe, Arizona State
University

Primary Author: Manera, P.A. **Title:** Impact of the ground water supply on the population of
the Cave Creek area Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Ph. D. dissertation
page 214

Document Number: 182 **Preparation Date:** March 13, 1991 **Source:** Cave Creek Sand & Rock

Primary Author: Nevitt, R. **Title:** Letter to Larry Walker Regarding Expired FA87-
056/FV91-05

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting **Storage Location:** Stantec
Consulting

Storage Box Number:

Comments: Cave Creek (Ref. #22596) Sand and Gravel Operation

4.0 Full Data Set

Document Number: 149 **Preparation Date:** **Source:**
Primary Author: **Title:** Flood Control District Reference Monuments for Cave
Creek Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: **Storage Location:** ASL
Storage Box Number:
Comments: Contains reference monuments with corresponding elevations for the Cave Creek area.

Document Number: 136 **Preparation Date:** June 2, 1998 **Source:** RH & Associates
Primary Author: RH & Associates **Title:** Partnering Session for the Upper Cave Creek
Watercourse Master Plan Project, Final Report
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3
Comments: Project # 8960407. Comprised of list of workshop attendees, expectations of the project and partnering
workshop, communication plans, roles and responsibilities, goals. It is basically a project proposal for teaming
and teamwork.

Document Number: 134 **Preparation Date:** September 4, 1998 **Source:** Arizona State Land
Department
Primary Author: Arizona State Land Department **Title:** Letter Dated September 4, 1998
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Mr. George Sabol of Stantec
Consulting, Inc.
Gathered By: Stantec Consulting **Storage Location:** ASL
Storage Box Number: 3
Comments: Includes production records and summaries of the importance of common variety materials in the Cave Creek
wash, specifically sand and gravel.

4.0 Full Data Set

Document Number: 199 **Preparation Date:** 1998 **Source:** ASFPM

Primary Author: Riley, A.L. **Title:** Restoring Streams in Cities

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Planners, Policymakers, and
Citizens

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Provides background information on streams, watersheds, hydrologic circles, their importance, community interest, strategies of stream preservation, watershed planning, causes of damaged streams, human interaction with environmental stream, watershed influences, drainage areas, learning a topo map, the purpose of hydraulic engineers, restoring old history, managing flood areas, support from the community, surveying various restoration methods and many figures and tables of data collected.

Document Number: 100 **Preparation Date:** 1994 **Source:** EOS, Transactions of the
American Geophysical
Union

Primary Author: Webb, R.H. **Title:** Information of content of paleoflood data in flood-
frequency analysis (abs.)

Prepared By 2: Moss, M.E.

Prepared By 3: Pratt, D.A.

Prepared By 4:

Prepared For:

Storage Location: JEF

Gathered By: JEF

Storage Box Number:

Comments: volume 75
page 176

Document Number: 101 **Preparation Date:** 1967 **Source:** Phoenix, Arizona State
Land Department, water-
resources report number
31

Primary Author: Werho, L.L. **Title:** Compilation of flood data for Maricopa County,
Arizona, through September 1965

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: JEF

Gathered By: JEF

Storage Box Number:

Comments: page 36

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 102 **Preparation Date:** 1992 **Source:** Association of State Floodplain Managers

Primary Author: Williams, D.T. **Title:** Erosion potential and scour depth assessment of pipeline crossings, Proceedings of the conference on Arid West floodplain management issues, land use and flood damages in Arid and semi-Arid areas

Prepared By 2: Carreon, S.

Prepared By 3: Hamilton, D.L.

Prepared By 4: Bradley, J.B. **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: page 261-268

Document Number: 183 **Preparation Date:** February 12, 1993 **Source:** Cave Creek Sand & Rock

Primary Author: Walker, L. **Title:** Letter to Gary P. Slusher Regarding Restoration (Cave Creek Pit, Permit 73-22596)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting

Storage Box Number:

Comments: Cave Creek (Ref. #22596) Sand and Gravel Operation

Document Number: 135 **Preparation Date:** May 7, 1999 **Source:** Scientific Archaeological Services

Primary Author: Rodgers, J.B. **Title:** The Apache Wash Archaeological Monitoring Project of Northern Phoenix and Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Douglas A. Williams of Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL

Storage Box Number: 3

Comments: Contract Archaeological Series 999-1. State of Arizona Antiquities Permit No. 1999-11BL. ASLD Right-of-Entry No. 29-104770. Includes project location maps and project resources.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 184 **Preparation Date:** March 8, 1994 **Source:** Cave Creek Sand & Rock
Primary Author: Slusher, G. **Title:** Letter to Larry Walker Regarding Surface Reclamation
(Cave Creek Pit, No 73-22596)
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: Stantec Consulting
Gathered By: Stantec Consulting **Storage Box Number:**
Comments: Cave Creek (Ref. #22596) Sand and Gravel Operation, T5N, R4E, section 6

Document Number: 104 **Preparation Date:** 1962 **Source:** Phoenix, Flood Control
District of Maricopa
County
Primary Author: Yost and Gardner Engineers **Title:** Flood Control Survey Report, Northeastern Maricopa
County, Area III
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: JEF
Gathered By: JEF **Storage Box Number:**
Comments: page unknown

Document Number: 107 **Preparation Date:** June 23, 1997 **Source:** Flood Control District of
Maricopa County
Primary Author: Willdan Associates **Title:** Technical Data Notebook Volume 3, Cave Creek
Below Carefree Highway FIS floodplain delineation
study for flood control district of Maricopa County
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County
Storage Location: ASL
Gathered By: ASL **Storage Box Number:** 1
Comments: F.C.D. Contract No. 95-30. Contains revision requests, charts of wash and diagrams of support columns as well
as bridges running across the wash.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 108 **Preparation Date:** June 23, 1997 **Source:** Flood Control District of Maricopa County

Primary Author: Valco Surveying Corporation **Title:** Technical Data Notebook Volume 4, Cave Creek below Carefree Highway FIS floodplain delineation study for Flood Control District of Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Willdan Associates

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 1

Comments: Project No. 08855-1008. Contains tables of elevation of cross sections of the wash at different places in addition to the change in the sections' elevations.

Document Number: 181 **Preparation Date:** February 16, 1989 **Source:** Cave Creek Sand & Rock

Primary Author: State Land Department **Title:** Letter to Jack Ragsdale Regarding BLM/SLD Land Exchange - Cave Creek (Ref. #22596) Sand and Gravel Operation Cave Creek (Ref. #22596) Sand and Gravel Operation

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: Stantec Consulting

Gathered By: Stantec Consulting

Storage Box Number:

Comments: Cave Creek Sand & Gravel Permit 73-22596

Document Number: 157 **Preparation Date:** June 5, 1998 **Source:** Scientific Archaeological Services

Primary Author: Rodgers, J.B. **Title:** An Archaeological Inventory in the Southern Part of the Upper Cave Creek watercourse Master Plan, Study Area of Phoenix and Cave Creek, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Theresa M. Hoff

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: State of Arizona Antiquities Permit No. 1998-9BL. Work assignment No. 3 of FCDMC Contract No. 97-41. Contract Archaeological Series 998-3. The purpose of the report is to document the nature, methodology, results, and recommendations of a dual-pronged inventory project completed by SAS. Contains local area maps, involves the Desert Foothills Region, Southern UCCWMP archaeological vicinity, recording of local vegetation, detailed location of transects, and their accompanying pictures.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 109 **Preparation Date:** June 20, 1997 **Source:** Flood Control District of Maricopa County

Primary Author: Willdan Associates **Title:** Technical Data Notebook Volume 5, Cave Creek Below Carefree Highway FIS

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Storage Box Number: 1

Gathered By: ASL

Comments: Maps and diagrams of bridge over Cave Creek wash. Includes: boundary maps of the wash, flow path maps, routing maps, culvert maps, and land use maps.

Document Number: 103 **Preparation Date:** 1982 **Source:** Wirth Associates, Inc., and Evans, Kuhn and Associates, Inc.

Primary Author: Wirth Associates, Inc. **Title:** Cave Creek Wash master development plan: executive summary

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: City of Phoenix, Arizona, project numbers ST-80404.00 and PA-80404.10

Storage Location: JEF

Storage Box Number:

Gathered By: JEF

Comments: page 25

Document Number: 141 **Preparation Date:** January 30, 1998 **Source:** Flood Control District of Maricopa County

Primary Author: Phillips, B.G. **Title:** Prehistoric floodwater Agriculture Along Middle Cave Creek, Maricopa County, Arizona, Draft Final

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Storage Box Number: 3

Gathered By: ASL

Comments: Default Cure Order No. 254-96/97. ASM Permit 1997-56PS. ACS Project No. 96-59D. Contains project location, background information, ACS investigations, fieldwork, lab analyses, environmental reconstruction, agricultural system reconstruction, crop production, prehistoric agriculture and future research recommendations. Contains tables of selected sites, unit summaries, lithic assemblage, trench summaries, flotation analysis, soil sample data and radiocarbon dates.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 160 **Preparation Date:** February 1, 1996 **Source:** Arizona Department of Water Resources

Primary Author: Simons & Li **Title:** Lateral Migration Setback Allowance for Riverine Floodplains in Arizona, Attachment 1

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Draft version. Document contains three procedures studied which give recommendations as to the setback distance of development in flood potential or watercourse areas. Includes tables of maximum tractive stress on an area as well as some plots of different stresses on an area.

Document Number: 161 **Preparation Date:** October 25, 1999 **Source:** Flood Control District of Maricopa County

Primary Author: Design Workshop, Inc. **Title:** Desert Spaces An Open Space Plan for the Maricopa Association of Governments

Prepared By 2: Cornoyer-Hedrick SWCA Environmental Consultants

Prepared By 3: BBC Research Consulting

Prepared By 4: Lang, S.

Prepared For: Maricopa Association of Governments (MAG)

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: This plan identifies and recommends conservation and management strategies for natural resources and open spaces critical to the quality of life in the Valley. The purpose of the plan is to protect and preserve the foothills and natural surroundings in the area. The document gives detailed maps of the areas in question as well as public and privately owned land.

Document Number: 162 **Preparation Date:** May 1998 **Source:** Logan Simpson Design, Inc.

Primary Author: Douglas, D.L. **Title:** Class 1 Inventory of Cultural Resources along Upper Cave Creek, Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Flood Control District of Maricopa County

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Gives detailed maps of the upper Cave Creek study area as well as a description of the vegetation, climate and cultural history of the area. It contains records of previously surveyed upper Cave Creek area and the data that was collected from those surveys.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 163 **Preparation Date:** April 1998 **Source:** Logan Simpson Design, Inc.

Primary Author: Logan Simpson Design, Inc. **Title:** Upper Cave Creek Watercourse Master Plan, Initial Draft Public Involvement Plan

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: The purpose of the report is to identify alternative means of flood control in the Upper Cave Creek area. Provides schedule plans, maps of the area and local buildings, mailing list and 1990 census of population and housing.

Document Number: 164 **Preparation Date:** June 2, 1998 **Source:** RH & Associates

Primary Author: RH & Associates **Title:** Upper Cave Creek Watercourse Master Plan Project, Partnering Workshop

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Identifies expectations, answers the question of "what is partnering", describes effective teams, shows good communication, gives a project overview, provides partnering goals, shows project elements and describes team maintenance through follow-up.

Document Number: 165 **Preparation Date:** December 3, 1993 **Source:** Flood Control District of Maricopa County

Primary Author: Federal Emergency Management Agency **Title:** Flood Insurance Study, Maricopa County, Arizona and incorporated areas, Volume 1 of 9

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Provides information on scope of the study, community description, principal flood problems, flood protection measures, hydrologic and hydraulic analyses, floodway boundaries, floodways, vicinity maps, historic flooding, floodway schematic, study sources, study streams, summary of discharges, floodway data, insurance application, flood insurance rate map, location of data and revision of descriptions.

4.0 Full Data Set

Document Number: 167 **Preparation Date:** 1999 **Source:** Arizona State Land Department
Primary Author: McCarric, K. **Title:** Summary of Production Amounts for Each Permit
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting

Storage Box Number:

Comments:

Document Number: 148 **Preparation Date:** August 28, 1988 **Source:** Flood Control District of Maricopa County
Primary Author: Flood Control District of Maricopa County **Title:** Flooding - Apache Wash
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3

Comments: Contains pictures of the house, garage, fences and other items damaged by the flood as well as a summary report of the home and situation.

Document Number: 147 **Preparation Date:** undated **Source:** Flood Control District of Maricopa County
Primary Author: Flood Control District of Maricopa County **Title:** No. 4-9 Cave Creek Dam
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3

Comments: Shows technical data of dam, buttress elevations, diagrams of elevations and diagrams of buttress cross-sections.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 146 **Preparation Date:** June 30, 1997 **Source:** Flood Control District of Maricopa County

Primary Author: West Consultants, Inc. **Title:** Cherokee Wash Hydrologic, Hydraulic and Sedimentation Study, Final Report

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Flood Control District of Maricopa County

Storage Location: ASL

Storage Box Number: 3

Gathered By: ASL

Comments: Contains hydrology Doubletree Ranch Road studies, HEC-1 and USGS peak flows, storm duration, WEST hydrologic models; hydraulics HEC-2 model development and analysis, channel improvement options; geomorphic analysis, watershed descriptions, assessment; sedimentation engineering sampling, yield estimates, HEC-6 model development, existing conditions model, sensitivity analysis; channel and basin design recommendations and modifications.

Document Number: 145 **Preparation Date:** May 2, 1985 **Source:** Flood Control District of Maricopa County

Primary Author: Cella Barr Associates **Title:** City of Phoenix Cave Creek Recharge, Project: Technical Aspects

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Second Symposium on Artificial Recharge

Storage Location: ASL

Storage Box Number: 3

Gathered By: ASL

Comments: Investigation results of the various techniques of recharging excess CAP water between the Granite Reef Aqueduct and the Arizona Canal. Contains area topo maps, fence diagrams, hydrology data, and well diagrams.

Document Number: 144 **Preparation Date:** May 15, 1990 **Source:** Flood Control District of Maricopa County

Primary Author: Joseph C. Bernier & Associates **Title:** Cave Creek-Carefree Basin Storm Water Runoff Recharge Project

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Arizona Department of Water Resources

Storage Location: ASL

Storage Box Number: 3

Gathered By: ASL

Comments: Contains concepts of area, preparation and support, pilot demonstration, basin-wide design, basin-wide implementation, schedule, project team, costs and a map of washes and 100-year floodplain.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 186 **Preparation Date:** N/A **Source:** Wheeler Construction
Primary Author: Arizona State Land Department **Title:** Royalty per Month
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: Spreadsheet showing the tons removed. Wheeler Construction, Inc. Permit 04-53112

Document Number: 142 **Preparation Date:** February 26, 1969 **Source:** Flood Control District of Maricopa County
Primary Author: Engineers Testing Laboratories, Inc. **Title:** Concrete Quality Report, Cave Creek Dam, Maricopa County, Arizona
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** John Carollo Engineers
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3
Comments: Job No. 69-36. Contains pictures and documentation of different arches of Cave Creek Dam.

Document Number: 113 **Preparation Date:** March 1990 **Source:** Flood Control District of Maricopa County
Primary Author: CH2M HILL **Title:** FDS Cave Creek/Carefree Appendix C Volume 1 of 3
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 1
Comments: Contains water surface profiles of Cave Creek natural and floodway, Cottonwood natural and floodway, CWT1 natural and floodway, CWT2 natural and floodway, Grapevine natural and floodway and Galloway natural and floodway.

4.0 Full Data Set

Document Number: 140 **Preparation Date:** July 9, 1998 **Source:** Flood Control District of Maricopa County

Primary Author: Maricopa County **Title:** New River Area Plan Update, Draft

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 3

Comments: Inventory and analysis of area, issue identification, plan element, action plan, amending the plan and area maps.

Document Number: 139 **Preparation Date:** March 1982 **Source:** Flood Control District of Maricopa County

Primary Author: US Army Corps of Engineers **Title:** Phoenix Area & Vicinity (including New River), Design Memorandum No. 6 Cave Buttes Dam Master Plan

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 3

Comments: Contains project description, project status, environmental resources, social and economic factors, physical plan of development, design criteria, special problems, cost summaries, maps of plan recommendation and maps of resources.

Document Number: 188 **Preparation Date:** April 16, 1996 **Source:** Wheeler Construction

Primary Author: Gilbert, H. **Title:** Plan of Operation

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: Stantec Consulting

Storage Location: Stantec Consulting

Storage Box Number:

Comments: Wheeler Construction, Inc. Permit 04-53112

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 138 **Preparation Date:** 1988 **Source:** 1988 Arid West
Conference Proceedings

Primary Author: Lagasse, P.F. **Title:** Delineation of a Flooding and Erosion Buffer for a
Southwestern Arroyo

Prepared By 2: Schall, J.D.

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: JEF

Storage Box Number: 3

Comments: Contains calculated flood and erosion risk diagrams, hydrologic and sediment transport analyses, bell chart of hydrographic discretization process and erosion risk boundaries.

Document Number: 137 **Preparation Date:** May 15, 1984 **Source:** Pima County

Primary Author: ASL **Title:** Drainage and Channel Design Standards for Local
Drainage

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Flood Plain Management within
Pima County, Arizona

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: Contains design considerations, channel design, channel alignment, channel stabilization, channel cross-sections, and roadside drainage.

Document Number: 198 **Preparation Date:** 1998 **Source:** U.S. Geological Survey

Primary Author: U.S. Geological Survey **Title:** Statistical Summaries of Streamflow Data and
Characteristics of Drainage Basins for Selected
Streamflow-Gauging Stations in Arizona Through
Water Year 1996

Prepared By 2: Rigas, P.D.

Prepared By 3: Smith, C.F.

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Water-resource investigations report 98-4225. Includes a history of streamflow-gauging in Arizona, station records, rating tables, explanation of statistical summaries, data use limitations, references cited and statistical summaries of all surrounding area washes.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 133 **Preparation Date:** July 15, 1996 **Source:** Flood Control District of Maricopa County

Primary Author: Arizona State University **Title:** Cave Creek Wash Preservation Boundary Study

Prepared By 2: College of Architecture and Environmental Design

Prepared By 3: School of Planning and Landscape Architecture

Prepared By 4: Arizona State University West Life Sciences Dept. **Prepared For:** City of Phoenix. Parks, Recreation and Library Department

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 3

Comments: Includes creek bed vegetation, study area description, wildlife, vegetation preservation projection and area maps.

Document Number: 110 **Preparation Date:** March 1990 **Source:** Flood Control District of Maricopa County

Primary Author: CH2M HILL **Title:** Final Hydrologic and Hydraulic Report for Cave Creek/Carefree flood delineation study

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 1

Comments: Project RDD27815.H3/(FCD 88-53). Flood insurance maps, wash vicinity maps, vegetation cover, and routing schematics.

Document Number: 111 **Preparation Date:** June 23, 1997 **Source:** Flood Control District of Maricopa County

Primary Author: Willdan Associates **Title:** Technical Data Notebook Volume 1, Cave Creek below Carefree Highway FIS floodplain delineation study for Flood Control District of Maricopa County

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 1

Comments: Project No. 08855-1008. Flow schematics, hydrologic data, loss parameters for sub-basins, photographs and data of individual culverts and their performance.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 112 **Preparation Date:** April 12, 1990 **Source:** Flood Control District of Maricopa County

Primary Author: CH2M HILL **Title:** Cave Creek/Carefree Flood Delineation Study Appendix A

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 1

Comments: Rainfall distribution charts, culvert hydraulics and photos of washes (Cave Creek/ Willow Springs/ Cottonwood/ Ocotillo/ Fleming Springs/ Rowe).

Document Number: 187 **Preparation Date:** June 21, 1995 **Source:** Wheeler Construction

Primary Author: Gilbert, H. **Title:** Letter to Gary Slusher Regarding Mining and Restoration Plan

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: Stantec Consulting

Gathered By: Stantec Consulting

Storage Box Number:

Comments: Wheeler Construction, Inc. Permit 04-53112

Document Number: 185 **Preparation Date:** March 8, 1994 **Source:** Cave Creek Sand & Rock

Primary Author: Arizona State Land Department **Title:**

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: Stantec Consulting

Gathered By: Stantec Consulting

Storage Box Number:

Comments: Various maps showing the location of the sand and gravel operation. Cave Creek (Ref. #22596) Sand and Gravel Operation

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 143 **Preparation Date:** April 1969 **Source:** Flood Control District of Maricopa County

Primary Author: John Carollo Engineers **Title:** Report on the Condition of the Superstructure of Old Cave Creek Dam

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Flood Control District

Gathered By: ASL **Storage Location:** ASL

Storage Box Number: 3

Comments: Report of the condition of the dam structure. Provides photographs, arc descriptions and data analysis.

Document Number: 123 **Preparation Date:** July 1997 **Source:** Stantec Consulting

Primary Author: George V. Sabol Consulting Engineers **Title:** Cave Creek Above Carefree Highway Floodplain Delineation Study FCD 95-28, Technical Data Notebook Hydraulics, 100-Year Floodplain and Floodway (Natural) Delineation

Prepared By 2: McLaughlin Kmetty Engineers

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number: 2

Comments: Contains hydrologic analysis, hydraulic analysis, erosion/sediment transport analysis, draft flood insurance study report and flood delineation study maps.

Document Number: 191 **Preparation Date:** Feb. 14, 1995 **Source:** Wheeler Construction

Primary Author: Jacobs, S. **Title:** Letter to Wheeler Construction, Inc. Regarding Application to Purchase Mineral Materials No. 04-53112

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting

Storage Box Number:

Comments: Wheeler Construction, Inc. Permit 04-53112

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 194 **Preparation Date:** 1971 **Source:** USGS EROS (NASA JSC)

Primary Author: U.S. Geological Survey **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF

Storage Location: JEF

Storage Box Number:

Comments: Series #:
Coverage: complete
Scale: 1:28,800
Description: false color, stereo, 4 photos: 135, 163-165, 2 photos: 009,009

Document Number: 127 **Preparation Date:** March 1, 1999 **Source:** City of Phoenix

Primary Author: City of Phoenix **Title:** Desert Character Overlay Districts Desert Maintenance Overlay Sub-Districts A and B

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 3

Comments: Describes overlay district, purpose, intent, maps and general guidelines.

Document Number: 174 **Preparation Date:** Dec. 13, 1983 **Source:** Tanner/AZ Crushers

Primary Author: State Land Department **Title:** Material Sales Agreement

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting

Storage Location: Stantec Consulting

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 173 **Preparation Date:** June 17, 1983 **Source:** Tanner/AZ Crushers
Primary Author: Burton, J.E. **Title:** Letter To Hal F. Susie Regarding Application Nos. 04-80921-08, 04-80922-08, and 04-80923-08
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: Tanner/AZ Crushers permit 04-80921

Document Number: 171 **Preparation Date:** September 3, 1993 **Source:** Arizona State Land Department
Primary Author: Flood Control District of Maricopa County **Title:** Sand and Gravel Developers Information Checklist
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments:

Document Number: 170 **Preparation Date:** September 3, 1993 **Source:** Arizona State Land Department
Primary Author: Flood Control District of Maricopa County **Title:** Floodplain Management Sand and Gravel Guidelines Summary
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments:

4.0 Full Data Set

Document Number: 169 **Preparation Date:** May 7, 1996 **Source:** Arizona State Land Department

Primary Author: Slusher, G.D. **Title:** Letter to Dennis Wells Regarding Overview: Sand & Gravel Interest in Cave Creek

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting

Storage Box Number:

Comments:

Document Number: 168 **Preparation Date:** May 19, 1995 **Source:** Arizona State Land Department

Primary Author: Slusher, G. **Title:** Letter to Mike Phalen Regarding Cave Creek: Potential Economic Value of Mineral Materials

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting

Storage Box Number:

Comments:

Document Number: 106 **Preparation Date:** June 20, 1997 **Source:** Flood Control District of Maricopa County

Primary Author: Willdan Associates **Title:** Technical Data Notebook Volume 2, Cave Creek Below Carefree Highway FIS floodplain delineation study for flood control district of Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL

Storage Box Number: 1

Comments: F.C.D. contract number 995-30. Shows photographs of the different sections of the Cave Creek wash as well as the predicted elevations of cross-sections of the wash and their changed location. Gives data of recent situations of the elevation of cross sections of the wash. Gives a hydraulic analysis as well as problems, descriptions and solutions of the wash.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 175 **Preparation Date:** December 30, 1991 **Source:** Tanner/AZ Crushers
Primary Author: Woods, R.M. **Title:** Letter to Gary Slusher Regarding Lease #04-80921,
Dixileta Lease Cancellation
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments:

Document Number: 124 **Preparation Date:** February 9, 1998 **Source:** ASL
Primary Author: ASL **Title:** Upper Cave Creek Watercourse Master Plan Study
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3
Comments: Cave Creek Wash project proposal.

Document Number: 176 **Preparation Date:** June 24, 1987 **Source:** D. Steffan
Primary Author: Arizona State Land Department **Title:**
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: Map showing location of proposed sand and gravel mine.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 122 **Preparation Date:** March 1997 **Source:** Stantec Consulting
Primary Author: George V. Sabol Consulting Engineers **Title:** Cave Creek Above Carefree Highway Floodplain Delineation Study FCD 95-28, Technical Data Notebook Hydrology - Existing condition, Book 2 of 2
Prepared By 2: McLaughlin Kmetty Engineers
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2

Comments: Listing of rainfall loss parameter calculations, vegetation transects, unit hydrographic parameter calculations, reach route parameters and summary data, indirect method calculations and figures, reach route hydrograph plots, Cave Creek 100-year HEC-1 output, Andora Hills Wash 100-year, 6-hour HEC-1 and 24-hour HEC-1 output.

Document Number: 121 **Preparation Date:** March 1997 **Source:** Stantec Consulting
Primary Author: George V. Sabol Consulting Engineers **Title:** Cave Creek Above Carefree Highway Floodplain Delineation Study FCD 95-28, Technical Data Notebook Hydrology Existing Condition, Book 1 of 2
Prepared By 2: McLaughlin Kmetty Engineers
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2

Comments: Provides the results and supporting computations for the hydrology portion of the Cave Creek Above Carefree Floodplain Delineation study, estimates of peak discharges, contact reports, public notices, contract documents, hydrologic analysis and watershed drainage maps.

Document Number: 120 **Preparation Date:** October 1996 **Source:** Stantec Consulting
Primary Author: George V. Sabol Consulting Engineers **Title:** Cave Creek above Carefree Highway Floodplain Delineation Study FCD 95-28, Summary Report, December 1992 - February 1993 Storm Reconstitution
Prepared By 2: McLaughlin Kmetty Engineers
Prepared By 3:
Prepared By 4: **Prepared For:** Calibration of the Cave Creek Watershed Hydrology Model

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2

Comments: Documentation of the calibration efforts performed as part of the hydrologic analysis for the Flood Control District of Maricopa County's Cave Creek floodplain delineation study. This was used in determining the model accuracy of the 100-year HEC-1 estimates of the rainfall-runoff of the watershed. Contains many maps of the stage and discharge gage data for the Cave Buttes Dam and inflow calibration data for Cave Buttes Dam as well as Cave Creek Dam.

4.0 Full Data Set

Document Number: 119 **Preparation Date:** March 1976 **Source:** ASL
Primary Author: US Army Corps of Engineers **Title:** Gila River Basin New River and Phoenix City Streams,
Design Memorandum No. 3 General Design
Prepared By 2: Memorandum - Phase 1, Plan formulation
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2
Comments: Supplement to main report correspondence. The report contains letters, resolution, and comments of other agencies, groups and individuals that were pertinent in the formulation of the recommended plan for the New River and Phoenix City Streams, Arizona flood control project.

Document Number: 118 **Preparation Date:** 1982 **Source:** ASL
Primary Author: US Army Corps of Engineers **Title:** Gila River Basin Phoenix, Arizona & Vicinity, Hydrology
Part 2, Design Memorandum No. 2
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2
Comments: Includes a general description of drainage area; precipitation and runoff; synthesis of probable maximum flood; discharge frequency analysis; sediment production; and tables of streamflow, peak discharge and estimated sediment production.

Document Number: 117 **Preparation Date:** October 1973 **Source:** ASL
Primary Author: US Army Corps of Engineers **Title:** Gila River Basin New River and Phoenix City Streams
Arizona, Design Memorandum No. 2, Hydrology Part 1
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2
Comments: This was a preliminary report. General description area (physiography, topography, runoff characteristics, vegetation, geology, climatology, existing structures, proposed improvements for runoff and breakouts). Also includes precipitation records, streamflow records, storms and flooding records, critical flood producing rainfall record, streambed profiles and plans of improvement for flood protection.

4.0 Full Data Set

Document Number: 116 **Preparation Date:** August 1975 **Source:** ASL
Primary Author: US Army Corps of Engineers **Title:** Gila River Basin New River and Phoenix City Streams, Arizona Appendixes Phase 1 Design Memorandum
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2
Comments: Locations of hydrology reports, maps and background information about the report and/or its maps. Flood peak discharge outlooks for the next 25, 50 and 100 years. Includes storm precipitation topo maps, flow chart gains and losses, and peak discharges.

Document Number: 115 **Preparation Date:** March 1990 **Source:** Flood Control District of Maricopa County
Primary Author: CH2M HILL **Title:** FDS Cave Creek/Carefree Appendix C Volume 3 of 3
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 2
Comments: Project No. RDD27815.H3 Flood hydrographic package done by HEG-1.

Document Number: 114 **Preparation Date:** March 1990 **Source:** Flood Control District of Maricopa County
Primary Author: CH2M HILL **Title:** FDS Cave Creek/Carefree Appendix C Volume 2 of 3
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 1
Comments: Water surface profiles of Willow Springs Wash natural and floodway, WST1 natural and floodway, WST1A natural and floodway, WST2 natural and floodway, WST2A natural and floodway, WST4 natural and floodway, WST5 natural and floodway, WST5A natural and floodway and Flemming Springs Wash natural and floodway.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 105 **Preparation Date:** June 1994 **Source:** Interagency Floodplain Management Review Committee

Primary Author: Galloway, G.E. **Title:** Sharing the Challenge: Floodplain Management into the 21st Century

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Administration Floodplain Management Task Force

Storage Location: ASL

Gathered By: Association of State Floodplain Managers

Storage Box Number: 1

Comments: Also known as the Galloway Report or the FMRC Report. Contains information regarding the flooding of the Mississippi Basin area during 1993 rain season, the impact of human help, future flood potential, a vision for the floodplain, organization, avoiding future flooding, enhancing the environment, a plan of action, cost analysis, and a look into the 21st century. The report includes all charts, but is missing photographs.

Document Number: 125 **Preparation Date:** May 1997 **Source:** City of Phoenix

Primary Author: City of Phoenix Planning Department **Title:** North Land Use Plan

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: Contains North Land use study and plan.

Document Number: 156 **Preparation Date:** October 1998 **Source:** Flood Control District of Maricopa County

Primary Author: Arizona State University **Title:** North Phoenix Wash Vegetation Study

Prepared By 2: College of Architecture and Environmental Design

Prepared By 3: School of Planning and Landscape Architecture

Prepared By 4:

Prepared For: City of Phoenix, Parks, Recreation, and Library Department

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: Contains figures and maps, study area description, methods (vegetation sampling analysis and preservation and research priority development), results (vegetation types, wildlife observations, study area tables and maps), recommendations and conclusion (wash preservation, wildlife habitats and further research) and appendices. Table includes aerial view of Apache Wash and Skunk Creek Wash tributaries and Deadman Wash, cliffs along Cave Creek Wash, basins in Union Hills, vegetation sampling along Apache Wash, vegetation along Skunk Creek Wash, tank vegetation at Bronco tank and Tin Can tank, grazing effects on vegetation and Tin Can tank.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 131 **Preparation Date:** July 1990 **Source:** Flood Control District of Maricopa County

Primary Author: Jerry R. Jones & Associates, Inc. **Title:** Area Drainage Master Plan Study Apache Wash Drainage/storm drain master plan, Volume II: Technical Appendix, Volume 1 Report

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: COP index No. ST-886408. Contract No. 51457. JJA Job No. 289-017. HEC-1 data, hydrologic data sheet, soils data, time lag calculations, FEMA maps, hydraulic data and cross sections.

Document Number: 130 **Preparation Date:** July 1990 **Source:** Flood Control District of Maricopa County

Primary Author: Jerry R. Jones & Associates, Inc. **Title:** Area Drainage Master Study Apache Wash Drainage/Storm Drain Master Plan, Volume 1 Report

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: JJA Job No. 289-017. COP Index No. ST-886408. Contract No. 54157. Location maps, hydraulic modeling, conceptual drainage plan, general plans and figure collected data.

Document Number: 129 **Preparation Date:** August 28, 1992 **Source:** Flood Control District of Maricopa County

Primary Author: Jerry R. Jones and Associates, Inc. **Title:** Apache Wash Flood Insurance Study

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Flood Control District of Maricopa County, Arizona

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: Contract FCD 89-66. JJA/DEA Job No. MARI0001. Tables of study reaches, discharge and structure summaries, floodway data tables, elevation reference marks, split flow channel discharge and split flow between station 4.49 and 4.90

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 128 **Preparation Date:** 1989 **Source:** U.S. Geological Survey
Primary Author: U.S. Geological Survey **Title:** Basin Characteristics and Streamflow Statistics in Arizona as of 1989, Water - Resources Investigations Report 91-4041
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3
Comments: Made up of basin characteristics and streamflow statistics. Additionally contains streamflow charts and discharge of the Gila River Basin.

Document Number: 126 **Preparation Date:** August 1984 **Source:** ASL
Primary Author: National Oceanic, Atmospheric and Administration **Title:** NOAA Technical Memorandum NWS HYDRO-40, Depth area ratios in the semi-Arid Southwest United States
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3
Comments: Precipitation depth maps, depth-area ratio maps for projected 2, 10 and 100-years.

Document Number: 189 **Preparation Date:** February 14, 1995 **Source:** Wheeler Construction
Primary Author: Gilbert, H. **Title:** Notice of Appraisal
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: Wheeler Construction, Inc. Permit 04-53112

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 150 **Preparation Date:** September 1998 **Source:** LSD
Primary Author: Brown, G.S. **Title:** Cave Creek Master Plan Archaeological Monitoring Report
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3
Comments: Contains locations and descriptions of trenches, area maps and project locations.

Document Number: 151 **Preparation Date:** December 3, 1997 **Source:** Maricopa County Department of Transportation
Primary Author: Michael Baker Jr., Inc. **Title:** Bridge Scour Investigation and Design of Corrective Measures, Work Order No. 80407, Maricopa County of Transportation Final Report
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Maricopa County Department of Transportation
Gathered By: Stantec Consulting **Storage Location:** ASL
Storage Box Number: 3
Comments: Structure number 9825, Carefree Highway Bridge over Cave Creek. Contains information bridge location and description, report review, site inspections, hydrology and hydraulics, hydraulic scour analysis, scour countermeasure considerations, abutment countermeasures, impacts to the proposed Carefree Highway Parallel Bridge just downstream, a recommended alternative for bank protection. Includes tables of PB scour results, 100 and 500-year scour results, riprap results and FHWA 2-ton gradient.

Document Number: 152 **Preparation Date:** June 23, 1998 **Source:** Maricopa County Department of Transportation
Primary Author: Michael Baker Jr., Inc. **Title:** Bridge Scour Investigation and Design of Corrective Measures, Final Report (revised), Work Order No. 80407 Maricopa County of Transportation
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Maricopa County Department of Transportation
Gathered By: Stantec Consulting **Storage Location:** ASL
Storage Box Number: 3
Comments: Structure Number 9825 Carefree Highway Bridge over Cave Creek. Includes bridge location and description, report review, site inspection, hydrology and hydraulics, hydraulic and scour analysis, revised scour analysis, scour countermeasure considerations, abutment countermeasures, scour countermeasure alternatives, impacts to the New Carefree Highway parallel bridge just downstream, recommended alternatives to flooring and bank protection, PB scour results, 100 and 500-year scour results, abutment riprap results and FHWA 2-ton gradation.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 153 **Preparation Date:** February 1997 **Source:** Maricopa County
Department of
Transportation

Primary Author: Parsons Brinckerhoff Quade & Douglas **Title:** Bridge Scour Evaluation for the Carefree Highway
Bridge over the Cave Creek Wash, Work order no.
80407 Contract no. CY 1995-11, Final Report

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec Consulting **Storage Location:** ASL

Storage Box Number: 3

Comments: Cave Creek Wash Bridge at Carefree Highway (SN9825). Includes site description (geotech and structural evaluation), hydraulic analysis, scour analysis (long-term, contraction, local, and total), results (long-term, contraction, pier, abutment and total) and final evaluation (structural analysis and scour plot). Contains data of contraction scour, pier scour, abutment scour calculations; HEC-2 input and output data; bridge rating screens; and structural calculations.

Document Number: 193 **Preparation Date:** February 1960 **Source:** ASL

Primary Author: Aerial Mapping Company **Title:** Aerial Photographs of Cave Creek Area

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Series #:
Coverage: Complete
Scale: 1:24,000
Description: Black and white, stereo, 20 photos, 30.12-16, 31.11-14, 32.12-15, 33.10-13, 34.13-15

Document Number: 155 **Preparation Date:** July 31, 1998 **Source:** Flood Control District of
Maricopa County

Primary Author: Ross, D.E. **Title:** Appraisal Report Cave Buttes Dam, Maricopa County,
Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County

Gathered By: ASL **Storage Location:** ASL

Storage Box Number: 3

Comments: Addresses the "highest and best use" of the Cave Buttes Dam property. Describes gravel types, mining activities of present and past, trench sampling, drilling descriptions, as well as tables of soil and wells.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 132 **Preparation Date:** August 28, 1992 **Source:** Flood Control District of Maricopa County

Primary Author: David Evans and Associates, Inc. **Title:** Apache Wash Flood Insurance Study, Exhibit 4

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Flood Control District of Maricopa County, Arizona

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 3

Comments: Contract FCD 89-66. JJA/DEA Job No. MARI0001. "N" value guidelines, regional hydrology, survey data, area drainage master study and Apache Wash Drainage/Storm Drain master plan.

Document Number: 190 **Preparation Date:** March 1992 **Source:** Wheeler Construction

Primary Author: Arizona State Land Department **Title:** General Operational and Surface Restoration Requirements for Mining Purposes

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: Stantec Consulting

Gathered By: Stantec Consulting

Storage Box Number:

Comments: Wheeler Construction, Inc. Permit 04-53112

Document Number: 159 **Preparation Date:** 1998 **Source:** Arizona Department of Water Resources

Primary Author: Simons & Li **Title:** Desert Preserve - Acquisition Strategic Analysis

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Gives a backbone as to the acquisition of land for desert preserves. It gives methods, funding sources, approximate dollar amount available. Many different maps showing the outcome of different scenarios and the effect they will have on the surrounding areas.

4.0 Full Data Set

Document Number: 192 **Preparation Date:** November 15, 1996 **Source:** Wheeler Construction
Primary Author: State Land Department **Title:** State Land Department of the State of Arizona Before
the State Land Commissioner in the Matter of Mineral
Prepared By 2: Material Lease No. 04-53112
Prepared By 3:
Prepared By 4: **Prepared For:** State Land Described Therein
Lessee: Wheeler Construction,
Inc. Order no. 254-96/97
Storage Location: Stantec
Consulting
Gathered By: Stantec Consulting
Storage Box Number:
Comments: Wheeler Construction, Inc. Permit 04-53112. Notice of default and right to hearing (lease violation) Admin
Docket No. 033-96-97

Document Number: 196 **Preparation Date:** January 1999 **Source:** FCDMC WMP
Primary Author: Aerial Mapping Company **Title:** Aerial Photographs of Cave Creek Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: JEF
Gathered By: JEF
Storage Box Number:
Comments: Series #:
Coverage: complete
Scale: not given
Description: black and white, stereo, many photos

Document Number: 195 **Preparation Date:** March 2, 1985 **Source:** ASL
Primary Author: Aerial Mapping Company **Title:** Aerial Photographs of Cave Creek Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: JEF
Gathered By: JEF
Storage Box Number:
Comments: Series #:
Coverage: Complete
Scale: 1:31,680
Description: Black and White, stereo, 6 photos: F-26, G-26, H-25, I-25, I-26

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 180 **Preparation Date:** July 3, 1985 **Source:** Cave Creek Sand & Rock
Primary Author: Buchanan, S. **Title:** Interim Sand and Gravel Criteria
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: Cave Creek Sand & Rock Permit 73-22596

Document Number: 179 **Preparation Date:** March 5, 1987 **Source:** Cave Creek Sand & Rock
Primary Author: Birdll, R.L. **Title:** Contract for the Sale of Units of Materials
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: Cave Creek Sand & Rock Permit 73-22596

Document Number: 178 **Preparation Date:** April 28, 1998 **Source:** Blue Circle Atlantic
Primary Author: Blue Circle Atlantic, Inc. **Title:** Application to Purchase Natural Products from State Lands or for Exploration Permit Thereon
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: Blue Circle Atlantic Permit 04-095920

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 177 **Preparation Date:** June 24, 1987 **Source:** AZ Crushers
Primary Author: State Land Department **Title:** Material Sales Agreement
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Stantec Consulting **Storage Location:** Stantec Consulting
Storage Box Number:
Comments: AZ Crushers Permit 04-093536

Document Number: 154 **Preparation Date:** November 20, 1998 **Source:** Scientific Archaeological Services
Primary Author: Rodgers, J.B. **Title:** An Archaeological Inventory along Apache Wash, Paradise Wash, and Desert Hills Wash, Northern Phoenix, Arizona
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Douglas A. Williams of Flood Control District of Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 3
Comments: Contract Archaeological series 998-6. State of Arizona Antiquities permit no. 1998-9BL. Archaeological inventory of six proposed geotechnical study units. Research includes archival and literature research and searches. Contains location maps, environmental settings, descriptions and maps of each setting, floodplain maps at the respected project transect location number and field survey results.

Document Number: 250 **Preparation Date:** N/A **Source:** Harris-Toups Associates
Primary Author: Harris-Toups Associates **Title:** Approximate Section Corners, Maricopa County
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** U.S. Department of Housing & Urban Development Federal Insurance Administration
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Contains a total of four maps. T6N - R4E and T5N - R4E. Shows section corners, elevations and topo lines.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 230 **Preparation Date:** February 17, 1998 **Source:** City of Phoenix
Primary Author: City of Phoenix Parks, Recreation and Library Department **Title:** The City of Phoenix Sonoran Preserve Master Plan, "An Open Space Plan for the Phoenix Sonoran Desert"
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 4
Comments: This plan includes background information on the Sonoran desert, benefits of urban preserves, a general plan for Peripheral areas C & D, North study area concepts, wildlife inventory, master plan concepts and principles, acquisition plan, operations and management, site requirements and public input survey.

Document Number: 270 **Preparation Date:** February 4, 1998 **Source:** J.E. Fuller Hydrology & Geomorphology, Inc.
Primary Author: J.E. Fuller Hydrology & Geomorphology, Inc. **Title:** Jordan River Flood Channel Management Ordinance
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Ordinance no. 1271 concerning the enacting chapter 17.10 of the Salt Lake County Code of Ordinances and includes findings, purpose of provisions, definitions, applicability, disputes over boundaries or mapped hazards, scope and conflict of laws, construction or development, studies and reports needed, duties of the engineer, approval procedures, warnings and disclaimers, appeal procedures and severability.

Document Number: 224 **Preparation Date:** 1996 - 1998 **Source:** Flood Control District of Maricopa County
Primary Author: Flood Control District of Maricopa County **Title:** 1996-1998 Aerial Photography of T05N, R03E and T05N, R04E
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: CD-16. Mapping of Phoenix and Carefree areas.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 225 **Preparation Date:** December 3, 1993 **Source:** Federal Emergency Management Agency

Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Panel 802 of 4350, Maricopa County, Arizona and Incorporated Areas

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Map Number 04013C0802F. This map shows flood risks of zone areas as well as location information.

Document Number: 226 **Preparation Date:** December 3, 1993 **Source:** Federal Emergency Management Agency

Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Panel 805 of 4350, Maricopa County, Arizona and Incorporated Areas

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Map number 04013C0805 F. This map shows the danger of flooding according to zone.

Document Number: 227 **Preparation Date:** December 3, 1993 **Source:** Federal Emergency Management Agency

Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Panel 414 of 4350, Maricopa County, Arizona and Incorporated Areas

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Map number 04013C0414 E. This map contains the danger of flooding according to the zone location.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 295 **Preparation Date:** 1996 **Source:** Widland Hydrology

Primary Author: Rosgen, D. **Title:** Applied River Morphology

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By:

Storage Box Number:

Comments: Book of different stream types with their description and illustrated pictures giving greater detail of the streams mentioned, gives bed material types, gives field data verification and applications.

Document Number: 229 **Preparation Date:** **Source:** Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Cave Creek North and Apache Wash Topographic Data

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number:

Comments:

Document Number: 20 **Preparation Date:** 1988 **Source:** New York, John Wiley & Sons

Primary Author: Brakenridge, G.R. **Title:** River flood regime and floodplain stratigraphy - Flood geomorphology

Prepared By 2: Baker, V.R.

Prepared By 3: Kochel, R.C.

Prepared By 4: Patton, P.C.

Prepared For:

Storage Location: JEF

Gathered By: JEF

Storage Box Number:

Comments: page 139-156

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 247 **Preparation Date:** Jan. 12 & March 18, 1996 **Source:** Flood Control District of Maricopa County

Primary Author: Aerial Mapping Company **Title:** Aerial Photographs of Cave Creek Area, Series 95143

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Scale: 1:8,000

Document Number: 248 **Preparation Date:** 1967 **Source:** United States Department of the Interior Geological Survey

Primary Author: U.S. Geological Survey **Title:** Cooks Mesa Quadrangle Arizona 7.5 minute Series (topographic)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Topo map of Arizona including Maricopa County and Yavapai County.

Document Number: 249 **Preparation Date:** 1967 **Source:** United States Department of the Interior Geological Survey

Primary Author: U.S. Geological Survey **Title:** Rover Peak Quadrangle Arizona 7.5 Minute Series (topographic)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Topo map includes Maricopa and Yavapai counties and all geographical locations and names.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 251 **Preparation Date:** March 1990 **Source:** Flood Control District of Maricopa County
Primary Author: CH2HILL **Title:** Cave Creek/Carefree Insurance Study Cave Creek, Arizona, FCD 88 - 53
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: There are a total of six maps. They include a title and index map of the zones, station 35.49 through 36.61, station 36.69 through 37.80, Cave Creek station 37.80-38.79 and Carefree station 0.00-0.94, Willow Springs Wash Tributary 1 section 0.00-1.52 and Willow Springs Wash Tributary 5 section 0.05-0.80.

Document Number: 268 **Preparation Date:** November 1991 **Source:**
Primary Author: Jerry R. Jones & Associates, Inc. **Title:** Apache Wash Hydrology Report for Apache Wash Flood Insurance Study
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: Includes project descriptions, sub-basin maps, HEC-1 input and output files and soil maps.

Document Number: 294 **Preparation Date:** 1999 **Source:** Aerial Mapping Company
Primary Author: Aerial Mapping Company **Title:** 1999 Aerial Photograph of Cave Creek and Apache Wash
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 228 **Preparation Date:** December 3, 1993 **Source:** Federal Emergency Management Agency

Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Panel 415 of 4350, Maricopa County, Arizona and Incorporated Areas

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Map number 04013C0415 E. The map contains data showing the danger of flooding according to the zoning area.

Document Number: 272 **Preparation Date:** 1982 **Source:** Maricopa County Department of Transportation

Primary Author: N/A **Title:** Carefree Highway-Cave Creek

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Department of Transportation

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 280 **Preparation Date:** January 15, 1964 **Source:** Flood Control District of Maricopa County

Primary Author: U.S. Army Engineer District **Title:** Gila River and Tributaries, Arizona and New Mexico Interim Report on Survey for Flood Control Phoenix, Arizona Vicinity Cave Buttes Detention Basin, Private Ownership within Basin

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 279 **Preparation Date:** December 1962 **Source:** Flood Control District of Maricopa County

Primary Author: Yost and Gardner Engineers **Title:** Upper Cave Creek Topographic Survey for Flood Plain Zoning

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 278 **Preparation Date:** February 1961 **Source:** Flood Control District of Maricopa County

Primary Author: Maddock & Associates Aerial Surveys Inc. **Title:** Gila River and Tributaries, Arizona and New Mexico Interim Report on Survey, Flood Control Metropolitan Phoenix Area, Cave Creek Reservoir Topography

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Office of the District Engineer

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 277 **Preparation Date:** February 21 **Source:** Salt River Water User's Association

Primary Author: Beckmen & Liden Engineering Corporation **Title:** Cave Creek Reservoir

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Paradise Verde Irrigation District

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 276 **Preparation Date:** 1998 **Source:** Maricopa County
Department of
Transportation

Primary Author: Michael Baker, Jr., Inc. **Title:** Plans for the Construction of Scour Protection for
Carefree Highway Bridge at Cave Creek Wash, Project
No. 68935

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Department of
Transportation

Gathered By: Stantec **Storage Location:** ASL

Storage Box Number:

Comments:

Document Number: 275 **Preparation Date:** 1997 **Source:** Maricopa County
Department of
Transportation

Primary Author: Maricopa County Department of
Transportation **Title:** Carefree Highway - Cave Creek Wash Project No.
69003

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Department of
Transportation

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 261 **Preparation Date:** July 20, 1994 **Source:** North Land Use Plan

Primary Author: Salt Lake County, Utah **Title:** An Ordinance Enacting Chapter 17.10 of the Salt Lake
County Code of Ordinances 1986, Relating to Flood
Control

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: JEF **Storage Location:** JEF

Storage Box Number:

Comments: Ordinance No. 1271

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 273 **Preparation Date:** 1989 **Source:** Flood Control District of Maricopa County

Primary Author: U.S. Army Engineer District **Title:** Gila River Basin, New River and Phoenix City Streams, Arizona Cave Buttes Dam

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** U.S. Army Engineer District, Corps of Engineers

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 283 **Preparation Date:** October 1992 **Source:** Corps of Engineers Hydrologic Engineering Center

Primary Author: Corps of Engineers Hydrologic Engineering Center **Title:** Guidelines for the Calibration and Application of HEC-6 Training Document Number 13

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 271 **Preparation Date:** 1975 **Source:** American Society of Civil Engineers

Primary Author: The ASCE Task Committee for the Preparation of the Manual on Sedimentation Committee **Title:** Sedimentation Engineering

Prepared By 2: of the Hydraulics Division

Prepared By 3: Vanonoi, V.A. - Editor

Prepared By 4: **Prepared For:**

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 253 **Preparation Date:** 1964 **Source:** United States Department of the Interior Geological Survey

Primary Author: U.S. Geological Survey **Title:** New River SE Quadrangle Arizona - Maricopa County, 7.5 minute Series (topographic)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments:

Document Number: 269 **Preparation Date:** N/A **Source:** J.E. Fuller Hydrology & Geomorphology, Inc.

Primary Author: J.E. Fuller Hydrology & Geomorphology, Inc. **Title:** Jordan River Watercourse Management Plan, Chapter Five: Recommended Management Plans

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Copy of ordinance from Jordan River Study. Provides general recommendations, background information about the Virgin River, Santa Clara River and Fort Pierce Wash.

Document Number: 266 **Preparation Date:** August 5, 1997 **Source:** Maricopa County Department of Transportation

Primary Author: Dibble & Associates Consulting Engineers **Title:** 7th Street to Cave Creek Road - Final Drainage Report, Project No. 69003, Contract No. 1995-60

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Department of Transportation

Gathered By: Stantec **Storage Location:** ASL

Storage Box Number: 5

Comments: Contains an introduction of general data, scope of work, and existing conditions; the design criteria of hydrology and hydraulics; the study approach using methodology and assumptions; the results and recommendations of the study for hydrology, culvert analysis, box culvert extension analysis, roadside drainage, and pavement drainage and appendices showing summaries and calculations of rational method, HY-8 summaries of existing and recommended summaries, HEC-2 analysis of Cave Creek Wash and Drainage Basin and Culvert maps.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 265 **Preparation Date:** August 1998 **Source:** Flood Control District of Maricopa County

Primary Author: Hjalmarson, H.W. **Title:** Piedmont Flood Hazard Assessment for Flood Plain Management, Maricopa County, Arizona, User's Manual

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 5

Comments: Discusses the Piedmont Land Forms, identification, summary, identification of stable and unstable areas on Piedmonts of Maricopa County, definition of 100-Year flood hazards, applying the assessment to example sites, tables, figures, HEC output data, area cross section diagrams and location maps and diagrams.

Document Number: 267 **Preparation Date:** 1998 **Source:** Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Cave Creek North and South of Carefree Highway, Tape 1 and 2

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: ASL

Storage Location: ASL

Storage Box Number:

Comments:

Document Number: 274 **Preparation Date:** 1994 **Source:** Flood Control District of Maricopa County

Primary Author: Z & H Engineering **Title:** Aerial Mapping Plans for Buttes Impoundment Area Survey FCD Contract No. 93-28

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Flood Control District of Maricopa County

Gathered By: Stantec

Storage Location: Stantec

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 290 **Preparation Date:** August 5, 1997 **Source:** Maricopa County
Department of
Transportation

Primary Author: Dibble & Associates Consulting **Title:** Carefree Highway 7th Street to Cave Creek Road
Engineers Project No. 69003, Contract No. 1995-60, Final
Drainage Report

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Department of
Transportation

Storage Location: Stantec

Gathered By: Stantec **Storage Box Number:**

Comments:

Document Number: 264 **Preparation Date:** May 1999 **Source:** Logan Simpson Design,
Inc.

Primary Author: Brown, G.B. **Title:** Upper Cave Creek Watercourse Master Plan
Archaeological Monitoring Report, Final Report

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County

Storage Location: ASL

Gathered By: ASL **Storage Box Number:** 4

Comments: This is the final report of the Watercourse Master Plan. It contains project location maps, trench locations and descriptions and site maps.

Document Number: 299 **Preparation Date:** December 2, 1999 **Source:** ASL

Primary Author: ASL **Title:** Upper Cave Creek and Apache Wash Watercourse
Master Plan; Steering Committee Meeting; FCD 97-45

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Storage Location: ASL

Gathered By: ASL **Storage Box Number:**

Comments: Includes a meeting schedule overview for 11-2-99, a meeting agenda schedule for 12-7-99 and a mailing list for all recipients.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 298 **Preparation Date:** **Source:** Rand McNally
Primary Author: **Title:** City Map of Scottsdale and Vicinity
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Map of Scottsdale and Cave Creek area.

Document Number: 297 **Preparation Date:** December 13, 1999 **Source:** The Arizona Republic
Primary Author: Kathleen Ingley **Title:** Uproar over land sale plan
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Newspaper
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: This article concerns the sale of the state land around the cave creek area and the intended use for the land after sale.

Document Number: 296 **Preparation Date:** September 05, 1999 **Source:** ASL
Primary Author: ASL **Title:** Upper Cave Creek and Apache Wash Watercourse
Master Plan Steering Committee Meeting; FCD 97-45
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Includes a meeting schedule overview for 10-5-99, an agenda schedule for 11-2-99 and a mailing list of recipients.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 293 **Preparation Date:** January 1984 **Source:** U.S. Department of the Interior Bureau of Reclamation

Primary Author: Pemberton, E.L. **Title:** Computing Degradation and Scour

Prepared By 2: Lara, J.M.

Prepared By 3:

Prepared By 4: **Prepared For:** Bureau of Reclamation
Engineering and Research Center

Gathered By: Stantec

Storage Location: Stantec

Storage Box Number:

Comments:

Document Number: 281 **Preparation Date:** February 1987 **Source:** Corps of Engineers Hydrologic Engineering Center

Primary Author: U.S. Army Corps of Engineers **Title:** COED Corps of Engineers Editor User's Manual

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Corps of Engineers Hydrologic Engineering Center

Gathered By: Stantec

Storage Location: Stantec

Storage Box Number:

Comments:

Document Number: 291 **Preparation Date:** **Source:**

Primary Author: Harris-Toups Associates **Title:** Flood Boundary and Floodway Maps and Flood Insurance Rate Maps

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** U.S. Department of Housing & Urban Development Federal Insurance Administration

Gathered By: Stantec

Storage Location: Stantec

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 282 **Preparation Date:** March 1990 **Source:** Flood Control District of Maricopa County

Primary Author: CH2M Hill, Inc. **Title:** Cave Creek/Carefree Flood Insurance Study, Cave Creek, Arizona

Prepared By 2: Aerial Mapping, Inc.

Prepared By 3: Greiner, Inc.

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 289 **Preparation Date:** June 30, 1997 **Source:** Jon E. Fuller

Primary Author: West Consultants, Inc. **Title:** Cherokee Wash Hydrologic, Hydraulic and Sedimentation Study Final Report

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Document Number: 288 **Preparation Date:** January 28, 1997 **Source:** Jon E. Fuller

Primary Author: J.E. Fuller Hydrology & Geomorphology, Inc. **Title:** Tatum Wash Sedimentation Study Draft Final Report

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: Stantec **Storage Location:** Stantec

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 287 **Preparation Date:** August 3, 1994 **Source:** Jon E. Fuller
Primary Author: CH2M Hill, Inc. **Title:** Rawhide Wash Detention Basin Feasibility Study
Sedimentation Analysis Results
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Arizona State Land Department
Storage Location: Stantec
Gathered By: Stantec **Storage Box Number:**
Comments:

Document Number: 286 **Preparation Date:** March 30, 1994 **Source:** Jon E. Fuller
Primary Author: CH2M Hill, Inc. **Title:** Casandro Wash - Sedimentation
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County
Storage Location: Stantec
Gathered By: Stantec **Storage Box Number:**
Comments:

Document Number: 285 **Preparation Date:** August 1993 **Source:** Corps of Engineers
Hydrologic Engineering
Center
Primary Author: Corps of Engineers Hydrologic
Engineering Center **Title:** HEC-6 Scour and Deposition in Rivers and Reservoirs
User's Manual
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: Stantec
Gathered By: Stantec **Storage Box Number:**
Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 284 **Preparation Date:** April 1993 **Source:** Stantec Consulting, Inc.

Primary Author: Resource Consultants & Engineers, Inc. **Title:** Geomorphic and Sediment Yield Analysis for Albuquerque Arroyos

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: U.S. Army Engineer Waterways Experiment Station

Storage Location: Stantec

Gathered By: Stantec

Storage Box Number:

Comments:

Document Number: 200 **Preparation Date:** February 1994 **Source:** United States Forest Service

Primary Author: U.S. Environmental Protection Agency **Title:** Background for Nepa Reviewers: Grazing on Federal Lands

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Provides an overview of grazing practices and associated impacts, national and regional perspectives, grazing fundamentals, rangeland management, direct environmental impacts, indirect physical impacts, possible prevention, references and lists of tables and figures on grazing.

Document Number: 292 **Preparation Date:** **Source:** Salt River Valley Water User's Association

Primary Author: N/A **Title:** Cave Creek Flood Control Dam Located 18 Miles North of City of Phoenix, Maricopa County, Arizona

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Salt River Valley Water User's Association

Storage Location: Stantec

Gathered By: Stantec

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 207 **Preparation Date:** September 1980 **Source:** US Army Corps of Engineers
Primary Author: DeVries, J.J. **Title:** Effects of Flood Plain Encroachments on Peak Flow
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 4

Comments: Describes the effects of changing the encroachment on the floodplains and the different outcomes due to greater or lesser encroachment. The intent of the report is to provide this data in addition to guidelines that will optimize encroachment as well as floodplain management.

Document Number: 215 **Preparation Date:** September 1997 **Source:** Flood Control District of Maricopa County
Primary Author: Waters, S.D. **Title:** Storm Report, Tropical Storm Nora - September 1997
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 4

Comments: Contains data of the Cave Creek flood frequency, meteorology, rainfall data, runoff data, ALERT system performance, and the data following the report.

Document Number: 214 **Preparation Date:** August 3, 1993 **Source:** Flood Control District of Maricopa County
Primary Author: Flood Control District of Maricopa County **Title:** Floodplain Management
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: Flood Control District of Maricopa County **Storage Location:** ASL
Storage Box Number: 4

Comments: Provides the sand and gravel guidelines summary.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 213 **Preparation Date:** August 3, 1993 **Source:** Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Sand and Gravel Developers

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Storage Location: ASL

Gathered By: Flood Control District of Maricopa County

Storage Box Number: 4

Comments: Provides the information checklist for the report.

Document Number: 212 **Preparation Date:** August 3, 1993 **Source:** Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Sand & Gravel Operations Regulations and Guidelines

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Storage Location: ASL

Gathered By: Flood Control District of Maricopa County

Storage Box Number: 4

Comments: Gives the regulations and guidelines for the report.

Document Number: 211 **Preparation Date:** N/A **Source:** United States Forest Service

Primary Author: Banim, O. **Title:** Cartwright Allotment

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Contains a map of the area and description of the map.

4.0 Full Data Set

Document Number: 210 **Preparation Date:** September 1991 **Source:** Journal of Hydraulic Engineering

Primary Author: ASCE Task Committee on Hydraulics, Bank Mechanics, and Modeling of River Width Adjustment **Title:** River Width Adjustment: Process and Mechanisms and Modeling

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: Flood Control District of Maricopa County

Storage Box Number: 4

Comments: page 881-917. Describes the geomorphic context of river width adjustment, provides charts of proposed adjustments for channel widening and reduction, equilibrium approaches, tractive force methods, fluvial hydraulics, documented changes, analysis of changes, bank mechanics, erosion, stability, basal endpoint control, bank advance, modeling river suggestions for the channel and detailed information about the changes for the channel.

Document Number: 263 **Preparation Date:** 1997 **Source:** U.S. Army Corps of Engineers

Primary Author: Hoggan, D.H. **Title:** Computer Assisted Floodplain Hydrology & Hydraulics, Second Edition

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: JEF

Gathered By: ASL

Storage Box Number:

Comments: Uses the HEC-1 and HEC-2 software systems for data calculations.

Document Number: 208 **Preparation Date:** N/A **Source:** Arizona Floodplain Management Association

Primary Author: Anderson, C.E. **Title:** FEMA: LOMR (ABQ) = $Q100 + QS$ (In Albuquerque, FEMA includes sediment in the flood equation)

Prepared By 2: Mussetter, R.A.

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number: 4

Comments: Gives a development and sediment history, geologic setting, sediment transport, lateral erosion, flood wall scour and other sediment issues.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 220 **Preparation Date:** July 15, 1996 **Source:** City of Phoenix
Primary Author: Arizona State University **Title:** Cave Creek Wash: Preservation Boundary Study
Prepared By 2: College of Architecture and Environmental Design
Prepared By 3: School of Planning and Landscape Architecture
Prepared By 4: Arizona State University West **Prepared For:** City of Phoenix, Parks and Recreation and Library Department

Gathered By: Flood Control District of Maricopa County **Storage Location:** ASL
Storage Box Number: 4

Comments: Gives descriptions of the different vegetation types in the area, proposal of preservation of vegetation, maps of the vegetation area and vegetation type.

Document Number: 206 **Preparation Date:** May 16-19, 1988 **Source:** Flood Control District of Maricopa County
Primary Author: Rodzenko, G. **Title:** Floodplain Harmony: Proceedings of the Twelfth Annual Conference of the Association of State Floodplain Managers
Prepared By 2: Tram, J.J.
Prepared By 3: Plasencia, D.J.
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 4

Comments: Includes detailed information of the problem of the watershed, floodplain delineation, floodplain mapping alternatives and a list of references.

Document Number: 205 **Preparation Date:** July 1998 **Source:** Logan Simpson Design, Inc.
Primary Author: Logan Simpson Design, Inc. **Title:** Draft Biological Analysis Upper Cave Creek, Maricopa County, Arizona
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: 4

Comments: Contract No. 97-45. Includes data on the existing vegetative communities of North and South Carefree Highway, Habitat quality and types, the sensitive species of the area, recommendations of further study, the literature reviewed for the report and appendixes which include data sheets, methodology, coordination letters, locations, habitat charts and aerial photographs.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 204 **Preparation Date:** December 1996 **Source:** J.E. Fuller Hydrology & Geomorphology, Inc.

Primary Author: CH2HILL **Title:** River Stability Study, Virgin River, Santa Clara River, and Ft. Pierce Wash, Vicinity of St. George, Utah

Prepared By 2: JEF

Prepared By 3:

Prepared By 4:

Prepared For: City of St. George

Storage Location: ASL

Gathered By: JEF

Storage Box Number: 4

Comments: Draft version. Includes objectives, scope of services, background information, historical information on the Virgin, Santa Clara Rivers and Ft. Pierce wash, and geomorphic evaluations of the three areas and recommended management plans. Contains aerial photographs of areas during different time periods, contacts and phone numbers of the city, vicinity maps, historical photographs, flow duration curves and tables of the rivers and the wash with detailed interpretations and data.

Document Number: 203 **Preparation Date:** November 1994 **Source:** Albuquerque Metropolitan Arroyo Flood Control Authority

Primary Author: Mussetter, R.A **Title:** Sediment and Erosion Design Guide

Prepared By 2: Lagasse, P.F.

Prepared By 3: Harvey, M.D.

Prepared By 4:

Prepared For: Albuquerque Metropolitan Arroyo Flood Control Authority

Storage Location: ASL

Gathered By: JEF

Storage Box Number: 4

Comments: Includes arroyo maps, desired floodplain diagrams, geomorphology data, sediment yield data, bed and bank material analysis, analysis procedures, erosion control plans, bibliography, rating charts, critical and supercritical flow calculations and their corresponding equations.

Document Number: 202 **Preparation Date:** August 19, 1994 **Source:** Pima County

Primary Author: Paez, A.C. **Title:** Floodplain and Erosion Hazard Management Ordinance No. 1994-FC2

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: Pima County Arizona Flood Control District

Storage Location: ASL

Gathered By: Flood Control District of Maricopa County

Storage Box Number: 4

Comments: Ordinance No. 1988-FC2 as amended by Ordinance No. 1994-FC2. Includes statement and purpose of report, liability disclaimers, definitions, floodplain maps and boundaries, permits, floodway requirements, watercourse and riparian habitat protection and mitigation requirements, standards for manufactured homes and subdivisions, building setback requirements, access requirements, detention/retention systems, sediment and erosion control, appeals, variances, amendments, unlawful acts and tables of regulatory peak discharges.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 201 **Preparation Date:** N/A **Source:** Pima County
Primary Author: Flood Control District Floodplain Management **Title:** Pima County Floodplain and Erosion Hazard Management Ordinance, Watercourse and Riparian Habitat Protection and Mitigation, Article X
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: ASL
Gathered By: Flood Control District of Maricopa County **Storage Box Number:** 4
Comments: Includes the purpose of the study, the description, applications of the article, permit information, mitigation procedures and the review process.

Document Number: 209 **Preparation Date:** March/April 1996 **Source:** Flood Control District of Maricopa County
Primary Author: Grimm, M. **Title:** Applied Geomorphology and Floodplain Management Coarse-sediment distribution as evidence of an elevation limit for flash flooding, Bear Creek, Colorado
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: ASL
Gathered By: Flood Control District of Maricopa County **Storage Box Number:** 4
Comments: Gives an introduction of the area, background information, the planning process for floodplain management, applied geomorphology and floodplain management, budget and project management proposals, introduction of the background information of Bear Creek, Colorado, the field area and discussions.

Document Number: 236 **Preparation Date:** June 18, 1997 **Source:** Flood Control District of Maricopa County
Primary Author: Willdan Associates, Inc. **Title:** Flood Delineation Study of Cave Creek below Carefree Highway, Sheet 1 through 8, Flood Control District of Maricopa County, FCD contract no. 95 - 30
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Storage Location: ASL
Gathered By: ASL **Storage Box Number:**
Comments: Map shows ponding depths, HEC-2 locations, elevation, area limits and includes station 24.525 through station 30.20. Contains a map of the Cave Creek Wash vicinity area as well as 100-year floodplain delineation discharges.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 258 **Preparation Date:** November 17, 1997 **Source:** North Land Use Plan
Primary Author: Town of Cave Creek **Title:** Memorandum RE: Resolution No. 97-31, Text and Map Amendment to the Town of Cave Creek General Plan by adding the new boundary limits as a result of Annexation No. 96-01 re-establishing and verifying the future land use as Desert Country
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** JEF
Storage Box Number:
Comments: Maximum one dwelling per 190,000 sq. ft. and Desert Rural: maximum one dwelling per 70,000 sq. ft. as shown on the proposed Town of Cave Creek General Plan Land Use and Circulation Element Map (exhibit B).

Document Number: 257 **Preparation Date:** January 15, 1998 **Source:** City of Phoenix
Primary Author: City of Phoenix **Title:** The City of Phoenix Sonoran Master Plan: "An Open Space for the Phoenix Sonoran Desert", Draft
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** JEF
Storage Box Number:
Comments:

Document Number: 256 **Preparation Date:** 1964 **Source:** United States Department of the Interior Geological Survey
Primary Author: U.S. Geological Survey **Title:** New River Mesa Quadrangle Arizona - Maricopa County, 7.5 Minute Series (topographic)
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 255 **Preparation Date:** 1964 **Source:** United States Department of the Interior Geological Survey

Primary Author: U.S. Geological Survey **Title:** Union Hills Quadrangle Arizona - Maricopa County, 7.5 Minute Series (topographic)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments:

Document Number: 254 **Preparation Date:** 1965 **Source:** United States Department of the Interior Geological Survey

Primary Author: U.S. Geological Survey **Title:** Cave Creek Quadrangle Arizona - Maricopa County, 7.5 Minute Series (topographic)

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments:

Document Number: 246 **Preparation Date:** Jan. 12 & March 18, 1996 **Source:** Flood Control District of Maricopa County

Primary Author: Aerial Mapping Company **Title:** Aerial Photographs of Cave Creek Area, Section 95142

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Scale: 1:8000

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 218 **Preparation Date:** January 4, 1993 **Source:** Town of Cave Creek

Primary Author: Town of Cave Creek **Title:** Town of Cave Creek General Plan

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 4

Comments: Gives a description of the vision of the town, the land use element, circulation element, public facilities and services element, plan of land use and circulation elements map.

Document Number: 244 **Preparation Date:** Nov. 28, 1994 **Source:** Flood Control District of Maricopa County

Primary Author: Aerial Mapping Company **Title:** Aerial Photographs of Cave Creek Area, Section 94194

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: ASL

Storage Location: ASL

Storage Box Number:

Comments: Section: 94194
Scale: 1:24,000
T6N R4E 17-18-19-20

Document Number: 219 **Preparation Date:** November 17, 1997 **Source:** Town of Cave Creek

Primary Author: Mansfield, C.S. **Title:** Planning Staff Report

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Gathered By: ASL

Storage Location: ASL

Storage Box Number: 4

Comments: Case AGP-97-3. Proposes a change in the text given to the town by adding the new boundary limits, gives a description of the annexation and provides maps of the Cave Creek town area.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 235 **Preparation Date:** May 1997 **Source:** Planning Commission
Primary Author: City of Phoenix **Title:** General Plan for Phoenix 1985 -2000, General Plan Summary and Land Use Map
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: This map contains general plans for the city of Phoenix as well as the proposed ideas of use for the land. It covers circulation, public buildings, public services, conservation, safety, housing, rehabilitation redevelopment, bicycling, recreation and land use.

Document Number: 234 **Preparation Date:** Sept. 30, 1995 **Source:** Federal Emergency Management Agency
Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Map Index Maricopa County, Arizona and Incorporated Areas
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: Map number 04013C0000. This map shows all panel areas and their locations as well as a listing for the panel.

Document Number: 233 **Preparation Date:** September 30, 1995 **Source:** Federal Emergency Management Agency
Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Panel 1210 of 4350, Maricopa County, Arizona and Incorporated Areas
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: Map number 04013C1210 F. This map shows danger of flooding according to zone area.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

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Document Number: 232 **Preparation Date:** September 30, 1995 **Source:** Federal Emergency Management Agency

Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Panel 815 of 4350, Maricopa County, Arizona and Incorporated Areas

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Map number 04013C0815 G. The map shows danger of flooding according to zone area.

Document Number: 231 **Preparation Date:** Sept. 30, 1995 **Source:** Federal Emergency Management Agency

Primary Author: Federal Emergency Management Agency **Title:** FIRM - Flood Insurance Rate Map, Panel 795 of 4350, Maricopa County, Arizona and Incorporated Areas

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Map number 04013C0795 F. The map contains flooding danger according to zone area.

Document Number: 223 **Preparation Date:** 1996 - 1998 **Source:** Flood Control District of Maricopa County, Arizona

Primary Author: Flood Control District of Maricopa County **Title:** 1996-1998 Aerial Photography of T06N, R03E and T06N, R04E

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: CD - 20. Mapping of Cave Creek area in Maricopa County, Arizona.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 252 **Preparation Date:** June 20, 1995 **Source:** Flood Control District of Maricopa County

Primary Author: Flood Control District of Maricopa County **Title:** Maricopa County ALERT Precipitation Gauges and Weather Stations

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number:

Comments: Map contains locations of all precipitation gauges and weather stations in Maricopa County.

Document Number: 245 **Preparation Date:** August 2, 1989 **Source:** Flood Control District of Maricopa County

Primary Author: Aerial Mapping Company **Title:** Aerial Photographs of Cave Creek Area, Section 89077

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number:

Comments: Series: 89077
Scale: 1:18,000

Document Number: 313 **Preparation Date:** **Source:**

Primary Author: **Title:** 7.5 Minute Quadrangle Names

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number:

Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

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Document Number: 304 **Preparation Date:** November 1989 **Source:** Baker Engineers
Primary Author: B.R. Jolly **Title:** Cline Creek Watershed Boundary Map
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: **Storage Location:** ASL
Storage Box Number:

Comments: This map shows the watershed basin and sub-basin boundaries for Cline Creek.

Document Number: 305 **Preparation Date:** August 13, 1998 **Source:** ASL
Primary Author: Thomas Loomis **Title:** Cave Creek Watercourse Study Area No. HWM1
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: This map shows the entirety of Cave Creek along with the stations and floodplain boundaries.

Document Number: 306 **Preparation Date:** **Source:** ASL
Primary Author: Thomas Loomis **Title:** Upper Cave Creek Watercourse 100-Yr Floodplain and Floodway Work Maps
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: This map has five sheets and shows the floodway and floodplain boundaries along Cave Creek with their matching station lines.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 306 **Preparation Date:** November 4, 1999 **Source:** ASL
Primary Author: Jason Philmore **Title:** Cave Creek and Apache Wash Watercourse Master
Plan Erosion Hazard Zone Exhibit
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: This map shows the erosion risk areas of Cave Creek.

Document Number: 300 **Preparation Date:** February 14, 1994 **Source:** William D. Zeisler
Primary Author: Aerial Mapping Company **Title:** Z8H Engineering Cave Creek Dam Borrow Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: There are eight sheets total and they give spot elevations of the Cave Creek Dam Borrow Area.

Document Number: 308 **Preparation Date:** **Source:**
Primary Author: **Title:** Cave Creek Apache Wash
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: This map indicates the floodplain boundaries for sections 9-36.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

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Document Number: 309 **Preparation Date:** April 1997 **Source:**
Primary Author: George V. Sabol Consulting Engineers, Inc. **Title:** Cave Creek Above Carefree Highway Floodplain Delineation Study FCD 95-28
Prepared By 2: McLaughlin Kmetty Engineers, Ltd.
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: This report gives a hydraulic analysis including runoff and discharge and water table elevations.

Document Number: 314 **Preparation Date:** March 1998 **Source:**
Primary Author: **Title:** Cave Creek Floodplain Boundaries
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: There are five sheets.

Document Number: 315 **Preparation Date:** **Source:**
Primary Author: **Title:** Upper Cave Creek Watercourse Master Plan Project Goals
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: These sheets give a brief description of the goals of the Cave Creek project.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

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Document Number: 316 **Preparation Date:** December 16, 1998 **Source:** ASL
Primary Author: Chuck Williams, P.E. **Title:** Project Schedule for Upper Cave Creek/Apache Wash Watercourse Master Plan FCD 97-45
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: This is a Gantt chart of Phase I and Phase II of the project.

Document Number: 317 **Preparation Date:** December 1996 **Source:**
Primary Author: **Title:** Aerial Photos of Cave Creek
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments:

Document Number: 332 **Preparation Date:** August 25, 1999 **Source:** APS
Primary Author: Brad Larsen **Title:** Community Working Group Handbook
Prepared By 2: Randy Simpson
Prepared By 3: Victoria Kimandian
Prepared By 4: **Prepared For:** All persons involved in the North Central Phoenix Facility Siting Project
Gathered By: APS **Storage Location:** ASL
Storage Box Number:
Comments: This report includes a contact list for APS and Smaes & Moore. It also includes the project meeting goals and agenda. It contains project maps and base maps of the area.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

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Document Number: 387 **Preparation Date:** May 11, 1999 **Source:**
Primary Author: Mike Vyne **Title:** AMC GIS Landuse Data
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL
Storage Box Number:

Comments: CD includes land size and use as well as an AutoCAD drawing.

Document Number: 388 **Preparation Date:** October 2, 2000 **Source:** ASL Consulting Engineers, Inc.
Primary Author: Thomas R. Loomis, P.E. **Title:** Upper Cave Creek and Apache Wash WCMP - Erosion Hazard Zones Map
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: SR

Comments: This map shows the erosion zones in the Cave Creek area according to a color system on top of the actual aerial photographs.

Document Number: 389 **Preparation Date:** August 14, 2000 **Source:** ASL Consulting Engineers, Inc.
Primary Author: **Title:** Upper Cave Creek and Apache Wash WCMP - Conceptual Plan Details Full Structural Alternative
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL
Storage Box Number: SR

Comments: This is a set of seven sheets of details for all structural members in the completion of Cave Creek and Apache Wash. It shows channel ramps, underpass ramps, ramp sections and the locations of the structures along the washes.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 307 **Preparation Date:** September 3, 1999 **Source:** ASL
Primary Author: Thomas Loomis, P.E. **Title:** Cave Buttes Dam to Cave Creek Dam Site
Development Plan
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County
Storage Location: ASL
Gathered By: ASL **Storage Box Number:**
Comments: This map shows the topographic details of the Cave Buttes Dam and gives spot elevations.

Document Number: 359 **Preparation Date:** February 1997 **Source:** Flood Control District of
Maricopa County
Primary Author: Willdan Associates **Title:** Cave Creek Flood Insurance Study, Final "n" Value
Report
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County
Storage Location: ASL
Gathered By: ASL **Storage Box Number:**
Comments: This report was prepared as part of the Flood Insurance study of Cave Creek for the FCDMC. The limits of the
study are the Cave Buttes Dam to 600 feet upstream of Carefree Highway, a distance of approximately five miles.

Document Number: 322 **Preparation Date:** September 2, 1999 **Source:** APS
Primary Author: Dames & Moore **Title:** North Central Phoenix Facility Siting Project
Prepared By 2: APS
Prepared By 3:
Prepared By 4: **Prepared For:** Community Working Group
Storage Location: ASL
Gathered By: ASL **Storage Box Number:**
Comments: The North Central Phoenix Community Working Group (CWG) has been established to participate with the study
team in the planning process for North Central Phoenix Facility Siting Project.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 340 **Preparation Date:** April, 1979 **Source:** Flood Control District of Maricopa County

Primary Author: U.S. Army engineer District **Title:** New River & Phoenix City Streams

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Flood Control District of Maricopa County

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: This only the index for Report titled "General Memorandum-Phase II, New River and Phoenix City Streams".

Document Number: 341 **Preparation Date:** April, 1969 **Source:** Flood Control District of Maricopa County

Primary Author: flood Control District of Maricopa County **Title:** A Report on the Condition the superstructure of Old Cave Creek Dam

Prepared By 2: Sue Mutschler

Prepared By 3:

Prepared By 4: **Prepared For:**

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: Brief report on the condition of the Cave Creek Dam prior to 1969.

Document Number: 342 **Preparation Date:** April, 1969 **Source:** Flood Control District of Maricopa County

Primary Author: John Carollo Engineers **Title:** Report on Condition of the superstructure of Old Cave Creek Dam

Prepared By 2:

Prepared By 3:

Prepared By 4: **Prepared For:** Maricopa County Flood Control District

Gathered By: ASL **Storage Location:** ASL

Storage Box Number:

Comments: The purpose of this report is to provide an engineering analysis of the present (1969) condition of the superstructure of Old Cave Creek Dam.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 348 **Preparation Date:** October 10, 1999 **Source:** ASL
Primary Author: ASL **Title:** HABITAT TYPES WITHIN LOWER CAVE CREEK-
NORTH AND SOUTH HALVES
Prepared By 2: Tom Loomis
Prepared By 3: Marcy Burcham
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Two page map showing the habitat of Sonoran Desert Tortoise, Cactus Ferruginous Pygmy Owl and Harris Hawk along the Cave Creek Drainage area.

Document Number: 350 **Preparation Date:** October 8, 1999 **Source:** Flood Control District of
Maricopa County
Primary Author: **Title:** APACHE WASH HABITAT TYPES- NORTHERN AND
SOUTHERN PORTIONS
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Aerial photos mapping showing high, medium and low quality vegetation along Apache Wash.

Document Number: 351 **Preparation Date:** October 10, 1999 **Source:** Flood Control District of
Maricopa County
Primary Author: Teresa Hoff **Title:** ARCVIEW HABITAT COVERAGE FOR CAVE CREEK
AND APACHE WASH
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of
Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: 1-3.5 disk w/digital data in ArcView format showing the vegetation coverage along Cave Creek and Apache Wash.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 301 **Preparation Date:** August 8, 1998 **Source:** ASL
Primary Author: Thomas Loomis **Title:** Cave Creek Watershed Map North of Carefree Highway
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** Flood Control District of Maricopa County
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Shows watershed boundaries.

Document Number: 390 **Preparation Date:** July 24, 1998 **Source:** ASL Consulting Engineers, Inc.
Primary Author: **Title:** Cave Creek Isopluvials of Nora
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: ASL **Storage Location:** ASL
Storage Box Number: SR
Comments:

Document Number: 347 **Preparation Date:** 1979 **Source:** SRP Archives
Primary Author: Bernier, J.C. **Title:** Second Report on the Study of the Water Resources of the Carefree - Cave Creek Area, Maricopa County, Arizona
Prepared By 2: Harshbarger, J.W.
Prepared By 3: Manera, P.A.
Prepared By 4: **Prepared For:**
Gathered By: JEF **Storage Location:** JEF
Storage Box Number:
Comments:

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 367 **Preparation Date:** October 22, 1999 **Source:** Aerial Mapping Company
Primary Author: Aerial Mapping Company **Title:** Aerial Photos of Cave Creek and Apache Wash
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** ASL
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: CD-ROM Disk of Cave Creek and Apache Wash with TIF file labeled AP-2S.

Document Number: 368 **Preparation Date:** **Source:**
Primary Author: **Title:** Cave Creek Impound Area
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** ASL
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: CD-ROM saying Cave Creek Impound Area on the disk and that is all.

Document Number: 369 **Preparation Date:** June 4, 1999 **Source:** Aerial Mapping Company
Primary Author: Aerial Mapping Company **Title:** Color Photos of Cave Creek and Apache Wash
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** ASL
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: Two CD-ROM disks color aerial photos of Cave Creek and Apache Wash.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 370 **Preparation Date:** June 14, 1999 **Source:** Aerial Mapping Company
Primary Author: Aerial Mapping Company **Title:** Cave Creek Dam Impound
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:** ASL
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: CD-ROM of Cave Creek Dam Impound area.

Document Number: 386 **Preparation Date:** UofA Water Recourses **Source:** The University of Arizona,
Water Resources
Research Center
Primary Author: Patrick B. Sharfroth **Title:** Riparian Ecosystem Restoration in the Gila River
Basin: Opportunities and Constraints
Prepared By 2: Barbara Tellman
Prepared By 3: Mark K. Briggs
Prepared By 4: **Prepared For:** Workshops for the local federal,
state, tribal and local
governments.
Gathered By: ASL **Storage Location:** ASL
Storage Box Number:
Comments: The primary goal of the Gila River Riparian Restoration Forum was to provide information to representatives of various federal, state, tribal, local government and non-governmental organizations with an interest in riparian ecosystem restoration in the Gila River basin, so that they may more effectively plan, implement, and manage riparian restoration projects in this region.

Document Number: 312 **Preparation Date:** November 1964 **Source:**
Primary Author: U.S. Army Engineer District **Title:** Flood-plain Information Study for Maricopa County,
Arizona; Volume II, Cave Creek Report Hydro Library
Prepared By 2:
Prepared By 3:
Prepared By 4: **Prepared For:**
Gathered By: **Storage Location:** ASL
Storage Box Number:
Comments: Report gives flood-plain study of area along with boundaries and profile view charts.

Upper Cave Creek and Apache Wash Watercourse Master Plan, Project FCD 97-458

4.0 Full Data Set

Document Number: 311 **Preparation Date:** May 15, 1990 **Source:** The Town of Cave Creek, Arizona

Primary Author: Joseph C. Bernier & Associates **Title:** A Proposal to Arizona Department of Water Resources for the support of the Cave Creek-Carefree Basin Storm Water Runoff Recharge Project

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For:

Storage Location: ASL

Gathered By: ASL

Storage Box Number:

Comments: This report was prepared in order to give a break down of the project goals as well as a cost estimate of the phases and site maps with references.

Document Number: 310 **Preparation Date:** May 2, 1985 **Source:** Cella Barr Associates

Primary Author: Cella Barr Associates **Title:** City of Phoenix Cave Creek Recharge Project: Technical Aspects

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: The Second Symposium on Artificial Recharge

Storage Location: ASL

Gathered By: ASL

Storage Box Number:

Comments: Concentrates on the geology of the area, well locations and types of wells and pumps in the area.

Document Number: 349 **Preparation Date:** October 10, 1999 **Source:** City of Phoenix Parks and Recreation Department

Primary Author: Ron Young **Title:** ArcView Coverage of the Arizona Preserve Initiative

Prepared By 2:

Prepared By 3:

Prepared By 4:

Prepared For: City of Phoenix Parks and Recreation Department

Storage Location: ASL

Gathered By: ASL

Storage Box Number:

Comments: 1 zip disk. ArcView information on the Arizona Preserve Initiative of Skunk Creek and surrounding areas.

1-5 Data Collection Report in Microsoft Access 97 Format on CD-ROM

1-6 Summary of Sand and Gravel Mining Operation for Cave Creek

UPPER CAVE CREEK WATERCOURSE MASTER PLAN

SUMMARY OF SAND AND GRAVEL MINING OPERATIONS FOR CAVE CREEK

FOR:

ASL CONSULTING ENGINEERS
431 S. BEELINE HIGHWAY, SUITE A
PAYSON, AZ 85541

OCTOBER 1999



Stantec

Memo



To: Thomas R. Loomis, PE, RLS

File: 82000077

From: Stephanie Gerlach, PE

Date: 07 October 1999

Project: Upper Cave Creek Watercourse Master Plan

Re: Summary of Sand and Gravel Mining Operations for Cave Creek

Information on gravel mining in the Cave Creek study area is compiled using data from the Arizona State Land Department (ASLD) and the Bureau of Land Management (BLM). The ASLD and BLM issued seven different permits.

Arizona Crushers, Inc. (Arizona Crushers) \ ASLD Permit Number 04-93536

Arizona Crushers conducted gravel mining operations between Lone Mountain Road and Carefree Highway between 1987 through 1989 (see Plate 1). During this period a total of 77,408.24 tons of material were reportedly removed. The Material Sales Agreement includes restoration plan specifying sloping the side banks to a reasonable safe grade, back-filling into the excavation of all unused waste material and replanting native trees and shrubs. Table 1 shows the material removed per year. Appendix A includes the information obtained from the ASLD.

Tanner Land Company and Arizona Crushers, Inc. (TannerAZ Crushers) \ ASLD Permit Number 04-80921

TannerAZ Crushers conducted gravel mining operations between Lone Mountain Road and Dynamite Road between 1984 and 1990. During this period a total of 1,211,717.36 tons of material were reportedly removed. The Material Sales Agreement includes restoration plan specifying sloping the side banks to a reasonable safe grade, back-filling into the excavation of all unused waste material and replanting native trees and shrubs. Appendix B includes the information obtained from the ASLD.

Cave Creek Sand & Rock (Cave Creek S&R) \ BLM Contract Number A22596 \ ASLD Permit Number 73-22596

Cave Creek S&R conducted gravel mining operations north of Carefree Highway in Township 5 North, Range 4 East, Section 6. During 1987, a total of 160,000 tons of material were reportedly removed under the BLM contract. Between 1988 and 1991, a total of 167,657.43 tons were reportedly removed under the permit with ASLD. The Contract for the Sale of Units of Material with BLM and the Material Sales Agreement with the ASLD include a restoration plan specifying sloping the side banks to a reasonable safe grade, back-filling into the excavation of all unused waste material and replanting native trees and shrubs. Appendix C includes the information obtained from the BLM and ASLD.

Reference: SUMMARY OF SAND AND GRAVEL MINING OPERATIONS FOR CAVE CREEK

Wheeler Construction, Inc. (Wheeler) \ ASLD Permit Number 04-53112

Wheeler conducted gravel mining operations in the same area as Tanner\AZ Crushers. Between 1995 and 1998, 1,445,307.98 tons of material were reportedly removed under the permit with ASLD. The Plan of Operation included a restoration plan specifying sloping the side banks to a reasonable safe grade, back-filling into the excavation of all unused waste material and replanting native trees and shrubs. Appendix D includes the information obtained from the ASLD.

D. Steffan \ ASLD Permit Number 04-23861

D. Steffan was permitted with ASLD for a gravel mine located between Carefree Highway and Dove Valley Road. Between 1977 and 1978, no material was removed. Appendix E includes the information obtained from the ASLD.

Blue Circle Atlantic, Inc. DBA Blue Circle West (Blue Circle) \ ASLD Permit Number 04-095920

According to Karren McCarric of the ASLD Blue Circle was an application only, Blue Circle never obtained a permit. Appendix F includes the information obtained from the ASLD.

Maricopa County Highway Department (MCHD) \ BLM Serial Number A7530

MCHD conducted gravel mining operations in Township 5 North, Range 4 East, Section 6, lot 7 between 1973 and 1979 under the BLM. A figure showing the location of the mining and the amount of material removed could not be obtained. According to Jeff Garrett of the BLM the records were destroyed. Appendix G includes the information obtained from the BLM.

Maricopa County Highway Department (MCHD) \ BLM Serial Number A11004

MCHD conducted gravel mining operations in Township 5 North, Range 4 East, Section 6, lot 7 between 1978 and 1984 under the BLM. A figure showing the location of the mining and the amount of material removed could not be obtained. According to Jeff Garrett of the BLM the records were destroyed. Appendix H includes the information obtained from the BLM.

Appendix I includes a summary of the material from ASLD and BLM.

Reference: SUMMARY OF SAND AND GRAVEL MINING OPERATIONS FOR CAVE CREEK

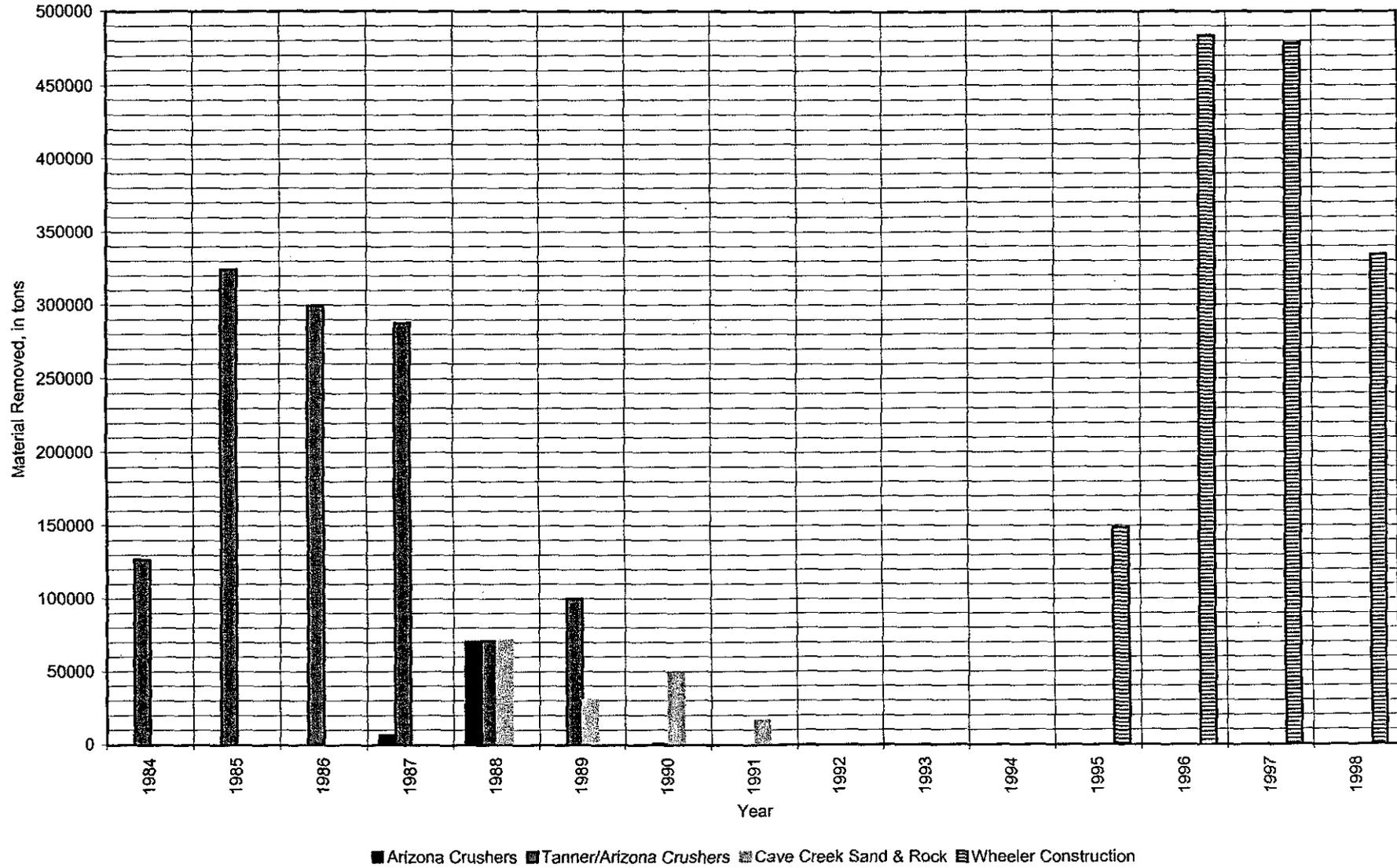
Table 1
 Summary of Sand and Gravel Mining Operations

| Lessee \ Permit Number | Year | Material Removed Tons |
|--|--------------|--------------------------|
| Arizona Crushers \ 04-93536 | 1987 | 6,733.90 |
| | 1988 | 70,674.34 |
| | 1989 | 0 |
| | Sum | 77,408.24 |
| Tanner (Arizona Crushers) \ 04-80921 | 1984 | 127,090.84 |
| | 1985 | 324,826.50 |
| | 1986 | 299,781.49 |
| | 1987 | 287,654.45 |
| | 1988 | 71,278.31 |
| | 1989 | 100,327.67 |
| | 1990 | 758.10 |
| Sum | 1,211,717.36 | |
| Cave Creek Sand & Rock \ 73-22596 | 1987* | 160,000.00 |
| | 1988 | 71,350.58 |
| | 1989 | 30,696.69 |
| | 1990 | 48,909.58 |
| | 1991 | 16,700.58 |
| | Sum | 327,657.43 |
| Wheeler Construction \ 04-53112 | 1995 | 148,615.65 |
| | 1996 | 483,546.00 |
| | 1997 | 478,650.39 |
| | 1998 | 334,495.94 |
| | Sum | 1,445,307.98 |
| D. Steffan \ 04-23861 | 1977 | 0 |
| | 1978 | 0 |
| | Sum | 0 |
| Maricopa County Highway Department \ Unknown | 1973-1978* | Unknown |
| Maricopa County Highway Department \ Unknown | 1979-1982* | Unknown |
| TOTAL SUM | | 3,062,091.01 |
| Permit Number - Permit number according to the Arizona State Land Department | | |
| * Sand & Gravel Mining conducted under the Bureau of Land Management | | |

STANTEC CONSULTING INC.

Stephanie Gerlach
 Water Resources Engineer
 sgerlach@stantec.com

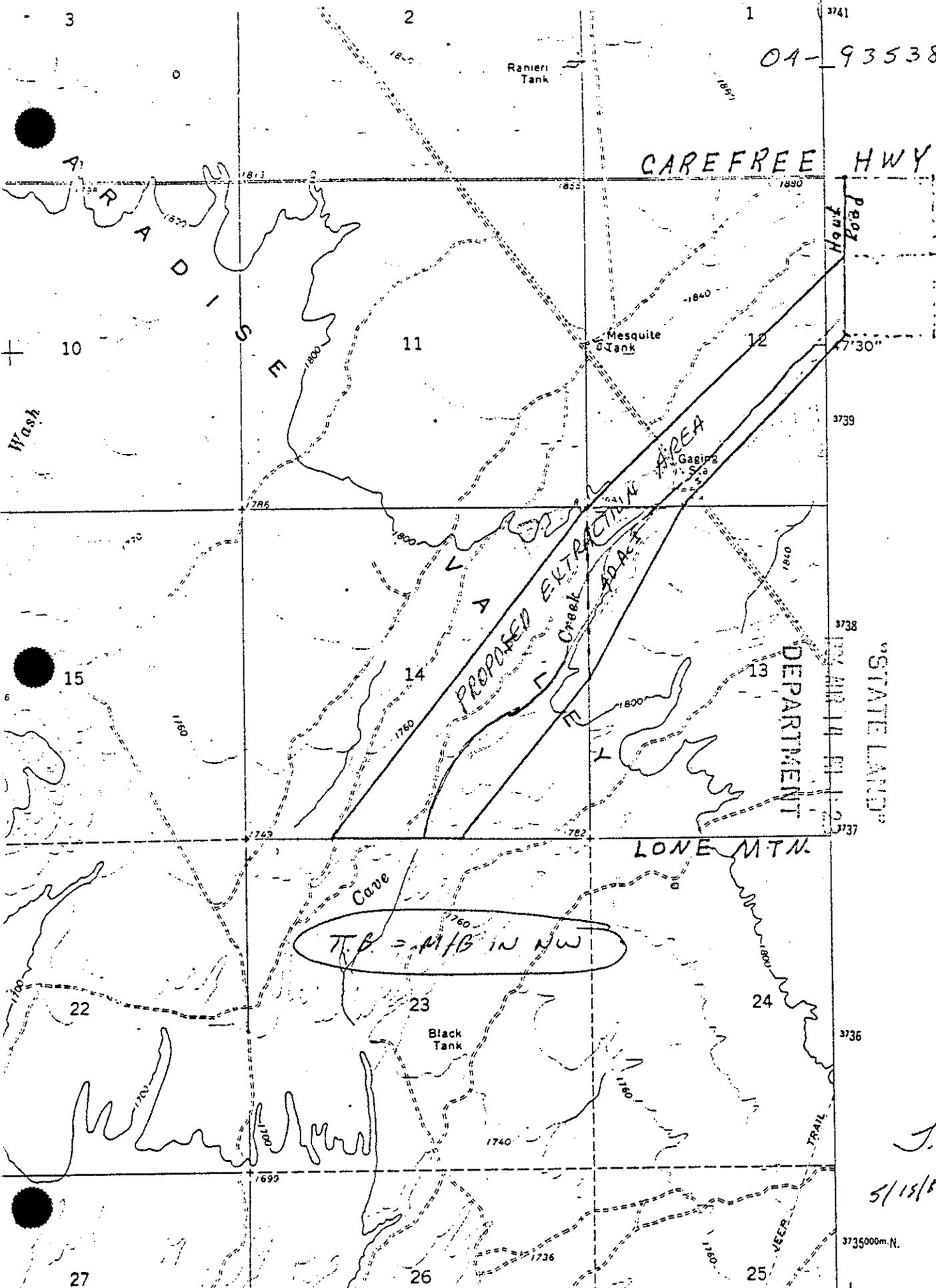
Amount of Material Removed



APPENDIX A

ARIZONA CRUSHERS, INC.

04-93538



STATE LAND DEPARTMENT

T.B. = A1/B IN NW

J.E.
5/15/86

3735000m. N. 112° 00' 33' 45'

INTERIOR- GEOLOGICAL SURVEY, RESTON, VIRGINIA-1942 407000m. E.

ROAD CLASSIFICATION

NOTICE TO ANYONE DEALING WITH THIS DOCUMENT

This document merely authorizes pursuit of its stated purposes; its existence does not constitute a finding by the Land Department that those purposes may be pursued profitably.

SALES AGREEMENT NO. 04-93539-08

DATE OF SALE June 24 1987

STATE LAND DEPARTMENT
STATE OF ARIZONA

CANCELLED

MATERIAL SALES AGREEMENT

JUN - 8 1990

This is an agreement between the State Land Department of the State of Arizona, acting by, through and under the Arizona State Land Commissioner (hereinafter called Seller) and TANNER LAND COMPANY / ARIZONA CRUSHERS, INC., (hereinafter called Buyer) as follows:
A JOINT VENTURE

The Seller does hereby sell unto Buyer the right to remove _____

SAND AND GRAVEL UNDIFFERENTIATED (hereinafter called materials)

from the State lands described in the supplement hereto (hereinafter called premises) for the following term and in consideration of payment by Buyer of the following rents and royalties and compliance by Buyer with the following covenants and conditions which Buyer hereby agrees to faithfully keep and perform:

1. Term of Agreement

From the date hereof and until the 31st day of AUGUST, 19 87, the Buyer shall have in accordance with the approved operation plan attached hereto the right to sever, extract, use, store, remove and dispose of the materials found upon or in the premises within planes drawn vertically downward through the exterior boundaries of the premises.

2. Use of Premises

Buyer shall have the right to use as much of the surface of the premises as is reasonably necessary for the extraction, severance, use, storage, removal and disposition of the materials from the premises, including, where applicable, the right to wash (provided that the right to use the water is first acquired), screen, crush, sort or otherwise without the addition of foreign additives mechanically process those materials, together with the right of ingress to and egress from the premises across other State lands along designated routes PREVIOUSLY approved by the Seller and necessary to carry out the purpose of this sale.

The Buyer may use, with predetermined rental and royalty, any and all improvements existing on the premises and not removed or to be removed by a prior maker or predecessor of such improvements. The nature and extent of existing improvements on the premises shall be determined by inventories or reports thereof in the files of the Department, including the Department's inspection and report of the premises after removal of improvements by a prior lessee, permittee or buyer.

3. Use and Occupancy

No one other than the servants, employees, officers of the Buyer, or Seller approved sub-contractors shall have the right to enter upon the premises to sever, extract, use, store, remove or dispose of the materials therefrom; Buyer may assign its interest herein only with the prior written approval of the Seller. Sub-contractor is one who enters into a written contract with the contractor (buyer) to assist in the physical production of a part of the materials required in the original prime contract of the contractor (buyer).

4. Conduct of Operations

The Buyer hereby agrees to conduct its operations on the premises in a workmanlike manner at all times, to protect the premises and soils thereof and:

- A. To keep the premises free of all litter, refuse, trash, garbage, junk or other debris.
- B. To take precautions as necessary to protect the safety of persons and the subject property.
- C. To comply with all flood control regulations from time to time applicable to the premises unless the Commissioner determines such compliance not to be in the best interest of the Trust.
- D. To comply with all other rules and regulations presently in effect and prescribed from time to time by the Seller during the term of this agreement.

5. Improvements

The Buyer may construct improvements and install such machinery and equipment which are necessary for the severance, extraction, storage, use or removal of the materials and Buyer shall have the right to remove such improvements, machinery and equipment from the premises within ninety (90) days after termination of this agreement, provided all monies due the Seller pursuant to this agreement have been paid in full by Buyer; improvements remaining on the premises beyond said ninety (90) days after termination of this agreement shall become the property of the Trust which owns the fee of the land wherein and whereupon those improvements so remain located. Upon written application by the Buyer filed with the Seller before the expiration of said ninety (90) day period, the Seller may, upon Buyer showing a good cause therefore, extend said ninety (90) days for an additional thirty (30) days. Improvements made that may not be removed without the destruction thereof shall become the property of said Trust, or at the option of the Commissioner be removed by Buyer at Buyer's expense upon termination of this agreement.

6. Rents and Royalties

- A. In addition to the payments herinafter provided, Buyer agrees to pay Seller annually in advance the sum of \$ 144.00 per acre for and as surface rental of the premises described herein, and any additional surface rental that may be assessed by the Seller after the first 12 months of this agreement. Such additional rents shall be assessed at intervals as described in paragraph 7 (A) of this agreement. Adjustments of surface land value shall be as determined by the Seller.
- B. The Seller offered the materials at public auction on the basis of a minimum advance royalty of \$ 32,800.00 per year for 10 years, and a minimum royalty per unit of materials as follows; 40,000 tons at .82 per ton

The Buyer bid in advance royalty of \$ 32,800.00 per year and Buyer agrees to pay said advance royalty annually in advance. The Seller and Buyer agree that the advance royalties shall be first credit for Buyer against royalties due from Buyer for materials used or removed, and that the entire portion of said advance royalties unused upon the termination or expiration of this agreement shall be the sole property of Seller. Buyer agrees that said advance royalties shall be paid each year regardless of use or removal of materials. The advance royalties shall be a continuing credit during the entire term of this agreement.

11. Before Commencement of Operation

Before significant earth movement may commence, the Buyer hereof shall satisfy the Seller in writing that no significant cultural, historical, antiquity or archaeological values will be destroyed, and, in the event such values will be destroyed, that proper mitigation measures have been agreed upon between said Buyer and the Seller, and further said Buyer shall report all of such values as they are later discovered after such approval is given initially.

12. Corner Marker Requirements

All corners of the subject parcel shall be marked with white steel posts extending 4 feet above the surface. Buyer shall justify to the Seller the location of all the marked corners by reference to established government survey markers, or if the Seller demands, by reference to a registered survey.

13. Removal of Protected Native Plants

If the removal of plants protected under the Arizona native plant law is necessary to enjoy the privilege of this document, the Buyer hereunder must previously acquire the written permission of the Arizona State Land Department and Arizona Commission of Agriculture and Horticulture to remove those plants. Flora that will be endangered by extraction of mineral materials shall be appraised in situ by the State Land Department. The successful bidder shall reimburse the State Land Department for flora that must be removed before extracting any mineral materials.

14. Protection of all Dangerous Workings

The Buyer agrees to fence all dangerous workings to protect livestock, humans and property.

15. Right to Lease Reserved to Seller

The state of Arizona reserves the right to assign or otherwise lease or permit the use of the premises to others for uses or purposes not inconsistent with Buyer's right herein.

It is therefore expressly understood and agreed that there is reserved to Seller the right to lease, assign, or permit under existing law or laws hereafter enacted, so much of surface and subsurface of the lands covered by this agreement as is not actually used or necessary for the purposes of this agreement.

16. Subject to Eminent Domain or Condemnation Proceedings

If at any time during the duration of this agreement, the whole or any part of the premises shall be taken for any quasi-public or public purpose by any person, private or public corporation or by any governmental agency having authority to exercise the power of eminent domain or condemnation proceedings pursuant to any law, general, special or otherwise, this agreement shall expire on the date when the premises shall be taken or acquired, and all compensation and damages awarded for rights or interests in the premises being condemned and all compensation and damages awarded for rights or interests in severance which may accrue to the remaining premises shall be the sole property of Seller; however, in the event of such taking, advance royalties prepared and unused by Buyer shall be returned to the Buyer to the extent, if any, that such taking makes it impossible for Buyer to enjoy the rights hereby purchased, and Buyer shall have the right to receive any and all awards of payments made for any buildings or other improvements lawfully placed on the premises by the Buyer with the prior approval of the Seller.

ADDITIONAL CONDITIONS FOR AGREEMENT #04-93536

- 1) Material extraction and processing must be confined to the area outlined in green (34.27 acres) on the enclosed map prepared by the Arizona State Museum.
- 2) If processing equipment is to be used on the site, an installation permit for the equipment must be obtained from the Maricopa County Bureau of Air Pollution or the ADHS Office of Air Quality.
- 3) Appropriate dust control methods approved by ADHS must be utilized.
- 4) Must obtain form the Flood Control District of Maricopa County, a Floodplain Use Permit prior to extraction of materials from the Cave Creek floodplain.
- 5) Access across state lands to extraction site must be by approved right of way issued by the Arizona State Land Department.
- 6) Restoration shall include replanting native trees and shrubs as recommended by the Arizona State Land Department.
- 7) The buyer shall survey and stake the recommended extraction alignment and set elevation markers as required by the Arizona State Land Department.

7. Hold Seller Harmless

The Buyer agrees to save, hold harmless and indemnify the Seller and all of its agencies, officers and employees against any and all claims, costs, damages, expenses or charges arising out of, incidental to, or resulting in any way from Buyer's operations pursuant to or in violation of this agreement.

18. Termination and Restoration

- A. Upon termination of this agreement, the Buyer hereby agrees to leave the surface of the land in a reasonable condition in accordance with good safety practices in the area in which the premises are located.
- B. Within the 120 days after the date of termination of the agreement, the Buyer agrees to return the surface of the land in the condition as proposed in the acceptable plan of restoration, previously submitted and to include any special conditions. If not specified by the Seller or in the accepted Buyer's plan of operation and restoration such restoration shall also be completed within 120 days after the date of termination and shall include:
1. The sloping of the side banks of any excavation resulting from the operation to a reasonable safe grade. A four-to-one slope shall be considered a safe grade. Quarry faces shall be sloped according to special conditions.
 2. The back-filling into the excavation of all unused waste material to a uniform level on the floor of the excavation.
 3. Top soil and overburden shall be stockpiled and spread to a uniform thickness over the excavated areas.
 4. Removal and restoration of any haul roads constructed on State land by the Buyer, which roads the Seller does not elect to retain.
- C. Stockpiles of processed materials and other improvements shall be treated as mentioned in Section 5.

19. Payment for Loss or Damage

The Buyer shall promptly pay Seller (and lessees of Seller where applicable) for any loss to Seller or its lessee caused by the Buyer or by Buyer's servants, agents, employees or contractor to the premises, its grasses, forage, crops and improvements; the Buyer further agrees to promptly furnish and file a bond with Seller in the amount of \$ 75,000.00 in order to guarantee payment of any such loss and restoration of the surface of the land subject to this agreement.

20. Termination by Buyer

Provided Buyer is not in default in any of the terms and conditions hereof, the Buyer shall have the right to terminate this agreement upon any annual anniversary date thereof by giving the Seller not less than thirty (30) days' prior notice in writing of Buyer's intention to do so.

1. Termination by Seller

Upon thirty (30) days' prior written notice to Buyer, Seller and Mortgagees registered with the Department, shall have the right to terminate this agreement at any time for the failure or neglect of the Buyer to perform any of the provisions hereof. Failure to pay royalties when due shall be reason to terminate this agreement.

22. Notice of State Authority to Cancel this Contract

- A. The State may cancel any contract, without penalty or further obligation, made after September 4, 1978 by the State or any of its departments or agencies if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the State or any of its departments or agencies is, at any time while the contract or any extension of the contract is in effect, an employee of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract.
- B. The cancellations shall be effective when written notice from the Governor is received by all other parties to the contract unless the notice specifies a later time.

23. Other Provisions

SEE ATTACHED
ADDITIONAL CONDITIONS

24. Attorney's Fees and Costs

In the event a dispute between seller and buyer results in legal action, the prevailing party shall have the right to recover reasonable attorney's fees and costs incurred in the proceeding.

25. Subject to State Law, Rules and Regulations

This agreement is subject to existing laws of the State of Arizona and rules and regulations of the Seller and any laws and rules and regulations hereinafter enacted or adopted by Seller and in no event shall the State Land Department or any of its officers or personnel be liable for damages or otherwise under the provisions hereof.



EVAN MECHAM
GOVERNOR

Arizona
State Land Department

1624 WEST ADAMS
PHOENIX, ARIZONA 85007



OFFICE OF
STATE LAND COMMISSIONER

NOTICE OF APPRAISAL

In the matter of Application to Purchase Mineral Materials No(s). 04-93536 thru 04-93538, submitted by R. Kyle Todd on April 14, 1986, for 34.27 acres, more or less in Sections 12, 13, & 14, Township 5 North, Range 3 East, Maricopa County, Arizona.

You are hereby noticed that the Commissioner appraises the sand and gravel undifferentiated at \$.70 per ton, with a minimum annual production of 40,000 tons, for a total minimum annual royalty of \$28,000.00. The yearly rental fee is \$4,935.00.

Total appraised value of the improvements is \$00.00. Improvements on the land consist of: None.

Additional Conditions: See attached list.

This appraisal is not a final determination of the merits of the application.

STATE
LAND
DEPARTMENT for ACTING STATE LAND COMMISSIONER
W. J. Franz (3/9/87)

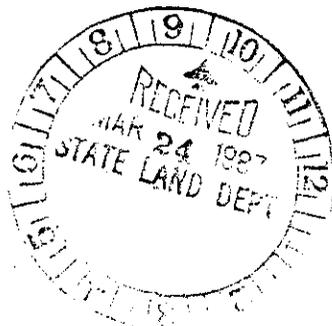
SEAL

Appeal of this appraisal may be made in writing, stating the specific grounds, to the State Land Commissioner, attention: Sales Administrator, Contracts & Records Division, within 30 days from the date of this appraisal. Applicant may waive his appeal by signing and returning one copy of the following waiver, and by so doing expedites the processing of the application.

I waive my right to appeal the appraisal of the Mineral Materials in the subject application to purchase.

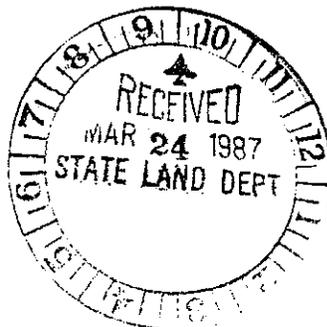
Date: 3-21-87

R. Kyle Todd
Applicant



SPECIAL CONDITIONS
04-93536 thru 0493538

1. Material extraction and processing must be confined to the area outlined in green (34.27 acres) on the enclosed map prepared by the Arizona State Museum.
2. If processing equipment is to be used on the site, and installation permit for the equipment must be obtained from the Maricopa County Bureau of Air Pollution or the ADHS Office of Air Quality.
3. Appropriate dust control methods approved by ADHS must be utilized.
4. Must obtain from the Flood Control District of Maricopa County a Floodplain use permit prior to extraction of materials from the Cave Creek floodplain.
5. Access across state lands to extraction site must be by approved right of way issued by ASLD.
6. Restoration shall include replanting native trees and shrubs as recommended by ASLD.
7. The buyer shall survey and stake the recommended extraction alignment and set elevation markers as required by the State Land Department.



APPENDIX B

TANNER LAND COMPANY AND ARIZONA CRUSHER, INC.



Building tomorrow today.



The Tanner Companies, United Metro Materials Division, 701 N. 44th St., P.O. Box 52140, Phoenix, Arizona 85072-2140, (602) 220-5000

December 30, 1991

Mr. Gary Slusher
State Land Department
1616 W. Adams
Phoenix, AZ 85007

Certified Mail

RE: Lease #04-80921-08, Dixileta Lease Cancellation

Dear Mr. Slusher

The Tanner Companies wishes to cancel the above referenced lease as of January 29, 1992. Please accept this correspondence as formal notification of our intentions.

Improvements and stockpiles of processed aggregates will be removed in accordance with paragraphs five (5) and eighteen (18) of our lease agreement.

I would like to meet with you, at your convenience, to discuss reclamation of the pit area and haul roads. I may be contacted at 220-5619 to set a date for this meeting.

Sincerely

Robert M. Woods
Vice President of Operations

nap

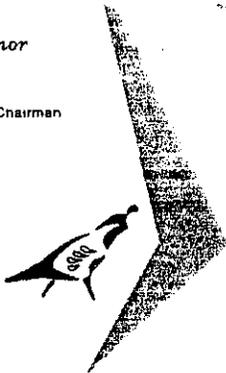
cc John Fowler
Gary Nielson
Pat McLaughlin
Norris Fish

BRUCE BABBITT, Governor

Commissioners:

CHARLES F. ROBERTS, O.D., Bisbee, Chairman
FRANK FERGUSON, JR., Yuma
JAMES W. WERNER, Tucson
JAMES A. JENNINGS, Scottsdale
GISEL, Flagstaff

Deputy Director
ROGER J. GRUENEWALD



ARIZONA GAME & FISH DEPARTMENT

2222 West Greenway Road Phoenix, Arizona 85023 942-3000

REGION VI
6330 East Main Street
Mesa, Arizona 85205 981-9400

June 17, 1983

Mr. Hal F. Susie, Manager
Minerals and Energy Section
Arizona State Land Department
1624 West Adams
Phoenix, Arizona 85007

RE: Application Nos. 04-80921-08,
04-80922-08, and 04-80923-08.

Dear Mr. Susie:

The Arizona Game and Fish Department has reviewed the above-referenced document and the following comments are provided.

Our Department has conducted a re-evaluation of the area involved. We feel the wildlife values for these particular parcels have somewhat diminished since our original analysis in February 1981. Therefore, provided the following measures are included as part of the lease restrictions, we would have no objections to the proposed action:

- Restoration of the impact area should include replacement of disturbed natural vegetation. We suggest Palo verde (Cercidium sp.), Mesquite (Prosopis velutina), and Ironwood (Olneya tesota) be replanted in a manner to correspond with natural conditions.
- All haul roads developed for the project should be reclaimed and reseeded.

We appreciate the opportunity to review and comment on these applications.

Sincerely,

Bud Bristow, Director

James E. Burton

James E. Burton
Habitat Evaluation Specialist
Mesa Regional Office



JEB:ljj

THIS DOCUMENT IS A PUBLIC RECORD. It is a public record of its state and its contents are not confidential. This document merely authenticates the facts stated herein and does not constitute a finding by the Department that those purposes may be pursued.

SALES AGREEMENT NO. 04-80921-08
DATE OF SALE December 13, 1983

Checked by: DLH

STATE LAND DEPARTMENT
STATE OF ARIZONA

Date Mailed: 6-15-84

MATERIAL SALES AGREEMENT

This is an agreement between the State Land Department of the State of Arizona, acting by, through and under the Arizona State Land Commissioner (hereinafter called Seller) and TANNER LAND COMPANY, INC., and ARIZONA CRUSHERS, INC., a joint venture dba/ CAVE CREEK MATERIALS (hereinafter called Buyer) as follows:

The Seller does hereby sell unto Buyer the right to remove SAND & GRAVEL UN-DIFFERENTIATED (hereinafter called materials) from the State lands described in the supplement hereto (hereinafter called premises) for the following term and in consideration of payment by Buyer of the following rents and royalties and compliance by Buyer with the following covenants and conditions which Buyer hereby agrees to faithfully keep and perform:

1. Term of Agreement

From the date hereof and until the 29th day of January, 1994, the Buyer shall have in accordance with the approved operation plan attached hereto the right to sever, extract, use, store, remove and dispose of the materials found upon or in the premises within planes drawn vertically downward through the exterior boundaries of the premises.

2. Use of Premises

Buyer shall have the right to use as much of the surface of the premises as is reasonably necessary for the extraction, severance, use, storage, removal and disposition of the materials from the premises, including, where applicable, the right to wash (provided that the right to use the water is first acquired), screen, crush, sort or otherwise without the addition of foreign additives mechanically process those materials, together with the right of ingress to and egress from the premises across other State lands along designated routes PREVIOUSLY approved by the Seller and necessary to carry out the purpose of this sale.

The Buyer may use, with predetermined rental and royalty, any and all improvements existing on the premises and not removed or to be removed by a prior maker or predecessor of such improvements. The nature and extent of existing improvements on the premises shall be determined by inventories or reports thereof in the files of the Department, including the Department's inspection and report of the premises after removal of improvements by a prior lessee, permittee or buyer.

3. Use and Occupancy

No one other than the servants, employees, officers of the Buyer, or Seller approved subcontractors shall have the right to enter upon the premises to sever, extract, use, store, remove or dispose of the materials therefrom; Buyer may assign its interest herein only with the prior written approval of the Seller.

4. Conduct of Operations

The Buyer hereby agrees to conduct its operations on the premises in a workmanlike manner at all times, to protect the premises and soils thereof and:

- A. To keep the premises free of all litter, refuse, trash, garbage, junk or other debris.
- B. To take precautions as necessary to protect the safety of persons and the subject property.
- C. To comply with all flood control regulations from time to time applicable to the premises unless the Commissioner determines such compliance not to be in the best interest of the Trust.
- D. To comply with all other rules and regulations presently in effect and prescribed from time to time by the Seller during the term of this agreement.

5. Improvements

The Buyer may construct improvements and install such machinery and equipment which are necessary for the severance, extraction, storage, use or removal of the materials and Buyer shall have the right to remove such improvements, machinery and equipment from the premises within ninety (90) days after termination of this agreement, provided all monies due the Seller pursuant to this agreement have been paid in full by Buyer; improvements remaining on the premises beyond said ninety (90) days after termination of this agreement shall become the property of the trust which owns the fee of the land wherein and whereupon those improvements so remain located. Upon written application by the Buyer filed with the Seller before the expiration of said ninety (90) day period, the Seller may, upon Buyer showing a good cause therefore, extend said ninety (90) days for an additional thirty (30) days. Improvements made that may not be removed without the destruction thereof shall become the property of said trust, or at the option of the commissioner be removed by buyer at buyer's expense upon termination of this agreement.

STATE OF ARIZONA DEPARTMENT OF LAND AND WATER RESOURCES
1000 N. CENTRAL AVENUE, SUITE 100, PHOENIX, ARIZONA 85004
TEL: 254-2400 FAX: 254-2401

6. Rents and Royalties

A. In addition to the payments hereinafter provided, Buyer agrees to pay Seller annually in advance the sum of \$ 1.00 per acre for and as surface rental of the premises described herein.

B. The Seller offered the materials at public auction on the basis of a minimum advance royalty of \$ 52,500.00 per year for 10 years, and a minimum royalty per unit of materials as follows:

The Buyer bid an advance royalty of \$ 105,000.00 per year and Buyer agrees to pay said advance royalty annually in advance. The Seller and Buyer agree that the advance royalties shall be first credit for Buyer against royalties due from Buyer for materials used or removed, and that the entire portion of said advance royalties unused upon the termination or expiration of this agreement shall be the sole property of Seller. Buyer agrees that said advance royalties shall be paid each year regardless of use or removal of materials. The advance royalties shall be a continuing credit during the entire term of this agreement.

7. Royalty Rate, Reappraisal and Production Reporting

Buyer bids and agrees to pay Seller the following royalty for the materials used, removed or disposed from the premises during the term of this agreement:

Borrow N/A, Aggregate undifferentiated 70¢ per ton

Other N/A, Materials undifferentiated N/A.

(A) Buyer agrees to pay Seller beginning on each July 1 or on each January 1 after the first 12 months of this agreement such additional royalty which, when added to the royalty agreed to in Section 7 above, equals the appraised value as determined by the Seller for the subject year. Such notice of the royalty rate revision shall be given to the Buyer no later than April 1 of the subject year for a July 1 revision or no later than October 1 of the subject year for a January 1 revision. The royalty rate of this agreement shall not be revised more than once in any 12-month period.

(B) On or before the 15th day following each full month of this agreement, Buyer will report to Seller the total quantities (in tons or cubic yards if the materials are solids) of materials used or removed from the premises during that immediately previous full month; such report shall be made irrespective of whether or not any of said materials have been removed. The Seller shall compute the royalty payment due from Buyer and such payment shall be due and payable within thirty (30) days of the mailing of the statement by the Seller.

8. Sales Related Expenses

To compensate the department for administrative related expenses a 2% charge shall be assessed and billed on each years annual minimum guarantee and on all the material royalty value in excess of the annual minimum guarantee.

9. Material Records and Reports

The Buyer shall keep accurate books and records showing all materials used or removed from the premises; the Seller shall have the right to examine such books and records of the Buyer during reasonable business hours, and Buyer shall maintain all such books and records for six (6) months after termination of this agreement or such longer period as may be prescribed prior to the expiration of this agreement by the Seller. All material other than borrow shall be sold by the ton and weighed on certified scales before removal from the area; provided however, that the Commissioner upon a showing of need may authorize measurement by the cubic yard which shall be converted to tons by a method acceptable to the Commissioner.

10. Disposition of Advance Royalty

In the event of termination by Buyer or by Seller because of Buyer's failure to perform in accordance with the sales agreement, the unused advance royalty paid shall become the exclusive property of the Seller.

11. Before Commencement of Operation

Before significant earth movement may commence, the Buyer hereof shall satisfy the Seller in writing that no significant cultural, historical, antiquity or archaeological values will be destroyed, and, in the event such values will be destroyed, that proper mitigation measures have been agreed upon between said Buyer and the Seller, and further said Buyer shall report all of such values as they are later discovered after such approval is given initially.

12. Corner Marker Requirements

All corners of the subject parcel shall be marked with white steel posts extending 4 feet above the ground surface. Buyer shall justify to the Seller the location of all the marked corners by reference to established government survey markers, or if the Seller demands, by reference to a registered survey.

13. Removal of Protected Native Plants

If the removal of plants protected under the Arizona native plant law is necessary to enjoy the privilege of this document, the Buyer hereunder must previously acquire the written permission of the Arizona State Land Department and Arizona Commission of Agriculture and Horticulture to remove those plants. Flora that will be endangered by extraction of mineral materials shall be appraised in situ by the State Land Department. The successful bidder shall reimburse the State Land Department for flora that must be removed before extracting any mineral materials.

14. Protection of all Dangerous Workings

The Buyer agrees to fence all dangerous workings to protect livestock, humans and property.

15. Right to Lease Reserved to Seller

The State of Arizona reserves the right to assign or otherwise lease or permit the use of the premises to others for uses or purposes not inconsistent with Buyer's right herein.

It is therefore expressly understood and agreed that there is reserved to Seller the right to lease, assign, or permit under existing law or laws hereafter enacted, so much of the surface and subsurface of the lands covered by this agreement as is not actually used or necessary for the purposes of this agreement.

16. Subject to Eminent Domain or Condemnation Proceedings

If at any time during the duration of this agreement, the whole or any part of the premises shall be taken for any quasi-public or public purpose by any person, private or public corporation or by any governmental agency having authority to exercise the power of eminent domain or condemnation proceedings pursuant to any law, general, special or otherwise, this agreement shall expire on the date when the premises shall be taken or acquired, and all compensation and damages awarded for rights or interests in the premises being condemned and all compensation and damages awarded for rights or interests in severance which may accrue to the remaining premises shall be the sole property of Seller; however, in the event of such taking, advance royalties prepared and unused by Buyer shall be returned to the Buyer to the extent, if any, that such taking makes it impossible for Buyer to enjoy the rights hereby purchased, and Buyer shall have the right to receive any and all awards or payments made for any buildings or other improvements lawfully placed on the premises by the Buyer with the prior approval of the Seller.

17. Hold Seller Harmless

The Buyer agrees to save, hold harmless and indemnify the Seller and all of its agencies, officers and employees against any and all claims, costs, damages, expenses or charges arising out of, incidental to, or resulting in any way from Buyer's operations pursuant to or in violation of this agreement.

18. Termination and Restoration

A. Upon termination of this agreement, the Buyer hereby agrees to leave the surface of the land in a reasonable condition in accordance with good safety practices in the area in which the premises are located.

B. Within the 120 days after the date of termination of the agreement, the Buyer agrees to return the surface of the land in the condition as proposed in the acceptable plan of restoration, previously submitted and to include any special conditions. If not specified by the Seller or in the accepted Buyer's plan of operation and restoration such restoration shall also be completed within 120 days after the date of termination and shall include:

1. The sloping of the side banks of any excavation resulting from the operation to a reasonable safe grade. A four-to-one slope shall be considered a safe grade. Quarry faces shall be sloped according to special conditions.

2. The back-filling into the excavation of all unused waste material to a uniform level on the floor of the excavation.

3. Top soil and overburden shall be stockpiled and spread to a uniform thickness over the excavated areas.

4. Removal and restoration of any haul roads constructed on State land by the Buyer, which roads the Seller does not elect to retain.

C. Stockpiles of processed materials and other improvements shall be treated as mentioned in Section 5.

19. Payment for Loss or Damage

The Buyer shall promptly pay Seller (and lessees of Seller where applicable) for any loss to Seller or its lessees caused by the Buyer or by Buyer's servants, agents, employees or contractor to the premises, its grasses, forage, crops and improvements; the Buyer further agrees to promptly furnish and file a bond with Seller in the amount of \$ 30,000.00 in order to guarantee payment of any such loss and restoration of the surface of the land subject to this agreement.

20. Termination by Buyer

Provided Buyer is not in default in any of the terms and conditions hereof, the Buyer shall have the right to terminate this agreement upon any annual anniversary date thereof by giving the Seller not less than thirty (30) days' prior notice in writing of Buyer's intention to do so.

21. Termination by Seller

Upon thirty (30) days' prior written notice to Buyer, Seller and Mortgagees registered with the Department, shall have the right to terminate this agreement at any time for the failure or neglect of the Buyer to perform any of the provisions hereof. Failure to pay royalties when due shall be reason to terminate this agreement.

22. Notice of State Authority to Cancel this Contract

A. The State may cancel any contract, without penalty or further obligation, made after September 4, 1978 by the State or any of its departments or agencies if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the State or any of its departments or agencies is, at any time while the contract or any extension of the contract is in effect, an employee of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract.

B. The cancellation shall be effective when written notice from the Governor is received by all other parties to the contract unless the notice specifies a later time.

23. Other Provisions

SEE ATTACHED

24. ATTORNEY'S FEES AND COSTS

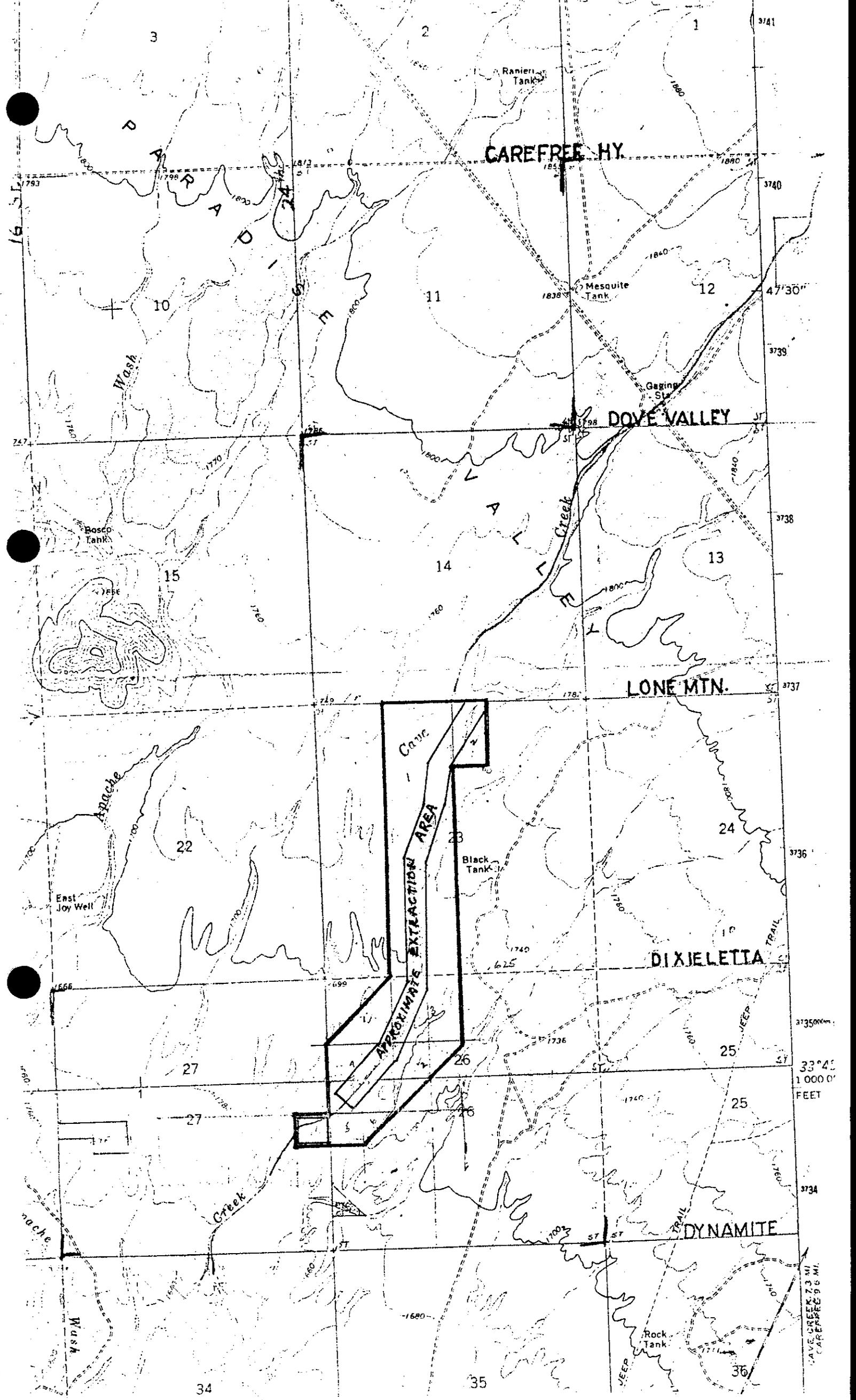
In the event a dispute between seller and buyer results in legal action, the prevailing party shall have the right to recover reasonable attorney's fees and costs incurred in the proceeding.

25. Subject to State Law, Rules and Regulations

This agreement is subject to existing laws of the State of Arizona and rules and regulations of the Seller and any laws and rules and regulations hereinafter enacted or adopted by Seller and in no event shall the State Land Department or any of its officers or personnel be liable for damages or otherwise under the provisions hereof.

OTHER PROVISIONS

1. The haul road will not be considered a reimbursable improvement.
2. Extraction shall be confined to a width of 400' of Cave Creek Wash and Flood Plain as recommended by the Arizona State Land Department and the Arizona State Museum.
3. The buyer shall survey and stake the recommended extraction alignment and set elevation markers as required by the Arizona State Land Department.
4. No reimbursement for survey cost will be made by the department.
5. A Maricopa County Flood Plain Use Permit shall be obtained by the buyer before any material is extracted.
6. Archaeological sites shall be protected as outlined by the Arizona State Museum. Rip-rap construction required to protect archaeological site T-6 shall be performed in accordance with the Arizona Department of Transportation Standard Specifications for rip-rap, sections 913-2.01 and 913-3.03.
7. Access across non-state lands shall be the purchaser's sole responsibility.
8. The seller reserves the right to alter or enlarge the extraction area.
9. Additional restoration conditions:
 1. Restoration shall include complete haul road rehabilitation including seeding.
 2. Restoration shall also include naturalization of the extractions which shall include replanting native trees and shrubs as recommended by the Arizona State Land Department.
10. The seller reserves the right to adjust the annual minimum guarantee.
11. The minimum annual guarantee shall be 150,000 tons for the first year of the agreement and shall be increased to 250,000 tons for the second and subsequent years.



CAREFREE HY.

DOVE VALLEY

LONE MTN.

DIXIELETTA

DYNAMITE

APPROXIMATE EXTRACTION AREA

CAVE CREEK 7.3 MI
CAREFREE 9.6 MI.

APPENDIX C

CAVE CREEK SAND & ROCK



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2711
LOS ANGELES, CALIFORNIA 90053-2225

21 JUL 1987

REPLY TO
ATTENTION OF

Office of the Chief
Regulatory Branch

Russel L. Birdsell
P.O. Box 1908
Cave Creek, Arizona 85331

Dear Mr. Birdsell:

This is in reply to your letter dated June 6, 1987 concerning our permit authority over your proposal to discharge fill for riprap embankments and incidental fills that may occur as part of a gravel mine in an unnamed tributary wash of Cave Creek in Section 6, Township 5 North, Range 4 East, Maricopa County, Arizona.

Regulations for our permit program, published in the Federal Register, include Part 330 - Nationwide Permits (see the enclosure). Your proposed activity is covered under the nationwide permit for discharges of dredged or fill material into non-tidal rivers, streams and their lakes and impoundments, including adjacent wetlands, that are located above the headwaters, which would cause the loss or substantial adverse modification of less than one acre of such waters (Section 330.5 (a)(26)(i)).

As long as you comply with the nationwide permit conditions (Section 330.5 (b)), an individual permit is not required.

This letter does not convey any property rights, either in real estate or material, or any exclusive privileges. Also, it does not authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations, nor does it obviate the requirement to obtain State or local assent required by law for the activity. Furthermore, your proposed activity may be subject to requirements of the National Flood Insurance Program and state or local regulations controlling activities in flood plains. Please check with local government agencies.

If you have any questions please call Robert J. Dummer, Regulatory Branch, at (213) 894-5606 any workday before 3:00 PM.

Sincerely,

Richard Harlacher
Acting Chief, South Coast Section

Enclosure

| FILE COPY | |
|-----------|------|
| Init. | Date |
| JR | 2/28 |
| DM | 2/28 |
| | |
| | |

FEB 28 1989

A-22596

DECISION

Russell Birdsell

**Contract for Sale
of Units of Materials**

Jurisdiction Transferred

On May 5, 1987, a contract for the sale of units of material was approved affecting part of lot 7, sec. 6, T. 5 N., R. 4 E., G&SR Mer., Arizona.

Public lands affected by the contract were transferred to the State of Arizona May 12, 1987. Jurisdiction of the mineral material sale contract transferred to the state at that time.

The permittee should contact the State of Arizona regarding all future actions concerning the mineral material sale contract.

ARTHUR E. TOWER

Arthur E. Tower
Area Manager
Phoenix Resource Area

MHyde: jel
0432r

I. Proposed Action:

Under the cognizance of the 43 CFR 3600 Mineral Material Disposal Regulations a letter of request to purchase mineral material was submitted by Mr. Russell Birdsell of Box 1908, Cave Creek, Arizona 85331 on February 12, 1987. This application is a follow-up of a similar application submitted and allowed to lapse due to technical and administrative difficulties in November 1985. The included mining plan describes a mining operation to extract aggregate gravel from the fraction of Lot 7 south of the Cave Creek, channel in T. 5 N., R. 4 E., Section 6, an area of 28 acres (est.). Mining to the existing Cave Creek bed depth will produce approximately 400,000 cubic yards of material.

II. Anticipated Impacts of the Proposed Action and Alternatives:

Approximately one third of this proposed area was a previous Free Use Permit gravel pit and subsequent to that an asphalt batch plant site. This present proposed use of the area will have a similar affect as the previous use impact. The area is not now markedly discordant with the surrounding terrain. Denial of this mineral material sales application is not a viable alternative.

III. Possible Mitigating and Enhancing Measures:

All anticipated mitigating and enhancing measures not included in the mining plan have been identified and are incorporated into this sales contract as stipulations. The no-action alternative is not an option in consideration of the land use planning situation of PRA and the intent of Public Law 167.

IV. Consultation and Coordination:

The Maricopa County Flood Control District (who forwarded the information to the Maricopa County Highway Department), the Arizona State Game and Fish Department and the BLM's cultural, botanical and wildlife staff have been informed and consulted. Any available interagency, in-house and applicant-agency communications have been made a part of this file (A-22596).

V. Stipulations:

1. Stipulations proposed by the Flood Control District, Maricopa County will be adhered to. (See attachment 1)

RE: FA85-35 Floodplain Use Permit

Dear Mr. Birdsell:

This is to notify you that your floodplain use permit application (FA85-35) for sand and gravel mining in the Cave Creek floodplain has been approved, provided that the following stipulations are adhered to:

- 1.) That the operation comply with the plans submitted; with the depth of excavation not to exceed 4.5 feet below the existing channel invert.
- 2.) That stockpile be located out of the floodway to the east.
- 3.) That drainage from the east be allowed to cross this site unobstructed.
- 4.) The applicant is responsible for obtaining any permits or zoning necessary from other agencies or County departments.
- 5.) That no excavation occur within 200 feet of the bridge or its approach.
- 6.) That this permit will expire on January 1, 1988 but can be renewed if conditions allow.

Attachment 1

2. An Army Corps of Engineers Section 404 permit will be obtained prior to start-up.
3. A rip-rap faced berm will be built and maintained such as to keep Cave Creek in its existing channel.
4. Mining depth will be maintained such at water pooling does not occur during operations, and will not occur after reclamation. The reclaimed surface will be at the same depth and grade as the existing Cave Creek bed.
5. Salvage rights to the existing cactus accrue to this Mineral Material Sales contract owner upon proper purchase from the BLM and acquisition from the Arizona State Agriculture and Horticulture Commission of proper transport tags.
6. Management of this contract will be in strict accordance with Public Law 167, 43 CFR 3600 - Minerals Material Disposal and BLM contract requirements.
7. Mineral Material pricing will be originally as negotiated at 54¢/yd. This will be reconsidered on the 2 year anniversary date as required by regulations.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0103
Expires June 30, 1985

Office
Phoenix Resource Area
Contract Number
A 22596

CONTRACT FOR THE SALE OF UNITS OF MATERIALS
(APPRAISED AT \$2,000 OR MORE)

THIS AGREEMENT, made this ^{5th} day of MAY, 19 87, (hereinafter called the "effective date"), under authority of the Act of July 31, 1947 (61 Stat. 681), as amended (30 U.S.C. 601-604), and the regulations thereunder set forth in 43 CFR, Group 3600, between the UNITED STATES OF AMERICA (hereinafter called the "Government"), acting through the Authorized Officer of the Bureau of Land Management (hereinafter called the "Authorized Officer"), and Mr. Russell Birdsell

(hereinafter called the "Purchaser").

WITNESSETH, That the parties hereto mutually agree as follows:

Sec. 1. *Contract area* - The Government hereby sells to Purchaser and Purchaser hereby buys from Government, under the terms and conditions of this contract, all the mineral materials described in Sec. 2 below, for severance, extraction, or removal, which is 100,000 cu. yds. more or less, on the following-described lands situated in the County of Maricopa State of Arizona as shown on the mining plan marked "Exhibit C," attached hereto and made a part hereof, viz: Township 5 North, Range 4 East, Sec 6, that part of Lot 7 SE of Cave Creek ^{G&SR} Meridian,

containing 28 acres, more or less.

Sec. 2. *Amount and price of materials* - The total purchase price shall be determined by multiplying the total quantity of each kind of material designated by the respective unit price as set forth below, or as changed through reappraisal hereunder.

| KIND OF MATERIALS | QUANTITY (Units Specified) | PRICE PER UNIT | TOTAL PRICE |
|-------------------|-------------------------------|-------------------|-----------------|
| Aggregate Gravel | 100,000 Cu. Yds. | 54¢ yd. | \$54,000 |
| TOTAL | 100,000 Cu. Yds. | 54¢ yd. | \$54,000 |

Determination by the Authorized Officer of the quantity of materials taken shall be binding on Purchaser subject to appeal only as provided in Sec. 8.

Sec. 3. *Payments, passage of title, risk of loss, reappraisals* - Title to materials sold hereunder shall pass to Purchaser only upon severance or extraction of and proper payment for such materials. No part of the materials sold hereunder shall be severed, extracted, or removed by Purchaser until advance payment for such materials has been made in accordance with the following.

(a) Unless materials sold under this contract are paid for in full in advance, payment for materials shall be made in installments of not less than \$5,400.00 each. An initial payment equivalent to two installments must be paid prior to commencement of severance or extraction of materials hereunder. The first installment of this initial payment shall be paid prior to approval of this contract and the second installment shall be paid prior to commencement of removal operations hereunder.

(b) Each additional installment shall become due and payable without prior notice to Purchaser whenever the value of materials severed or extracted hereunder shall equal the sum of the second and subsequent installments already paid by Purchaser. The first installment shall be retained as additional security for the full and faithful performance of this contract by Purchaser, and shall be applied in whole or in part to the payment of the last installment re-

quired hereunder to make the total payment equal the total price set forth in Sec. 2, above.

The total purchase price shall equal the sum of the total quantities severed, extracted, or designated therefor, multiplied by their respective unit prices. The balance due where less than a full installment remains to be paid upon the "total price," will be the value of material remaining to be severed or extracted. Each installment shall be held in suspense until the quantity of materials covered thereby has been determined. The total purchase price must be paid prior to sixty (60) days before expiration date of the contract.

If any additional installment payment is not made by the time required under this section, operations under contract shall be suspended immediately and no materials may be removed from contract area during the period of such suspension. Materials severed, extracted, or removed during any such period of suspension shall be deemed taken in trespass and be charged to and paid for by Purchaser at triple the unit contract price therefor, or at triple the reappraised unit price if a reappraisal has been made. Resumption of taking will be authorized, in writing, by the Authorized Officer only after such required payments have been made.

(c) Purchaser shall assume complete risk of loss for all materials, title to which has passed. If material covered by this contract, title to which has not passed, is damaged or destroyed,

Purchaser shall be liable for all loss suffered if Purchaser, his contractors, or subcontractors, or employees of any of them, are directly or indirectly responsible for the damage. If such material is damaged or destroyed without fault on their part, Purchaser shall be liable for loss sustained to the extent that it is caused by his failure to sever, extract, or remove the damaged material under the circumstances and terms of this contract except that nothing herein shall be construed to relieve either party from liability for breach of contract or any wrongful or negligent act.

Sec. 4. *Special clauses and reserved items* - The rights of Purchaser shall be subject to the regulations in 43 CFR, Group 3600, (which are made a part of this contract), subject to Section 9 of this contract, and if this box is checked the following stipulations marked Exhibit B, which are attached hereto and made a part hereof. The attached stipulations appear as 3 consecutively numbered pages commencing with page 1 hereafter. If no stipulations are attached this box shall be marked.

Sec. 5. *Bonds* - (a) The Purchaser shall file with the Authorized Officer and shall maintain at all times the bonds required under the regulations in 43 CFR 3610.1-5 to be furnished as a condition to the issuance of this contract in the amounts established by the Authorized Officer.

(b) If all terms of the contract are not faithfully and fully performed by Purchaser, the performance bond required by 43 CFR

3610.1-5 in the sum of \$ 10,800

filed at the time of the signing of this contract shall be forfeited to the amount of damages determined by the Authorized Officer. If damages exceed the amount of the bond, Purchaser hereby acknowledges liability for such excess. Upon satisfactory performance of this contract, the bonds shall be canceled, or if cash or United States bonds were furnished in lieu of a surety bond, such cash or securities shall be returned to Purchaser.

(c) Whenever any bond furnished under this contract is found unsatisfactory by the Authorized Officer, he may require a new bond which is satisfactory to him.

Sec. 6. *Expiration of contract* - This contract shall expire 1 years from the date of approval unless an extension of time is granted.

Sec. 7. *Equal opportunity clause* - This permit is subject to the provisions of Executive Order No. 11246 of Sept. 24, 1965, as amended, which sets forth the nondiscrimination clauses. A copy of this order may be obtained from the signing officer.

Sec. 8. *Appeal* - An appeal as provided by the regulations of the Department of the Interior may be taken from any decision of any subordinate official to the Director, Bureau of Land Management, and from the Director's decision to the Secretary of the Interior pursuant to the Rules of Practice (43 CFR, Part 1840).

Sec. 9. *Special Stipulations* - (stipulations, if any, are attached hereto and made a part hereof)

1. This contract specifically contains a right to renew on the anniversary date three (3) times. This right-of-renewal is designed to allow a total of 400,000 cubic yards of aggregate gravel to be removed.

2. Mineral material pricing will stand as negotiated by the B.L.M. at 54¢ cu.yd. until the second anniversary of the receipt of the required Army Corps of Engineers Section 404 of the Clean Water Act permit.

3. The balance due will be paid in monthly increments commencing the first month after receipt of the Corps. of Engineers 404 permit.

4. The subject mining plan is attached and became a part of this contract.

IN WITNESS WHEREOF, the parties hereto have executed this contract as the day first above written.

PURCHASER

THE UNITED STATES OF AMERICA

Russell L Birdsell

(Individual or Firm Name)

By Arthur E Tower

(Authorized Officer)

Box 1908 Cove Creek - S5331

(Address)

Area Manager

(Title)

5-5-87

(Date)

(Signature)

(Signature)

If this contract is executed by a corporation, it must affix its corporate seal

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501, et. seq.) requires us to inform you that:

This information is being collected to process your application and effect a binding contractual agreement.

This information will be used to identify and communicate with applicants.

Response to this request is required to obtain a benefit.

G. RECLAMATION MEASURES

Describe measures to be taken to prevent unnecessary and undue degradation. Describe plans for reclamation of disturbed areas and for erosion control including provisions for filling excavations, grading of soil banks, closing of access roads, reseeding, etc. Reference to the site map. (Use additional sheets if necessary).

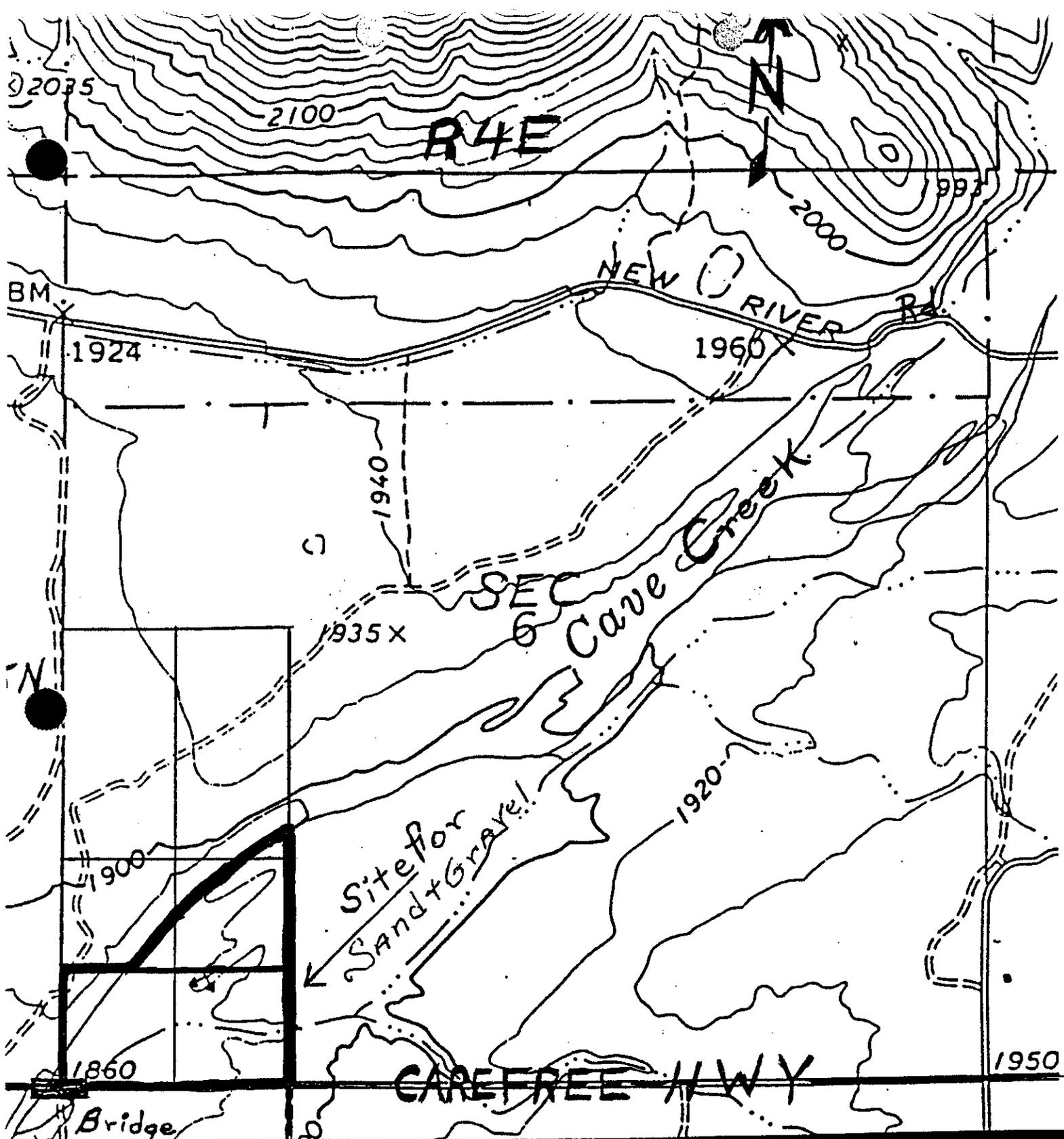
All excavated areas will be smoothed and graded to match the natural contour of the land.

No slopes will be left greater than 30 degrees and no standing banks over 3 feet.

Compacted areas will be ripped for natural reclamation.

No cacti or trees need be removed, except as stipulated, only some small brush

Reclamation shall begin within 30 days of the termination of this contract and be completed within 90 days of the termination of this contract



R4E

N

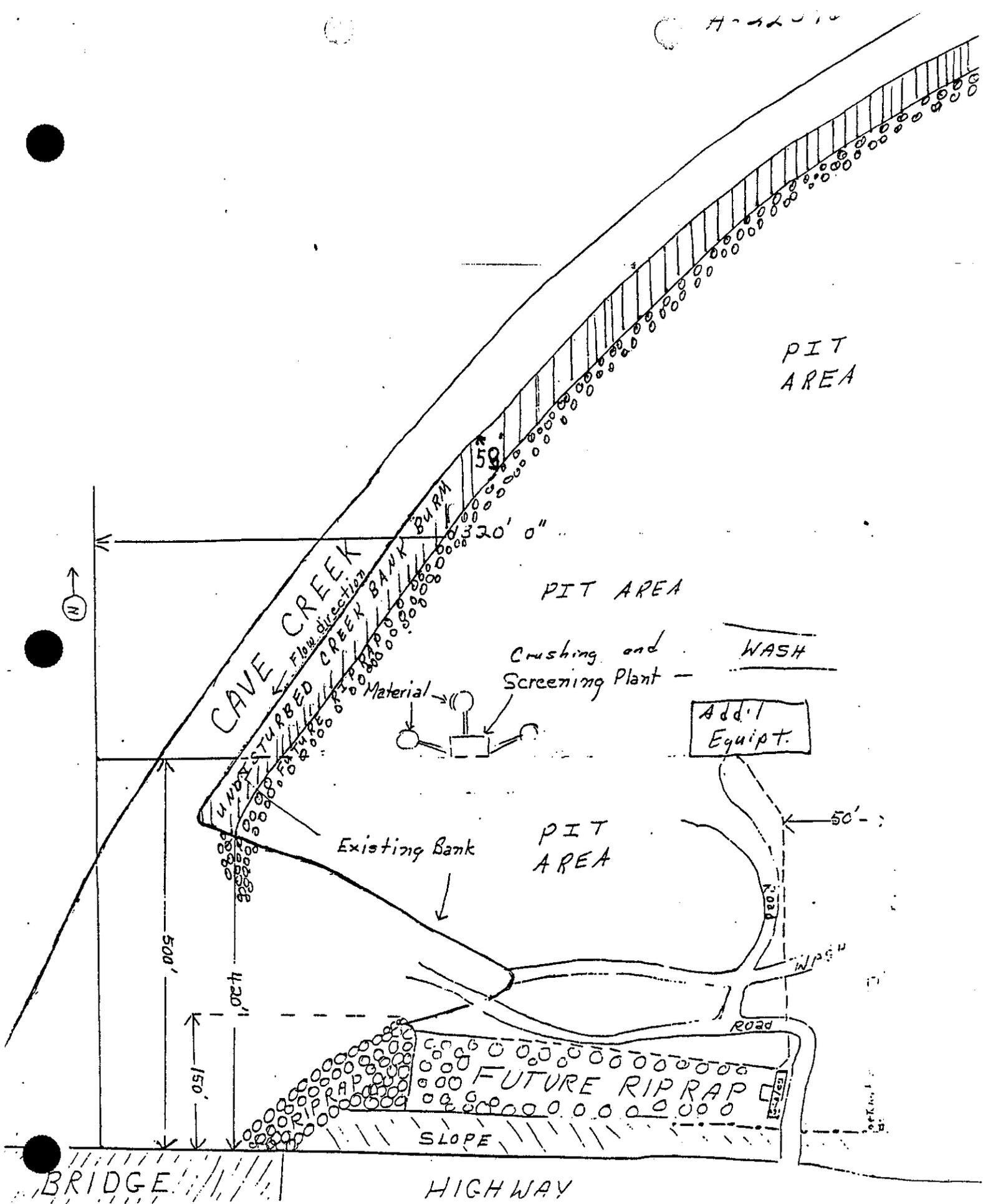
NEW RIVER Rd.

Cave Creek

Site for Sand + Gravel!

CAREFREE HWY

Bridge



PIT AREA

PIT AREA

Crushing and Screening Plant

WASH

Add'l. Equipt.

PIT AREA

Existing Bank

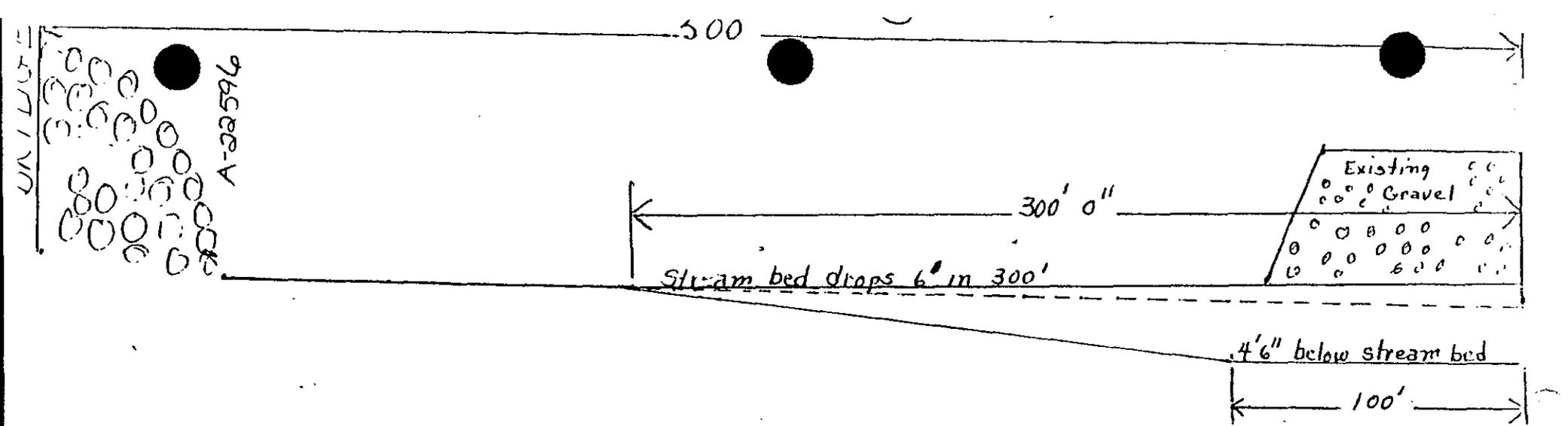
FUTURE RIPRAP

SLOPE

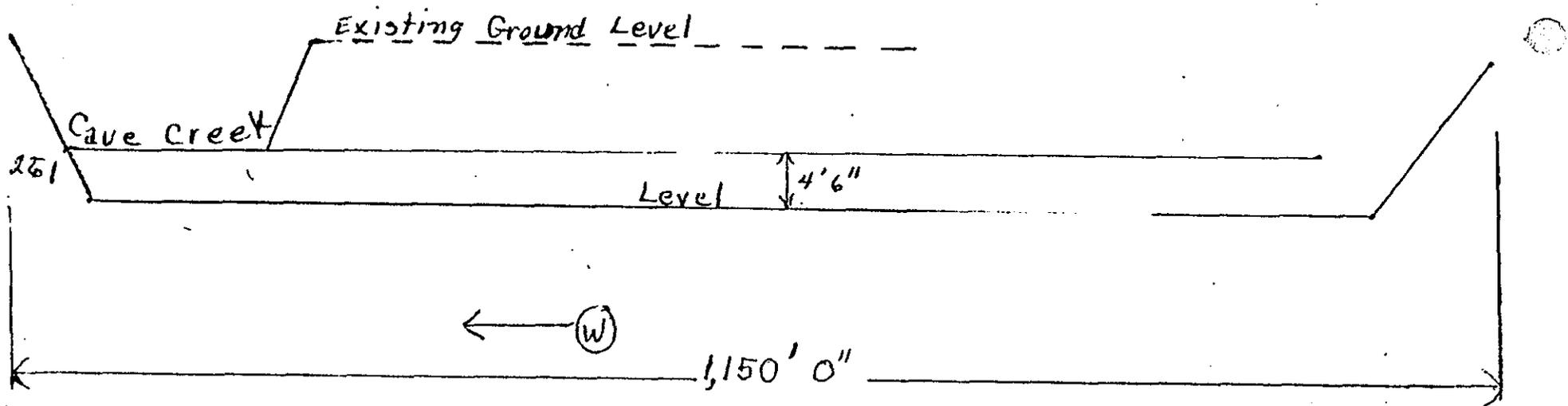
BRIDGE

HIGHWAY





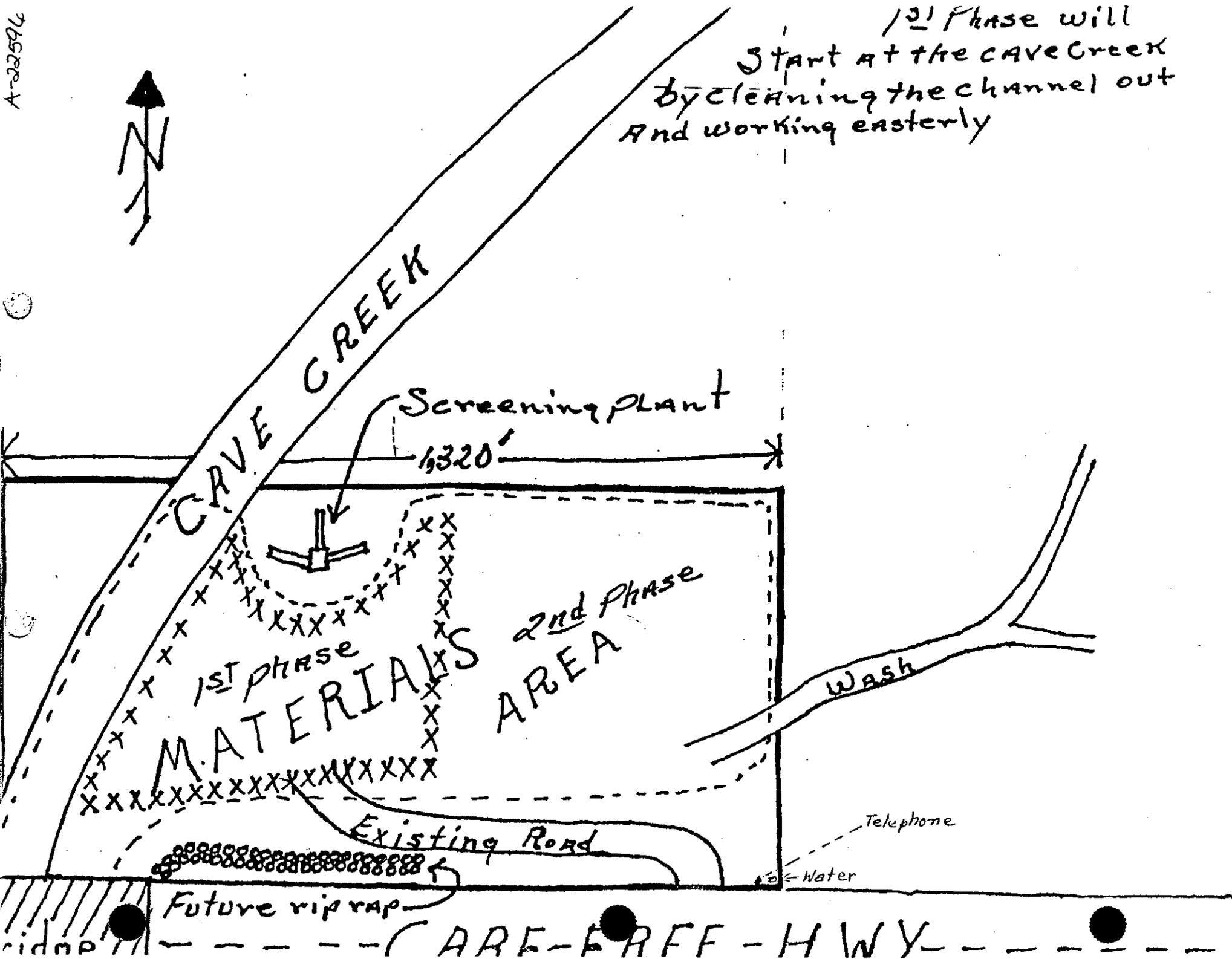
Excavation 4' 6" deep 500' above bridge will hold all waterflow away from highway and riprap. The excavation, being 4' deep, 100' wide, & 950' Long will serve as a sediment pond for badly needed dirt to make ABC. Reclamation by backfilling with permitted material will be done if possible.



A-22594



1st Phase will start at the CAVE CREEK by cleaning the channel out and working easterly



CAVE CREEK - HWY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
ONE NO. 1004-6103
Expires June 30, 1955

Office
Phoenix Resource Area
Contract Number
A 22596

CONTRACT FOR THE SALE OF UNITS OF MATERIALS
(APPRAISED AT \$2,000 OR MORE)

THIS AGREEMENT, made this ^{5th} day of MAY, 19 57, (hereinafter called the "effective date"), under authority of the Act of July 31, 1947 (61 Stat. 681), as amended (30 U.S.C. 601-604), and the regulations thereunder set forth in 43 CFR, Group 3600, between the UNITED STATES OF AMERICA (hereinafter called the "Government"), acting through the Authorized Officer of the Bureau of Land Management (hereinafter called the "Authorized Officer"), and Mr. Russell Birdsell

(hereinafter called the "Purchaser").

WITNESSETH, That the parties hereto mutually agree as follows:

Sec. 1. *Contract area* - The Government hereby sells to Purchaser and Purchaser hereby buys from Government, under the terms and conditions of this contract, all the mineral materials described in Sec. 2 below, for severance, extraction, or removal, which is 100,000 cu. yd. more or less, on the following-described lands situated in the County of Maricopa State of Arizona as shown on the mining plan marked "Exhibit C," attached hereto and made a part hereof, viz: Township 5 North, Range 4 East, Sec 6, that part of Lot 7 SE of Cave Creek ^{G&SR} Meridian,

containing 28 acres, more or less.

2. *Amount and price of materials* - The total purchase price shall be determined by multiplying the total quantity of each kind of material designated by the respective unit price as set forth below, or as changed through reappraisal hereunder.

| KIND OF MATERIALS | QUANTITY (Units Specified) | PRICE PER UNIT | TOTAL PRICE |
|-------------------|-------------------------------|-------------------|-----------------|
| Aggregate Gravel | 100,000 Cu. Yds. | 54¢ yd. | \$54,000 |
| TOTAL | 100,000 Cu. Yds. | 54¢ yd. | \$54,000 |

Determination by the Authorized Officer of the quantity of materials taken shall be binding on Purchaser subject to appeal only as provided in Sec. 8.

Sec. 3. *Payments, passage of title, risk of loss, reappraisals* - Title to materials sold hereunder shall pass to Purchaser only upon severance or extraction of and proper payment for such materials. No part of the materials sold hereunder shall be severed, extracted, or removed by Purchaser until advance payment for such materials has been made in accordance with the following.

(a) Unless materials sold under this contract are paid for in full in advance, payment for materials shall be made in installments of not less than \$5,400.00 each. An initial payment equivalent to two installments must be paid prior to commencement of severance or extraction of materials hereunder. The first installment of this initial payment shall be paid prior to approval of this contract and the second installment shall be paid prior to commencement of operations hereunder.

(b) Each additional installment shall become due and payable without prior notice to Purchaser whenever the value of materials severed or extracted hereunder shall equal the sum of the second and subsequent installments already paid by Purchaser. The first installment shall be retained as additional security for the full and faithful performance of this contract by Purchaser, and shall be applied in part to the payment of the last installment...

quired hereunder to make the total payment equal the total price set forth in Sec. 2, above.

The total purchase price shall equal the sum of the total quantities severed, extracted, or designated therefor, multiplied by their respective unit prices. The balance due where less than a full installment remains to be paid upon the "total price," will be the value of material remaining to be severed or extracted. Each installment shall be held in suspense until the quantity of materials covered thereby has been determined. The total purchase price must be paid prior to sixty (60) days before expiration date of the contract.

If any additional installment payment is not made by the time required under this section, operations under contract shall be suspended immediately and no materials may be removed from contract area during the period of such suspension. Materials severed, extracted, or removed during any such period of suspension shall be deemed taken in trespass and be charged to and paid for by Purchaser at triple the unit contract price therefor, or at triple the reappraised unit price if a reappraisal has been made. Resumption of taking will be authorized, in writing, by the Authorized Officer only after such required payments have been made.

(c) Purchaser shall assume complete risk of loss for all materials, title to which has been severed. If material covered by this contract is lost or destroyed, the Government shall not be liable therefor.

...all loss suffered if Purchaser, his contractor, or subcontractors, or employees of any of them, are directly or indirectly responsible for the damage. If such material is damaged or destroyed without fault on their part, Purchaser shall be liable for loss sustained to the extent that it is caused by his failure to sever, extract, or remove the damaged material under the circumstances and terms of this contract except that nothing herein shall be construed to relieve either party from liability for breach of contract or any wrongful or negligent act.

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3610.1-5 in the sum of \$10,800 filed at the time of the signing of this contract shall be forfeited to the amount of damages determined by the Authorized Officer. If damages exceed the amount of the bond, Purchaser hereby acknowledges liability for such excess. Upon satisfactory performance of this contract, the bonds shall be canceled, or if cash or United States bonds were furnished in lieu of a surety bond, such cash or securities shall be returned to Purchaser.

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IN WITNESS WHEREOF, the parties hereto have executed this contract as the day first above written.

PURCHASER

THE UNITED STATES OF AMERICA

Russell L Birdsell
(Individual or Firm Name)

By Arthur E Tower
(Authorized Officer)

Box 1908 Cone Creek - 85331
(Address)

Area Manager
(Title)

(Signature)

5-5-87
(Date)

WITNESSES

I. Proposed Action:

Under the cognizance of the 43 CFR 3600 Mineral Material Disposal Regulations a letter of request to purchase mineral material was submitted by Mr. Russell Birdsell of Box 1908, Cave Creek, Arizona 85331 on February 12, 1987. This application is a follow-up of a similar application submitted and allowed to lapse due to technical and administrative difficulties in November 1985. The included mining plan describes a mining operation to extract aggregate gravel from the fraction of Lot 7 south of the Cave Creek, channel in T. 5 N., R. 4 E., Section 6, an area of 28 acres (est.). Mining to the existing Cave Creek bed depth will produce approximately 400,000 cubic yards of material.

II. Anticipated Impacts of the Proposed Action and Alternatives:

Approximately one third of this proposed area was a previous Free Use Permit gravel pit and subsequent to that an asphalt batch plant site. This present proposed use of the area will have a similar affect as the previous use impact. The area is not now markedly discordant with the surrounding terrain. Denial of this mineral material sales application is not a viable alternative.

III. Possible Mitigating and Enhancing Measures:

All anticipated mitigating and enhancing measures not included in the mining plan have been identified and are incorporated into this sales contract as stipulations. The no-action alternative is not an option in consideration of the land use planning situation of PRA and the intent of Public Law 167.

IV. Consultation and Coordination:

The Maricopa County Flood Control District (who forwarded the information to the Maricopa County Highway Department), the Arizona State Game and Fish Department and the BLM's cultural, botanical and wildlife staff have been informed and consulted. Any available interagency, in-house and applicant-agency communications have been made a part of this file (A-22596).

V. Stipulations:

1. Stipulations proposed by the Flood Control District, Maricopa County will be adhered to. (See attachment 1)

FA85-35 Floodplain Use Permit

Dear Mr. Birdsell:

This is to notify you that your floodplain use permit application (FA85-35) for sand and gravel mining in the Cave Creek floodplain has been approved, provided that the following stipulations are adhered to:

- 1.) That the operation comply with the plans submitted; with the depth of excavation not to exceed 4.5 feet below the existing channel invert.
- 2.) That stockpile be located out of the floodway to the east.
- 3.) That drainage from the east be allowed to cross this site unobstructed.
- 4.) The applicant is responsible for obtaining any permits or zoning necessary from other agencies or County departments.
- 5.) That no excavation occur within 200 feet of the bridge or its approach.
- 6.) That this permit will expire on January 1, 1988 but can be renewed if conditions allow.

Attachment 1

2. An Army Corps of Engineers Section 404 permit will be obtained prior to start-up.
3. A rip-rap faced berm will be built and maintained such as to keep Cave Creek in its existing channel.
4. Mining depth will be maintained such at water pooling does not occur during operations, and will not occur after reclamation. The reclaimed surface will be at the same depth and grade as the existing Cave Creek bed.
5. Salvage rights to the existing cactus accrue to this Mineral Material Sales contract owner upon proper purchase from the BLM and acquisition from the Arizona State Agriculture and Horticulture Commission of proper transport tags.
6. Management of this contract will be in strict accordance with Public Law 167, 43 CFR 3600 - Minerals Material Disposal and BLM contract requirements.
7. Mineral Material pricing will be originally as negotiated at 54¢/yd. This will be reconsidered on the 2 year anniversary date as required by regulations.

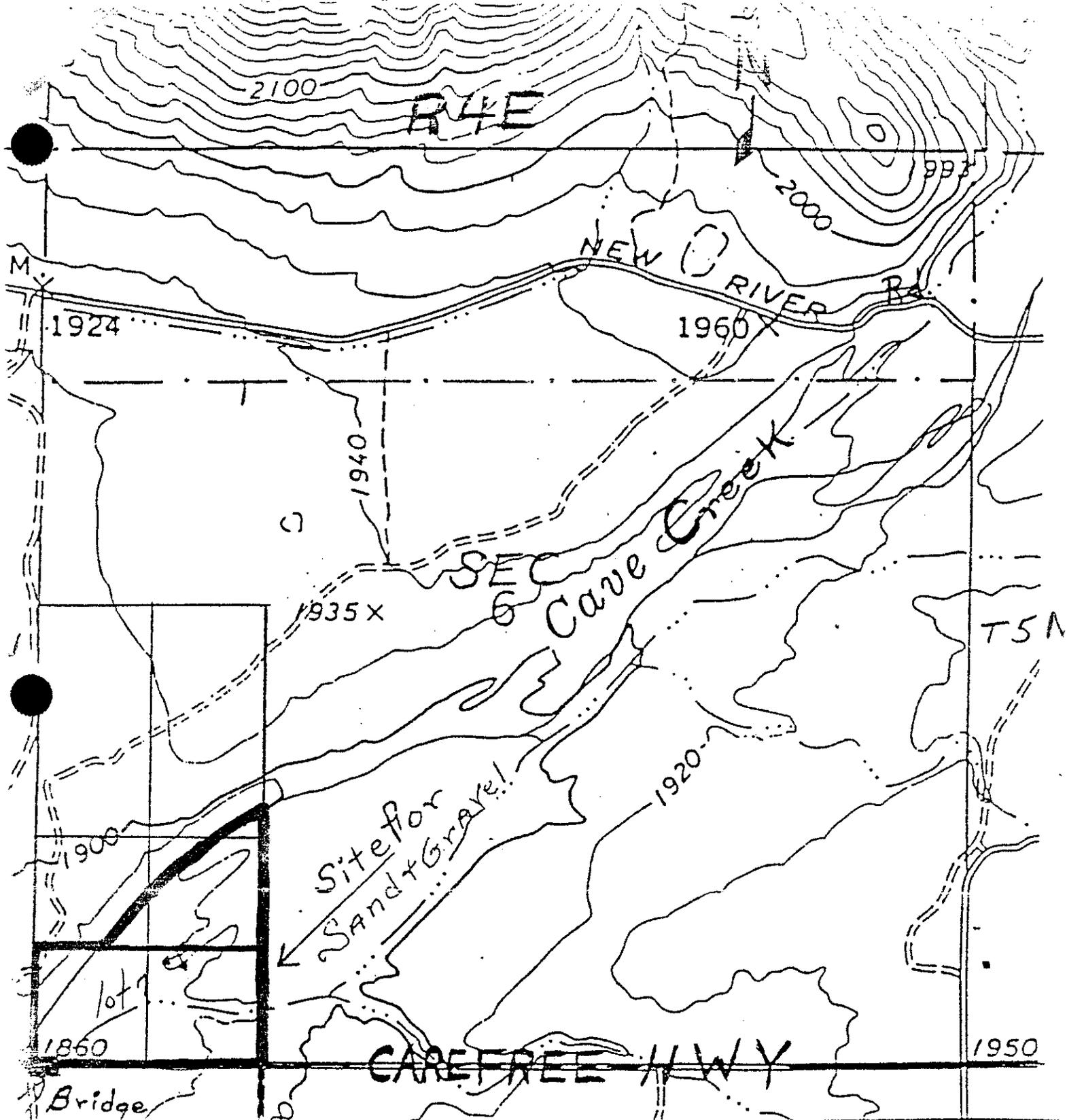
FA85-35 Floodplain Use Permit

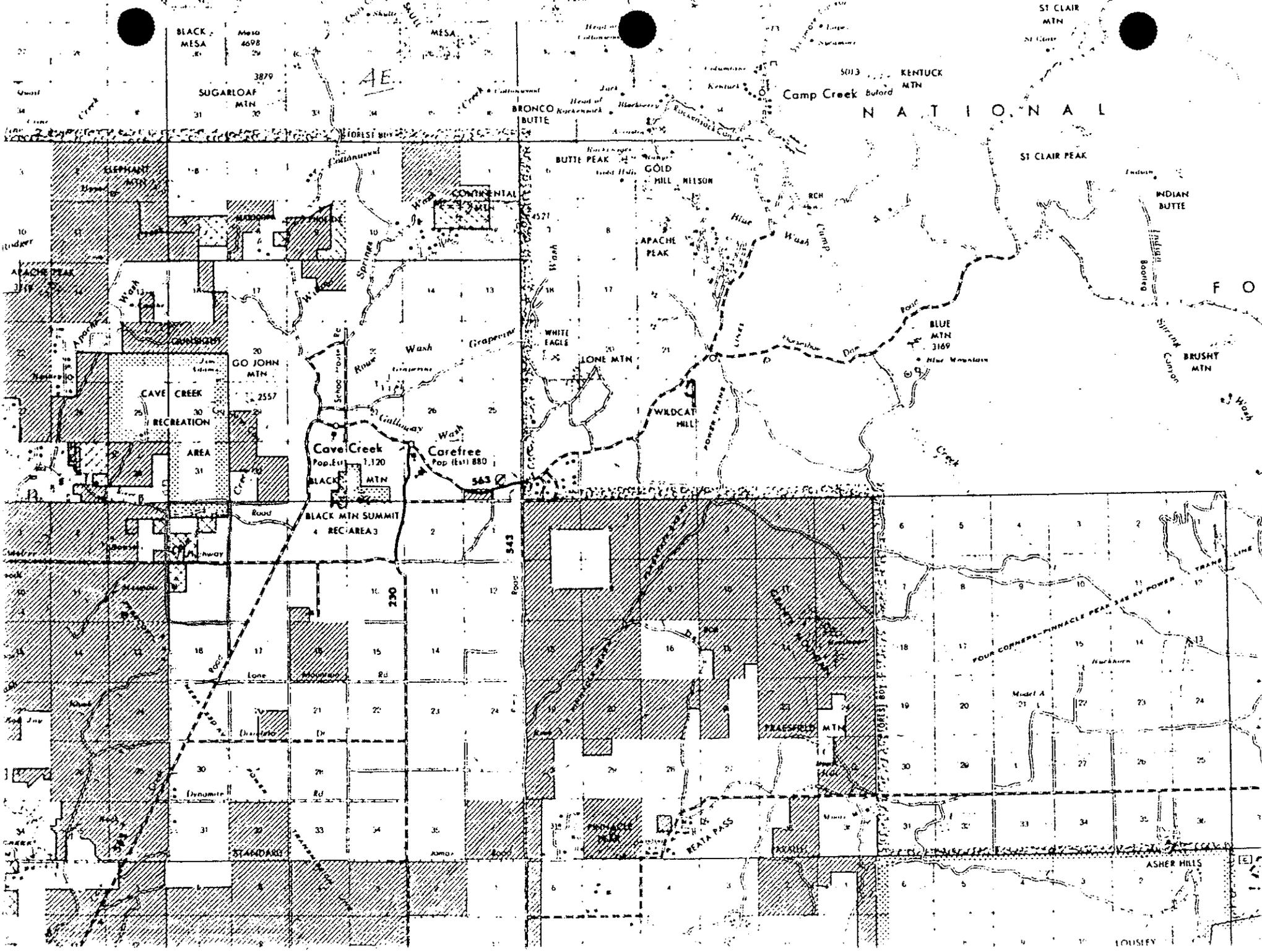
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Attachment 1





BLACK MESA
SUGARLOAF MTN
3879
4698

AE.

NATIONAL

ST CLAIR PEAK

ELEPHANT MTN

CONTINENTAL

BRONCO BUTTE

BUTTE PEAK

GOLD HILL

APACHE PEAK

WHITE EAGLE

LONE MTN

WILDCAT HILL

GO JOHN MTN

CAVE CREEK RECREATION AREA

Cave Creek
Pop. Est. 1,120

Carefree
Pop. Est. 880

BLACK MTN SUMMIT
4 RECREATION AREA

FRASFIELD MTN

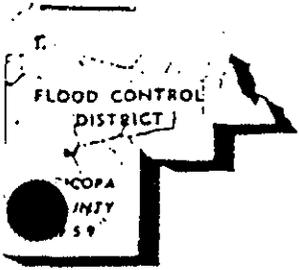
STANDARD

REATA PASS

ASHER HILLS

LOUSEY

FOUR CORNERS PINNACLE PEAK SOLAR POWER



FLOOD CONTROL DISTRICT

of

Maricopa County

3335 West Durango Street • Phoenix, Arizona 85009
Telephone (602) 262-1501

D. E. Sagramoso, P.E., Chief Engineer and General Manager

BOARD of DIRECTORS
Tom Freestone, Chairman
George L. Campbell
Carole Carpenter
Fred Kuory, Jr.
Ed Pastor

INTEROFFICE MEMORANDUM

SUBJECT: Interim Sand and Gravel Criteria

TO: Floodplain Management Staff FROM: Scott Buchanan DATE: July 3, 1985

This criteria is intended for interim use by Flood Control District Staff to aid in the review of proposed sand and gravel flood plain uses. It also will serve as a guide for an applicant in submitting the information necessary for staff to evaluate the proposed use. Using the criteria should result in greater consistency among individual staff members in reviewing requests. A record will be created with each request for future reference.

The criteria and checklist is essentially a collection of rules and guidelines used by the District over the past several years. It is generic in nature and does not address every possible situation that may arise. Caution should be used in making interpretations from it.

The criteria in general defers to better information when it is available or to specific information if the applicant provides it. It should be clear that some restrictions established by the criteria have a theoretical and somewhat untested basis and may not have appropriate application for every flood plain in our jurisdiction.

In certain cases a sediment transport analysis may be required of the applicant if staff feels that this criteria is inadequate for specific circumstances.

Although some elements of the criteria may be changed if better information becomes available, in the interim, it should provide reasonable protection for flood plains and their existing uses from some of the side effects of sand and gravel mining.

SAND AND GRAVEL OPERATION REVIEW

PROCEDURE

No information or response will be given on proposed sand and gravel operations without a preliminary site plan.

Avoid giving specific information over the phone about a particular location unless the applicant has met with us in person and has submitted a preliminary site plan.

After the reviewer is satisfied that sufficient preliminary information has been submitted indicating the location, layout and nature of the operation, prepare written review notes based on this checklist. Request one week for this review. Coordinate review at this stage or at other appropriate times with the Floodplain Administrator and County Department of Planning and Development.

Schedule a pre-final meeting with the applicant at which time an application form may be completed and filed. Inform the applicant of any changes and amendments necessary to the site plan and narrative. Prepare the case for final permit or variance administration.

CHECK LIST AND CRITERIA

1. Is the site within the floodplain? Is it floodway, fringe or both?
Is it in the main channel? Is there a defined channel bank?
2. Would the operation conflict with FCD projects? Has any part of the site been flooded? If so, when and to what extent?
3. A Floodplain Use Permit is required for any sand and gravel operation in the floodplain. Does any specific element of the application also require a variance?
4. Is the application for an existing operation, an expansion of an approved operation or a new site? If existing, is the operation nonconforming or a floodplain violation?
5. Will the proposed operation effect secondary channels or local drainage? Will it affect tributary channels? If so, pre and post development cross sections of the affected area may be necessary.
6. Is the site perpendicular or parallel to flow? What are flow depths; velocities? Are there any surrounding property uses? Are there hydraulic shadows?

7. What type of existing or proposed utilities, structures or roadways are in the area? Are letters regarding buffer zones around such uses necessary from their owners?

8. If the operation is within one-half mile of a bridge or roadway, approval of the operation will be needed in writing from the appropriate highway agency before the Floodplain Use Permit will be issued. No excavation is permitted within 500 feet of a bridge or roadway crossing the floodplain unless the applicant can show that it will not have an adverse affect on the bridge or roadway. In some cases a properly engineered dike or levee around an excavation in the fringe district may be adequate. In other cases, a sediment transport or headcut analysis may be necessary.

9. What method of excavation will be used? Loader, scraper, dragline? Will the operation use any equipment such as a crusher, shaker, conveyor, or screen? Is this equipment portable or permanently fixed. If permanent, is it subject to flood damage?

10. Will the material be used for one specific job or will material be intended for general commercial sales? For how long is operation intended to exist? Will it be continuous? Should the operation be restricted to certain times of the year (off flood season)? Consider a time limit for the Floodplain Use Permit and periodic review or need for status reports on the operation.

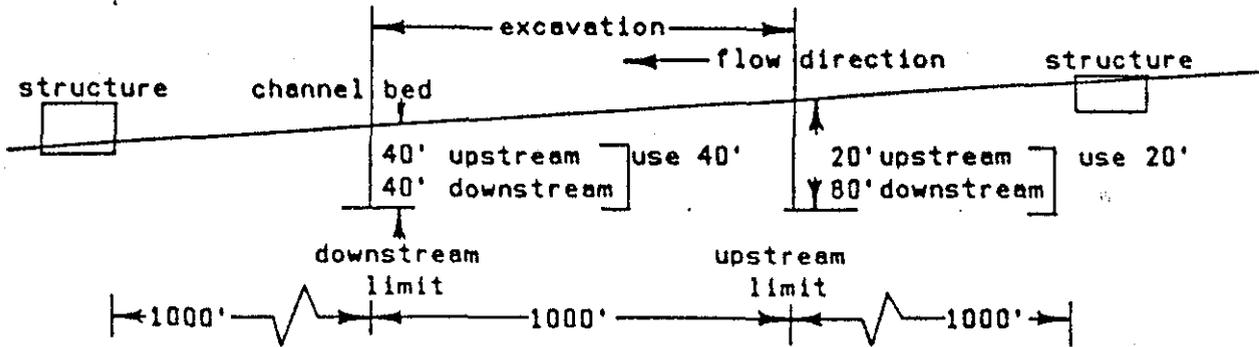
11. A narrative report should be included with a site plan addressing items 4, 9, and 10.

12. The site plan should include the following: location of excavation, north point and scale, location of plant, office, crusher, haulroads, stockpiles, fencing, equipment yards, maintenance facilities, sewage systems, fuel tanks, water supply, other equipment and structures, scales, settling ponds, bag plant, hot mix plant, etc. Permanent structures in the fringe district must either be elevated, floodproofed or not subject to any significant flood damage. Nonresidential travel trailers may be permitted within the Floodway (except within defined channels) and Fringe districts as an office provided they are self contained and readily removeable.

13. Is the operation in an area that is known to be in long term aggradation or degradation? Is there a possibility of headcutting outside of the operation boundaries? (Would not apply for those excavations protected by levees but is a strong likelihood in all operations subject to flooding).

14. The following standards will be used to determine the maximum depth and slope configuration of excavation for the Agua Fria, Gila and Salt River floodways:

A. The maximum depth is a function of the proximity to existing structures upstream and downstream.



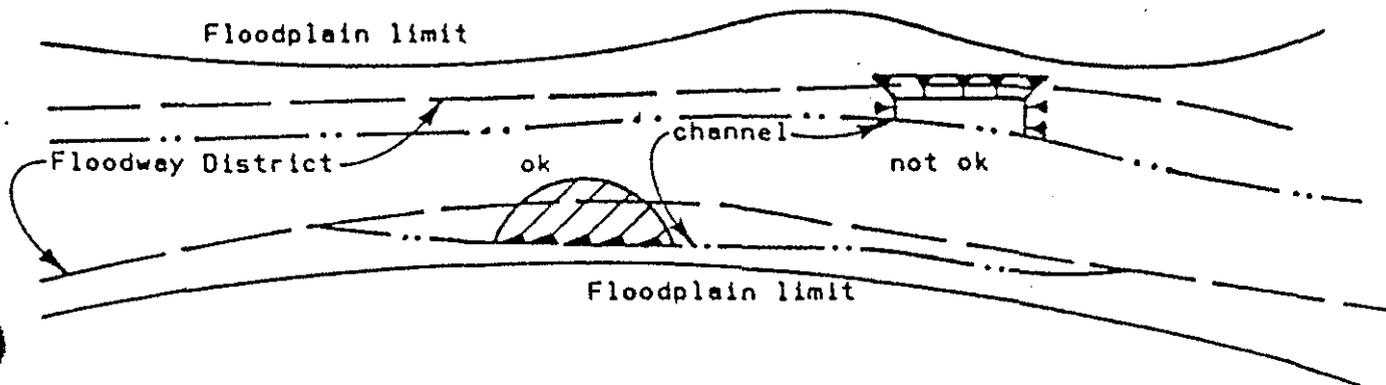
Structures include bridges, roadways, transmission towers, pipelines, buildings, etc.

The maximum depth below existing channel grade is 2 feet for every 100 feet measured upstream from the upstream limit of excavation to the nearest structure and 4 feet for every 100 feet measured downstream from the downstream limit of excavation. In cases involving both upstream and downstream structures, the more limiting depth will prevail.

B. The maximum depth of excavation shall not exceed 40' without a sediment transport analysis prepared by a registered engineer concluding the depth will not increase any hazard to existing structures or be detrimental to the fluvial stability of the watercourse. For watercourses other than the Salt, Gila and Agua Fria Rivers the maximum depth is 25 feet without such analysis.

C. Where more reliable hydraulic and sediment transport information is available that would negate the above standards, the more reliable standard will be used.

D. No excavation is permitted laterally outward from the main channel into a defined bank which would destroy the continuity of the bank.

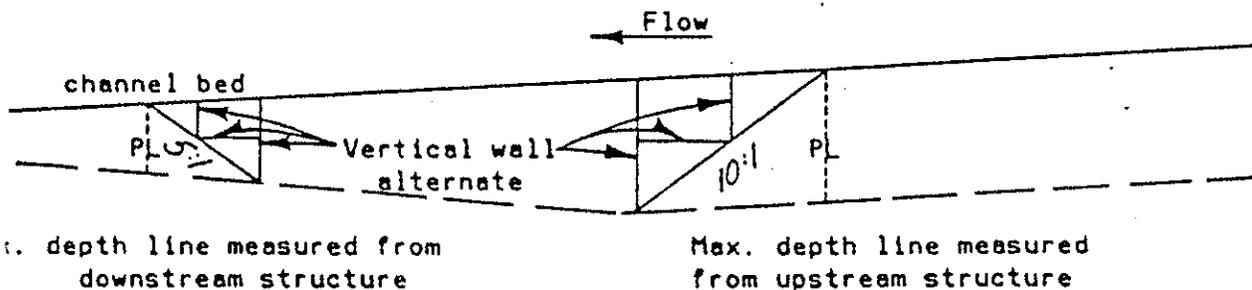


E. Side slopes should follow these standards:

- 1) The maximum slope of the upstream facing edge of excavation should be 10 horizontal to 1 vertical starting at the upstream property line.
- 2) The maximum slope of the downstream facing edge of excavation should be 5 horizontal to 1 vertical starting at the downstream property line.
- 3) The maximum slope of sides parallel to the direction of flow should be 2 horizontal to 1 vertical starting at the property line.

F. A buffer zone should be maintained between linear improvements such as roadways and buried pipelines that parallel proposed excavation. The width of the buffer should be based on such things as depth of excavation, bank configuration, historical trends in bank migration, composition of bank material, etc.

Vertical wall excavation can be permitted as long as it does not intrude below the slope lines established in 1) through 3) above.



G. The sequence of excavation exposed to any flooding should begin at the downstream property limit and proceed upstream if possible and should be areally continuous rather than leapfrog.

15. Excavation within the fringe district should use the following criteria:

- A. A protective dike or levee around excavation in the fringe district should be required whenever possible to prevent flow diversions, lateral migration and headcutting.
- B. Excavation to an unlimited depth should be permitted only if the area is protected from flow by a dike or levee.
- C. Excavation not protected by a dike or levee should be limited in depth according to the criteria in items 8 and 14 except that permissible depth will be measured from existing natural grade rather than the adjacent channel grade.

16. Material stockpiles:

- A. No material stockpiles that obstruct flow are permitted in the floodway district. Stockpiles within excavated pits in the floodway district if

limited to no higher than surrounding natural grade and stockpiles on natural "islands", ineffective flow areas and "Hydraulic shadows" may be permitted by variance in certain circumstances.

B. Stockpiles are permitted within the fringe district but should be sized and arranged so as to present a minimum of obstruction to flow.

17. Security:

A. Security fencing within the floodway district should be limited to post and three strand wire or similar open type that will not obstruct flow.

B. Trenches or windrows of material around excavation pits may be permitted within the floodway district if they do not affect flow.

C. A night watchman is permissible provided there is no residential use of the floodway district. A residential travel trailer for a night watchman is permissible within the fringe district provided it is self contained and readily transportable.

18. Consideration should be given to phasing operations on large sites so as to minimize obstructions caused by levees and stockpiles and headcutting caused by excavation by separating the development into smaller areas.

19. Backfilling and reclamation:

A. Although backfill of pits is desirable in almost every case, sometimes it is not practical and when required, sometimes is not provided. In considering maximum allowable depth, headcutting and whether protective levees should be required, assume a worst condition that no backfill is provided.

B. In general backfill of pits should be required whenever possible. Progressive backfill should be mandatory for any unprotected pits in the fringe district and for the preservation of defined channel banks and other significant hydraulic features.

C. Re-contouring of pits within the floodway district should be mandatory. No vertical walls should remain when an excavation is completed and no finished side slopes should be steeper than 2 horizontal to 1 vertical.

D. Solid, non-organic material such as reject or oversized rock; broken concrete, block and asphalt, overburden and topsoil, etc. is permitted and is the most desirable for backfilling. Organic material such as lumber, construction waste, tree limbs etc is permitted as backfill only in protected pits in the fringe district and only upon approval of the appropriate State or County Health authorities. In no case will organic material be used to backfill in the floodway district and in no case will any putrescible material be used to backfill anywhere in the floodplain.

E. In certain cases, compaction reports may be required to show that backfill material has density equal to or greater than surrounding

material. In certain cases it may be desirable to require use of larger reject rock to line and protect defined channel banks.

20. Any significant changes or modifications not shown on the approved plan must be submitted with an application to amend the Floodplain Use permit.

21. Consider a time limit for the Floodplain Use Permit and periodic review or need for status reports on the operation.

22. The applicant is responsible for obtaining any permits or zoning approval necessary from other agencies or County departments.

23. The field operation must comply with the approved site plans and narrative report. Inspections may be made on a regular basis by District staff. Stipulate that the Floodplain Administrator may require a survey by a registered engineer or surveyor of elevations, profiles, horizontal control lines, etc. if it appears there has been deviation from approved plans. Stipulate that the Floodplain Administrator may void a permit if future flooding causes a change in flow conditions making continuation of the use inappropriate.

24. Notify the applicant that he is responsible for being informed of potential flood hazards and for removal of portable structures and equipment.

25. Attach appropriate stipulations to any approval of the Floodplain Use Permit.



Arizona
State Land Department

1616 WEST ADAMS
PHOENIX, ARIZONA 85007

RECEIVED

BLM, PHOENIX DIST.
PHOENIX, ARIZONA

FEB 22 1989



7 8 9 10 11 12 1 2 3 4 5 6

J. HASSELL
STATE LAND COMMISSIONER

ROSE MOFFORD
GOVERNOR

Jack Ragsdale
Bureau of Land Management
2015 W. Deer Valley Road
Phoenix, AZ 85027

February 16, 1989

5-5-87

Subject: BLM/SLD Land Exchange - Cave Creek (Ref.#22596)
Sand and Gravel Operation

Dear Jack,

On April 27, 1988 we discussed the sand and gravel operation on Cave Creek located in T5N; R4E; Section 6. As a reminder, this is the operation that was transferred to the State of Arizona in a land exchange on 5/12/87. The operation is now under the control of the Arizona State Land Department (ASLD). It was my understanding that at that time you were to contact Mr. Russell Birdsell and confirm the exchange of control with him and look into the transfer any rents and royalties due the ASLD that had been paid to the BLM.

A number of situations have surfaced within the past year that makes it imperative that we resolve any unfinished business with regard to this exchange as soon as possible. I would appreciate any assistance in this matter and where possible, provide answers to the following questions.

Were the required bonds amounting to \$10,800 posted? *20%*

Was an application to renew made with BLM for 1988? If so, who renewed the agreement? *- NO 5/88*

Do the terms of BLM's agreement with Mr. Birdsell include installation of batch plants, asphalt plants or other commercial uses? *Right under main driveway scale - accept*

Did BLM give notice to Mr. Birdsell about the land exchange when he applied for the sales agreement? *- No*

Were any considerations given to restricting the hours of operation due to their closeness to urban areas? *- No*

How was production to be monitored and reported?

What production tonnages/cubic yards have been reported to BLM? *- NONE*

What are the total royalties paid to BLM?

\$15,400

Annual production report or annual report

ANNUAL BASIS of production by logs

.. COMMENCEMENT OF OPERATIONS

Desired start-up date is: upon approval of . (A date not to precede plan approval.)

J. OTHER RULES AND REGULATIONS

Note: Under 43 CFR 3833 all mining claims in Arizona must be filed with the Bureau of Land Management, 2400 Valley Bank Center, Phoenix, Arizona 85073. Under Arizona statute all mining claims must be recorded with the appropriate county.

The operator should be familiar with the State Mining Codes administered by the Arizona State Mine Inspector, 705 Capitol Tower, Phoenix, Arizona 85007, and regulations administered by the USDI, Mine Safety and Health Administration.

Water is a very limited resource in Arizona making it necessary to record and regulate its use. All mining claimants/operators that plan to use, store, or divert water are required under Arizona statute to file an application or Notice of Intent to drill with the Department of Water Resources prior to the use of the water source. They can be contacted by telephone at (602) 255-1554 or by letter at 99 E. Virginia, Phoenix, Arizona 85004.

K. ENCLOSURES

1. Exhibit A - Map of general area showing mining claims.
2. Exhibit B - Operations site map.

SUBMITTED BY:

Signature: Russell L. Birdsell

Date: 2-12-87

Feb. 12, 1987

A-32596

Contract for the Sale of Sand and Gravel

Location: N 1/2, SW 1/4, Sec. 6, T 5N, R 4E G+SR B+M

Seller: United States Dept. of the Interior - Bureau of Land Management

Buyer: Russell L. Birdsell

There are approximately 25 to 30 acres of floodplain land laying on the south bank of Cave Creek wash. From a number of 12 foot holes dug in 1986, gravel, sand and rock exist at 12 foot.

I would like to purchase all rocks, sand and gravel that I am able to sell. at the agreed to 1985 price of \$0.54 per yard. To commence from present date to July 1, 1991. With an estimated 400,000 yards plus. To be paid for as materials are sold.

To be paid in accordance with regulations. No Rock too large for crushing to be placed so stream bed remains in channel above bridge.

I estimate it will take the first year to process materials and establish sales. This estimate based on today's economy.

In the event of economic recession, I reserve the right to forfeit this contract without any additional pay.

Will also purchase any cacti growing on area to be mined.

Arthur E. Tower

RECEIVED
BLM, PHOENIX DIST. OFF.
PHOENIX, ARIZONA
FEB 11 1987
AM 7:18, 10:11, 12:12, 3:45, 6:16 PM

Russell L Birdsell

465-7226

P.O. Box 1908, Cave Creek, AZ

85331

SERIAL REGISTER PAGE

GEO STATE: ARIZONA SERIAL NO: AZA 22596
 CASE TYPE: 361113 NEGOTIATES SALES-ALL
 LEGAL REF: MIN MAT NEGOTIATED-ALL 7/31/1947 ACT COMMODITY: SAND AND GRAVE

 NAME ADDRESS % INTRST INTEREST
 BIRDSSELL RUSSELL L BOX 1908 100.00000 HOLDER
 CAVE CREEK, AZ 85331

 M_ TOWN RANGE SEC SUBDIVISION SURFACE MGMT AGENCY
 14 5.0N 4.0E 6 PORTION OF LOT 7 SE OF
 6 CAVE CREEK WASH

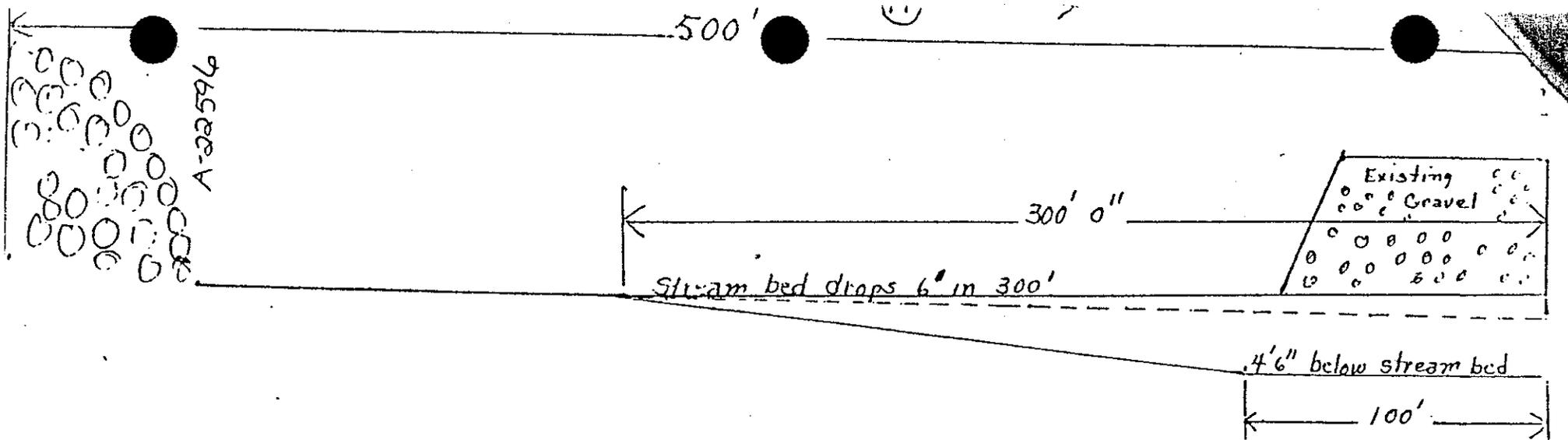
***** TOTAL ACRES: 28.000 *****

 ACTN DATE CODE ACTION ACTION REMARKS PEND ACT
 02/11/1987 124 APLN RECD SAND & GRAVEL JC
 02/17/1987 868 EFFECTIVE DATE
 05/04/1987 103 ADDTL INFO RECD COPY OF BOND
 05/05/1987 132 APPRAISAL/REAPPR APPV \$.54;/CU YD
 05/05/1987 276 PMT/LIC ISSUED 1 YEAR
 05/05/1987 507 CUBIC YARDS 100000;
 05/05/1987 509 TOTAL VALUE \$54000;
 06/12/1987 392 MONIES RECEIVED \$5400 #545588 BF
 06/12/1987 537 PRODUCED CUBIC YARDS 10000;
 06/12/1987 539 PRODUCED VALUE \$5400;
 03/08/1988 392 MONIES RECEIVED \$10000 #545799
 03/08/1988 537 PRODUCED CUBIC YARDS 50000;
 03/08/1988 539 PRODUCED VALUE \$27000;
 05/05/1988 234 EXPIRED
 02/28/1989 970 CASE CLOSED

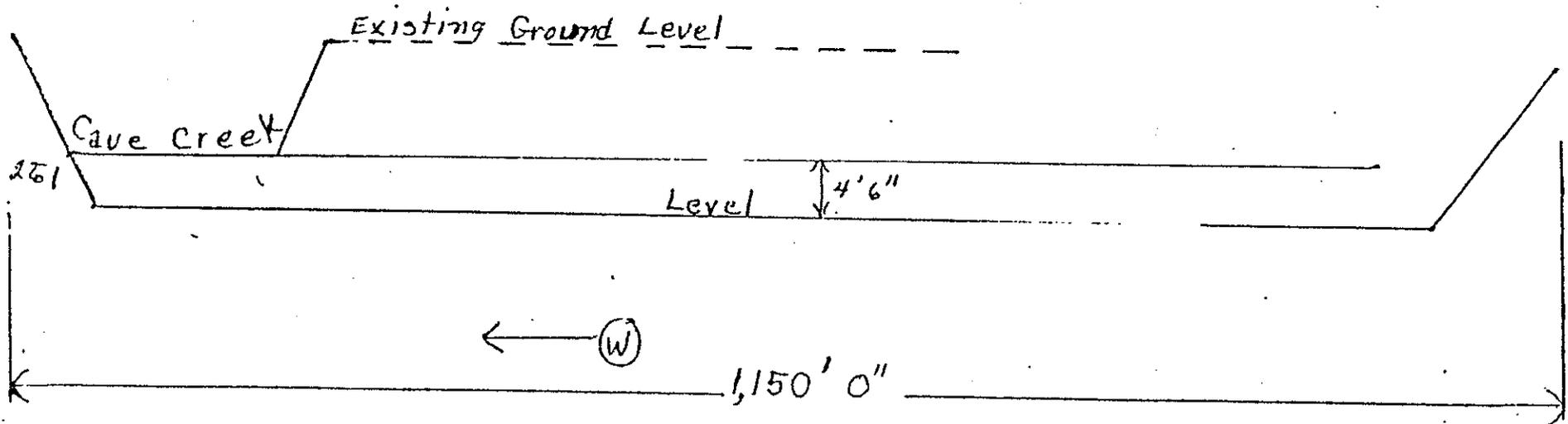
COMMENTS:

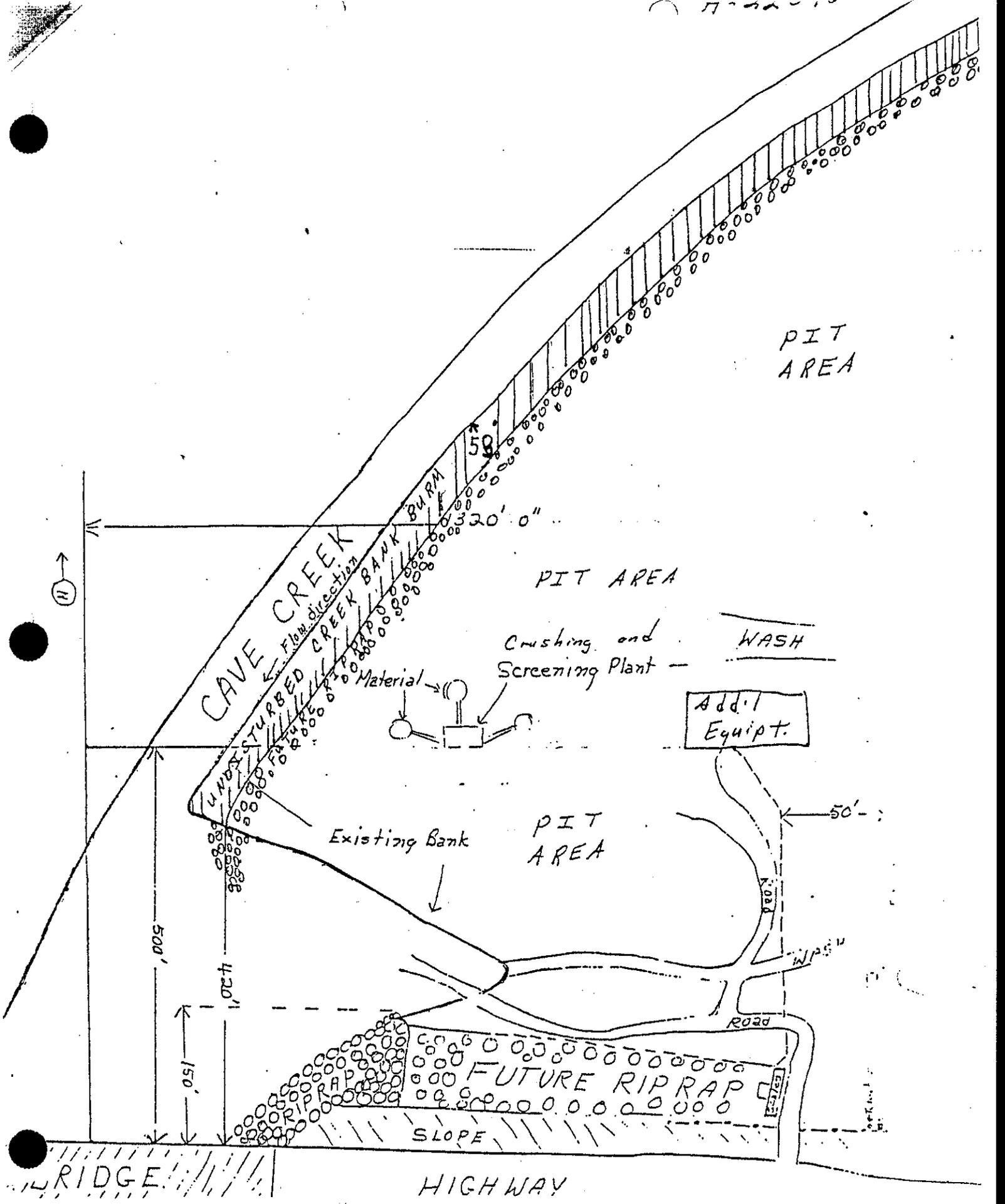
- 01 APPLICATION REQUESTED 400,000 CUBIC YARDS
- 02 \$.54 PER YARD
- 03 BONDING THROUGH MERCHANTS BONDING COMPANY FOR
- 04 \$10,800 BOND NO AZ 181474

 PAT ENTITY ACRES



Excavation 4'6" deep 500' above bridge will hold all waterflow away from highway and riprap. The excavation, being 4' deep, 100' wide & 950' Long will serve as a sediment pond for badly needed dirt to make ABC. Reclamation by backfilling with permitted material will be done if possible.





Add'l. Equip.

Crushing and Screening Plant

WASH

PIT AREA

Existing Bank

FUTURE RIPRAP

SLOPE

HIGHWAY

BRIDGE

PIT AREA

50'

320' 0"

50'

ROAD

WASH

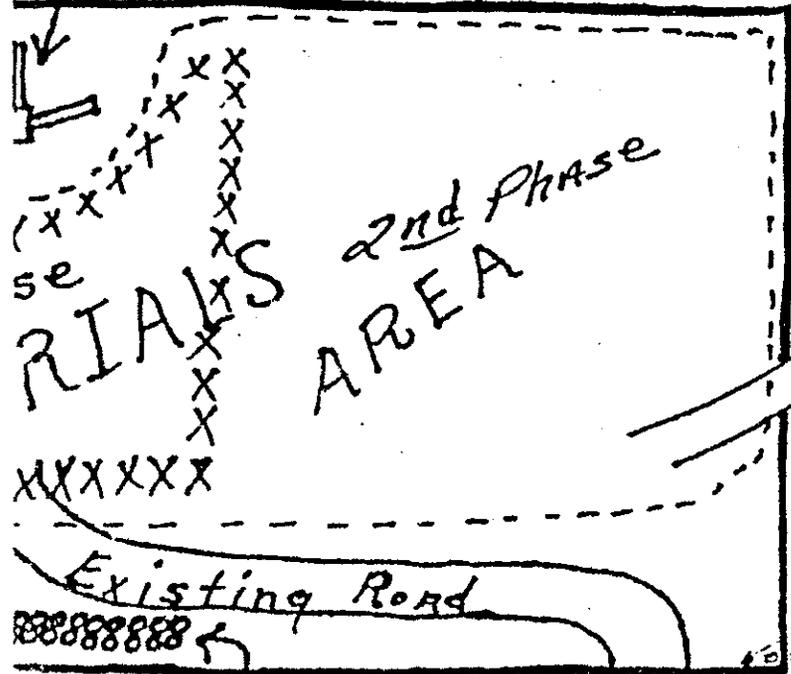
EXISTING

Phase will
Start at the CAVE Creek
by cleaning the channel out
and working easterly

REEK

Screening plant

1320'



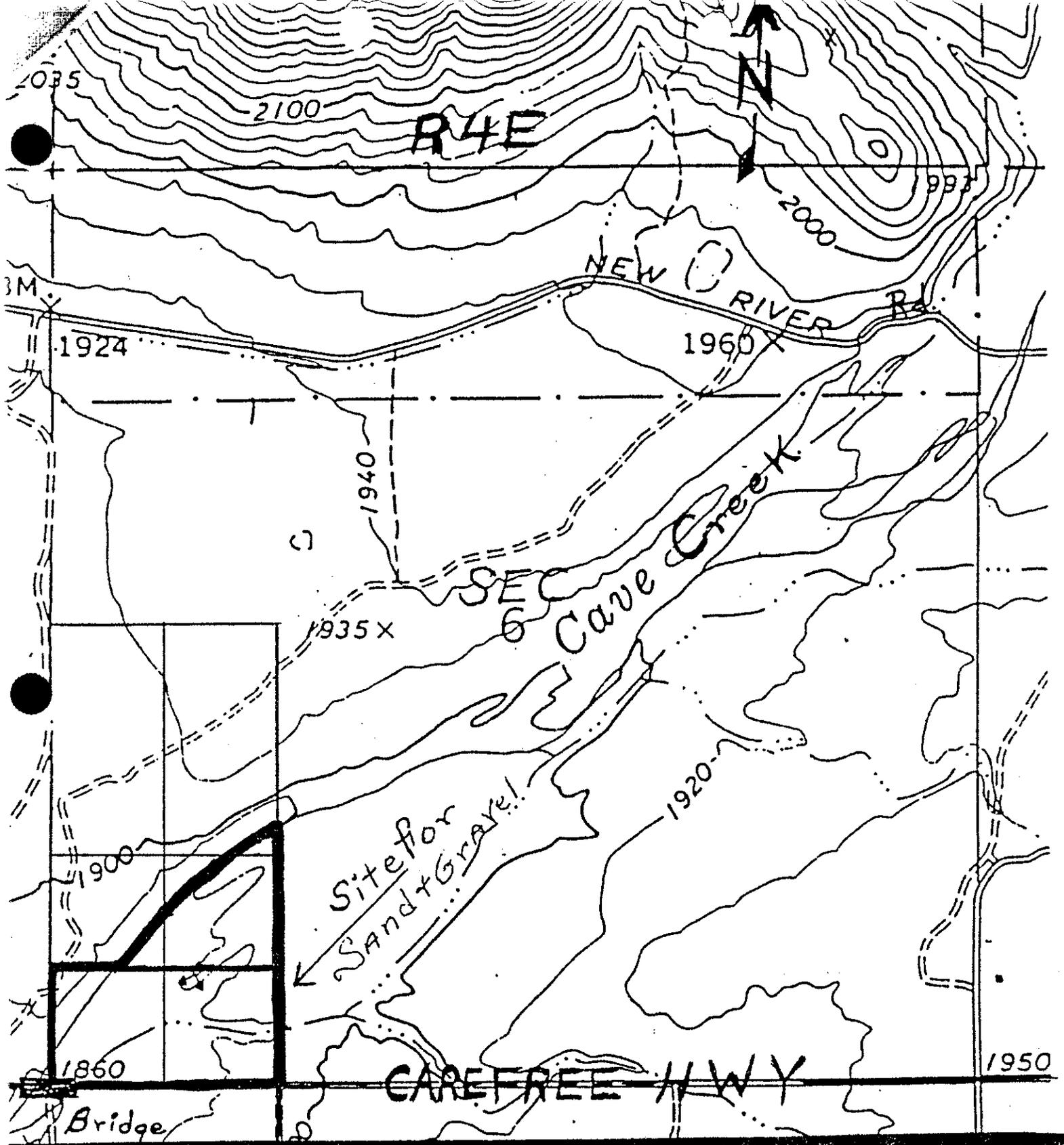
Wash

Telephone

Water

PRAP

ODE-EREE-UNIV



ARIZONA STATE
LAND DEPARTMENT



115th Avenue and Beardsley Road
Post Office Box 1340
Sun City, Arizona 85372-1340
Telephone (602) 848-8911/258-3558

'93 FEB 24 AIO:27

February 12, 1993

Mr. Gary P. Slusher, Geologist
Minerals Section
Natural Resources Division
Arizona State Land Department

RE: Restoration (Cave Creek Pit, Permit NO. 73-22596)

Dear Mr. Slusher:

Enclosed for you is a copy of our restoration plan for the Cave Creek Pit on Carefree Highway. This plan and timeframe is in draft form and is open to changes or suggestions that you may have.

I have contacted Mr. Bill Peck with Union Rock regarding moving their batch plant. He assures me that they will be fully cooperative in moving their equipment.

My apologies to you in your difficulty reaching me recently. Please let me know of any changes to be made or suggestions you might have regarding restoration. I can be reached at (602)566-3000 (Office) or (602)251-7888 (Pager)

Sincerely,

Larry Walker
Sun State Rock & Materials Corp.



115th Avenue and Beardsley Road
Post Office Box 1340
Sun City, Arizona 85372-1340
Telephone (602) 848-8911/258-3558

February 12, 1993

RESTORATION PLAN

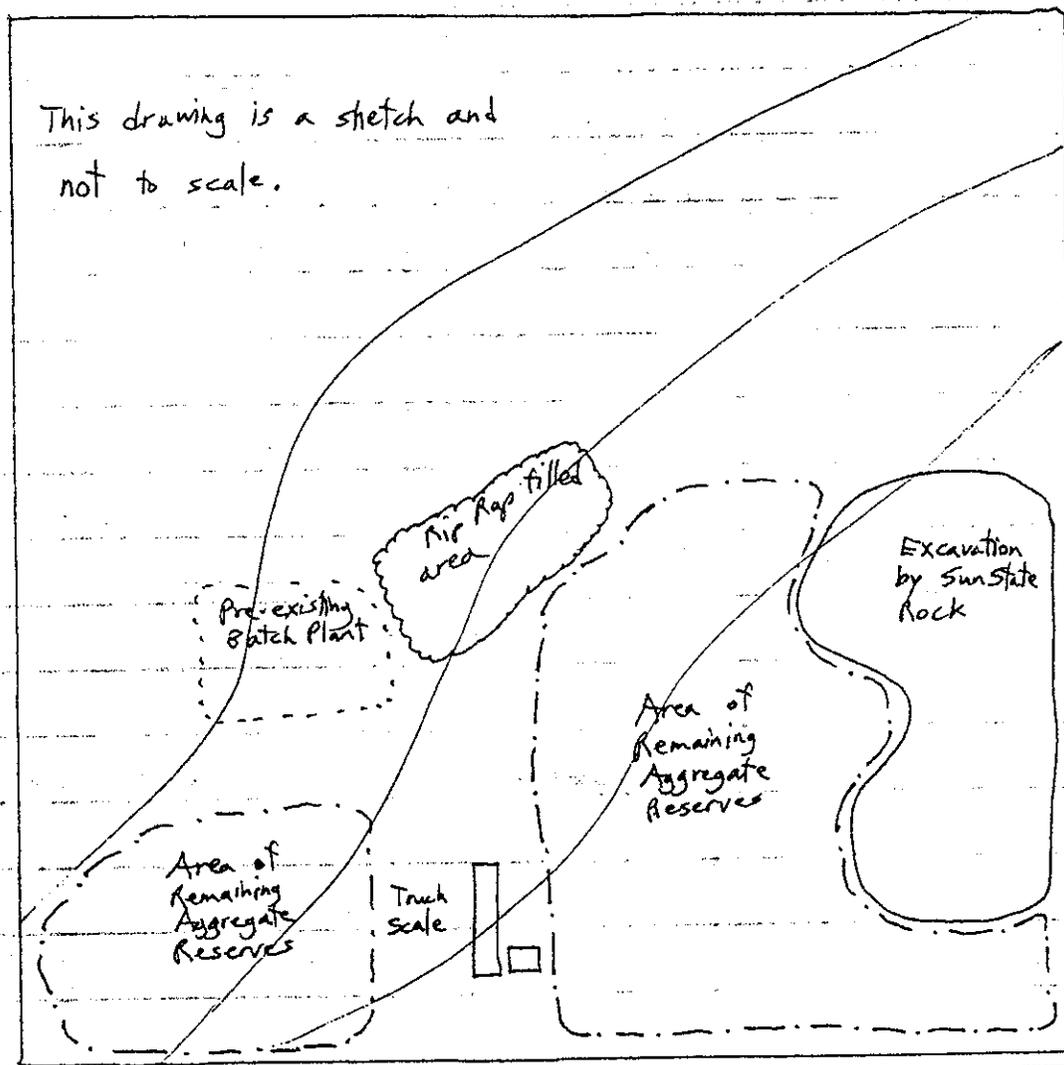
(CAVE CREEK PIT, PERMIT) NO. 73-22596

- SLOPING:** Any vertical pit walls left due to excavation will be dozed and graded to a gradual slope. This will lessen the chance of personal injury and liability, as well as reduce erosion and improve the esthetics of the site.
- CONTOURING:** The pit walls will be graded and contoured to as natural a state as possible so as to improve the appearance of the property.
- DRAINAGES:** The natural drainages from the east side of the property (with the exception of the main wash to the north) will be sloped and/or rip rapped as possible to minimize up-stream erosion and sediment transport.
- STOCKPILES:** Any stockpiled material produced by Sun State will be knocked down or used as cover material as appropriate.
- EQUIPMENT REMOVAL:** All equipment and or improvements placed on the site by either Sun State Rock or Union Rock will removed from the property.
- REVEGETATION:** Sloped areas of the property will be ripped and/or textured to encourage natural revegetation and minimize erosion.
- TIMEFRAME:** All of the restoration work is to be completed within 90 calender days of the date of approval of this plan (including equipment removal).

Submitted February 12, 1993
SUN STATE ROCK & MATERIALS CORP.

Remaining Reserves of Aggregate
on State Trust Land, CareCreek Pit
on Carefree Highway.

Prepared by: Larry Walker, Sun State Rock & Materials Corp.
P.O. Box 1340
Sun City, AZ 85372



Based on a 15' deep average excavation, and approximately 22,000 sq. yds (about $4\frac{1}{2}$ acres), this would yield 110,000 cubic yards and at 1.8 tons/yd would yield ~~22~~ approximately 198,000 tons including oversize.



FIFE SYMINGTON
GOVERNOR

Arizona
State Land Department

1616 WEST ADAMS
PHOENIX, ARIZONA 85007



M.J. HASSELL
STATE LAND COMMISSIONER

March 8, 1994

Mr. Larry Walker
Sun State Rock & Materials Corp.
P. O. Box 1340
Sun City, Arizona 85372

CERTIFIED NO. P210053

Re: Surface Reclamation (Cave Creek Pit, No. 73-22596) T5N; R4E; Section 6

Dear Mr. Walker:

The State Land Department (Department) has been notified by the Town of Cave Creek that they are withdrawing their application to purchase the property containing the sand and gravel pit operated by Sun State at the above referenced location. As previously agreed, the Department suspended final reclamation proposed by Sun State pending the outcome of the land sale.

Inasmuch as the sale has been terminated, it is crucial that reclamation be completed in as short a timeframe as possible. Your restoration plan submitted to the Department on February 12, 1993 (copy attached) stated that all proposed work could be completed within 90 days. The Department agrees to this timeframe and requires that restoration be completed and approved by the Department no later than June 30, 1994.

Your proposed restoration plan is approved with the following amendments:

- Pit walls must be sloped to at least a 3:1 slope.
- A barbed wire fence, meeting the specifications attached, must be constructed along the east and west boundaries of the permitted area and along the southern boundary of the property and the Carefree Highway right-of-way. No gates are to be installed.

Please call so we can discuss commencement of your restoration. I can be reached at (602) 542-4628.

Sincerely,

Gary D. Slusher, Geologist
Minerals Section
Natural Resources Division

GDS:mlt
Attachment

T5N; R 4E. Sec 6

31 32
6 5

RURAL-190

302-4

CAVE CREEK

R.U.P.D.

Z80-83

RI-35

Subject

6 5
7 3

IND -

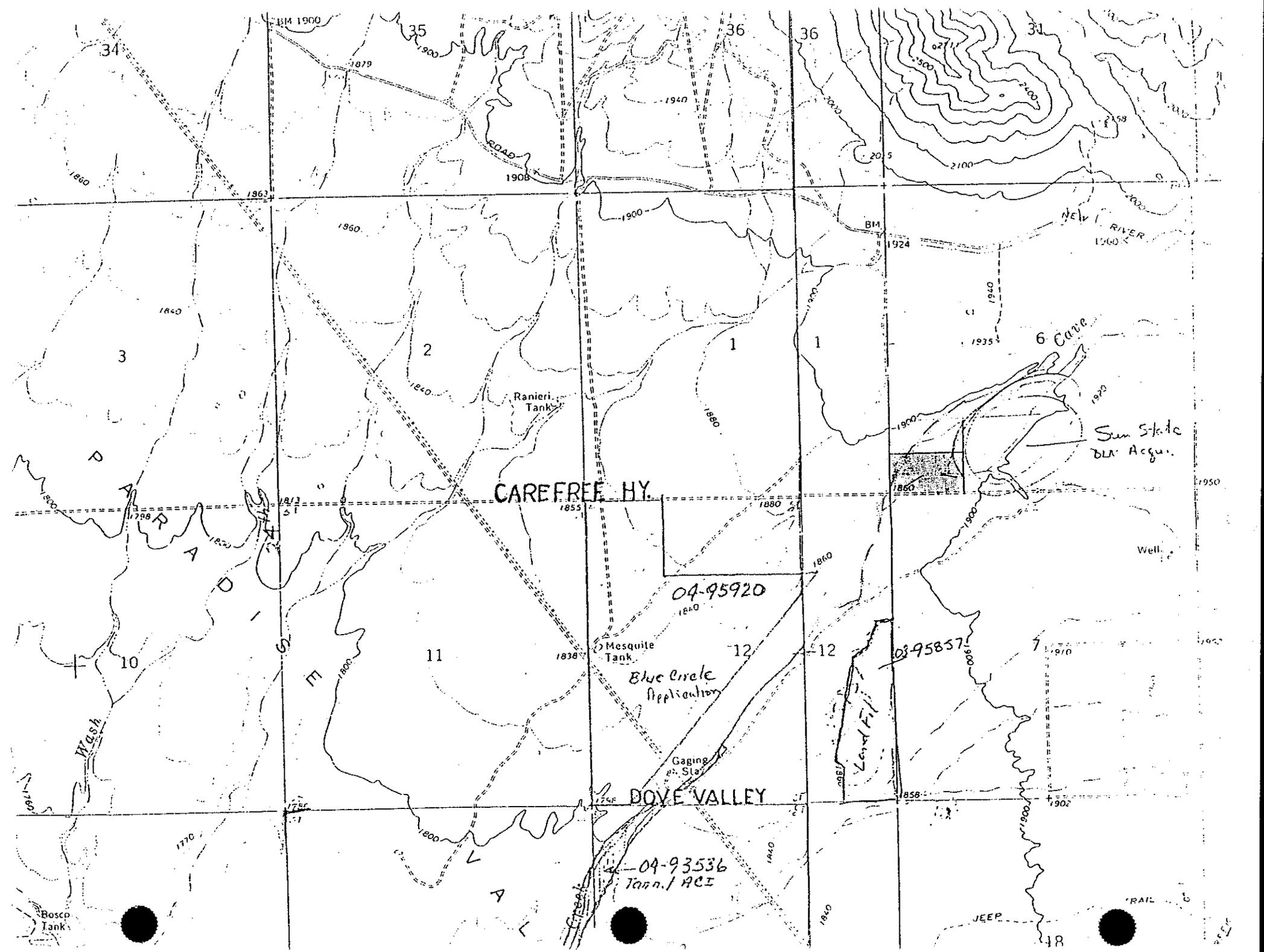
C-2
Z
28798
P.D.

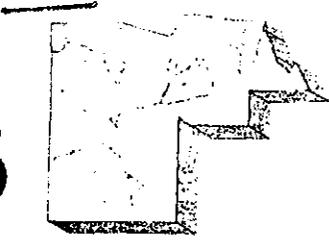
SU

MOBILE HOME
SUB

RI-35

COUNTY





FLOOD CONTROL DISTRICT

of

Maricopa County

3335 West Durango Street • Phoenix, Arizona 85009

Telephone (602) 262-1501

BOARD OF DIRECTORS

Betsy Bayless
James D. Bruner
Carole Carpenter
Tom Freestone
Ed Pastor

D. E. Sagramoso, P.E., Chief Engineer and General Manager

MAR 13 1990

Larry Walker
Sun State Rock and Materials Corp.
P.O. Box 1340
Sun City, Arizona 85372-1340

Subject: Expired FA87-056/FV91-05

Dear Mr. Walker:

This is to advise you that Floodplain Regulation Violation Case File FV91-05 has been opened as the result of expiration of Floodplain Use Permit FA87-056 which expired February 8, 1990.

You were notified of the expiration of this permit issued to Mr. Timothy Atkinson for Cave Creek Sand and Gravel north of Carefree Highway in a letter January 19, 1990.

In our letter dated February 28, 1990 we granted an extension to August 9, 1990 which we considered sufficient time for you to submit a plan of development and obtain a renewal of the expired permit.

To continue operations is in violation of Sections 502, 801, 802, 901 and 902 of the Floodplain Regulation for Maricopa County.

All operations connected with this site are to cease immediately and may not be resumed until such time as all Floodplain Regulation requirements have been met. Requirements include but are not limited to:

1. Verification of valid lease and permission to engage in sand and gravel operations from the property owner if other than yourself.
2. Submittal of a plan of development prepared by a Registered Professional Engineer and approval of such plans by the District.
3. Approval from the U. S. Army Corps of Engineers under the Section 404 Program.
4. Approval from the Arizona Department of Environmental Quality.

Page 2.
FV91-05/Walker

Enclosed is a sand and gravel operator's application guideline for your information.

Failure to comply with this lawful order may result in further legal action.

Sincerely,

D. E. Sagramoso, P.E.
Floodplain Administrator

Ronald G. Nevitt

Ron Nevitt,
Floodplain Representative

Enclosure

Copy to: Town of Cave Creek
Union Rock
U.S. Army Corps of Engineers
Arizona Dept. Environmental Quality
State Land Department
County Attorney

(continued)

This permit shall be subject to the following terms:

1. Any certificate of appropriation granted to permittee shall permit diversion of an amount of water not in excess of four acre feet per year; and,

2. Any certificate of appropriation granted to permittee shall provide that water retained by the subject Tailings Dam operated in connection with the McCabe/Gladstone Mine of Stan West shall be restricted to mining use only.

APPENDIX D

WHEELER CONSTRUCTION, INC.

04-53112

WHEELER CONSTRUCTION, INC.

1310 N. 24th Street
 Phoenix, AZ 85008
 Phone: 602-254-3179

Effective: May.30.1995
 Expire: May.29.2005
 Ann.Royalty: \$45,000
 Ann.Rent: \$17,400
 Bond: \$150,000

Commodity: Sand & Gravel
 Price per ton: \$0.60

| Month | 1998 | | 1997 | | 1996 | | 1995 | | Total Tons |
|---------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|--------------------|---------------------|
| | Tons | Royalty | Tons | Royalty | Tons | Royalty | Tons | Royalty | |
| Jan | 31,715.01 | 19,029.01 | 63,608.45 | 38,165.07 | 31,588.68 | 18,953.21 | 0 | 0.00 | 126,912.14 |
| Feb | 14,339 | 8,603.14 | 67,942.74 | 40,765.64 | 31,927.95 | 19,156.77 | 0 | 0.00 | 114,209.26 |
| Mar | 37,440.98 | 22,464.59 | 32,075.15 | 19,245.09 | 17,323.37 | 10,394.02 | 0 | 0.00 | 86,839.50 |
| Apr | 47,273 | 28,363.95 | 29,171.14 | 17,502.68 | 23,597.31 | 14,158.39 | 0 | 0.00 | 100,041.70 |
| May | 29,128.47 | 17,477.08 | 29,002.95 | 17,401.77 | 36,323.20 | 21,793.92 | 0 | 0.00 | 94,454.62 |
| Jun | 22,499.33 | 13,499.60 | 27,340.43 | 16,404.26 | 35,247.30 | 21,148.38 | 0 | 0.00 | 85,087.06 |
| Jul | | | 36,799.57 | 22,079.74 | 26,443.02 | 15,865.81 | 0 | 0.00 | 63,242.59 |
| Aug | | | 45,528.01 | 27,316.81 | 46,556.81 | 27,934.09 | 4,133.11 | 2,479.87 | 96,217.93 |
| Sep | | | 38,969.30 | 23,381.58 | 33,734.95 | 20,240.97 | 22,364.36 | 13,418.62 | 95,068.61 |
| Oct | | | 39,708.15 | 23,824.89 | 96,885.52 | 58,131.31 | 45,007.53 | 27,004.52 | 181,601.20 |
| Nov | | | 36,122.00 | 21,673.20 | 64,484.90 | 38,690.94 | 40,429.72 | 24,257.83 | 141,036.62 |
| Dec | | | 32,382.50 | 19,429.50 | 39,432.99 | 23,659.79 | 36,680.93 | 22,008.56 | 108,496.42 |
| TOTALS | 182,395.61 | \$109,437.37 | 478,650.39 | \$287,190.23 | 483,546.00 | \$290,127.60 | 148,615.65 | \$89,169.39 | 1,293,207.65 |

| Total Royalty |
|------------------|
| 76,147.28 |
| 68,525.56 |
| 52,103.70 |
| 60,025.02 |
| 56,672.77 |
| 51,052.24 |
| 37,945.55 |
| 57,730.76 |
| 57,041.17 |
| 108,960.72 |
| 84,621.97 |
| 65,097.85 |
| \$775,924.59 |

WHEELER CONSTRUCTION, INC.

1310 NORTH 24TH STREET
PHOENIX, ARIZONA 85008
(602) 254-3179
FAX (602) 254-1293



June 21, 1995

Arizona State Land Department
1616 West Adams
Phoenix, Arizona 85007

Attention: Mr. Gary Slusher
Mineral Section

96 APR 16 PM 3:07
ARIZONA
STATE LAND
DEPARTMENT

Dear Sir:

Wheeler Construction, Inc. respectfully submits, for your approval, its mining and restoration plan for State Lease No. 04-53112 (Dixileta Pit).

We have addressed those issues which are not covered under the lease agreement. As per the lease agreement, the resolution of the final restoration plan will be resolved near the end of the lease in order to accommodate future attitudes and philosophies.

Thank you for considering our plan and trust it meets with your approval. If you have any questions, please feel free to contact me at (602) 254-3179.

Sincerely,

WHEELER CONSTRUCTION, INC.

Houston Gilbert
Vice President

ARIZONA
STATE LAND
DEPARTMENT

96 APR 16 PM 3:08

APPROXIMATE @
CAVE CREEK WASH

EXISTING HAUL RD
TO CAVE CREEK RD
± 1.7 MI

PERMIT & LEASE
BOUNDARY

SEC 26

APPROXIMATE LIMIT OF
MINING ± 4-500' EACH
SIDE OF WASH @

SEC. 27

SCALE 1" = 1200'

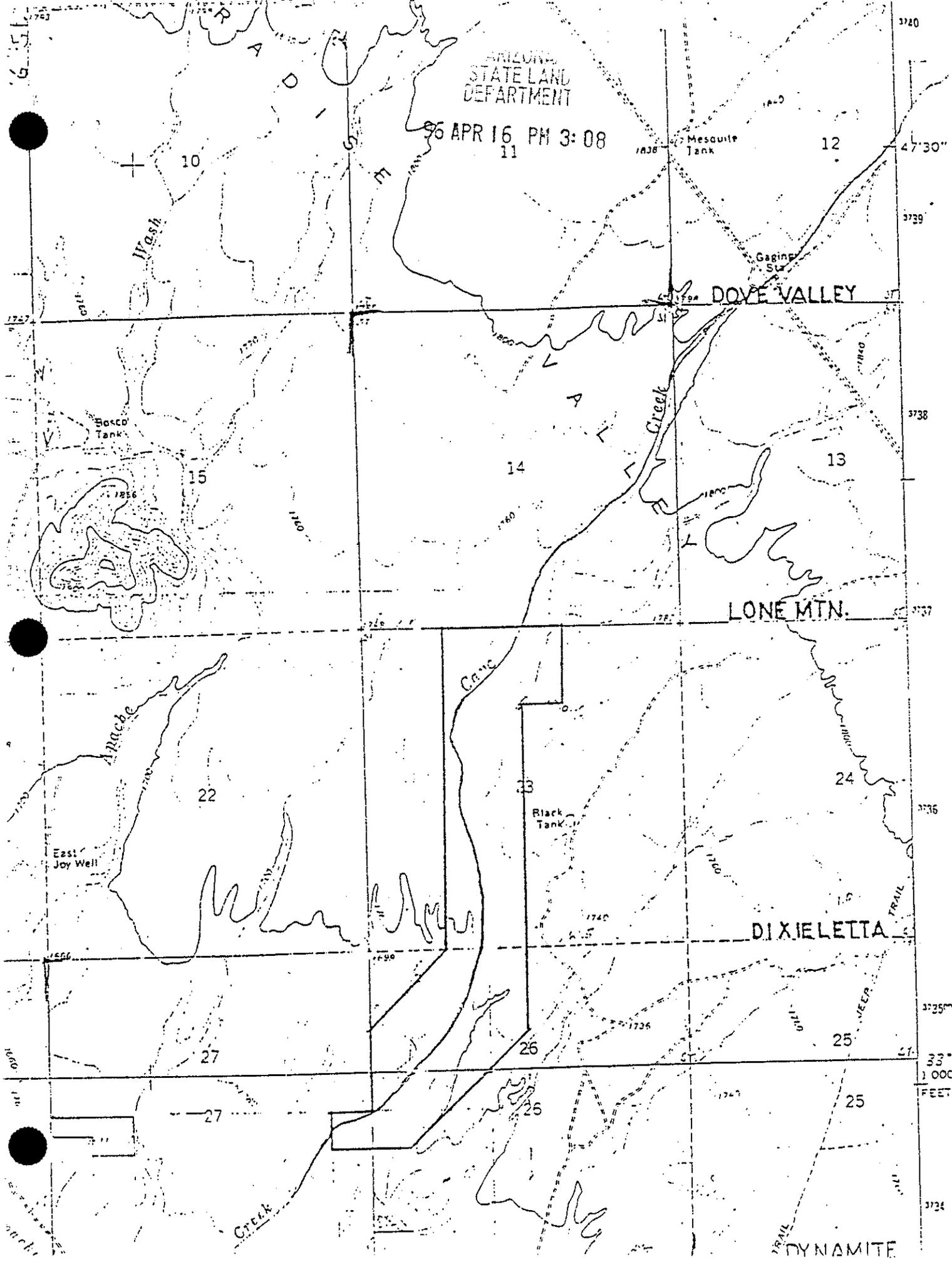
WHL

WHEELER CONSTRUCTION, INC
MINNING PLAN STATE
LEASE No 04-53112
DIXILETA PIT

PLAN VIEW 6-20-95
H.G.

ARIZONA
STATE LAND
DEPARTMENT

96 APR 16 PM 3:08
11



22 | 23
---|---
27 | 26

STATE LAND
DEPARTMENT

96 APR 16 PM 3:09

T5NR3E

ZONE 1

ZONE 2

ZONE 3

ZONE 4

PROPOSED
BATCH PLANT
SITE



--- Approximate Limit
of EXCAVATION

--- C of EXISTING Wash

SCALE 1" = 50'

ARIZONA STATE LAND DEPARTMENT
Minerals Section

ARIZONA
STATE LAND
DEPARTMENT

Plan of Operation

96 APR 16 PM 3:09

The following information must be submitted to, and approved by the Department prior to initiating exploration or mining related activities on State land. In the case of exploration permits, the plan will only be approved for a period of one year. Any change in the below described operations must first be approved by the Department.

Note: This form is intended to provide the Department with information describing only the basic components of a scope of work. A mining operation will therefore require that separate written descriptions and attachments be submitted in order to fully describe the proposal. There should be included in a mining proposal all information such as site plans, flow charts, mining boundaries, preproduction development, infrastructure, pit and bench designs, etc.

Plan evaluation and approval may require 30 to 60 days.

EXPLORATION PERMIT, MINERAL LEASE, OR MINERAL MATERIAL LEASE
NUMBER(S) 04-53112

NAME IN WHICH ISSUED Wheeler Construction, Inc.

NAME OF OPERATOR Houston Gilbert TELEPHONE (602) 254-3179

ADDRESS OF OPERATOR 1310 North 24th Street, Phoenix, Arizona 85008

NAME OF FIELD REPRESENTATIVE Houston Gilbert
(If different than operator include address and telephone)

1) LAND DESCRIPTION AND MAP

Attach as Exhibit A to this Plan a U.S.G.S. topographic map of the referenced property.

County Maricopa Township 5N Range 3E Section(s) 26 & 27

2) PERIOD OF OPERATION

The operation is proposed to begin on 07-01-95 and end on 05-30-2005. If exploration operations are proposed to exceed one year, an addendum to this plan must be filed prior to the plan expiration date.

3) ACCESS

Show on Exhibit A existing and proposed routes. Describe in detail the extent of all improved or newly constructed access. Note any locked gates and include any landmarks which will assist in locating the property.

See Attached Sketch: Access is on an existing haul road of approximately 1.7 miles from a gate off of Cave Creek Road at approximately 40th Street 1,200 feet of new haul road will be built along the Dixileta alignment (The North Boundary of Sec. 26). The gate at Cave Creek Road is a locked gate.

4) VEHICLES AND EQUIPMENT

List by type and size all vehicles and equipment which will be used in connection with the operation. Include the capacity of concentrators for placer operations. Front end loaders: 1 CY

to 12 CY, Trucks: 1 TN to 25 TN, Screens: 4' x 8' to 6' x 20',

Conveyor Belts: 30' to 140', Scales: 80' platform

5) SCOPE AND TYPE OF OPERATION

Describe the type and extent of the operation to be performed. Include the estimated area of disturbance and provide detailed information for any earth moving or site clearance operations. For placer type exploration include the amount of material to be processed from each test site, and the dimension of test sites.

Estimated area of disturbance: 100 AC

This is a Sand & Gravel operation. Little to no clearing is required

The topsoil will be stripped and stockpiled and replaced on the finish contour after the Sand & Gravel has been extracted. No further testing is required for our purposes.

We will work the area in 4 zones approximately 25 Acres each. Once work is well under way in the 2nd work zone restoration will begin in the first area and continue. (See Sketch)

10) ANTIQUITIES AND NATIVE PLANTS

If required, the applicant agrees to obtain archaeological clearance prior to the following surface disturbance:

- A. Exploration Permit: If required, all land surface affected by exploration activities including access roads.
- B. Mineral and Mineral Material Leases: Archaeological clearance must be obtained for all mineral and mineral material leases. The applicant will be directly contacted by the Arizona State Museum.

Archaeological clearance must be obtained through the Arizona State Museum.

If the destruction or removal of protected native plants is necessary to enjoy the privileges of a permit or lease, the applicant agrees to obtain written permission from the Arizona Department of Agriculture. The applicant also agrees to either salvage the plants for use in reclaiming the property or purchase the plants from the Arizona State Land Department.

APPLICANT: _____

[Handwritten Signature] 6-21-95
Signature and Date

Applicant must be the permit holder, statutory agent, have a power of attorney on file with the Department, or be a duly authorized representative of the company.

CONDITIONS OF APPROVAL: _____

Applicant agrees to abide by the methods and extent of the operations described herein. Applicant also agrees to abide by the above listed CONDITIONS OF APPROVAL.

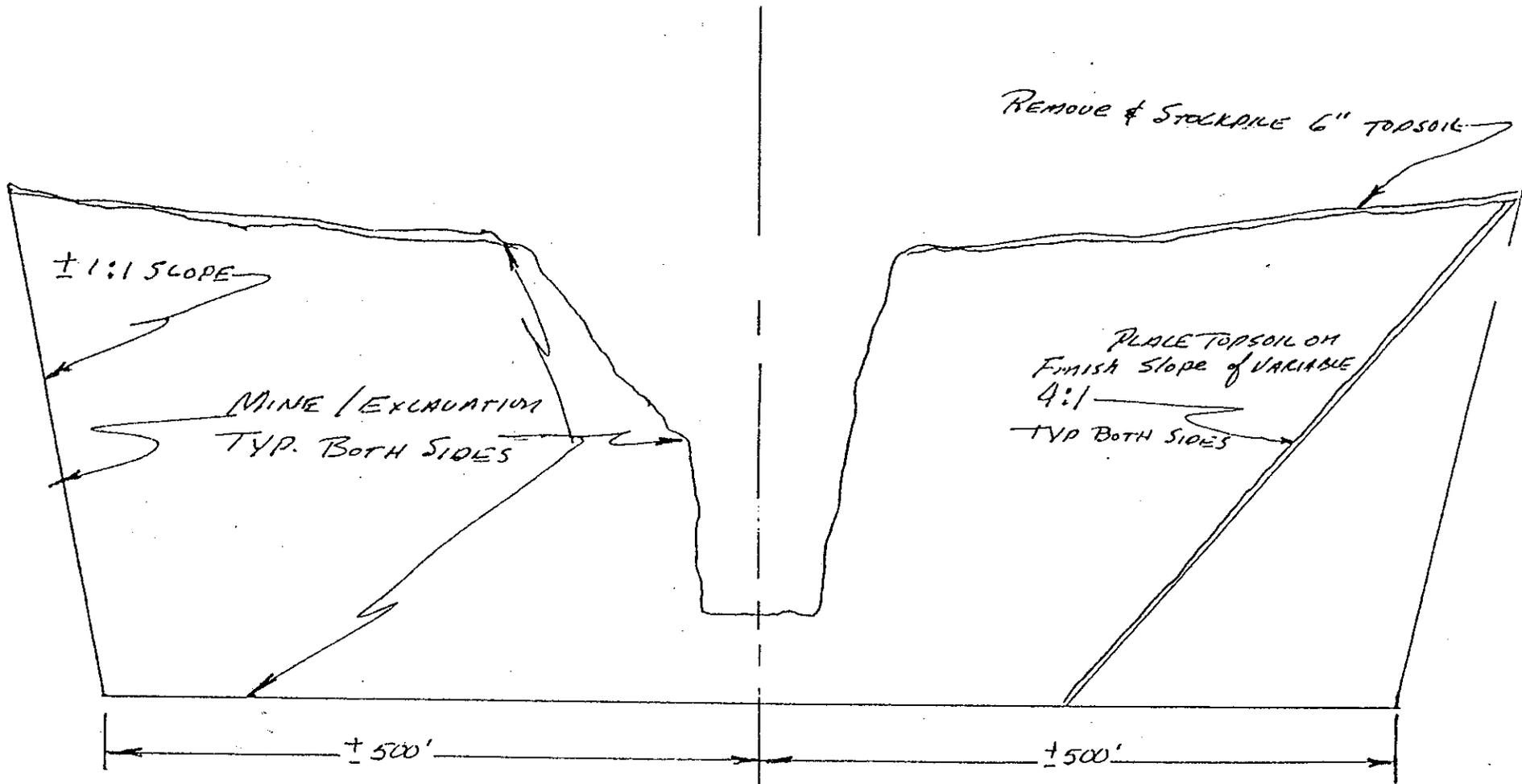
APPLICANT: _____

Signature and Date

96 APR 16 PM 3:09

ARIZONA
STATE LAND
DEPARTMENT

EXISTING WASH



NOT TO SCALE
Finish Slopes to Vary to give
A more natural look.

96 APR 16 PM 3:09

ARIZONA
STATE LAND
DEPARTMENT

WHEELER CONSTRUCTION, INC.
STATE LEASE No 04-53112
DIXILETA PIT
TYPICAL X-SEC. OF
MINING & RESTORATION PLAN

H.G.

6-20-95



FIFE SYMINGTON
GOVERNOR

Arizona
State Land Department RECEIVED

1616 WEST ADAMS
PHOENIX, ARIZONA 85007

FEB 16 1995



Wheeler Construction Inc. M.J. HASSELL
STATE LAND COMMISSIONER

NOTICE OF APPRAISAL

February 14, 1995

In the matter of Application to Purchase Mineral Materials State Trust Lands No. 04-53112, submitted by Wheeler Construction, Inc., on April 28, 1993 for 145.00 acres, more or less in Section 26 & 27, Township 5 North, Range 3 East, G&SRB&M, Maricopa County, Arizona.

You are hereby noticed that the Commissioner appraises the Sand and Gravel at \$0.60 per ton, with a minimum annual production of 75,000 tons, for a total minimum annual royalty of \$45,000.00. The yearly rental fee is \$17,400.00.

Total appraised value of the improvements is \$N/A. Improvements on the land consist of: None

Additional Conditions: See attached.

This appraisal is not a final determination of the merits of the application.

[Signature]
for STATE LAND COMMISSIONER

=====
Appeal of this appraisal must be made in writing, stating the specific grounds for the appeal, to the Arizona State Land Department Board of Appeals, 1616 West Adams, Phoenix, AZ 85007, within 30 days from the date of this Notice of Appraisal. The applicant may waive his appeal by signing and returning one copy of the following waiver, and by so doing expedites the processing of this application. Please send the signed waiver to the Arizona State Land Department, Disposition Division, at the above address.

I/We waive my/our right to appeal the appraisal of the Mineral Material Purchase in the subject application.

In the event there is no successful bidder at the public auction related to the subject application, I/we assume full responsibility for payment of all advertising and archaeological fees.

3-6-95
Date

[Signature]
Applicant

ADDITIONAL CONDITIONS TO Nº 04-53112

1. Initial access will be along the existing haul road leading to Cave Creek Highway. Access will be monitored from time to time to determine the impact on the surrounding area. If it is determined, by the Department, that conditions or circumstance dictate a change in access, the operator will have ninety (90) days with which to have a new access approved and operational as well as reclaiming the existing access as directed by the Department.

Access routes are to be surveyed. Maps and survey descriptions are to be filed with the Department. Access routes should also be shown on maps included with Plans of Operations.

2. This agreement will be subject to a full review five (5) years from its effective date. The review will give consideration to:

- Economic justifications for continuation.
- Impact on the development of surrounding trust lands.
- Comparison of benefits of competing land uses.

3. Archaeological sites are to be marked with a more durable form of marking or enclosed within a simple wire fence.
4. Operation hours are restricted to day light hours only.
5. Standard conditions - attached.

Arizona State Land Department

**GENERAL OPERATIONAL AND SURFACE RESTORATION REQUIREMENTS
FOR MINING PURPOSES**

The following general conditions and requirements will become an integral supplement to your agreement with the Arizona State Land Department (ASLD). If required or necessary, amendments, waivers, and additions to this list of conditions will be contained in the Other Provisions (Special Conditions) section of your agreement. Conditions are subject to review upon renewal or reapplication. Your restoration bond becomes your guarantee and insurance of compliance with all conditions, and requirements. Failure to adhere to these conditions is cause for cancellation of the agreement.

1. **Operating Plans:** Plans of Operation are to be submitted to and approved by the ASLD prior to the commencement of any use of the subject lands. Plans of Operations shall include an assessment of surface disturbance along with plans to restore and rehabilitate all disturbed areas. Updated Plans of Operation must be filed with the ASLD whenever the operation deviates from previously approved plans, including mining expansion.

2. **Restoration & Rehabilitation:** Prior to the occupation and use of any lands for mining purposes requires that a surface reclamation bond be posted with the department. Bonding requirements will be reviewed from time to time.

Operations shall be conducted in such a manner as to keep the opened and disturbed lands at a minimum. No more than 25% of the land shall be opened and unrestored at any one time.

Surface mined areas shall be reclaimed and rehabilitated to control erosion, eliminate hazards to the public's safety and to animals, and to assist in the development for future beneficial use.

Topsoil and overburden from the affected land shall be salvaged and stockpiled separately in a manner that replacement will utilize 100% of the materials in the final restoration. Overburden and topsoil shall be replaced as directed by the ASLD.

Rejected material shall be replaced into the extraction area and covered with overburden and topsoil, unless the ASLD declares the rejected material salvageable.

Open pit side banks and high walls shall be sloped to no less than a 4:1 slope unless an alternative slope can be justified and approved.

Access and haul roads shall be rehabilitated as directed by the ASLD.

Restoration and rehabilitation, including the removal of all stockpiles, equipment and materials, shall be completed by the permittee within 90 days of the expiration or date of cancellation.

Final restoration details must be coordinated with ASLD representatives.

3. **Environmental & Safety:** In the event materials that are toxic or hazardous nature, or any other foreign substance must be used to enjoy the occupancy of the land, a separate written agreement,



lease, or permit must be obtained from the ASLD. All such materials shall be removed from the site. Proof of cleanup, removal and disposal on such materials must be submitted to the ASLD.

All precautions necessary to protect the safety of persons, animals and subject property must be taken. Dangerous workings must be fenced.

The permittee agrees to maintain the site in a condition free of trash, rubbish or any other foreign material.

4. **Archaeological or Cultural Resources:** Where potential exists for damage or destruction of significant archaeological or cultural resource values, the applicant, lessee or purchaser shall sponsor at their expense, professional research and mitigative field work to obtain cultural resources clearance from the State Historic Preservation Office (SHPO) and the ASLD. The permittee shall satisfy the ASLD in writing that both a records check (at Arizona State Museum (ASM) and other applicable institutions) and intensive field survey have been completed by an authorized (ASM permitted) consultant.

Before any surface disturbance, earth moving, excavation, occupation or land use may commence, the ASLD and SHPO reserve the right to comment on, approve or disapprove results of field survey, consultant site significance recommendations, professional research designs, and testing/mitigation reports.

5. **Protected Plants:** Written permission must be obtained from the ASLD and Arizona Department of Agriculture to remove plants protected under the Arizona Native Plant Law.

6. **Regulations:** The permittee agrees to comply with all other rules and regulations enforced through other federal, state, county or city agencies presently in effect and prescribed from time to time by any such agency.

7. **Documentation:** A USGS Topographic Map must be submitted along with the Application and Plans of Operation showing: lease boundaries, access routes, mine workings, mineral occurrences, oil/gas wells, water wells, other water resources, riparian areas, utilities, crops, improvements, currently distributed areas, proposed mine and processing sites, residences, flood plan boundaries (defined by County Flood Control Agency), or any other feature that may be significant to the proposed land use.



E SYMINGTON
GOVERNOR

Arizona
State Land Department

1616 WEST ADAMS
PHOENIX, ARIZONA 85007



M.J. HASSELL
STATE LAND COMMISSIONER

February 14, 1995

Wheeler Construction, Inc.
1310 N. 24th Street
Phoenix, AZ 85008
Attn: AMENDED

Re: Application to Purchase Mineral Materials No. 04-53112

Dear Sirs:

Enclosed is a Vendor Registration and Federal Form W-9, one copy of the above-referenced application and one copy of the Notice of Appraisal, followed by the Waiver to Appeal. If you desire to exercise your privilege of signing the Waiver to Appeal, in the interest of expediting your application, please return the original of the waiver, signed and dated, to this office at your earliest convenience. The extra copy may be retained for your records.

If you wish to appeal the appraised value, you must do so within 30 days from the date of this letter. The appraisal is available for review at the Arizona State Land Department, 1616 West Adams Street, Phoenix, Arizona, 85007.

Applicant is responsible for rendering to the Department within 30 days from the date of this letter a check in the amount of \$2,000.00 for the estimated advertising expense. It is understood that this is only an estimate of the advertising cost. When the above requirements have been met, a public auction will be scheduled. If applicant is not the successful bidder the successful bidder shall reimburse the applicant for these costs and any other costs deemed reimbursable by the Department. The successful bidder is also responsible for paying the Selling and Administrative Fees, not to exceed 3% of the purchase price, at the time of the auction. Any additional charges will be due and payable 30 days after the date of sale.

In order to assure us that you have read and do understand these terms, please sign and date this letter and return it to our office as soon as possible.

Sincerely,

Sandy Jacobs
Sales Administrator
(602) 542-1704

SJ:dde

Enclosures

Certified No. 210445

SIGNATURE

DATE

3-6-95

ADDITIONAL CONDITIONS

04-53112 ~~04-53113~~

ACCESS

Initial access will be along the existing haul road leading to Cave Creek highway. Access will be monitored from time to time to determine the impact on the surrounding area. If it is determined, by the Department, that conditions or circumstance dictate a change in access, the operator will have ninety (90) days with which to have a new access approved and operational as well as reclaiming the existing access as directed by the Department.

Access routes are to be surveyed. Maps and survey descriptions are to be filed with the Department. Access routes should also be shown on maps included with Plans of Operations.

REASSESSMENT

This agreement will be subject to a full review five (5) years from its effective date. The review will give consideration to:

- Economic justifications for continuation
- Impact on the development of surrounding trust lands
- Comparison of benefits of competing land uses.

OTHER

Archaeological sites are to be marked with a more durable form of marking or enclosed within a simple wire fence.

6/17/94
Gordon
These are the additional conditions
that will attach to the agreement of
Wheeler Const. I would appreciate
your review before proceeding w/app.

Thanks
Dary

Hours of Operation: ~~of~~ operating
hours restricted to daylight hours.
[Signature]

PURPOSE OF APPRAISAL:

The purpose of this appraisal is to estimate the Market Value (True Value) of the subject property, as if held in fee simple, free of liens and encumbrances and under competent management, as of January 19, 1995.

LEGAL DESCRIPTION:

The subject parcel applied for comprises of Sections 23, 26 and 27, Township 5 North, Range 3 East, Gila and Salt River Baseline and Meridian, Maricopa County, Arizona. The individual portions and acreages in each section are as follows.

| | | |
|----------------|--|------------------|
| Section 23 | NENW;SENW;NESW;SESW;W2NWNE | 180± acres |
| Section 26 | SE2NWNW;NW2SESW;NENW;SWNW;NWNWSW; NW2NENWSW | 135± acres |
| Section 27 | NENESE | <u>10± acres</u> |
| TOTAL ACREAGE: | | 325± |

GENERAL PROPERTY DATA:

This property lies in and along Cave Creek and is to be utilized for mineral material extraction. The parcel is rather remote and has severe limitations due to its location and flood potential.

Developable land in better locations in this general area is commanding between \$7,000 and \$10,000 per acre, depending upon individual characteristics, as illustrated by the ASLD Mass Appraisal data. Given the conditions pertaining to the subject parcel, it is the appraisers conclusion that the value of the subject would fall considerably below this level.

Considering all relevant factors, it is the appraisers opinion that the Highest and Best Use of the subject, as of January 19, 1995 would be mineral extraction.

After weighing all data relating to the subject parcel and the surrounding area, it is the appraisers opinion that the surface value of the subject property, as of January 19, 1995 is \$1,500 per acre. This conclusion produces a total value for the subject property applied for as follows:

325 Subject Acres @ \$1,500.00 per acre = \$487,500.00

FOUR HUNDRED EIGHTY-SEVEN THOUSAND FIVE HUNDRED DOLLARS

(\$487,500.00)

WORKSHEET
MINERAL MATERIALS
Application # 04-53112-6-045

APPLICANT:

Name Wheeler Construction, Inc.
Add1 1310 North 24th Street Add2 _____
City Phoenix State AZ Zip 85008
By _____ Phone (602) 254-3179

LOCATION:

County (#7) Maricopa Map # _____ Quad. _____
T. 5N R. 3E Sec. 26 & 27 Acres 145.0
Legal Section 26: SE2NWNW; NW2SENW; NENW; SWNW; NWNWSW; NW2NENWSW
Section 27: NENESE

LEASE ACCOUNTING:

Commodity: Sand & Gravel Est. Tot. Reserves _____
Restoration Bond \$ 35,000 Archeological Cost \$ _____
Term: 10 years

| <u>ROYALTIES</u> | <u>RENTS</u> |
|--|------------------------------------|
| Production Units : tons <input checked="" type="checkbox"/> cyds. <input type="checkbox"/> | Appr. by: <u>John R. Cisco</u> |
| Minimum Production: <u>75,000</u> units | Surface Val. \$ <u>3,000</u> /acre |
| Min. Royalty Rate : \$ <u>0.70</u> /unit | Rental Rate <u>8</u> % |
| Min. Ann. Royalty : \$ <u>52,500</u> | Annual Rents \$ <u>34,800</u> |
| Royalties / Acre : \$ <u>389 310</u> | Rents / Acre \$ <u>240 120</u> |
| Tot. Min. Annual Revenues: \$ <u>62,400</u> | \$ <u>430</u> /acre |

Materials low quality

OTHER CONSIDERATIONS:

Surface Lease # _____ Lessee _____
Prior Lease # 04-80921 Lessee ACI/Tanner
04-93536
Field Exam. _____ Adj. Land Use Grazing (Future Urban Dev.)
Access Dirt Rd off Cave Land Damage Operation confined to channel
Creek Hwy
Environ. Restricted to wash, no hazardous materials, no protected plants
Special Conditions Standard conditions plus additional (attached)
Comments: Note mandatory re-evaluation in year five.

MINERAL SECT. MANGER

M. Ric

Date

8/3/94

MINERAL MATERIAL PROCESSING SHEET

I. NATURAL RESOURCES DIVISION:

EXAMINER Lucy M DATE 5-3-93 KE 04-53112-00

NAME OF APPLICANT Wheeler Construction Inc

NOTIFICATION/COMMENTS: _____

PRE-REVIEW _____

II. ENGINEERING:

REQUEST LEGAL DESCRIPTION VERIFICATION _____ (initial/date)

REQUEST TRACTBOOK LEGAL AND ACRES: _____ (initial/date)

PRELIMINARY SURVEY, MAP AND LEGAL _____ FINAL SURVEY, MAP AND LEGAL _____

PROVIDE LEGAL FOR UNLEASED LANDS: _____

HAUL ROAD Yes No

HAUL ROAD LEGAL(S) _____

LEGAL SEC. TWP. RGE. CNTY. GRANT

JUSTIFICATION FOR RECOMMENDATION/COMMENTS: _____

by _____ date _____

III. DIVISION EVALUATION AND RECOMMENDATION:

A. INFORMATION REQUEST:

TO SEC/DIV _____ (FROM) _____ (DATE) _____

REQUEST: _____

RESPONSE FROM SEC/DIV _____ (TO) _____ (DATE) _____

COMMENTS: _____

B. APPRAISAL SECTION: APPRAISAL REQUESTED _____ COMPLETED _____ (initial/date) (initial/date)

COMMENTS: _____

C. DIVISION RECOMMENDATION:

APPROVED / DENIED _____ SEC 108 7/7/94 / DIV REG 7-7-94 (initial/date) (initial/date)

PURPOSE Sand & Gravel Combined w/04-53113 under 04-5:

YEARS 10 TERM: (FROM) 5-30-95 (TO) 5-29-2005

RENTAL \$ 17,400 34,800 M.A.G. \$ 45,000 52,500 BOND \$ 35,000

ROYALTY PRODUCTION 75,000 tons MAP # _____

1/15/95 608

IV. REVIEW COMMITTEE/COMMISSIONER: (SEE BOTTOM OF PAGE)

BOARD OF APPEALS: (if required)

APPROVED / DENIED / OTHER ACTION / BOA SEC / (initial/date)

EXAMINER: VERIFIED INFORMATION IN SECTION III-C FOR RECORDS (initial/date)

VI. RECORDS SECTION: NEW OTHER

SEE ITEM III-C (DIVISION RECOMMENDATION)

OTHER INSTRUCTIONS: Order Supp

RECORDS: Kjm 8/9/95
(initial/date)

RETURN TO: /

VII. BILLING CLERK: HAND BILL COMPUTER BILL ALLOCATE RENTAL

STATEMENT FROM / TO / FOR \$ /

STATEMENT FROM / TO / FOR \$ /

REFUND (IF APPLICABLE) BILLING CLERK (initial/date)

VIII. TYPIST:

Kjm 8/9/95 TYPE LEASE CONDITIONS ATTACHED
(initial/date)

LEASE MAILED FOR SIGNATURE Kjm 8/9/95 DUE DATE 10-9-95
(initial/date)

EXAMINER: FINAL APPROVAL Kjm 8/22/95 ORIGINAL LEASE MAILED by Joseph Dilbert
(initial/date) (initial/date) 8/22/95

IX. SECTION ACTION DENIED:

TO ORDER SPECIALIST: / EXECUTE & MAIL ORDER.
(initial/date)

X. RECORDS:

OFF APP LIST new 8/22/95 APPROVED/DENIED FINAL DATES
(type) (date) (circle one)

RETURN TO: /

REVIEW COMMITTEE/COMMISSIONER

APPROVED A DENIED / REVIEW COMMITTEE AST DATE JUL 14 1994

RECLASS APPLICATION APPROVED / DENIED / DATE /

COMMISSIONER Wm B. Dilbert DATE JUL 14 1994

STATE LAND DEPARTMENT OF THE STATE OF ARIZONA
BEFORE THE STATE LAND COMMISSIONER

1
2
3 IN THE MATTER OF MINERAL)
4 MATERIAL LEASE NO. 04-53112 FOR) ORDER NO. 254-96/97
5 THE STATE LAND DESCRIBED THEREIN.)
6) NOTICE OF DEFAULT
7) AND
8) RIGHT TO HEARING
9) (LEASE VIOLATION)
10 LESSEE: WHEELER CONSTRUCTION, INC.)
11) ADMIN. DOCKET NO. 033-96/97

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NOTICE

Pursuant to A.R.S. § 37-289, notice is given that the above referenced lease is in default due to the following lease violation:

1. State Mineral Material Lease conditions provide under General Operational and Surface Restoration Requirement No. 4. as follows:

Archaeological or Cultural Resources: Where potential exists for damage or destruction of significant archaeological or cultural resource values, the applicant, lessee or purchaser shall sponsor at their expense, professional research and mitigative field work to obtain cultural resources clearance from the State Historic Preservation Office (SHPO) and the ASLD. The permittee shall satisfy the ASLD in writing that both a records check (at Arizona State Museum (ASM) and other applicable institutions) and intensive field survey have been completed by an authorized (ASM permitted) consultant.

Before any surface disturbance, earth moving, excavation, occupation or land use may commence, the ASLD and SHPO reserve the right to comment on, approve or disapprove results of field survey, consultant site significance recommendations, professional research designs, and testing/mitigation reports.

2. The lessee has violated the above lease terms by causing extensive disturbance to two known and marked archaeological sites within the boundaries of the lease.

You are advised that you have 45 days from receipt of this notice to cure any curable default as identified above.

If you wish to cure the default contact Ken Rozen of the Environmental Section at 542-2684. In the event the default is cured in the specified time frame, to the Department's satisfaction, the Notice of Default will be considered quashed.

1 Order No. 254-96/97
2 Notice of Default & Right to Hearing
3 Lease Violation
4 Admin. Docket No. 033-96/97

page 2

5 **RIGHT TO HEARING**

6 Pursuant to R12-5-202, the lessee may request a hearing in writing. A request
7 for hearing may be directed to the Administrative Procedures Manager, who will
8 schedule a hearing and notify the lessee, registered mortgagee or lienholder of the
9 date, time and location of the hearing.

10 The lessee, registered mortgagee or lienholder may appear at the hearing with
11 or without the assistance of legal counsel. If they intend to appear with the assistance
12 of legal counsel, notice shall be given in writing to the Department no later than seven
13 (7) days prior to the date set for hearing. If the lessee, registered mortgagee or
14 lienholder fails to appear, the Commissioner shall proceed to determine the matter in
15 their absence.

16 If the lessee, registered mortgagee or lienholder fails to cure the default or fails
17 to appear at the hearing, or appears and fails to demonstrate why the lease should not
18 be cancelled, the Commissioner shall make a formal cancellation order. A copy of the
19 Cancellation Order shall be mailed to the last known post-office address of the lessee
20 and registered mortgagees and lienholders.

21 The lessee, registered mortgagee or lienholder may have a right to appeal the
22 Cancellation Order pursuant to A.R.S. §12-901, et seq. If no appeal is made nor
23 foreclosure notice filed with the Land Department pursuant to A.R.S. §37-255(C), the
24 Cancellation Order shall become final and the lease shall be cancelled on the records
25 of the Department.

26 This Order is effective immediately.

27 GIVEN under my hand and the official seal of the Arizona State Land
28 Department this 15th day of November, 1996.

M. J. HASSELL
State Land Commissioner

(S E A L)

by: J Dennis Wells 11/15/96

1 Order No. 254-96/97
2 Notice of Default & Right to Hearing
3 Lease Violation
4 Admin. Docket No. 033-96/97
5
6

7 Copy of the foregoing mailed/
8 delivered this 15th day of
9 November, 1996, to:

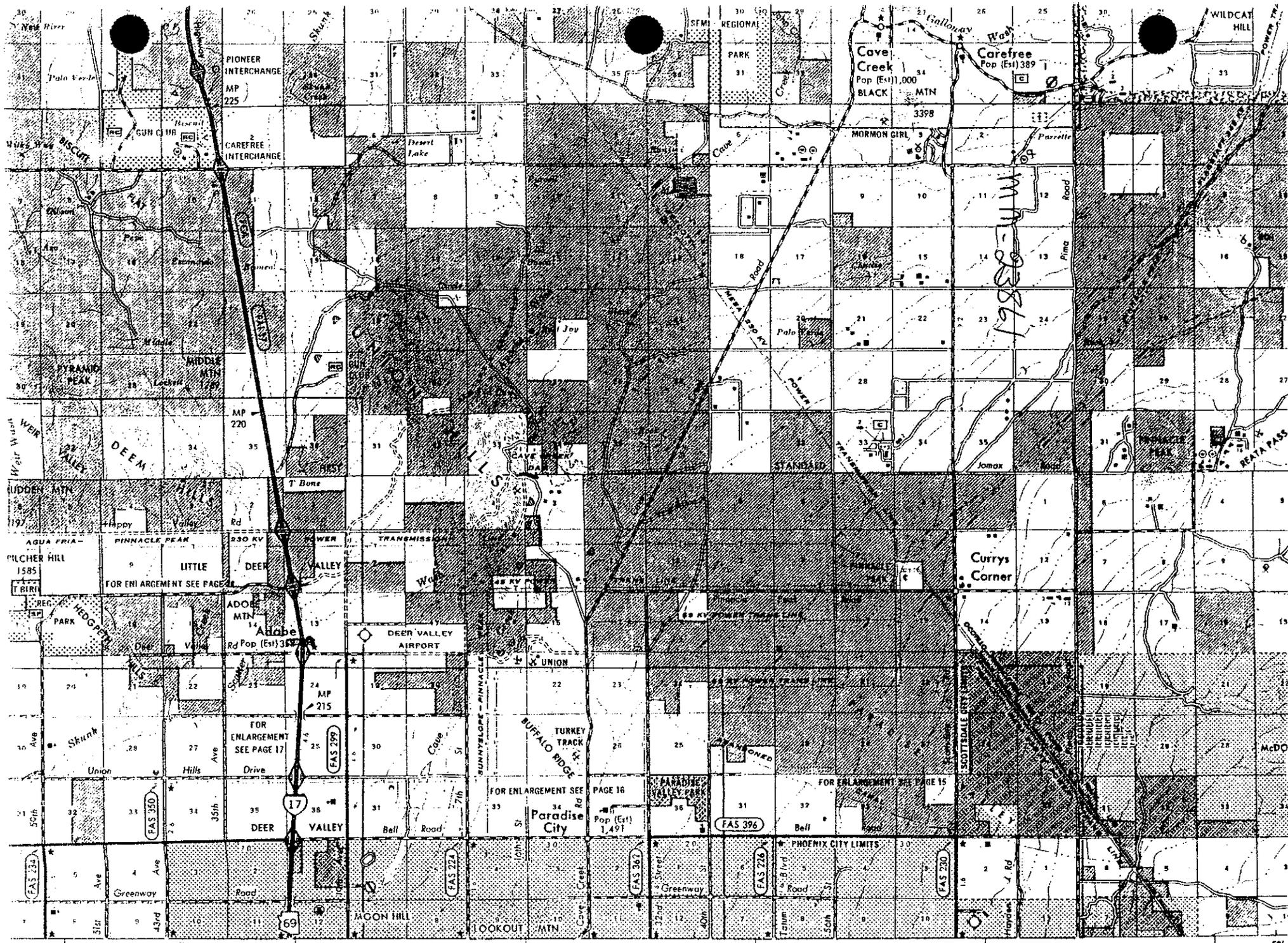
10 Certified No. 210262 Wheeler Construction, Inc.
11 1310 N. 24th Street
12 Phoenix, AZ 85008

13 Copy to: Attorney General's Office, Natural Resources Section
14 Admin. Procedures Manager
15 Natural Resource Division/Minerals Sec./ Attn: G. Slusher
16 Natural Resource Division/Environmental Sec./Attn: K. Rozen
17 Admin. Docket File No. 033-96/97
18 File No. 04-53112
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Mervyn J. Mason

APPENDIX E

D. STEFFAN



APPENDIX F

BLUE CIRCLE ATLANTIC, INC. DBA BLUE CIRCLE WEST

INSTRUCTIONS

1. This application shall cover only one section, or part thereof, which part shall consist of contiguous land.
2. This application will not be considered unless it and all supplements are fully completed.
3. Complete the supplemental application form required for the natural product to be purchased.
4. Filing fee of \$50.00 must be paid at the time this application is submitted.

ARIZONA STATE LAND DEPARTMENT

1624 West Adams
Phoenix, Arizona 85007

APPLICATION TO PURCHASE NATURAL PRODUCTS FROM STATE LANDS _____
OR
FOR EXPLORATION PERMIT THEREON

NO. 04-95920-08
SUPPLEMENT _____

1. I/We BLUE CIRCLE ATLANTIC INC. DBA. BLUE CIRCLE WEST of the STATE OF ARIZONA, MARICOPA COUNTY, Telephone No. 602 253 2505 hereby makes application to purchase SAND AND GRAVEL PRODUCTS

a natural product from the following described State lands:

| ACRES | SUBDIVISION | SECTION | TWP. | RGE. | COUNTY | Grant |
|---------------|--|-----------|-----------|-----------|-----------------|------------|
| <u>250.00</u> | <u>-NA - (See Attached T.B. Sheet)</u> | <u>12</u> | <u>5N</u> | <u>3E</u> | <u>MARICOPA</u> | <u>031</u> |

2. a) I/We am are _____ citizen of the United States. Age _____ and am/are _____ married to _____

Or, if above not applicable

- b) applicant is a corporation, incorporated in the State of ARIZONA and authorized to do business in Arizona.

Or, if above not applicable

- c) We are a partnership consisting of (name the partners and give their address) and will hold title identified as follows: _____

all of whom are citizens of the United States except _____ who is/are citizen of _____

3. Is this sale contract to be held in trust for any person, partnership or corporation other than the applicant NO? If yes, the following items a, b & c must be completed by the applicant.

- a) The name, address, age, citizenship and marital status of each of the beneficiaries, principals, or wards for whom I, _____ will hold title are: _____ (APPLICANT)

- b) The trust or other agreement under which I, _____, will hold title is identified as follows: _____

- c) The proper description by reference to book, page and document number of file to the instrument, order, decree or other writing which is of public record in the county in which the related land is located in which such matters shall appear is as follows: _____

4. The lands are _____ subject to _____ Lease No. _____ issued to _____

5. There are no mineral claims, abandoned workings, minerals, oil, gas, fertilizer or fossils upon said land except: NONE ARE KNOWN

I/We hereby certify under penalty of perjury that the statements herein, or in any supplement hereto are full, true, correct and complete to the best of my/our knowledge.

DATED: _____
BLUE CIRCLE ATLANTIC INC. DBA. BLUE CIRCLE WEST
J. J. Dewitt V.P.
LASON (APPLICANT)

FOLLOWING IS NOT TO BE FILLED IN BY APPLICANT

Received \$ _____ Date _____ By _____ Receipt No. _____
Filing Fee Refunded _____ Date _____ By _____

All following refer to Application No. _____ on the reverse
of hereof.

APPRAISAL & DETERMINATION:

The Commissioner does hereby appraise the value of the common mineral
material at \$ _____ per (ton) (yard³) (other unit _____)
and establishes the minimum annual production to be _____ units.

Dated this _____ day of _____, 19 _____

STATE LAND DEPARTMENT

STATE LAND COMMISSIONER

ORDER AUTHORIZING SALE:

The Department does hereby authorize sale of the subject common mineral
materials according to the provisions of the law in such cases made,
utilizing the values set forth above, with special conditions as follow:

Dated this _____ day of _____, 19 _____

STATE LAND DEPARTMENT

STATE LAND COMMISSIONER

ORDER REJECTING APPLICATION AND DISSOLVING SALE:

The Commissioner and the Department being fully advised, in the
premises find that it is not in the best interest of the State of
Arizona to sell the common mineral materials described in the appli-
cation on the reverse hereof.

THEREFORE IT IS ORDERED that the application is hereby denied and,
where applicable, that the proposed sale thereof is hereby dissolved.

Dated this _____ day of _____, 19 _____

STATE LAND DEPARTMENT

STATE LAND COMMISSIONER

OPERATIONAL REQUIREMENTS AND SURFACE RESTORATION OF LANDS AFFECTED BY SURFACE MATERIALS EXTRACTION

This questionnaire will become an integral supplement to your mineral material sales agreement and your restoration bond will become the sellers guarantee and insurance of compliance with the following guidelines, requirements and questionnaire.

A. Operations shall be conducted in such a manner to keep the opened and disturbed lands at a minimum. (Please answer)

- 1. No more than 25% of the affected land shall be opened and unrestored at any one time. YES NO
- 2. Topsoil from the affected land shall be stockpiled and kept separate from the other overburden. YES NO
- 3. Overburden shall be salvaged and stockpiled in a manner that replacement will utilize 100% of the existing overburden. YES NO
- 4. In the event toxic or any other foreign substance must be used to enjoy the occupancy of the land, a separate written agreement, lease, or permit will be obtained by the purchaser. YES NO

B. Surface mined areas shall be reclaimed and rehabilitated to control erosion, eliminate hazards to animals and the public's safety and to assist in the development for future beneficial use. (Please answer)

- 1. Side banks and high walls shall be sloped to no less than a 4:1 slope. YES NO
- 2. Seed and fertilizer shall be applied to the prepared surface in a manner recommended by the seller and local Soil Conservation District. YES NO
- 3. All stockpiles, equipment and materials shall be removed from the site by the buyer within 90 days after the termination date. YES NO
- 4. All toxic and other foreign materials or substance shall be removed from the site or with written permission from the seller will be isolated and entrenched with no less than 4' of cover. YES NO
- 5. Overburden shall be replaced as directed by the seller. YES NO
- 6. Rejected material shall be replaced into the extraction area and covered with overburden and topsoil unless the seller declares the rejected material salvageable. YES NO
- 7. Access and haul roads shall be rehabilitated as directed by the seller. YES NO
- 8. Restoration and rehabilitation shall be completed within 120 days of the expiration or cancellation date. YES NO
- 9. Special conditions essential to a successful operation and restoration program may be added by the seller. YES NO
- 10. The buyer agrees to maintain the site in a condition free of trash, rubbish or any other foreign material. Failure to maintain the site in this condition is cause for cancellation of the agreement. YES NO

C. (FOR A.D.O.T. USE ONLY) Continue on back of page if necessary.

- 1. Please list the estimated quantities for each project.
- 2. The minimum quantity of material removed during a single pit entry will be _____ tons.

BLUE CIRCLE ATLANTIC INC. DBA - BLUE CIRCLE WEST

Signature: [Handwritten Signature] Date 4-28-88

SUPPLEMENTAL INFORMATION
COMMON MINERAL PRODUCTS, MATERIALS AND PROPERTY

1. Term of agreement desired 20 years.
2. Subject land lies within the city or town limits of _____

County of MARICOPA

3. Have there been prior Mineral Material Leases on this land? Yes No

Lessee Name: _____ Lease No. _____

Has there been past production? Yes No

4. A. Anticipated area of surface extraction: 248 acres.
B. Anticipated maximum depth of extraction: 100' feet.
C. The land contains a deposit of approximately 28,000,000 tons (Total Reserve Tonnage)

of material.
NO ESTIMATE TILL WE DRILL

5. Purchases of the following material is anticipated: Borrow (Ton) (C. Y.)
Sub-Seal Ton. Select Ton. ABC & MA Ton.
Cover Ton. Sand & Gravel Undifferentiated 28000000 (Ton) (C. Y.)
Other Material (Ton) (C. Y.)

Annually for a period of _____ Type _____ years or
 during the term of the agreement.

6. The following processing will be done at the site: CRUSHING, WASHING, SCREENING
A. The emplacement of the following permanent improvements will be required:
WATER WELL ONLY
B. The following improvements are presently existing as indicated: NONE

7. What is the purpose or intended use of the material? RESALE AND FOR THE MFG. OF
READY MIX CONCRETE

What effects will this operation have on the environmental aspects of the area? Explain
WITH PROPER OPERATION, NONE

9. How will the extraction affect the present surface drainage in the surrounding area?
NO

8. Attached is either a plat or aerial photograph to scale showing the boundaries of the land
SEE ATTACHED
the boundaries of the land to be excavated, all existing improvements, proposed routes of ingress and egress, and existing test-hole locations. Available test hole logs shall be attached.

58-74 (SEE OTHER SIDE) WE DO NOT WANT TO DRILL TILL APPRACTION IS
APPROVED - ALSO COMMERCIAL LEASE HAS BEEN APPROVED FOR PLANT SITE.

04-95920

BLUE CIRCLE WEST

SEC. 12

TWP 5N
RGE. 3E

Sketch To Accompany Application
for
State Land to be Used as a
SAND + GRAVEL MINING SITE
(Cave Creek)

3" HP Gas Line South Side HRWY

PLANT
SITE

N.E. EXCEPTION

R. 3E
R. 4E

Scale: 1" = 1000'

Proposed Mining Area

Some Mining Channel

278 ACRES

TO MINING

MARICOPA COUNTY LAND FILE

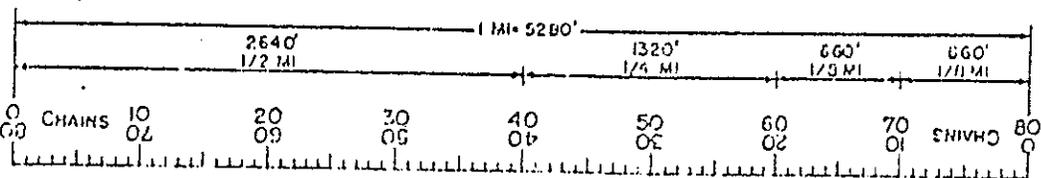
North, 290'
E. 1/4 Cor, Sec. 12

East, 240'
North, 295'
N. 67° 58' 50" E
153.69'

ARCHAEOLOGICAL AREA

East, 133.67'
South, 355.00'

S.E. Cor. Sec. 12
T. 5N.



1 MILE =
5280 FEET
80 CHAINS
320 RODS
1760 YARDS
1609.3 METERS

1 1/2 FEET
1 = 66 FEET
= 43560 SQ. FT.

FEET 1000 2000 3000 4000 5000 6000 7000 8000

APPENDIX G

MARICOPA COUNTY HIGHWAY DEPARTMENT

| | | | | |
|--|--|-------------------|--------------------|--|
| Legal Reference Free Use Permit (Construction & Maintenance of county roads) | МЕРКАТ МОИТОА Act of 7/31/1947 | File Code 3600 | Serial Number A | DATE OF ACTION МОИТОА 30 37AC 7530 |
| Name and Mailing Address Maricopa County Highway Department 111 S. Third Avenue Phoenix, Arizona 85003 | | | | |
| Description of Land 013-Maricopa County 02-Phoenix District <u>T. 5 N., R. 4 E.</u> Sec. 5, Sec. 6, lot 7. | | | | |
| DATE OF ACTION | ACTION TAKEN | | | |
| Apr. 5, 1973 APR 6 1973 May 29, 1973 Dec. 12, 1975 MAY 30 1978 JUN 3 1978 JUN 20 1978 JUL 2 1979 | Application filed. Case file transmitted to District District Manager issues permit; to expire May 30, 1978. Case file transmitted to the district office; to be re- tained there. EXPIRED - CLOSED Case file rec'd Case file transmitted to District Case file received FRC DENVER Acc. #.. 81-0206 Agency Box #.. 101 Location #... 328 Geop: 049 | | | |

APPENDIX H

MARICOPA COUNTY HIGHWAY DEPARTMENT

| Legal Reference | File Code | Serial Number |
|--|---|---------------------|
| Free Use Permit | 3600 | A 11004 |
| Name and Mailing Address | | |
| Maricopa Co., Highway Dept., 111 S. 3rd Ave., Phoenix, AZ 85003 | | |
| Description of Land | | |
| T. 5 N., R. 4 E. Sec. 6, Lot 7, | 013 Maricopa County | 02 Phoenix District |
| DATE OF ACTION | ACTION TAKEN | |
| Aug. 2, 1978 June 20, 1979 JUN 27 1979 June 17, 1982 Sept. 1982 Dec. 10, 1984 | Application filed in District. District Manager approved Permit. Case file transmitted to district Permit extended to 9/19/1982. Permit Expired Case Closed | |

APPENDIX I

BIBLIOGRAPHY OF GRAVEL MINING INFORMATION FROM ASLD AND BLM

Bibliography of Gravel Mining Information from ASLD and BLM

Summary of type of data gathered

- Lessee name
- Production amounts by year
- Map showing the location of the mining
- Restoration requirements

Ross, Donald E., 1998. Appraisal report Cave Buttes Dam, Valuation Date: July 31, 1998, Location: Maricopa County, Arizona, For : Flood Control District of Maricopa County

Items from the State Land Department Files

General

McCarric, Karren, 1999. Summary of Production Amounts for Each Permit.

Slusher, Gary, 1995. Letter to Mike Phalen Regarding Cave Creek: Potential Economic Value of Mineral Materials, dated May 19, 1995.

Slusher, Gary D. 1996. Letter to Dennis Wells Regarding Overview: Sand & Gravel Interest in Cave Creek, dated May 7, 1996.

Flood Control District of Maricopa County, 1993. Floodplain Management Sand and Gravel Guidelines Summary, revision date September 3, 1993.

Flood Control District of Maricopa County, 1993. Sand and Gravel Developers Information Checklist, revision date September 3, 1993.

Flood Control District of Maricopa County, 1993. Sand & Gravel Operators Regulations and Guidelines, revision date September 3, 1993.

Tanner/AZ Crushers Permit 04-80921

Burton, James E. 1983. Letter to Hal F. Susie Regarding Application Nos. 04-80921-08, 04-80922-08, and 04-80923-08, dated June 17, 1983.

State Land Department, 1984. Material Sales Agreement, Dated December 13, 1983.

Woods, Robert M., 1991. Letter to Gary Slusher Regarding Lease #04-80921, Dixileta Lease Cancellation, Date December 30, 1991.

D. Steffan Permit 04-23861

Map showing location of purposed sand and gravel mine.

AZ Crushers Permit 04-093536

State Land Department, 1987. Material Sales Agreement, Dated June 24, 1987.

Blue Circle Atlantic Inc. Permit 04-095920

Blue Circle Atlantic Inc., 1988. Application to Purchase Natural Products from State Lands or for Exploration Permit Thereon, Date Signed April 28, 1988.

Cave Creek Sand & Rock Permit 73-22596

Birdall, Russell L., 1987. Contract for the Sale of Units of Materials, Dated Signed March 5, 1987.

Buchanan, Scott, 1985. Interim Sand and Gravel Criteria. Dated July 3, 1985.

State Land Department, 1989. Letter to Jack Ragsdale Regarding BLM/SLD Land Exchange – Cave Creek (Ref. #22596) Sand and Gravel Operation, Dated February 16, 1989.

Nevitt, Ron, 1991. Letter to Larry Walker Regarding Expired FA87-056/FV91-05, Dated March 13, 1991.

Walker, Larry, 1993. Letter to Gary P. Slusher Regarding Restoration (Cave Creek Pit, Permit No. 73-22596), Dated February 12, 1993.

Slusher, Gary, 1994. Letter to Larry Walker Regarding Surface Reclamation (Cave Creek Pit, No 73-22596) T5N; R4E; Section 6, dated March 8, 1994.

Various maps showing the location of the sand and gravel operation.

Wheeler Construction, Inc. Permit 04-53112

Spreadsheet showing the tons removed, royalty per month.

Gilbert, Houston, 1995. Letter to Gary Slusher Regarding Mining and Restoration Plan, dated June 21, 1995.

Gilbert, Houston, 1996. Plan of Operation, Dated April 16, 1996.

Gilbert, Houston, 1995. Notice of Appraisal, dated February 14, 1995.

Arizona State Land Department, 1992. General Operational and Surface Restoration Requirements for Mining Purposes, revised March 1992.

Jacobs, Sandy, 1995. Letter to Wheeler Construction, Inc. Regarding Application to Purchase Mineral Materials No. 04-53112, dated February 14, 1995.

State Land Department, 1996. State Land Department of the State of Arizona Before the State Land Commissioner in the Matter of Mineral Material Lease No. 04-53112 for the State Land Described Therein Lessee: Wheeler Construction, Inc. Order No. 254-96/97, Notice of Default and Right to Hearing (Lease Violation) Admin Docket No. 033-96-97, dated November 15, 1996.

Items from the Bureau of Land Management:

Bureau of Land Management, 1973. Serial Register Page, Maricopa County Highway Department, Serial Number A 7530.

Bureau of Land Management, 1978. Serial Register Page, Maricopa County Highway Department, Serial Number A 11004.



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7776 POINTE PARKWAY W, STE 290
Phoenix AZ U.S.A.
85044
Tel. 602.438.2200
Fax. 602.431.9562
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Stantec

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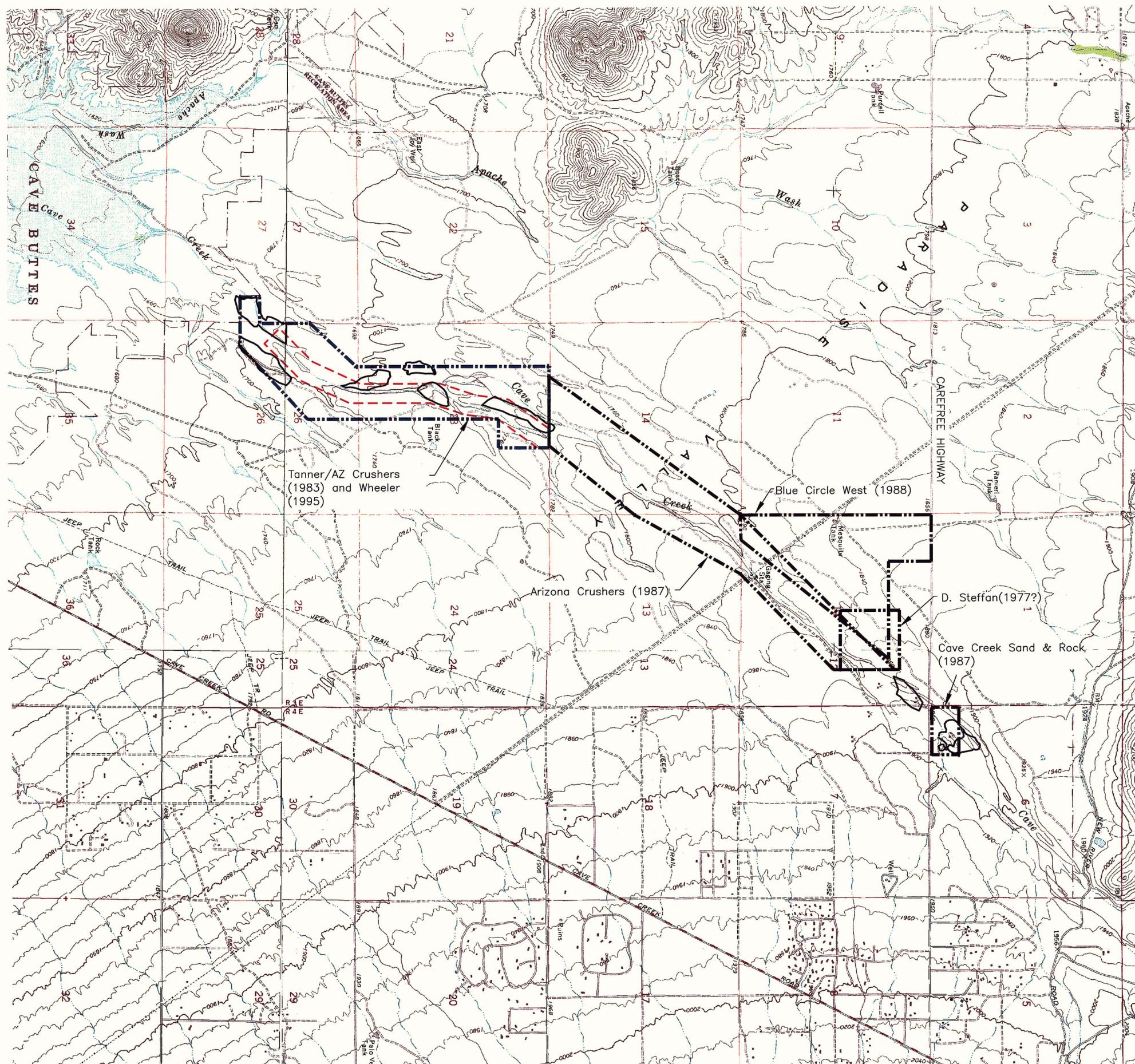
Consultants

Legend

- GRAVEL MINE LEASE BOUNDARY AND PERMIT APPLICATION DATE
- PROPOSED EXCAVATION LIMITS
- ESTIMATED EXCAVATION LIMITS

Notes

- (1) LEASE BOUNDARIES AND PROPOSED EXCAVATION LIMITS ARE APPROXIMATED FROM MINING APPLICATION RECORDS ON FILE AT THE ARIZONA STATE LAND DEPARTMENT.
- (2) EXCATATION LIMITS ARE ESTIMATED FROM CIRCA 1984, 1987, 1991, AND 1996 AERIAL PHOTOGRAPHS.



| | | | | | |
|---|-------------|------|-------|-------|------|
| 0 | Revision | By | Appd. | Date | |
| A | Issued | By | Appd. | Date | |
| | File Name: | Dwn. | Dsgn. | Dsgn. | Date |
| | Permit/Seal | | | | |

Client/Project
FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY
CAVE CREEK AND APACHE
WASH WATERCOURSE
MASTER PLAN

Title
SAND AND GRAVEL MINING
OPERATIONS

| | |
|-------------------------|-----------------------|
| Project No. 82000077 | Scale NOT TO SCALE |
| Drawing No. A101 | Sheet 1 of 1 |
| | Revision 1 |

ORIGINAL SHEET - D P:\3000077\Drawings\gravel-10.dwg

1-7 Upper Cave Creek Watercourse Master Plan – Partnering Workshop

PARTNERING SESSION
FOR THE
UPPER CAVE CREEK WATERCOURSE
MASTER PLAN PROJECT

FINAL REPORT

Prepared By:

RH & ASSOCIATES
"Partnering Specialists"
4001 East Bell Road, #114
Phoenix, Arizona 85032
(602) 493-1947

Project # 8960407

PARTNERING SESSION FINAL REPORT

**Conducted on
June 2, 1998**

PROJECT PARTNERS

Flood Control District of Maricopa County

ASL Consulting Engineers

Stantech Consulting

Arizona State Land Department

Town of Cave Creek

Logan Simpson Design Inc.

JE Fuller Hydrology & Geomorphology, Inc.

City of Phoenix

Facilitators:

**Renee L. Hoekstra
Susanne Leckband**

PARTNERING WORKSHOP ATTENDEES
June 2, 1998

| | | PHONE | FAX |
|--|---------------------------------|----------------|----------|
| Flood Control District of Maricopa County 2801 W. Durango Phoenix, AZ 85009 | | | |
| Heidi Birch | Contract Manager | (602) 506-8126 | 506-4601 |
| Dan Carroll | Public Information Officer | (602) 506-7841 | “ |
| Pedro Carza | Engineer | (602) 506-4697 | “ |
| Al Dickie | Manager Public Works Prop. Mgt. | (602) 506-4747 | “ |
| Theresa Hoff | Environmental Planner | (602) 506-8127 | “ |
| Barbara Hummell | Contracting | (602) 506-4876 | “ |
| Dave Johnson | Reg. Division Manager | (602) 506-4705 | “ |
| Diane Johnson | Public Information Coordinator | (602) 506-4440 | “ |
| Russ Miracle | Manager Planning Department | (602) 506-2961 | “ |
| Joe Tram | Engineer | (602) 506-4607 | “ |
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WORKSHOP ATTENDEES (CONT)

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| Ray Acuna | Floodplain Manager | (602) 262-4026 | |
| Jim Mathien | Planner | (602) 262-6364 | |

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| Bob Yount | Director, Natural Resources Div. | (602) 542-4625 | 542-4668 |
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June 2, 1998

| | | PHONE | FAX |
|--|---------------------------------|----------------|------------|
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PARTNERING WORKSHOP ATTENDEES (CONT)

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| | | | |
|------------|------------------------|----------------|----------|
| Jim Minter | Deputy County Attorney | (602) 506-8541 | 506-8567 |
|------------|------------------------|----------------|----------|

EXPECTATIONS

Each member of the team was asked to share their expectations of the Partnering Workshop with each other, the list is as follows:

- Get positive tone to the project
- Insight into how other agencies view the project
- Identify, if not resolve, all the legal issues on the project
- Direction, common counterparts in other organizations
- Get all hidden agendas "on the table"
- Discuss land use issues and conflicts
- Discuss implementation issues, including but not limited to finance
- Develop a common theme we can communicate to the public
- Develop technical data before we apply solutions
- Understand wildlife corridors
- Understand existing private property entitlement
- Develop communication lines
- Why are we doing the plan? Technical and political
- Identify goals of the project

DIVERSITY

Each team member identified his or her work style. The chart below represents the number of team members who identified each trait as his or her predominant work style.

| TASK | GOAL | PROCESS | QUESTIONING |
|----------------------------|---------------------------|--------------------------|---------------------------|
| LOGICAL 4 | FLEXIBLE 5 | INFORMAL 3 | OUTSPOKEN 2 |
| DEPENDABLE 8 | CONFIDENT 0 | PATIENT 3 | CANDID 2 |

The team is represented in all areas: task, goal, process and questioning. However, the majority of team members are highly task oriented, and often like to work independently of others. They also prefer high tech communications rather than face to face discussions. Meetings may be very formal and not relaxed. The other styles will hopefully help to keep the team focused on the goals and how the team is going to accomplish those goals. A list of adjectives and behaviors for each of these styles is included for team members to refer to as we work together to be more effective. Please use this information to find ways to be an effective team player.

TASK

Adjectives:

dependable
efficient
systematic

responsible
logical
relevant

organized
clear
proficient

Behaviors

1. Freely shares information and opinions
2. Helps the team use its time and resources
3. Completes assignments and homework in a timely manner
4. Accepts responsibilities for all actions as a team member
5. Completes all assigned tasks and some not assigned
6. Provides technical training for team members as necessary
7. Prioritizes tasks efficiently
8. Pushes the team to set high quality standards
9. Offers clear and concise presentations at meetings

GOAL

Adjectives:

cooperative
conceptual
generous

flexible
open
visionary

confident
accommodating
imaginative

Behaviors

1. Establishes long term goals and clarifies objectives
2. Helps to see that the objectives fit the total organization
3. Reminds team members of the need to revisit goals and plans of action
4. Encourages team members to establish milestones as they accomplish goals
5. Pitches in and helps others as needed
6. Promotes consensus even when not in total agreement
7. Does not gossip: promotes "positive" comments
8. Is flexible to new ideas that may alter goals
9. Can share the "limelight" with all team members

PROCESS

| | | | |
|--------------------|-------------|-------------|-------------|
| Adjectives: | supportive | encouraging | relaxed |
| | tactful | helpful | friendly |
| | patient | informal | considerate |
| | spontaneous | | |

Behaviors

1. Steps in to help process problems whenever necessary
2. Listens attentively to all viewpoints
3. Helps the team to relax: jokes, laughs and discusses personal interests
4. Praises other team members for their efforts
5. Communicates enthusiasm
6. Summarizes the status of a discussion
7. Encourages participation by all team members
8. Helps team members learn about what each can contribute as a resource
9. Gives feedback- descriptive, specific and helpful

QUESTIONING

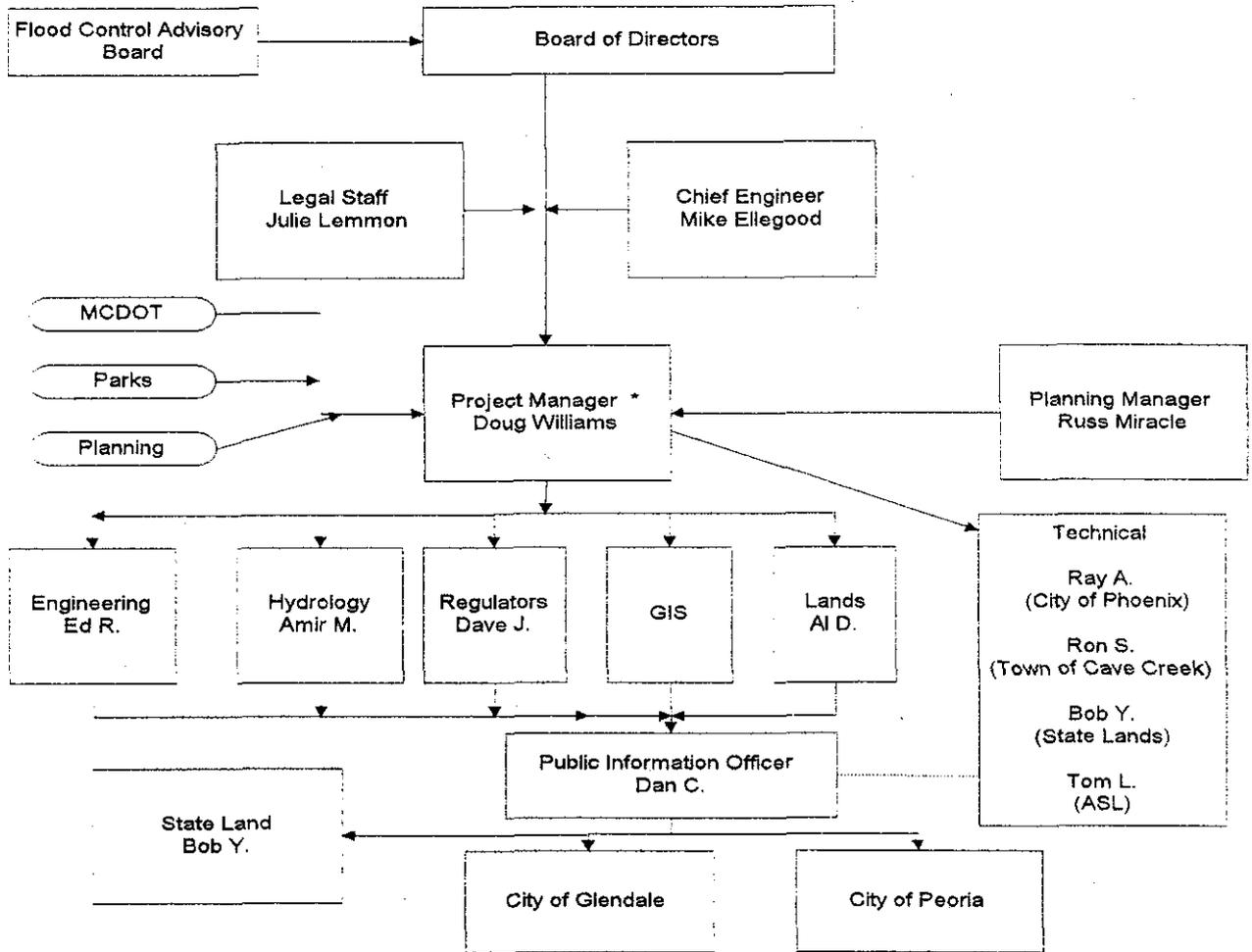
| | | | |
|--------------------|------------|-------------|-------------|
| Adjectives: | candid | ethical | questioning |
| | honest | truthful | outspoken |
| | principled | adventurous | |

Behaviors

1. Can disagree openly with other team members
2. Candidly shares views about the teams' work
3. Questions the team goals
4. Encourages the team to set high, ethical work standards
5. Challenges the team to take risks
6. Honestly reports problems and progress to the team
7. Will back off and support team consensus when necessary
8. Asks "Why?" and "How?" at team gatherings

COMMUNICATION PLANS

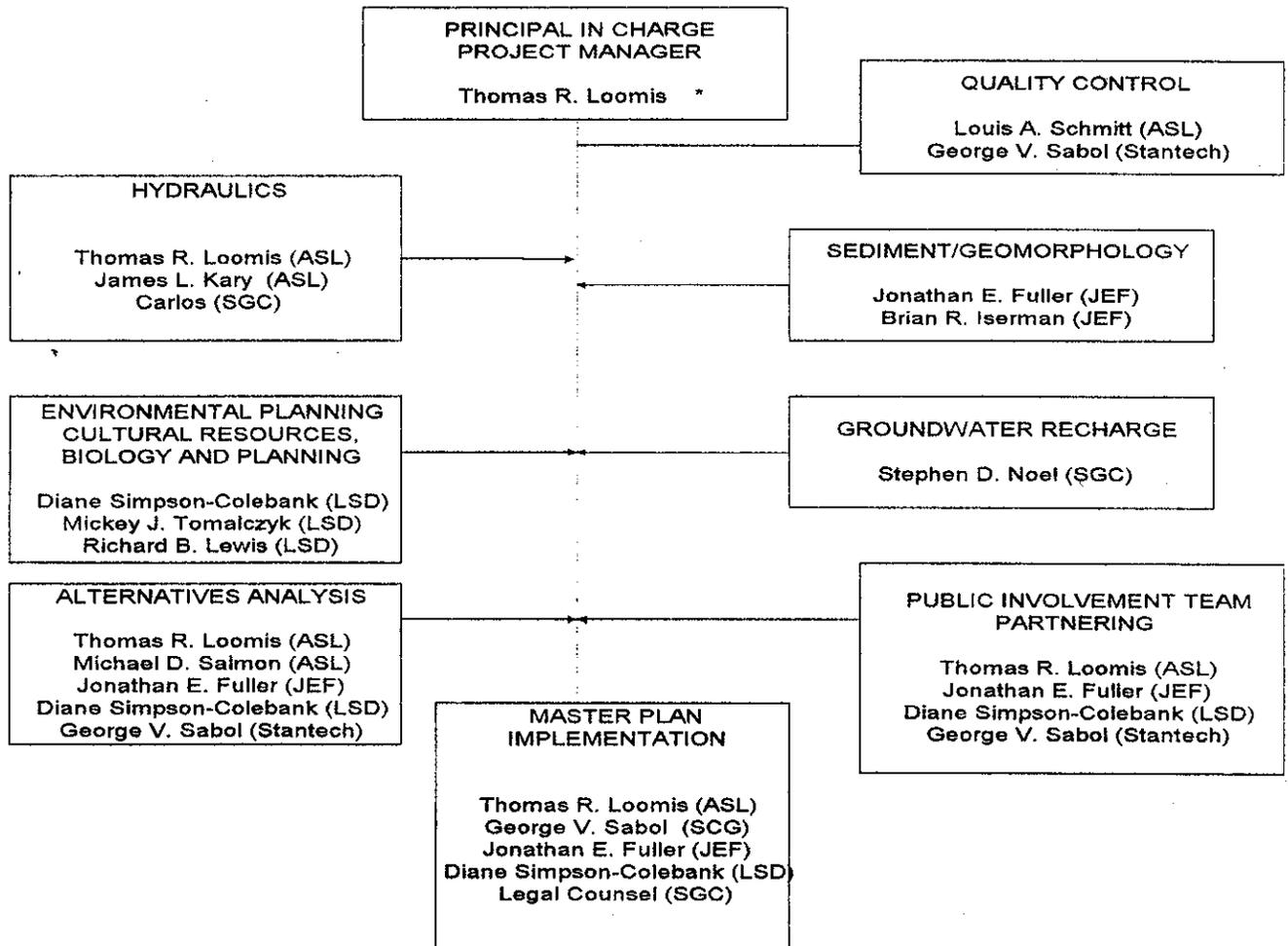
FLOOD CONTROL DISTRICT MARICOPA COUNTY



* Main point of contact

COMMUNICATION PLANS (CONT)

ASL CONSULTING ENGINEERS



ASL - ASL Consulting Engineer

Stantech - Stantech Consulting

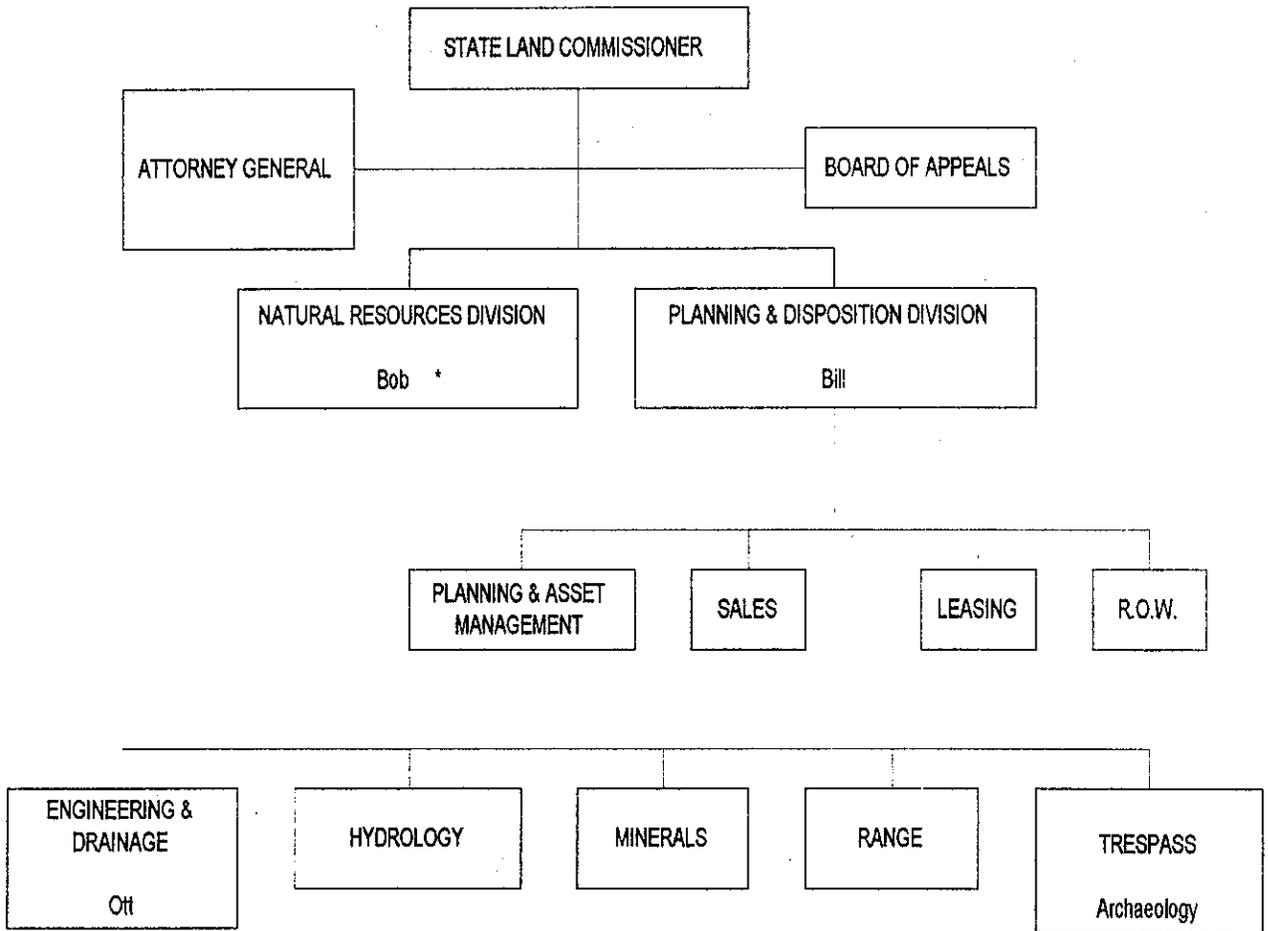
JEF - JE Fuller / Hydrology & Geomorphology, Inc.

LSD - Logan Simpson Design Inc

Southwest Ground-water Consultants, Inc.

COMMUNICATION PLANS (CONT)

ARIZONA STATE LAND DEPARTMENT



* Main Point of Contact

ROLES & RESPONSIBILITIES

Arizona State Lands

- Progress meetings
- Early drafts of ordinances to their Attorney General for review
- Manage Arizona lands for the benefit of the trustees
- Be informed of any discussions related to land use
- Review information as assembled
- Provide information to the team

Town of Cave Creek

- Part of progress meetings
- Active participation in public information
- Distribution and transfer of information
- Review information as assembled
- Provide information to the team
- Ron will act as liaison to Town Council

City of Phoenix

- Part of progress meetings
- Active participation in public information
- Distribution and transfer of information
- Review information as assembled
- Provide information to the team
- Act as financial contributor, expect to use study information to implement

Flood Control District of Maricopa County

- Coordinate draft ordinance
- Provide entry
- Key coordination point for all other county organizations
- Bring in any other agencies
- Contract administration
- Public information Hotline and Web Page monitor
- Provide technically defensible plan

ROLES & RESPONSIBILITIES (CONT)

ASL Consulting Engineers

- Prime contractor
- Overall project management
- Alternative solutions
- Manage Subcontractors

Stantech Consulting

- Supporting hydraulic
- Sedimentation hydraulics
- Implementation plan

Logan Simpson Design, Inc.

- Public involvement
- Environmental considerations
- Calendar of regularly scheduled meetings in area
 - * Provide information to keep updated

JE Fuller

- Jon is the project geomorphologist

Attorneys

- To do research as needed
- Attend meetings and review documents as clients' request
- Major role in implementation
- COE regulatory issues
 - * Only work - testing
- Reach out to COE
 - * Do they want to participate?
 - * Take second look and invite them
 - * Planning side
- Paper trail showing declined

ROLES & RESPONSIBILITIES (CONT)

Maricopa Association of Government

- Desert spaces study (Vision 2020)
- Doug will coordinate with MAG

BOR

- Invite Brace Ellis

CONSENSUS GOALS

The team developed a list of goals for the project, which all members felt they could support, that list is as follows:

- Respect of other team members and their ideas
- Encourage adjacent compatible land-use
- Maintain 100 year flood plain for flood control purposes with minimal impacts to existing environment
- Reduce reliance on public funds for flood control purposes
- Technically defensible study to support future land-use decisions
- Coordinate team efforts and contacts to engage and involve all stakeholders
- Convey accurate information in regards to the study
- Review and complete assignments in accordance with the schedule to complete by October 19, 1999
- Develop a consensus based watercourse master plan for Upper Cave Creek

MISSION STATEMENT

We, the Upper Cave Creek Watercourse Master Plan Project Team, commit to the above goals so as to represent the interests of our respective organizations.

NEEDS, CONCERNS & CHALLENGES

Each organization was asked to work together in separate breakout groups to identify any needs which could be met by one of the other organizations. Each needs analysis follows:

Group: ASL & Subconsultants

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|---|--|--------------------------------|------------------------|----------------------|--------------------|
| | | | | Y/N | Date/Time/Location |
| Need access to State land | Sediment Transport and lateral migration due 11/1/98 | State Lands | | | |
| Need access to private land | | FCDMC | | | |
| Any technical data and support information regarding sand & gravel mine operation reclamation plans | June 15, 1998 | State Lands | Ott | Y | |
| Information on new Sand & Gravel operations | June 15, 1998 | FCDMC | | | |
| List of all PAI's that each agency has | | All parties | | | |
| GIS information on previous biological data | 6/12/98 | City of Phoenix | | | |
| Land use or recreation plans or ordinances - digital files if possible | End of July | All agencies | Ray Acuna Ron Short | | |

NEEDS, CONCERNS & CHALLENGES (CONT)

ASL & Consultants (cont)

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|---|---------------------------------------|--------------------------------------|--------------------|----------------------|--------------------|
| | | | | Y/N | Date/Time/Location |
| List of institutional and legal restrictions that would affect this project | 8/1/98 | State Lands | Doug | Y | |
| Recent land appraisals or sales | 2/99 | All agencies | Doug / Al | | |
| Team meetings will be at 9:30 a.m. the first Tuesday of every month | 1 week notice needed for agenda items | All agency representatives to attend | | | |
| Without access to the upper watercourse, technical defense is jeopardized | | | | | |
| | | | | | |

NEEDS, CONCERNS & CHALLENGES

Group: State Lands

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|---|---|--------------------------------|---------------------------------|----------------------|----------------------|
| | | | | Y/N | Date/Time/Location |
| Identify lands for appropriate compensation | During implementation phase | FCDMC | Doug Williams | N | |
| Propose a meeting to identify State land processes | Either 2nd or 3rd quarter of study | State Lands | Planning & Disposition Division | Y | The Team |
| Prepared technical studies especially hydrology, hydraulics & sedimentation transport need to be reviewed at beginning of process - to reach agreement on methodology Technical tool to manage the proposed "legal" and "policy" guidelines, both short term and long term | Before initiation of identified studies | FCDMC | Doug Williams | N | If needed, as needed |

NEEDS, CONCERNS & CHALLENGES

State Lands (cont)

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|--|---|--------------------------------|--------------------|----------------------|--------------------|
| | | | | Y/N | Date/Time/Location |
| Identify short term and long term funding of waterway | Before implementation | FCDMC | Doug William | N | |
| What land ownership control is needed to implement the watercourse master plan | Before implementation | FCDMC | Doug Williams | | Only if needed |
| Study needs to look at the subsequent tributary study (Management of watershed) | After watercourse study | FCDMC | Doug Williams | | |
| Identify multiple land use issues, within & outside of watershed | During study before completion of study | FCDMC | Doug Williams | | As needed |
| Land acquisition strategy | Concurrent with study | FCDMC/COP/Cave Creek | Doug Williams | | As needed |
| Recognize technical limitations of the technical engineering models used for the study | Before study | FCDMC & consulting team | Doug Williams | | As needed |
| Our attorneys need draft ordinances to make sure proposed ordinance is compliant with state statutes and mission | | | | | |

NEEDS, CONCERNS & CHALLENGES

Group: Town of Cave Creek & City of Phoenix

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|--|---|--------------------------------|-----------------------------|----------------------|-------------------------------------|
| | | | | Y/N | Date/Time/Location |
| Information Status reports from Team to Staff * Presentation * Reports | Regularly - monthly | FCDMC Consultants | Doug Williams Tom Loomis | Y | Ron Short Ian Cordwell |
| Presentation materials for staff reports to commissions & councils | To be determined | FCDMC Consultants | Doug Williams Tom Loomis | Y | Ron Short Ian Cordwell Ray A. |
| Draft Watercourse Model Ordinance | Interim & Final | FCDMC Consultants | Doug Williams Tom Loomis | Y | Town Attorney Ray A. |
| Open House meetings | Commencement - Quarterly Kick-off, 1/4 by final | FCDMC | | Y | All of the above |
| Involve Corps of Engineers | Throughout | FCDMC Consultants | Doug Williams Tom Loomis | Y | Ray A. |

NEEDS, CONCERNS & CHALLENGES (CONT)

Group: Town of Cave Creek & City of Phoenix (Cont)

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|---|---|--------------------------------|-----------------------------|----------------------|---------------------------|
| | | | | Y/N | Date/Time/Location |
| Newsletters | Quarterly | | | N | |
| Presentation by Consultants to Planning Commission & Town Council | Periodic commencement interim & final | FCDMC Consultants | Doug Williams Tom Loomis | Y | Ron Short Ian Cordwell |
| Presentation to public committees at COP i.e., UPC & SPCAC et al. | Periodic Starting 6 months through completion | FCDMC | Doug Williams | Y | Ray A. |
| Involve known special interest groups: * Sierra Club * Center for Law & Public interest * Don't Waste Arizona * Friends of Spur Cross * Sonoran North * Desert Foothills Land Trust * Audubon Society, et al | Throughout | FCDMC Consultants | Doug Diane | Y | Ron Short Ian Cordwell |

NEEDS, CONCERNS & CHALLENGES

Group: Flood Control District of Maricopa County

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|--|----------------------------------|--------------------------------------|--|----------------------|--------------------|
| | | | | Y/N | Date/Time/Location |
| GIS coordination Phoenix State Land & Cave Creek | 2 weeks | Phoenix State Lands Cave Creek | Stantech Marlene Shields State Lands | | |
| Land Use Plans Zoning Maps (Can we get Digital?) | | Phoenix Cave Creek | | | |
| Rights of Entry Archaeology (digitized) | ASAP | State Lands | Marlene Shields | | |
| Potentially Affected Interests Groups or individuals we need to keep informed | State lands - 2 weeks to Doug | Cave Creek Phoenix State Lands | Bob | | |
| Coordinate with Phoenix on Corps of Engineer's (COE) issues, 404 permits Copy of COE scopes | | | Phoenix | | |

NEEDS, CONCERNS & CHALLENGES (CONT)

Group: Flood Control District of Maricopa County (cont)

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|---|--|--|---------------------------------------|----------------------|--------------------|
| | | | | Y/N | Date/Time/Location |
| Project Committee Agenda | Monthly Meeting Week in advance | State Lands Cave Creek City of Phoenix | Bob Ron Jim & Ray | | |
| Technical Review Team for products | When appropriate | Cave Creek Phoenix State Lands | Ott Ray Acuna cc to Phil Hughes | | |
| Legal Coordination | Ongoing | Phoenix Cave Creek State Lands | | | |
| Coordination of presentation intro to /when | | Phoenix Cave Creek State Lands | | | |
| Newspaper interviews coordination | | Cave Creek Phoenix | | | |

NEEDS, CONCERNS & CHALLENGES

Group: Legal Issues

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|---|--|--------------------------------|--|----------------------|--------------------|
| | | | | Y/N | Date/Time/Location |
| Address subsection D; possibly by IOA - work out details | By September (by vacations) | | Dan Brown (City of Phoenix) JML - FCDMC | | |
| Good technical basis needed so city can use police powers (address as health & safety issues) to implement study by ordinance or legislation Why certain set backs required Why 100 year vs. 500 years vs. 10 years? “Why it won’t/can’t be business as usual” | End of study | | Dan will be looking at draft ordinances | | |
| County P & Z has no enabling statute (vs City Charter) (Research this issue) | Need more studies -small area is county -City & town have authority? | | | | |

NEEDS, CONCERNS & CHALLENGES (CONT)

Group: Legal Issues (cont)

| Item/Need | Critical Timing | Organization Affected/Involved | Person Responsible | Coordination Meeting | |
|---|-----------------|--------------------------------|--------------------|----------------------|--------------------|
| | | | | Y/N | Date/Time/Location |
| Research zoning coordination on boundary areas (Mohave Co./Kingman, see what options are available as examples) | | | | | |
| Research drainage (u.f.p.) as a tool/study? | | | | | |
| Research and look at Pima County and their ordinances | | | | | |
| Research and look at ownership needs vs. Regulation | | | B Yount | | |

TEAM MAINTENANCE

The team discussed how it would maintain the Partnering spirit and how it would evaluate its performance relative to the set goals.

Partnering Follow-up

- ➔ The team agreed to discuss the project goals and complete a *Partnering Rating Summary* which RH & Associates will provide under separate cover.
- ➔ There will be a follow-up meeting in October on the 1st Tuesday of the month at 9:30 a.m. and every three months thereafter.
- ➔ The team agreed to discuss the team goals every quarter at one of the progress meetings. The first targeted meeting will be the 1st Tuesday in October at 9:30 a.m. and then every 3 months thereafter.

Reward Team Performance - The team is reminded about the importance of rewarding successful performance. Guidelines for rewarding successful performance include:

- ➔ Reward soon after the accomplishment - don't wait
- ➔ Be specific about what you're rewarding - set milestones to celebrate
- ➔ Be consistent - never take your team members for granted

SUMMARY EVALUATION OF THE PARTNERING RATING FORMS

The evaluation of the workshop provides an opportunity for participants to suggest ways to improve future workshops. Areas evaluated include the quality of the workshop, effectiveness of the facilitator and the process used.

Returned Forms =24

| Criteria | Excellent | Good | Satis. | Unsatis |
|---------------------------------------|-----------|------|--------|---------|
| Effectiveness of the overall program | 22% | 70% | 4% | 4% |
| Program content | 13% | 74% | 13% | |
| Presenters/Speakers | 46% | 50% | | 4% |
| Audio/Visuals | 9% | 55% | 36% | |
| Facility/Location | 4% | 38% | 50% | 8% |
| Program length | | 35% | 61% | 4% |
| The Group Working as Team | 8% | 50% | 34% | 8% |
| Effectiveness of the Workshop | 14% | 72% | 14% | |
| Adequate Number & Mix of Participants | 21% | 67% | 8% | 4% |

Were your expectations met? Yes 75% No 4% ? 21%

1. What portion of the program did you like most?

- > Agency concerns/needs/issues
- > Issue/needs from representatives of each entity
- > Summary of responsibilities
- > Sharing of issues/needs
- > Goal setting
- > Roles and responsibilities of partners
- > Listing of needs and requirements
- > Introduction, a rather novel approach
- > Duties and roles
- > Roles
- > Identification of issues and needs
- > Introductions
- > Section on needs, concerns, etc.
- > Interaction during the needs assessments

PARTNERING WORKSHOP EVALUATIONS SUMMARY (CONT)

- Seeing the agencies become more comfortable with speaking up
- Needs, concerns, challenges and assessments
- Public information
- Gets all the players together

What would you like to see changed for future programs?

- More interactive dialogue among participants
- Air conditioning
- More open communication
- Speed it up some
- Introduction as to what the day was to accomplish
- More time to discuss needs and requirements
- 4 hour limit
- Shorter
- Some of the early portions of the workshop seemed to drag
- Project overview given first, describe partnering
- It would be good to have each entity or group to develop goals separately and then share and discuss them as a group after each group comes to their own consensus
- Length
- Maybe half a day would be long enough

1-8 Upper Cave Creek Watercourse Master Plan – Public Involvement Plan

Public Involvement Plan

Initial Draft Public Involvement Plan

Upper Cave Creek Watercourse Master Plan Study

Flood Control District of Maricopa County

Maricopa County, Arizona

FCD 97-31

1. Introduction

This Public Involvement Plan has been developed in conjunction with the Upper Cave Creek Watercourse Master Plan Study. Specific milestones of the public involvement process for the Study has been developed into this Plan. The Public Involvement Plan addresses: (1) the number and types of public meetings and outreaches; (2) the use and frequency of communiques such as flyers and news releases; (3) the development of mailing lists and lists of key constituencies; and (4) the methods of gaining public input about the aspects of the study.

2. Study Purpose

The Upper Cave Creek Watercourse Master Plan will develop and identify alternative plans for providing flood control along the Upper Cave Creek. The Master Plan is a joint effort by the Flood Control District of Maricopa County and the City of Phoenix. To be successful, the Upper Cave Creek Watercourse Master Plan will need to be politically acceptable and technically sound.

3. Goals of the Public Involvement Program

The goals of the Public Involvement Program are: (1) inform stakeholders of the study; (2) to enhance understanding of the alternatives through timely and effective distribution of information; (3) to obtain input from all potentially affected interests including citizens, agencies, developers, mining operators and special interest groups regarding issues and concerns; and (4)

to coordinate this study effort with Federal, state, other county and local agencies.

1. Public Meetings

Public meetings will be conducted throughout the development of the Upper Cave Creek Watercourse Master Plan. These public meetings will consist of "open house" public information meetings, presentations to governing bodies, and individual, one-on-one meetings with special interest groups.

4.1 "Open House" Public Information Meetings

Four "open house" public information meetings will be held. These meetings will be scheduled at major milestones during the study. In general, the public information meetings will be to disseminate information to interested publics and gather input. The tentative schedule for the meetings is June 1998, November 1998, April 1999, and October 1999.

4.1.1 Meeting Purpose

The initial "open house" public meeting will be an introductory, scoping meeting to introduce the study team, explain the purpose and need for the study, and solicit comments concerns and issues related to the study. The second meeting will serve as a study update to provide the results of the initial findings of the study's research and inventory work. In addition, the initial alternatives will be presented and public input regarding the initial alternatives, their preferences, and any recommendations they may have for other alternatives will be solicited. The third meeting will be held after the draft Alternative

Analysis Report is completed to present the results of the analysis and the recommended alternative. The recommended alternative will be further refined based on input from the public as well as technical agency to arrive at a preferred alternative. A final public information meeting will be held to present the preferred alternative.

4.1.2 Meeting Location

There are several potential meeting locations in the vicinity of the study area. The study area is defined as the portion of Cave Creek from the Maricopa County Line south to Cave Buttes Dam. The locations of the following facilities are provided in Appendix A and would be acceptable meeting locations.

① Good Shepard of the Hills Episcopal Church
6502 E. Cave Creek Road
Contact - Charlene @ 488.3283
Comments: Available for June 25 meeting. Parish Hall holds 200 people. ADA Accessible. A diagram of the Parish Hall is provided in Appendix A

② Cactus Shadows High School
5802 E. Dove Valley Road
Main Office - Peggy Box @ 488.7040
Community Education - Evelyn Holbrook @ 488.1105 ext 3132
General Number 488.9816
Comments: Gymnasium and cafeteria available and will hold 100+ people. ADA Accessible. Relies on central power plant for air conditioning which is turned off during the summer.

③ Desert Sun Elementary School
33606 N. 60th St.
Contact- Jo Stewart
Nancy Shaver, Principal
488.7060
Comments: Available on June 25th. Accommodates 100+ people, ADA Accessible. Insurance information sent. A diagram of the cafeteria is provided in Appendix A.

④ Black Mountain Elementary School
33016 N. 60th St.
Contact - Louis Smith @ 488.9200
Comments: Smaller facilities than Desert Sun.

⑤ Desert Arroyo Middle School
33401 N. 56th St.
Contact - Ann Orlando or Scott
488.2620
Comments: Gymnasium and cafeteria, ADA Accessible. Air conditioning turned off in summer

The Paradise Valley Community Center at 17402 N. 40th Street (40th Street and Bell Road) and Desert Mountain Middle School north of Carefree Highway and 7th Avenue are other facilities that could be used. These two facilities are not as project convenient as the other locations.

4.1.3 Meeting Format

In general, the format for the large public meetings will be in an "open house" arrangement that allows for people to move at their own pace through the exhibits and to talk with the study team members on a one-on-one basis. These "open house" format may be modified to allow for brief presentations depending on the specific purpose of the meeting. The specific agenda, exhibit and handout material, identify presentation responsibilities and format refinement will be addressed at preview meetings three weeks (at a minimum) prior to the meetings.

4.2 Governing Bodies Presentations

Up to ten formal presentations will be made to the governing bodies of the City of Phoenix, Town of Cave Creek and Maricopa County. A calendar of regularly scheduled meetings of these governing bodies (including the City of Scottsdale) is provided in Appendix B for May and June of 1998. These calendars will be updated on a regular basis.

4.3 One-on-One Meetings

Up to 36 individual one-on-one meetings at the request of interested parties, such as civic groups, environmental groups, planning committees, homeowners' associations, etc. The meetings will be informational in nature and will attempt to gain an understanding of the concerns/issues of the potentially affected interests. The groups would include the following interests:

- Sonoran North
- Don't Waste Arizona
- Audubon Society
- Sierra Club
- The Nature Conservancy
- Citizens for Environmental Awareness League
- Desert View Village Planning Committee
- Desert Foothills Land Trust

Information on other potentially affected interests will be gathered from the City of Phoenix's recent effort on the development of the Sonoran Preserve Master Plan and Maricopa County Desert Spaces public involvement. The City of Phoenix's Public Information Office will also be contacted for possible additions to the list of potentially affected interests.

5. Potentially Affected Interest

A matrix of the key potentially affected interests and associated communication tools used in the outreach effort on the project will be developed. The purpose of the matrix is to track the outreach effort, document who got what piece of information and when, and to use it as a prompting mechanism. An example of the matrix is included in Appendix C.

6. Communiques

The Study's Public Involvement Program will develop various communiques to reiterate issues, to inform constituencies, and summarize the Study progress.

6.1 Study Identity

It is important that the information provided to the public, agencies and elected officials be consistent, accurate and at a level readily understood by the layperson. If information is provided in a visually interesting format, it is more likely to be read. A consistent format and identity has been developed for the Study once a concept is selected. The selected identity concept is provided in Appendix D

6.2 Newsletters

Four newsletters will be prepared during the study process. These communiques will discuss issues brought out at public meetings, solicit public input, provide information on the alternatives, reiterate the objectives of the study and announce upcoming meetings. The format of the newsletters will be a four color plus black 11 inch by 17 inch-folded piece.

6.3 Power Point Presentations

As part of the outreach strategy, four project presentations in PowerPoint format will be developed. Each presentation is estimated to be approximately 30 slides/frames in length. Having "canned presentation" available to the Study team and participating agency staff will be usefully in making sure consistent information is being provided to everyone. This type of format will also allow the Study information to be presented at different locations at the same time.

6.4 Hotline

To increase the opportunity for public input and response to the study, a telephone hotline has been established that will allow callers to get information on topics including the next public meeting and status of the study. These calls would be returned by the appropriate study team member, thereby giving the public another avenue for comment and input. The number for the hotline is 602-506-0750. In addition, a web site has been established for current status and information at www.fcd.maricopa.gov.

7. Public Notification

Several techniques will be employed to notify the public of the study and upcoming meetings as well as to solicit public input for the environmental documentation. Direct mail and public notices will be used throughout the project to notify the affected entities/interests.

7.1 Mailing List

As concerned public agencies and affected interests are identified during the project, they will be added to the mailing list. The mailing list will be continually update throughout the Study process. The current mailing list is provided in Appendix E. The format will allow the sorting of information by name, company, city, and zip code.

7.2 Direct Mail

Participating agencies and affected interests will receive direct mailings on the public "open house" meeting schedule and location. Anyone attending the previous "open house" meeting will receive notice of the next scheduled meeting.

7.3 Public Advertisements

Advertisements for the public "open house" meetings will be placed in the Arizona Republic, Sonoran News, and Foothills Sentinel approximately two weeks and one week prior to the meetings. The notice in the Arizona Republic will be placed only in Zone 8 (Scottsdale, Carefree, Cave Creek, Fountain Hills and Paradise Valley). Appendix F lists the newspaper contacts and submittal requirements.

7.4 Title VI/Environmental Justice Considerations

Title VI of the Civil Rights Act of 1964 and related statutes assure that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination on the basis of race, color, national origin, sex, and disability. Executive Order 12898 on Environmental Justice directs that programs, policies, and activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations. The Public

Involvement Program for the Study should ensure that these protected populations are given the opportunity to participate. Based on the 1990 Census statistics, the study area does not have a significant percentage of protected populations as compared to Maricopa County. No targeted outreach strategy will be required. A copy of the Census statistics is included in Appendix G.

8. Media Relations

Keeping the news media informed of the progress of the study is a good way to encourage public participation. Four appropriately timed news releases will be sent to the Arizona Republic, Foothills Sentinel and Sonoran News. Key members of the news media will be contacted three time during the project to make sure they are aware of the study's progress. News releases will be sent prior to the public "open house" meetings. The initial news release will explain the purpose of the study and meeting, the date, time, and location of the workshop and include contact name and phone numbers. Specific editor contacts have been identified and are listed in Appendix F. In addition to news releases, other media publications are listed in Appendix H.

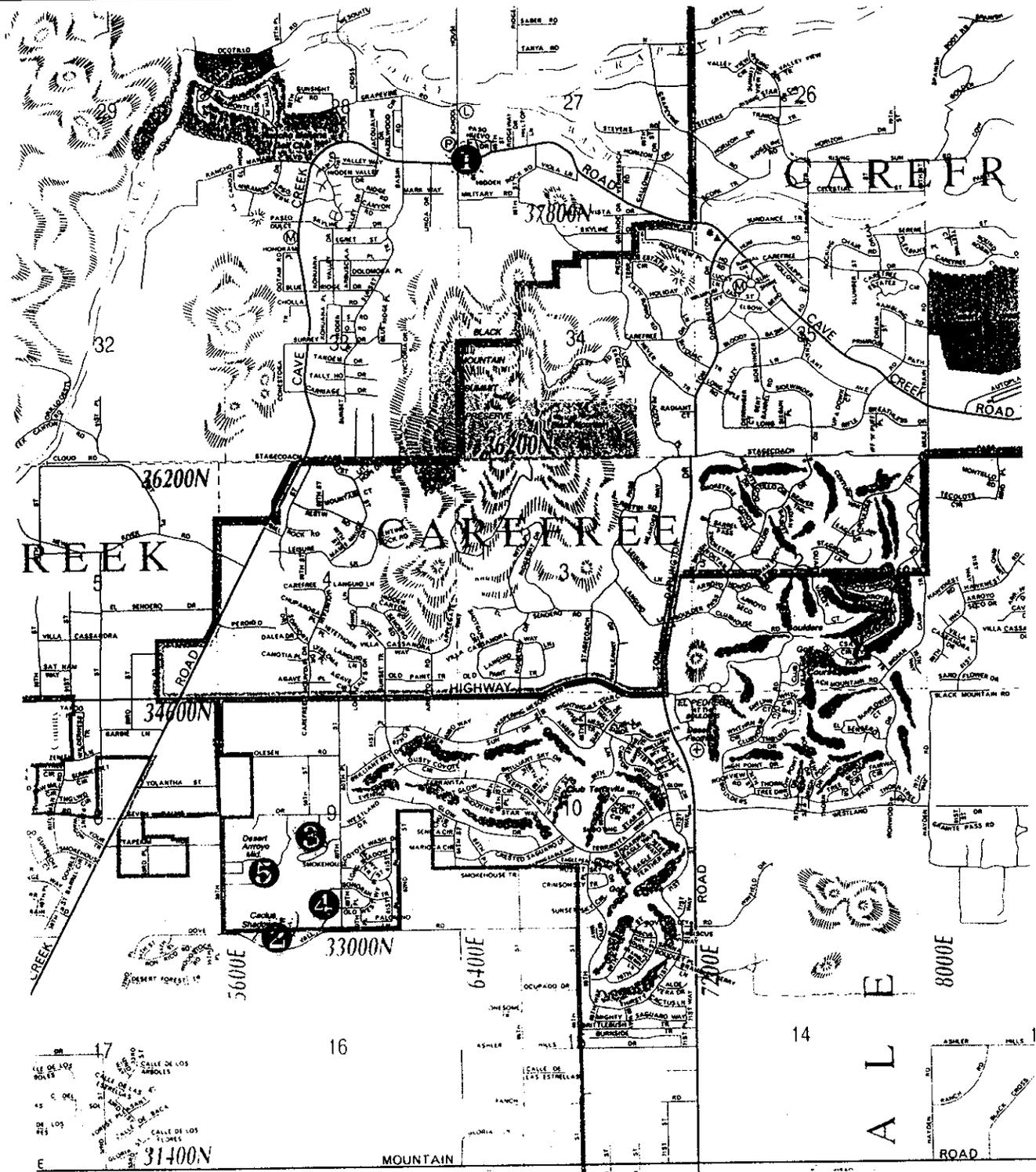
9. Critical Path Calendar

A critical path calendar will be developed a minimum of eight weeks prior to the public "open house" meetings. The calendar will outline the interim milestone product due dates and review time commitments that will be required. The initial critical path calendar for the first open house is included in Appendix I.

10. Exhibits

The Flood Control District has the opportunity at various times to provide exhibits at community events such as the County Fair. Information on the Upper Cave Creek Master Plan will be available at the Flood Control booth at these events.

Meeting Locations



Key:

- ① Good Shepard of the Hills Episcopal Church
- ② Cactus Shadows High School
- ③ Desert Sun Elementary School
- ④ Black Mountain Elementary School
- ⑤ Desert Arroyo Middle School

Local Government Calendar

| Sun | Mon | Tue | Wed | Thu | Fri | Sat | |
|-------------------|---|--|---|---|-----|-------------|---|
| <h1>May 1998</h1> | | | | UPPER CAVE CREEK WATERCOURSE MASTER PLAN | | 1 | 2 |
| | | | | Meetings for Council and Planning and Zoning for Scottsdale, Phoenix, Cave Creek, and Maricopa County | | | |
| 3 | 4 • Scottsdale Council 5:00 • Cave Creek Council 7:00 | 5 • Phoenix Council Policy 2:30 • Scottsdale Council 5:00 • Desert View Village 6:30 | 6 • Phoenix City Council 3:00 (formal) • Phx Zoning 6:30 • Maricopa County Board of Supervisors 9:00am • Phoenix Council Env. Subcommittee. 1:15 | 7 • Cave Creek P&Z 7:00 | 8 | 9 | |
| 10 | 11 | 12 • Phoenix Council Policy 2:30 • Scottsdale Council Policy 5:00 | 13 • Phoenix Planning 4:30 • Phoenix City Council 3:00 (formal) • Scottsdale P&Z | 14 | 15 | 16 | |
| 17 | 18 • Scottsdale Council 5:00 • Cave Creek Council 7:00 | 19 • Phoenix Council Policy 2:30 • Scottsdale Council 5:00 | 20 • Phoenix Zoning 6:30 • Phoenix City Council 3:00 (formal) • Maricopa County Board of Supervisors 9:00am • Phoenix Council Env. Subcommittee 1:15 | 21 • Cave Creek P&Z 7:00 | 22 | 23 | |
| 24 | 25 | 26 • Phoenix Council Policy 2:30 • Scottsdale Council Policy 5:00 | 27 • Phoenix City Council 3:00 (formal) • Phoenix Planning 4:30 • Scottsdale P&Z | 28 | 29 | 30 | |
| 31 | | | | | | May 5, 1998 | |

**Meetings subject to change.*

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|--------------------|---|--|--|------------------------------------|-----------|-------------|
| <h1>June 1998</h1> | | | UPPER CAVE CREEK WATERCOURSE MASTER PLAN | | | |
| | | | Meetings for Council and Planning and Zoning for Scottsdale, Phoenix, Cave Creek, and Maricopa County | | | |
| | 1 • Scottsdale Council 5:00 • Cave Creek Council 7:00 | 2 Phoenix Council Policy 2:30 • Scottsdale Council 5:00 • Desert View Village 6:30 | 3 Phoenix City Council 3:00 (formal) • Phoenix Zoning 6:30 • Maricopa County Board of Supervisors 9:00 am • Phoenix Council Env. Subcommittee. 1:15 | 4 • Cave Creek P&Z 7:00 | 5 | 6 |
| 7 | 8 | 9 • Phoenix Council Policy 2:30 • Scottsdale Council Policy 5:00 | 10 • Phoenix Planning 4:30 • Phoenix City council 3:00 (formal) • Scottsdale P&Z 5:00 | 11 | 12 | 13 |
| 14 | 15 • Scottsdale Council 5:00 • Cave Creek Council 7:00 | 16 • Phoenix Council Policy 2:30 • Scottsdale Council 5:00 | 17 Phoenix Zoning 6:30 • Phoenix City Council 3:00 (formal) • Maricopa County Board of Supervisors 9:00 am Cave Creek P&Z 7:00 • Phoenix Council Env. | 18 • Cave Creek P&Z 7:00 | 19 | 20 |
| 21 | 22 | 23 • Phoenix Council Policy 2:30 • Scottsdale Council Policy 5:00 | 24 • Phoenix City Council 3:00 (formal) • Phoenix Planning 4:30 • Scottsdale P&Z 5:00 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |
| | | | | | | May 5, 1998 |

*Meetings subject to change.

Key PAI Matrix

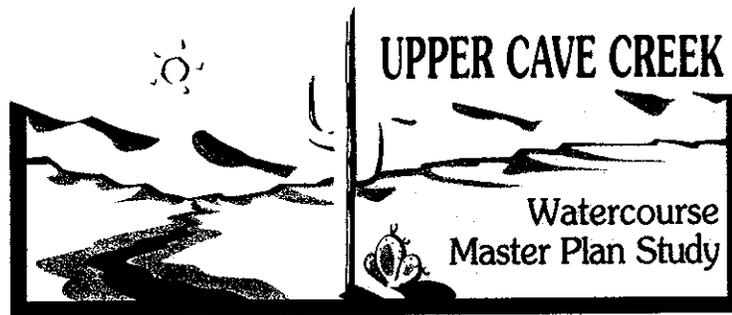
Key Potentially Affected Interests

| Potentially Affected Interests (PAIs) | Contact Name and Address | Phone Number | Ads/Press Release | Group Presentation | Power Point Presentation | Phone Call | Meeting/Presentation | Meeting Date/Time and Location | Attendees | Status |
|--|--|----------------------|-------------------|--------------------|--------------------------|------------|----------------------|--------------------------------|-----------|--------|
| PHOENIX | | | | | | | | | | |
| Phoenix Council Environmental Subcommittee | David Garcia, City Manager George Leon, Dep. City Mgr. | 262.7208 | | | | | | | | |
| Desert View Village Planner | | 495.0254 or 262.6882 | | | | | | | | |
| Phoenix Parks Department | Jim Burke Deputy Director | 262.6862 | | | | | | | | |
| Desert View Village Planning Committee | Joseph A. Hudock, Chairperson 4524 E. Hunter Ct. Cave Creek 85331 | | | | | | | | | |
| Phoenix Public Information Officer | Tony Maccarone | 261.8512 | | | | | | | | |
| Deer Valley village | Catherine Wisheart Planner 200 W. Washington St. 6th Floor Phoenix 8503-1611 | 256.5648 | | | | | | | | |
| Paradise Valley village | Lynn Favour, Planner 200 W. Washington St. 6th Floor Phoenix 8503-1611 | 261.8802 | | | | | | | | |
| CAVE CREEK | | | | | | | | | | |
| City of Cave Creek | Ron Short, Planning Dir. Public Involvement Contact | 595.1930 | | | | | | | | |
| City of Cave Creek | Ian Cardwell, Staff Planner | 595.1930 | | | | | | | | |
| Cave Creek Town Clerk | Kerry | 488.1400 | | | | | | | | |
| Cave Creek Town Manager | Kerry Dudek 37622 N. Cave Creek Rd. Cave Creek 85331 | 488.1400 | | | | | | | | |
| Cave Creek Board of Adjustment | Fredrick Mueller | 488.6156 | | | | | | | | |
| Cave Creek Planning Commission | Larry Bailey | 488.8598 | | | | | | | | |
| Cave Creek Town Council | Tom Aughterton Mayor | 488.1902 | | | | | | | | |
| FLOOD CONTROL DISTRICT | | | | | | | | | | |
| POI FCD | Dan Carol | 506.7841 | | | | | | | | |
| | Barb Hanin | 506.2955 | | | | | | | | |
| Mail Room | Monique Hafler | 506.2941 | | | | | | | | |

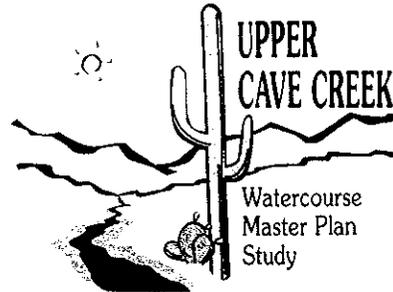
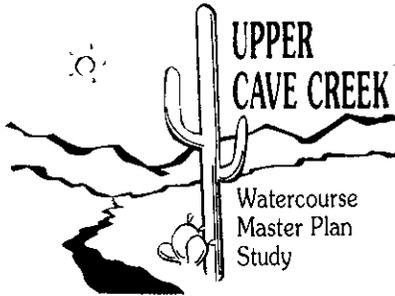
Key Potentially Affected Interests

| Potentially Affected Interests (PAIs) | Contact Name and Address | Phone Number | Ads/Press Release | Group Presentation | Power Point Presentation | Phone Call | Meeting/Presentation | Meeting Date/Time and Location | Attendees | Status |
|--|---|--------------|------------------------------------|--------------------|--------------------------|------------|----------------------|--------------------------------|-----------|--------|
| GROUPS | | | | | | | | | | |
| Desert Foothills Land Trust | P.A. P.O. Box 4414 Cave Creek 85331 | 488.6131 | | | | | | | | |
| Sonoran North | Christopher Estes P.O. Box 2901 Carefree 85377 | 488.3863 | | | | | | | | |
| Don't Waste Arizona | Stephen Brittle President 6205 S. 12th St Phoenix 85040 | | | | | | | | | |
| Audubon Society | John Delventhal Chairman 1023 East Tuckey Lane Phoenix 85014 | 998.0078 | | | | | | | | |
| Sierra Club | Don Steuter Conservation Chair 2508 E. Heatherbrae Phoenix 85016 | | | | | | | | | |
| The Nature Conservancy | Jim Walsh 2633 East Indian School #300 Phoenix 85016 | | | | | | | | | |
| Citizens for Environmental Association League (CEAL) | Susan Tomkins, Member Chris Kline, Head | 569.1922 | 3705 E. Taro Lane Phoenix 85024 | | | | | | | |
| Councilman | Tom Milton, District 2 | 262.7445 | | | | | | | | |
| MEDIA | | | | | | | | | | |
| Arizona Rep. | Carol Sowers, Media Contact | 675.7482 | | | | | | | | |
| Sonoran News | Michael Oberndorf, Media Contact | 488.2021 | | | | | | | | |
| Foothills Sentinel | Cheryl Dunkin, Editor | 488.3436 | | | | | | | | |
| City Page, Phoenix | Frank Turco | 261.8976 | | | | | | | | |

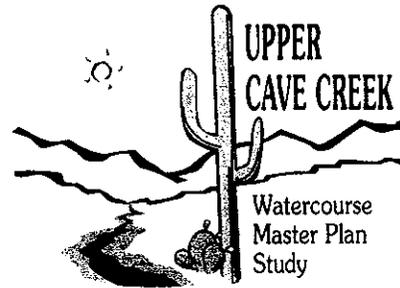
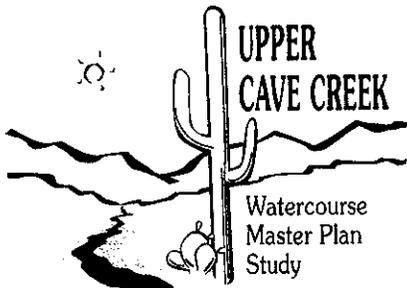
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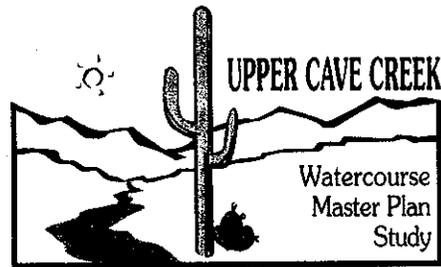
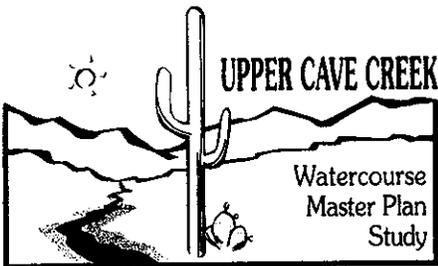
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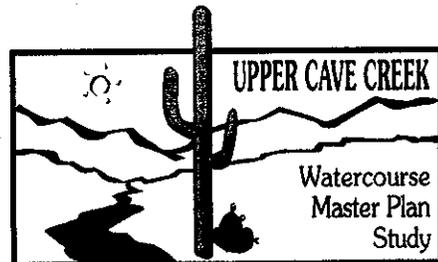
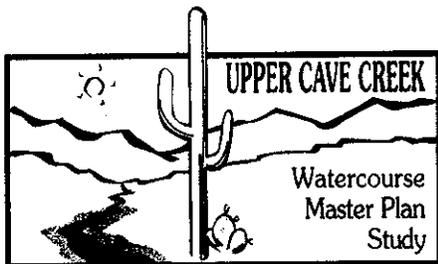
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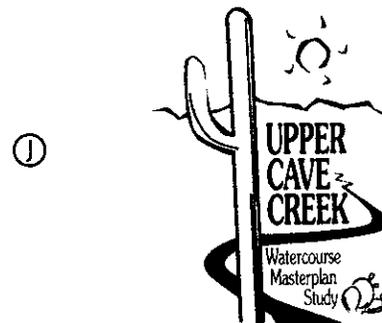
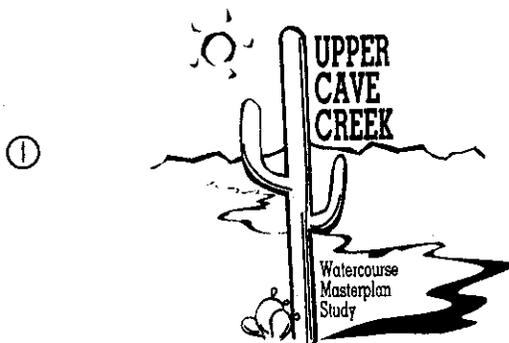
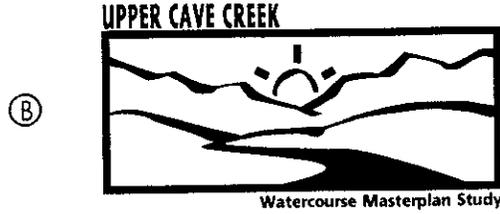
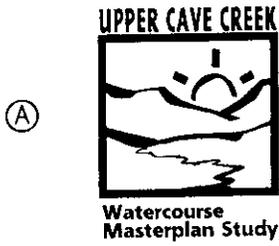


(C) Option "C" chosen 5/5/98



(D)





Mailing List

| Last Name | First Name | Company | Address | City | State | Zip |
|---------------|-----------------------|--------------------------------|------------------------|-----------------|------------|-------|
| Langhammer | Fred Horst | | 767 5th Ave. | New York | New York | 10153 |
| Herbert | Patricia Dreiseszun | | P.O. Box 10775 | Phoenix | Arizona | 85064 |
| | | Dreiseszun Family Trust | 9016 N. 60th St. | Paradise Valley | Arizona | 85253 |
| Cross | Eleanor K & Harry L | | 2530 Emerald Ave. | Ann Arbor | Michigan | 48104 |
| Cross | Ray | | P.O. Box 1303 | Ann Arbor | Michigan | 48106 |
| Bradley | Harry L | | P.O. Box 1303 | Ann Arbor | Michigan | 48106 |
| Henry | Jean Tom | | 3132 E. Coolidge St. | Phoenix | Arizona | 85016 |
| Foster | Norman & Juanita | | P.O. Box 1322 | Carefree | Arizona | 85377 |
| | | ARIZONA STATE LAND DEPT. | P.O. Box 1322 | Carefree | Arizona | 85377 |
| | | THE OWINGS FAMILY LIMITED PART | P.O. Box 4170 | Cave Creek | Arizona | 85327 |
| | | ARIZONA STATE LAND DEPT. | 1624 W. Adams St. | Phoenix | Arizona | 85007 |
| | | Carolyn Fabrici Family Trust | P.O. Box 4708 | Cave Creek | Arizona | 85327 |
| Perti | Cheryl W | | 2352 N. Clybourn Ave. | Chicago | Illinois | 60614 |
| Kannada | Jeffrey A & Kathryn E | | 9901 337th St. S. | Roy | Washington | 98580 |
| Clure | Paula | | P.O. Box 1027 | Sherwood | Oregon | 97140 |
| Miggel | Karla J | | 9231 N. 19th Ave. | Phoenix | Arizona | 85021 |
| McCormick | | | 42212 N. Old Stage Rd. | Cave Creek | Arizona | 85331 |
| | | CAHAVA SPRINGS CORP | 8433 E. Carefree Dr. | Carefree | Arizona | 85377 |
| Gossen | Joseph J & Johanna E | | 8031 E. Indianola Ave. | Scottsdale | Arizona | 85251 |
| Taylor | Lillian R | | | | | |
| Barker | Clyde J | | 7211 W. Angela Dr. | Glendale | Arizona | 85308 |
| Chebultz | John A & Jo | | 41847 N. Old Stage Rd. | Cave Creek | Arizona | 85331 |
| Campagna Jr. | John J & Anncha C | | P.O. Box 150 | Cave Creek | Arizona | 85327 |
| Hastings | H | | 11812 Gandy St. | Denison | Texas | 75020 |
| Passerelli | David C | | P.O. Box 1891 | Cave Creek | Arizona | 85327 |
| Smith | Elba D | | P.O. Box 223 | Cave Creek | Arizona | 85327 |
| Arnold | Anna L | | 41640 N. 52nd St. | Cave Creek | Arizona | 85331 |
| Smith | Daniel M | | 842 Portsmouth Ct. | San Diego | California | 92109 |
| Coppock | George D & Patricia A | | 41612 N. 52nd St. | Cave Creek | Arizona | 85327 |
| Hutchings | Judith Ann | | 41600 N. Old Stage Rd. | Cave Creek | Arizona | 85331 |
| | | CHERIE FAMILY LIMITED PARTNERS | 10016 E. Adele Ct. | Scottsdale | Arizona | 85255 |
| Davis | Charles Terry | | P.O. Box 410 | Cave Creek | Arizona | 85327 |
| Sands | Elen | | P.O. Box 1674 | Cave Creek | Arizona | 85327 |
| Ogrady | Patrick D & Deborah K | | P.O. Box 1707 | Cave Creek | Arizona | 85327 |
| Biglaiser | Marcia | | 4201 E. Paradise Dr. | Phoenix | Arizona | 85028 |
| Harris | Kenneth Michael | | 401 W. Baseline Rd. | Tempe | Arizona | 85283 |
| Neely | Thomas | | 945 N. Pasedena #70 | Mesa | Arizona | 85201 |
| Katten | Edwin | | 171 Van Nostrand Ave. | Englewood | New Jersey | 07631 |
| Koontz | Samuel D & Judy F | | P.O. Box 1664 | Cave Creek | Arizona | 85327 |
| Jacksen | Neils F & Susan | | 41675 N. 52nd St. | Cave Creek | Arizona | 85331 |
| Bridge | William H & Gladys G | | P.O. Box 1850 | Cave Creek | Arizona | 85327 |
| Anderson | Roy H & Louann I | | P.O. Box 4649 | Cave Creek | Arizona | 85327 |
| McLean London | Leslie | | 56 Oak Way | Evergreen | Colorado | 80439 |
| Linden | Mary K | | 73438 Foftail Ln. | Palm Desert | California | 92260 |
| Smit | Roger L & Phyllis J | | 40040 N. 71st St. | Carefree | Arizona | 85377 |
| Nelson | Oscar JD & Aloha | | P.O. Box 638 | Cave Creek | Arizona | 85327 |
| Weingard | Howard & Barbara | | P.O. Box 1506 | Cave Creek | Arizona | 85327 |
| Nelson | Norma K | | P.O. Box 638 | Cave Creek | Arizona | 85327 |
| Lyman, Jr. | Lloyd C & Mary M | | P.O. Box 2089 | Carefree | Arizona | 85377 |
| Dodd | Joan W | | P.O. Box 971 | Carefree | Arizona | 85377 |
| Robbins | Christina S | | P.O. Box 1688 | Cave Creek | Arizona | 85327 |
| Bell | Robert A & Kathy | | 707 W. McKenzie Dr. | Phoenix | Arizona | 85013 |
| Ratcliff | Edward R | | P.O. Box 1831 | Cave Creek | Arizona | 85327 |
| Augerton, Jr. | Thomas G & Carol | | P.O. Box 6022 | Carefree | Arizona | 85377 |
| Novick | Nancy A | | 14628 N. 48th Way | Scottsdale | Arizona | 85254 |
| Gruenemeier | Steven A | | 9630 E. Yucca St. | Scottsdale | Arizona | 85260 |
| Hoss | Robert J & Lynne M | | 205 Orchard Hill Ln. | Brewster | New Jersey | 10509 |

| Last Name | First Name | Company | Address | City | State | Zip |
|--------------|------------------------|-------------------------------|------------------------------|------------------|------------|-------|
| Bertrand | Raoult | | P.O. Box 4915 | Cave Creek | Arizona | 85327 |
| Walton | Michael J & Sharon K | | 11208 N. Saint Andrew Way | Scottsdale | Arizona | 85254 |
| Whitton | George & Marie-Louise | | 39851 N. 54th St. | Cave Creek | Arizona | 85331 |
| Francisco | Robert J & Dorothy J | | 2846 E. Claire Dr. | Phoenix | Arizona | 85032 |
| Williams | Robert & Christine | | P.O. Box 2653 | Carefree | Arizona | 85377 |
| Kuhn | David & Ann | | P.O. Box 7085 | Cave Creek | Arizona | 85327 |
| Digiorgio | Josephine J | | P.O. Box 221942 | Camel | California | 93922 |
| James | C | | 39400 N. Old Stage Rd. | Cave Creek | Arizona | 85331 |
| Alton, Jr. | B | | P.O. Box 3320 | Carefree | Arizona | 85377 |
| Buckley | Michael G | | P.O. Box 7087 | Cave Creek | Arizona | 85327 |
| Foster | Larry C & Mary Adele | | P.O. Box 228 | Cave Creek | Arizona | 85327 |
| | | STENSON FAMILY TRUST | P.O. Box 303 | Cave Creek | Arizona | 85327 |
| Mellody, Jr. | James Patrick & Ka | | 1017 E. Nicolet Ave. | Phoenix | Arizona | 85020 |
| Miller | Richard E & Julia V | | 915 E. Le Marche Ave. | Phoenix | Arizona | 85022 |
| Thomas | Robert J & Ann V | | P.O. Box 1668 | Cave Creek | Arizona | 85327 |
| Hoffman | Sally V | | 2100 E. 9th St | Douglas | Arizona | 85607 |
| Coffman, Sr. | Basil & Arlicita | | 5475 E. Ocotillo | Cave Creek | Arizona | 85331 |
| Van Allen | James V | | 221 Vista Way | Benbrook | Texas | 76126 |
| | | DARLINGTON & PALMER INC. | 2100 E. 9th St | Douglas | Arizona | 85607 |
| Williams | Robert & Christine | | P.O. Box 2653 | Carefree | Arizona | 85377 |
| Kuhn | David & Ann | | P.O. Box 7085 | Cave Creek | Arizona | 85237 |
| Digiorgio | Josephine J | | P.O. Box 221942 | Carmel | California | 93922 |
| James | C | | 39400 N. Old Stage Rd. | Cave Creek | Arizona | 85331 |
| Alton Jr. | B | | P.O. Box 3320 | Carefree | Arizona | 85377 |
| Buckley | Michael G | | P.O. Box 7087 | Cave Creek | Arizona | 85327 |
| Gosnell | Rita Joanne | | P.O. Box 4844 | Cave Creek | Arizona | 85327 |
| Miller | Richard E & Julia V | | 915 E. Le Marche Ave. | Phoenix | Arizona | 85022 |
| Thomas | Robert J. & Ann V | | P.O. Box 1668 | Cave Creek | Arizona | 85327 |
| Hoffman | Sally V | | 2100 E. 9th St. | Douglas | Arizona | 85607 |
| Van Allen | James V | | 221 Vista Way | Benbrook | Texas | 76126 |
| Quigley | Charles E & Eileen Lea | | P.O. Box 1798 | Cave Creek | Arizona | 85327 |
| Starkey | Craig W | | 11211 N. Tatum Blvd., #130 | Phoenix | Arizona | 85028 |
| Payne | William C & Sara L | | P.O. Box 1637 | Cave Creek | Arizona | 85327 |
| Knight | Luther | | P.O. Box 6 | Queenstown | Maryland | 21658 |
| Smith Jr. | Ralph G & Elba D | | P.O. Box 223 | Cave Creek | Arizona | 85327 |
| Hunt | Gregory M & Katherine | | | | | |
| Veres | Moses & Alma B | | P.O. Box 1818 | Cave Creek | Arizona | 85327 |
| Kingsley | Charles E | | 1106 Brummel St. | Evanston | Illinois | 60202 |
| Daiss | David E & Dorene L | | P.O. Box 4329 | Cave Creek | Arizona | 85327 |
| | | DESERT CREEK PROPERTIES | P.O. Box 580 | Cave Creek | Arizona | 85327 |
| Kavanaugh | Laura | | P.O. Box 4382 | Cave Creek | Arizona | 85327 |
| McKinstry | Donald C & Mary B | | P.O. Box 1635 | Cave Creek | Arizona | 85327 |
| Duffy | Robert M | | 1s376 Summit Ave. | Oakbrook Terrace | Illinois | 60181 |
| Frushon | Anthony M & Margaret | | 10539 E. Bella Vista Dr. | Scottsdale | Arizona | 85258 |
| | | CHURCHILL JOHN WILLIAM & SHAR | P.O. Box 1518 | Cave Creek | Arizona | 85327 |
| Wilt | John D & Patricia L | | 7360 E. Lincoln Dr. Villa #2 | Scottsdale | Arizona | 85250 |
| Dee | Richard J & Judith C | | N1148 Bloomer Mill Rd. | La Crosse | Washington | 54601 |
| Brikates | Karina | | P.O. Box 2124 | Carefree | Arizona | 85377 |
| Reynolds | Dorethy E | | P.O. Box 1403 | Carefree | Arizona | 85377 |
| Stahel | Patrick Ellis | | 38970 N. 54th St. | Cave Creek | Arizona | 85331 |
| Thomas | John C & Maureen L | | 1555 Hillcrest St. | Pomona | California | 91768 |
| Parker | Ken R | | 71 Hutton Cres | Caledon | | |
| Suits | Kermit L & Debbra L | | P.O. Box 1857 | Cave Creek | Arizona | 85327 |
| Howarth Jr. | Robert R | | 4722 E. Bell Rd. #3059 | Phoenix | Arizona | 85032 |
| Chrisman | William C & Dorothy | | 5416 Chuparosa Ln. | Cave Creek | Arizona | 85331 |
| | | SHELLABARGER FAMILY TRUST | 1953 Broadway | Grande Jct. | Colorado | 81503 |
| Reeves | Taron & Strassburg Dor | | P.O. Box 1977 | Cave Creek | Arizona | 85327 |
| Vied | Lawrence M & Joan V | | 402 E. Waltann Ln. | Phoenix | Arizona | 85022 |

| Last Name | First Name | Company | Address | City | State | Zip |
|-----------------|-----------------------|--------------------------------|------------------------------|----------------|-----------|-------|
| Volf | Sheila M | | Parkview Apartments #17 | Otho | Louisiana | 50569 |
| Shinoda | Hauro & Kyoko | | P.O. Box 889 | Carefree | Arizona | 85377 |
| | | RANCHO MANANA COUNTRY CLUB | 5734 E. Rancho Manana Rd. | Cave Creek | Arizona | 85331 |
| Nicastro | Pietro Anthony | | 9713 E. Via Del Arbor | Scottsdale | Arizona | 85258 |
| Cushing | Robert R & Susan S | | 38925 N. 54th St | Cave Creek | Arizona | 85331 |
| | | DRD PROPERTIES LLC | 4336 E. Siesta Ln. | Phoenix | Arizona | 85024 |
| Laumeyer | Richard H & Rose M | | 305 2nd Ave. #505 | New York | New York | 10003 |
| Murray | Douglas B & Sandra J | | 28423 N. 57th St. | Cave Creek | Arizona | 85331 |
| Gettleson | Franklin D & Gail M | | 4786 Pickering Rd. | Bloomfield | Michigan | 48301 |
| Silimos | Vasiliki B | | 11424 Nueport Dr. W | Willow Springs | Illinois | 60480 |
| Lofgren | Mary L | | 405 N. Wabash Ave. #4309 | Chicago | Illinois | 60611 |
| | | DESERT CREEK PROPERTIES L P | P.O. Box 580 | Cave Creek | Arizona | 85327 |
| | | RANCHO MANANA GOLF CLUB LTD | 5734 E. Rancho Manana Rd. | Cave Creek | Arizona | 85331 |
| Dallstream, Jr. | Dorothy & Andre | | 201 S. Grove Ave. | Barrington | Illinois | 60010 |
| Dallstream, Jr. | Andrew J | | P.O. Box 503 | Cave Creek | Arizona | 85327 |
| | | DESERT FOOTHILLS LAND | P.O. Box 4861 | Cave Creek | Arizona | 85327 |
| Snow, Jr. | Warren H | | P.O. Box 5691 | Carefree | Arizona | 85377 |
| Clinton | Susan H | | P.O. Box 205 | Cave Creek | Arizona | 85327 |
| McCloone, Jr. | John J | | 4405 E. Clearwater Pkwy | Scottsdale | Arizona | 85253 |
| Ekhardt | Craig M & Suzan M | | 37660 N. Rancho Manana Blvd. | Cave Creek | Arizona | 85331 |
| Bunch, III | Earnest B & Gail E | | 24807 N. 49th Ave. | Glendale | Arizona | 85310 |
| Dryden | | | 37436 Rancho Manana | Cave Creek | Arizona | 85331 |
| Omundson | Peter Roy & Deborah L | | P.O. Box 1612 | Cave Creek | Arizona | 85327 |
| Wilenchik | Dennis I | | 37428 N. Rancho Manana Blvd. | Cave Creek | Arizona | 85331 |
| | | WILENCHIK DENNIS I & BARNES | 2828 N. Central Ave. #13 | Phoenix | Arizona | 85004 |
| Flach | James R & Nikki J | | 36826 N. 52nd St. | Cave Creek | Arizona | 85331 |
| Davis | Kenneth D | | 18826 N. 36th Pl | Phoenix | Arizona | 85024 |
| Wusich | Creager & Diane | | 1811 W. Vista Ave | Phoenix | Arizona | 85021 |
| Peterson | James Craig & Darrell | | 1334 E. Ocotillo Rd. | Phoenix | Arizona | 85014 |
| Kavanagh | Preston B & Elizabeth | | 22919 N. 93rd St. | Scottsdale | Arizona | 85255 |
| Maura | Indes | | P.O. Box 3195 | Carefree | Arizona | 85377 |
| Wallace | W Wayne & Sharyn M | | 120 E. Coronado Rd. #9 | Phoenix | Arizona | 85004 |
| | | WAIT INVESTMENT | | | | |
| Bowles | George F & Carlette M | | 36620 N. 52nd St. | Cave Creek | Arizona | 85331 |
| | | PARK HILLS ASSOCIATES | 10300 N. 124th St. | Scottsdale | Arizona | 85259 |
| Derzbacher | Louis S & Megan A | | 36611 N. 51st St. | Cave Creek | Arizona | 85331 |
| Schubert | Gregory J & Cynthia A | | P.O. Box 4609 | Cave Creek | Arizona | 85327 |
| | | ASRL PARTNERSHIP | 3604 Astro Cir | Salt Lake City | Utah | 84109 |
| | | MANCO CONSTRUCTION | 6458 W. Mariposa St. | Phoenix | Arizona | 85033 |
| | | SECURITY TITLE AGENCY T5639 | 3620 N. 3rd Ave. | Phoenix | Arizona | 85013 |
| Davis | James L & Martha | | 5944 E. Leisure Ln. | Cave Creek | Arizona | 85331 |
| | | MARICOPA COUNTY | 3335 W. Durango St. | Phoenix | Arizona | 85009 |
| | | NEW RIVER MOUNTAINS | 6106 S. 32nd St. | Phoenix | Arizona | 85040 |
| Oliphant | Bruce & Joanna | | 5500 331 Rd. | Silt | Colorado | 81652 |
| Patterson | Michael L & Christina | | P.O. Box 178 | Cave Creek | Arizona | 85327 |
| | | JOY RIDGE INC. | P.O. Box 4791 | Cave Creek | Arizona | 85327 |
| | | CAVE CREEK 20 LLC | 9832 N. Hayden Rd. #106 | Scottsdale | Arizona | 85258 |
| | | ARIZONA STATE LAND DEPT. | 1624 W. Adams St. | Phoenix | Arizona | 85007 |
| | | CAREFREE HWY 48TH STREET IO LI | 5040 E. Shea Blve. #254 | Phoenix | Arizona | 85028 |
| Maughan | Rex & Ruth | | 1200 S. Priest Dr. | Tempe | Arizona | 85281 |
| | | FLOOD CONTROL DISTICT OF MARI | 3335 W. Durango St. | Phoenix | Arizona | 85009 |
| | | HAPPY VALLEY INV. PRTS | 3232 Cobb Pkwy #315 | Atlanta | Georgia | 30339 |
| | | ARIZONA DEPT. OF TRANSPORTATIO | 205 S. 17th Ave. #612E | Phoenix | Arizona | 85007 |
| | | MARICOPA COUNTY OF FLOOD CON | 3225 W. Durango St. | Phoenix | Arizona | 85009 |
| Mauzy | Byron E & Helen | | 1012 S. Lola Ln. | Tempe | Arizona | 85281 |
| Pignatelli | John C & Ermenia R | | P.O. Box 1000 | Sterling | Illinois | 61081 |
| Khamre | Parmeshwar & Ladonna | | 7033 W. Sack Dr. | Glendale | Arizona | 85308 |
| | | MARICOPA COUNTY FLOOD CONTR | 2801 W. Durango St. | Phoenix | Arizona | 85009 |

City of Phoenix Interested Parties

| Last Name | First Name | Company | Address | City | State | Zip |
|-----------------|------------|---|-----------------------------------|-----------------|-------|------------|
| Alcoor | John | | 705 East Loyola Drive | Tempe | AZ | 85282 |
| Allee | Penny | Southwest Gas Corporation | 7532 North 22 Street | Phoenix | AZ | 85020 |
| erson | Jean | | 29210 North 64 Street | Cave Creek | AZ | 85331 |
| | | Arizona Parks and Recreation Association, Inc. | 5060 North 19th Avenue, Suite 208 | Phoenix | AZ | 85015-3212 |
| | | Arizona Planning Association | 3900 East Camelback Road | Phoenix | AZ | 85018 |
| | | Audobon Society Maricopa | 1023 East Tuckey Lane | Phoenix | AZ | 85014 |
| Van Ausdal | William | Maricopa County Parks Development | 3475 West Durango | Phoenix | AZ | 85009 |
| Sheedy | Mary | Az Chapter of American Society of Landscape Architects | 398 South Mill Avenue, Suite 205 | Tempe | AZ | 85281 |
| Balcom | Larry | | 27207 North 35th Avenue | Phoenix | AZ | 85027 |
| Barnes | Paul | | 5518 East Mariposa | Phoenix | AZ | 85018 |
| Baron | Lynne | | 2109 West Waltann | Phoenix | AZ | 85023 |
| Bayley | Tina | | 2390 East Camelback, Suite 100 | Phoenix | AZ | 85016 |
| Bayley | Mark | | P.O. Box 42855 | Phoenix | AZ | 85080 |
| Beach | Jane | | 823 West Tuckey Lane | Phoenix | AZ | 85013 |
| Seese-Bieda | Barbara K. | | 18014 North 53rd Place | Scottsdale | AZ | 85254 |
| Bloom | Phillip | City of Peoria Development Services | 8401 West Monroe Street | Peoria | AZ | 85345 |
| Bohannan | Carolyn | | 7740 East Celestial Street | Carefree | AZ | 85377 |
| Bonjovi | Henry | | 8604 North 14 Street | Phoenix | AZ | 85020 |
| Bringer | Ralph | | 4515 North 20 Avenue | Phoenix | AZ | 85015 |
| Brooks | Diana | | 1435 W. Carribean Lane | Phoenix | AZ | 85023 |
| Brossart | Diane | Valley Forward | 100 West Clarendon, Suite 1105 | Phoenix | AZ | 85013 |
| Burrows | Arthur C. | | 1910 East Behreno Drive | Phoenix | AZ | 85024-1240 |
| Cafarella | Robert | City of Scottsdale | 7447 East Indian School Road | Scottsdale | AZ | 85251 |
| | | Town of Carefree, Town Manager | 100 East Street | Carefree | AZ | 85377 |
| Carr | Ellen | McDowell Sonoran Land Trust | P.O. Box 114365 | Scottsdale | AZ | 85267-4365 |
| | | Town of Cave Creek, Town Manager | 37622 North Cave Creek Road | Cave Creek | AZ | 85331 |
| | | Cave Creek School District Office, Superintendent | 33606 North 60 Street | Cave Creek | AZ | 85331 |
| ar | Pete | | 10050 North 40th Street | Phoenix | AZ | 85028 |
| urn | Deborah | From House to Home | 102 West Palmaire | Phoenix | AZ | 85021 |
| Coffman, R.L.A. | James D. | City of Scottsdale, Community Maintenance & Recreation | 7340 Scottsdale Mall | Scottsdale | AZ | 85251 |
| Collier | Dwayne | | 3115 North 3rd Avenue, #101 | Phoenix | AZ | 85013 |
| Colton | Alton | Arizona State Land Department | 1616 West Adams, Suite 329 | Phoenix | AZ | 85007 |
| Colton | Justin | | 17606 North 2nd Avenue | Phoenix | AZ | 85023 |
| Conrad | David | | P. O. Box 9321 | Phoenix | AZ | 85068 |
| Consoli | Carla | Valley Forward | 2800 North Central, Suite 2100 | Phoenix | AZ | 85004 |
| | | Deer Valley Unified School District No. 97Superintendent | 20402 North 15 Avenue | Phoenix | AZ | 85027 |
| Demenna | Kevin | Nelson, Robb, DuVal & DeMenna | 3550 N. Central Ave., Suite 1200 | Phoenix | AZ | 85012 |
| Denney | Michele | | 4703 West Saguaro Park | Glendale | AZ | 85310 |
| Dollin | Michael | | 3304 North 3rd Street | Phoenix | AZ | 85012 |
| Dornfeld | Leslie | MAG | 1820 West Washington Street | Phoenix | AZ | 85007 |
| Eatherly | Charles | | 1014 East Marlette Avenue | Phoenix | AZ | 85014 |
| Eckstein | Flo | | 22 West Hayward | Phoenix | AZ | 85021 |
| Edwards | Nancy V. | | 223 West Diana | Phoenix | AZ | 85021 |
| Ellegood | Michael S. | Chief Engineer & General Manager, Flood Control District of Maricopa County | 2801 West Durango Street | Phoenix | AZ | 85009-6399 |
| Evangelista | Teresa D | | P.O. Box 3066 | Carefree | AZ | 8537 |
| Findor | Harry A. | | 5127 North 41st Street | Phoenix | AZ | |
| Foley | Catherine | Salt River Project, Corporate Affairs | P.O. Box 52025, Mail Sta. PAB334 | Phoenix | AZ | 85072-2025 |
| Fox | Ed | Arizona Public Service | P.O. Box 53999 Station 90-85 | Phoenix | AZ | 85072-3999 |
| Frank | Bob | | 1043 North Nicolet | Phoenix | AZ | 85020 |
| Frederiksen | Robert | | 8653 South 22 Place | Phoenix | AZ | 85040 |
| Galvin | Dan | | 1401 East Puget, No. 21 | Phoenix | AZ | 85020 |
| ly | Grady | | 2 North Central Road, #1800 | Phoenix | AZ | 85004 |
| etson | John | | 3521 East Rose Lane | Paradise Valley | AZ | 85253 |
| Garrison | Doreen | | 1840 East Morten, No. 235 | Phoenix | AZ | 85020 |
| Gawlitta | Ron | | 1309 West Linger Lane | Phoenix | AZ | 85021 |
| Genoreau | Wade | | 8401 West Monroe | Peoria | AZ | 85345 |
| Gometz | Ken | | 7004 North 23 Street | Phoenix | AZ | 85020 |

| Last Name | First Name | Company | Address | City | State | Zip |
|-----------------------|------------------|--|---|-----------------|-------|------------|
| Goodman | Stuart | Arizona Multi-Housing Association | 2400 East Arizona Billmore Circle, Suite 1200 | Phoenix | AZ | 85018 |
| Gorsegrner | Eric | | 16016 N. 7th Drive | Phoenix | AZ | 85023 |
| Griswold | Ray | | P.O. Box 89713 | Phoenix | AZ | 85080 |
| Guard-Badenoch | Patricia | | 5027 North 71 Place | Paradise Valley | AZ | 85253 |
| | Mr. & Mrs. Phil | | 4610 East Chisum Trail | Phoenix | AZ | 85024 |
| Hilton | Ruth | | 500 West Clarendon, B-13 | Phoenix | AZ | 85013 |
| Harper | Brad | Fire Department | 2450 South 22 Avenue | Phoenix | AZ | |
| Henrich | Philip | | 1233 East St. John | Phoenix | AZ | 85022 |
| Henson | Patricia | Security Title Agency | 11811 North Tatum Blvd., Suite 1004 | Phoenix | AZ | 85028 |
| Herrick | B. | | 4609 East Paso Trail | Phoenix | AZ | 85024 |
| Heslin | Terry K. | Arizona State Parks | 1300 West Washington | Phoenix | AZ | 85007 |
| Heslin | Barbara | Arizona Game and Fish | 7200 East University | Mesa | AZ | 85207 |
| Hesselbrock | D. | | 811 West Happy Valley Road | Phoenix | AZ | 85027 |
| Hirashua | | | 2726 East Acoma | Phoenix | AZ | 85032 |
| Holway | Jim | | 500 North Third Street | Phoenix | AZ | 85004 |
| Holzer | Paul | | 2922 West Campbell | Phoenix | AZ | 85017 |
| | | Home Builders Association of Central Arizona | 2111 East Highland Avenue | Phoenix | AZ | 85018 |
| Honka | Alvar | YMCA Hiking Club | 500 West Clarendon, E-16 | Phoenix | AZ | 85013 |
| Howe | Penny | | 2902 East Cholla | Phoenix | AZ | 85028 |
| Hudock | Joseph | | 4524 East Hunter Ct. | Cave Creek | AZ | 85331 |
| Hutton | J. Phillip | Harding Lawson Associates Inc. | 234 North Central, No. 600 | Phoenix | AZ | 85004-2208 |
| James, Chairperson | Leslie | Salt River Project | P. O. Box 52025 | Phoenix | AZ | 85072 |
| Johnson | Ronn | | 913 West Jomax | Phoenix | AZ | 85027 |
| Johnson | Tony | | 3351 West Kings Avenue | Phoenix | AZ | 85023 |
| Johnson | Karen and Norman | | 201 West Conrad Drive | Phoenix | AZ | 85023 |
| Johnston | Charles M. | | 7430 East Thorn Tree Drive | Scottsdale | AZ | 85262 |
| Jordan | Glenn R. | | 4240 West Bell Road, Suite B-10 | Glendale | AZ | 85308 |
| Jordan | Doug | Kane & Jordan, LLC | 4201 North 24 Street, No. 105 | Phoenix | AZ | 85016 |
| Keuth | Don | Phoenix Community Alliance | 502 East Monroe | Phoenix | AZ | 85004 |
| Khaler | Robert B. | | 15626 North 15 Ave. | Phoenix | AZ | 85023-3401 |
| Ker | Larry | Arizona Public Service Company, Community Relations | P.O. Box 53933, Mail Sta. 4030 | Phoenix | AZ | 81073 |
| Kin | Maxine | | 511 West Rose Lane | Phoenix | AZ | 85013 |
| Laliberte | Nadya | | 714 West Wagoner Road | Phoenix | AZ | 85023-1549 |
| Lange | Marc | Vollmer & Associates | 398 South Mill Avenue, Suite 205 | Tempe | AZ | 85281 |
| Larsen | | | 308 East Yearling Road | Phoenix | AZ | 85027 |
| Laurenzi | Andrew | AZ Chapter, Nature Conservancy | 300 East University Boulevard | Tucson | AZ | 85705-7899 |
| Leal | Steve | Carl Hayden Community Foundation | P.O. Box 6148 | Phoenix | AZ | 85005 |
| Association | Karen M. | Amwatukee Custom Estates, Mgmt. Assoc. Inc. | P. O. Box 50309 | Phoenix | AZ | 85076-0309 |
| Lewis | Sandra L. | | 26645 North 46 Place | Cave Creek | AZ | 85331 |
| Lindsay | Craig | | 6223 East Cactus Wren Road | Paradise Valley | AZ | 85253-4243 |
| Lockart | Kevin | | 10830 North 23 Place | Phoenix | AZ | 85028 |
| Chairperson | | M.B.A.A. | P. O. Box 32728 | Phoenix | AZ | 85064 |
| Manning | Marty | | 25832 North Third Street | Phoenix | AZ | 85027 |
| Manning | Valerie | Phoenix Chamber of Commerce | 201 North Central Avenue | Phoenix | AZ | 85073 |
| Marcotte | Gary | | 1618 East Bell Rd., A104 | Phoenix | AZ | 85022 |
| Mayer | D. | | 2726 East Acoma Drive | Phoenix | AZ | 85032 |
| McQueen | D. A. | | 2024 East Parkside Lane | Phoenix | AZ | 85024 |
| Meister | Fred | | 1722 West Earl Drive | Phoenix | AZ | 85015 |
| Meltvedt | Art | | 1312 West Mackenzie Drive | Phoenix | AZ | 85013 |
| Michaels | Bob | Bureau of Reclamation | P.O. Box 9980 | Phoenix | AZ | 85068 |
| Mildebrandt | Thomas H. | | 1602 West Windrose Dr. | Phoenix | AZ | 85029 |
| Miller | Dan | AZ Association of Realtors | 4414 North 19 Avenue | Phoenix | AZ | 85015 |
| Miller | James J. | John F. Long Properties | 5035 West Camelback Rd. | Phoenix | AZ | 85038 |
| Mischnick | Tom | | 23061 North 21st Street | Phoenix | AZ | 85024 |
| de la Montaigne | J. P. | City of Peoria, Community Services Department | 8401 West Monroe Street | Peoria | AZ | 85345 |
| Moreland | Mr. Phil | Bureau of Land Management | 222 North Central Avenue | Phoenix | AZ | 85004-2203 |
| ner | John | | 17 East Aster Drive | Phoenix | AZ | 85022 |

| Last Name | First Name | Company | Address | City | State | Zip |
|-----------------|------------------|---|---------------------------------------|------------|-------|------------|
| Muller | Carol Ann | | 13838 North 8th Place | Phoenix | AZ | 85022-4307 |
| Mullet | Michael | | 2239 East Monterey Way | Phoenix | AZ | 85016 |
| Neary | Michael | | 2034 North 13th Street | Phoenix | AZ | 85006 |
| Nelson | Lloyd W. | | 18 East Yearling | Phoenix | AZ | 85027 |
| nsen | Tony | | 7736 East Redbird Rd. | Scottsdale | AZ | 85255 |
| mond | Amanda | Arizona Energy Office | 3800 North Central, Suite 1500 | Phoenix | AZ | 85012 |
| Overnolser | Sonia D. | | 16801 North 49th Street, #279 | Scottsdale | AZ | 85254 |
| Owens | Steve | Brown & Bain | 2901 North Central Avenue, Suite 2000 | Phoenix | AZ | 85012-2788 |
| | | P.M.P.C. | P. O. Box 26121 | Phoenix | AZ | 85068 |
| Pamperin | John | | 2401 West Augusta (rear) | Phoenix | AZ | 85021 |
| | | Paradise Valley Unified School District No. 69 | 5002 North 32 Street | Phoenix | AZ | 85032 |
| Parmigiani | Sandy | | 4656 West Honeysuckle Drive | Glendale | AZ | 85310 |
| Patry | Katherine | | 1138 West Portland | Phoenix | AZ | 85009 |
| Paxton | Karen | | 16216 South 35th Way | Phoenix | AZ | 85044 |
| Pedrick | Kathryn | | Eight West Pershing Avenue | Phoenix | AZ | 85029 |
| Pfeifer | Fred | | 16240 North 47 Avenue | Glendale | AZ | 85306 |
| Pfister | Suzanne | AZ Board of Regents | 2020 North Central Avenue, Suite 230 | Phoenix | AZ | 85004 |
| Phalen | Mike | Arizona State Land Department | 1616 West Adams, Suite 329 | Phoenix | AZ | 85007 |
| Pieraccini | Valerie and Paul | | 258 West Yearling Road | Phoenix | AZ | 85027 |
| Prokes | B. | | 9430 South 51 Street | Phoenix | AZ | 85044 |
| Putta | Jack | | 2802 East Pierson Street | Phoenix | AZ | 85016 |
| Ramsey | Don and Cindy | | 32833 North 44 Street | Cave Creek | AZ | 85331 |
| Rebenaar | Norma | | 30619 North 63 Street | Cave Creek | AZ | 85331-6001 |
| Devenney | Barry | Recreational Equipment Inc | 1405 West Southern | Tempe | AZ | 85282 |
| Regonini | David | Western Technologies, Inc. | 3737 East Broadway Road | Phoenix | AZ | 85040 |
| Resident | | | 2326 East Electra | Phoenix | AZ | 85024-8600 |
| | | Dean Witter Reynolds Inc. | 6263 North Scottsdale Road, Suite 300 | Scottsdale | AZ | 85250 |
| Richards | Phil | | 6416 East Le Marche Road | Scottsdale | AZ | 85254 |
| Ricketts | Terry | Arizona Public Service | P. O. Box 53999, Mail Station 8512 | Phoenix | AZ | 85072-3999 |
| hwell | Suzanne | | 10046 North 23 Street | Phoenix | AZ | 85028 |
| damando | Mario | Water Engineering Division, 8th Floor | | Phoenix | AZ | |
| Salontai | Jo and Claudia | | 205 S. McKemy Ave. | Chandler | AZ | 85226 |
| Salthouse | Robin | | 16208 South 35th Way | Phoenix | AZ | 85044 |
| Schepa's | | | 2032 East Parkside Lane | Phoenix | AZ | 85024-7529 |
| Schmidt | Jeffrey | Natural Resources Conservation Service | 3003 North Central, Suite 800 | Phoenix | AZ | 85012-8805 |
| Schwartz | Roger | | 7519 North 21st Place | Phoenix | AZ | 85020-4751 |
| Scozzari | Dr. Al | | 407 Kachina Trail | Phoenix | AZ | 85040 |
| Sheeny | Christine | | P. O. Box 29040 | Phoenix | AZ | 85038 |
| Shuler | Carol | | 13901 North 73 Street, No. 207 | Phoenix | AZ | 85260 |
| | | Sierra Club Grand Canyon Chapter - Arizona | 2508 East Heatherbrae | Phoenix | AZ | 85016 |
| Sigman | Kathryn | | 21016 North 16 Way | Phoenix | AZ | 85024 |
| Simplot | Tom | | 902 West Verde | Phoenix | AZ | 85013 |
| Smithiger | Ronald J. | | 36455 North 34 Street | Phoenix | AZ | 85027 |
| Soden | Mark | c/o Design Workshop | 310 South Mill Avenue, No. 201 | Phoenix | AZ | 85281 |
| Soto | Tracy | COP Planning | | Phoenix | AZ | |
| Spidell | Frank | | 812 West Briles | Phoenix | AZ | 85027 |
| States | Donald J. | | 2228 West Thomas | Phoenix | AZ | 85015 |
| Steuter | Don | Sierra Club | 2508 East Heatherbrae | Phoenix | AZ | 85016 |
| Strom | Paris | | 6017 East Cambridge | Scottsdale | AZ | 85257 |
| Struckmeyer | Kent M. | | 120 West Libby Street | Phoenix | AZ | 85023 |
| Sundstrom | Lori | Water Services Department, Pollution Control | 2303 West Durango | Phoenix | AZ | 85009 |
| Sussman | Faith | | P.O. Box 607 | Cave Creek | AZ | 85331-0607 |
| Sutor | Evelyn | Sun Circle Trail Riders | Rt. 1 Box 352A | Laveen | AZ | 85339 |
| Sutton | David | The Trust for Public Lands | 418 Montezuma | Sante Fe | NM | 87501 |
| ak | Susan | Desert Foothills Trust | P.O. Box 4414 | Cave Creek | AZ | 85331 |
| in, SW ector | Mary | American Rivers | 4120 North 20th Street, #C | Phoenix | AZ | 85016-6022 |
| weat | Ken G. | | 1714 East Ocotillo Road, #2 | Phoenix | AZ | 85016 |

| Last Name | First Name | Company | Address | City | State | Zip |
|-------------|----------------------|---|---------------------------------|------------|----------------|------------|
| Taubert | Bruce | Arizona Game and Fish Department | 2221 West Greenway Road | Phoenix | AZ | 85023 |
| Taylor | Carl | | 7145 West Acoma | Peoria | AZ | 85381 |
| Taylor | Carl | Tonto National Forest | 2324 East McDowell Road | Phoenix | AZ | 85006 |
| Thomas | Carolyn J. | | 3746 Jocglys Street, NW | | Washington, DC | 20015 |
| Thomas | Ramonia | | 2049 West Elm | Phoenix | AZ | 85015 |
| Thomas | Kenneth | Arizona State Parks | 1300 West Washington, Suite 104 | Phoenix | AZ | 85007 |
| Unmacht, II | James H. | | 5531 West Northwood Drive | Glendale | AZ | 85310-2809 |
| | | U. S. Army Corps of Engineers | 3636 North Central Avenue | Phoenix | AZ | 85012 |
| | | Valley Partnership | 4520 North 12 Street, Suite 201 | Phoenix | AZ | 85014-4233 |
| Walsh | Jim | The Nature Conservancy | 2633 East Indian School, #300 | Phoenix | AZ | 85016 |
| Walters | Lenore | | 1947 West Topeka | Phoenix | AZ | 85027 |
| Wellington | Mr. and Mrs. Forrest | | 27407 North 46 Street | Cave Creek | AZ | 85331 |
| Wells | J. Dennis | | 1616 West Adams | Phoenix | AZ | 85007 |
| Wiedeke | Ms. Mary R. | | 2314 West Diana Avenue | Phoenix | AZ | 85021 |
| Williams | Doug | Flood Control District of Maricopa County | 2801 West Durango | Phoenix | AZ | 85009 |
| Worsdell | Clayton | | P. O. Box 31044 | Phoenix | AZ | 85046 |
| Yanko | Michael | | 19217 North 30 Place | Phoenix | AZ | 85024 |
| Yarchin | Joe | Arizona Game and Fish Department | 2221 West Greenway Road | Phoenix | AZ | 85023 |
| Yates | L. V. | | 5419 Calle Tuberia | Phoenix | AZ | 85018 |

Newspaper Info

Upper Cave Creek Watercourse Master Plan

Newspaper Contacts
April 29, 1998

Arizona Republic

Zone 8

Heidi 444.7918

\$19.90 per column inch non profit rate

Space Reservations: for Wed. prior Fri., for Fri. prior Tues.

Art in: for Wed. prior Mon., for Fri. prior Wed.

Column inch is 2/16" wide

Need Form 501C-3 for National Charity rate

Pay up front or credit application required

Media Contact: Carol Sowers 675-7482

Sonoran Desert News

Jeannie Spini

488.2021 ext. 33

\$12.75 per column inch non profit rate

Space Reservations: for Wed. prior Thurs.

Art in: for Wed. prior Fri.

Column inch is 2.028" wide

No tax form required for non profit rate

Media Contact: Michael Oberndorf 488-2021

Foothills Sentinel

Leslie Diana

488.3436 ext. 102

\$10.02 per column inch non profit rate

Space Reservations: for Wed. prior Tues.

Art in: for Wed. prior Fri.

Column inch is 2 1/16" wide

No tax form required for non profit rate

Media Contact: Cheryl Dunkin, Editor 488-3436

1990 Statistic

1990 Census of Population and Housing Summary Tape File 3A

Project #

| | Tract/Block Number 303.29 | Tract/Block Number 303.42 | Tract/Block Number 303.43 | Tract/Block Number 304 | Tract/Block Number | Tracts/ Blocks Total | County Totals | Tract/Block Total as % of County |
|---|---------------------------------|---------------------------------|---------------------------------|------------------------------|-----------------------|----------------------------|------------------|--|
| Total Population | 5733 | 7978 | 4253 | 3538 | | 21502 | 2122101 | |
| | 26.7% | 37.1% | 19.8% | 16.5% | 0.0% | | | 1.0% |
| In Labor Force | 2417 | 4052 | 2328 | 1722 | | 10519 | 1079401 | 1.0% |
| % in Labor Force | 50.1% | 70.4% | 72.0% | 55.3% | | | 66.5% | |
| Civilian Labor Force | 2417 | 4052 | 2328 | 1722 | | 10519 | 1070667 | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 0.0% | 100.0% | 99.2% | 1.0% |
| Employed | 2229 | 3883 | 2224 | 1660 | | 9996 | 1005925 | 1.0% |
| Unemployed | 188 | 169 | 104 | 62 | | 523 | 64742 | 0.8% |
| % Unemployment | 7.8 | 4.2 | 4.5 | 3.6 | | 5.0% | 6.0% | |
| All Persons for whom Poverty was Counted | 4479 | 7387 | 4220 | 3529 | | 19615 | 2087745 | |
| Below Poverty | 384 | 94 | 369 | 327 | | 1174 | 257359 | |
| | 8.6% | 1.3% | 8.7% | 9.3% | 0.0% | 6.0% | 12.1% | 0.5% |
| Disability | 120 | 145 | 108 | 129 | | 502 | 56942 | |
| | 2.1% | 1.8% | 2.5% | 3.6% | 0.0% | 2.3% | 2.7% | 0.9% |
| White | 5244 | 7713 | 4220 | 3473 | | 20650 | 1801570 | |
| | 91.5% | 96.7% | 99.2% | 98.2% | 0.0% | 96.0% | 84.9% | 1.1% |
| African American | 318 | 136 | 0 | 0 | | 454 | 74295 | |
| | 5.5% | 1.7% | 0.0% | 0.0% | 0.0% | 2.1% | 3.5% | 0.6% |
| Native American | 32 | 41 | 0 | 6 | | 79 | 38309 | |
| | 0.6% | 0.5% | 0.0% | 0.2% | 0.0% | 0.4% | 1.8% | 0.2% |
| Asian | 39 | 42 | 8 | 18 | | 107 | 35208 | |
| | 0.7% | 0.5% | 0.2% | 0.5% | 0.0% | 0.5% | 1.7% | 0.3% |
| Others | 100 | 46 | 25 | 41 | | 212 | 172719 | |
| | 1.7% | 0.6% | 0.6% | 1.2% | 0.0% | 1.0% | 8.1% | 0.1% |
| Hispanic | 506 | 472 | 89 | 163 | | 1230 | 340117 | |
| | 8.8% | 5.9% | 2.1% | 4.6% | 0.0% | 5.7% | 16.0% | 0.4% |
| Age>60 | 628 | 586 | 615 | 1186 | | 3015 | 347277 | |
| | 11.0% | 7.3% | 14.5% | 33.5% | 0.0% | 14.0% | 16.4% | 0.9% |
| Female | 2314 | 3844 | 2117 | 1840 | | 10115 | 1077866 | |
| | 40.4% | 48.2% | 49.8% | 52.0% | 0.0% | 47.0% | 50.8% | 0.9% |
| Households | 1675 | 2460 | 1539 | 1641 | | 7315 | 808162 | |
| Female Head of Household | 114 | 72 | 94 | 63 | | 343 | 79646 | |
| | 6.8% | 2.9% | 6.1% | 3.8% | ERR | 4.7% | 9.9% | 0.4% |

Media Information

Informant
African American Newspaper
Clovis Cambell Jr.
257-9300

Prinsa Hispana
Hispanic Newspaper
Latty Garcia
256-2443

Asian American Times
Asian Newspaper
Manny Wong
266-9308

Cave Creek Chamber Main Newsletter
Tina Bruess
Executive director
488-3363

Flyers at
Cave Creek Town Hall
Bashas Grocery Store
Alberstons Grocery Store

Critical Path Calendar

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-------------------|--|---|--|-----|---------------------------------------|-----|
| <h1>May 1998</h1> | | | UPPER CAVE CREEK WATERCOURSE MASTER PLAN STUDY | | 1 | 2 |
| | | | Key: FCD/ASL Responsibility LSD Responsibility COB - Close of Business Day | | | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 • Newsletter #1 Text to LSD by noon | 13 | 14 | 15 | 16 |
| 17 | 18 • Draft Newsletter #1 to FCD/ASL by 8:30am | 19 | 20 • Comments on Newsletter #1 to LSD by COB • Draft Newspaper Notice #1 to FCD/ASL by COB | 21 | 22 | 23 |
| 24 | 25 MEMORIAL DAY | 26 • Comments on Draft Newspaper #1 Notice to LSD by COB • Final Newsletter #1 Draft by 8:30 am to FCD/ASL | 27 • Final Newsletter #1 Comments to LSD by COB • Public Mtg Prep. Meeting 9:30am | 28 | 29 • Prepare Newsletter #1 Disk | 30 |
| 31 | | | | | | |

May 18, 1998

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|--------------------|---|---|---|---|--|-----------|
| <h1>June 1998</h1> | | | UPPER CAVE CREEK WATERCOURSE MASTER PLAN STUDY | | | |
| | | | Key: FCD/ASL Responsibility LSD Responsibility | | | |
| | 1 • Power Point Review Mtg at LSD am • Newsletter #1 to Printer | 2 • Project Partnering Session • Foothills Sentinel Notice Reservation for 6/10 • Final Newspaper Notice #1 to FCD/ASL by COB | 3 • Final Comments on Newspaper Notice #1 to LSD by COB • Exhibits Information from FCD/ASL to LSD by COB | 4 • Sonoran News Notice Reservation for 6/10 | 5 • Notice #1 Art Work to Foothills Sentinel & Sonoran News • Newsletter #1 Sent to FCD for Distribution | 6 |
| 7 | 8 • FCD Distributes Newsletter #1 • Power Point Presentation CD to FCD | 9 AZ Rep Notice Reservation for 6/12 • Foothills Sentinel Notice Reservation for 6/10 • Preview Meeting at LSD • Draft Exhibits | 10 • Notice #1 Art Work to Az Rep. • Foothills Sentinel & Sonoran News First Notice Published | 11 • Sonoran News Notice Reservation for 6/17 | 12 • AZ Rep First Notice Published | 13 |
| 14 | 15 | 16 • Az Rep. Notice Reservation for 6/19 | 17 • Foothills Sentinel, Sonoran News Second Notice Published | 18 • Confirm Mtg. Space | 19 • Print Exhibits • Az Rep. Second Notice Published | 20 |
| 21 | 22 | 23 • Exhibit Mounting | 24 | 25 PUBLIC MEETING #1 | 26 | 27 |
| 28 | 29 | 30 | | | | |

**UPPER CAVE CREEK
&
APACHE WASH
WATERCOURSE MASTER PLAN**

Attachment 2

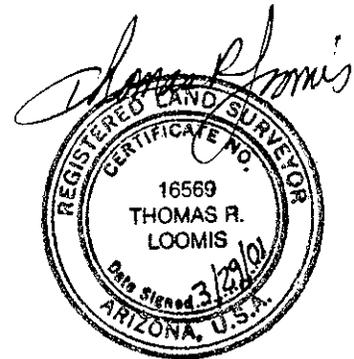
**Survey Data
Report**

Prepared By:

**TETRA TECH, INC.
501 North 44th Street, Suite 125
Phoenix, Arizona 85008-6596
(602)244-2624**

Project Number 2350.0001

March 2001



Introduction

Horizontal and vertical control was established for use in preparation of orthorectified aerial photographs of the detailed study area. The aerial photographs were prepared by Aerial Mapping Company, Inc. using the panel points listed herein. Tetra Tech also surveyed the locations of soil test pits used by JE/Fuller in the geomorphology study (Attachment 5).

Datum

The coordinate grid system is based upon the North American Datum of 1983 (NAD83), Arizona State Plane Coordinate System. Elevations are based upon National Geodetic Vertical Datum of 1929 (NGVD29). A list of control points and elevation reference marks (ERM's) are provided in Table 2-1. Exhibit A shows the location of each of these points. Each of these points were also used to triangulate for control.

Panel Points

Panel points were set for the aerial photography control. These points are listed in Table 2-2 and shown on Exhibit A.

Geomorphology Test Pits

The location of the geomorphology soil test pits were surveyed in the field by Tetra Tech, Inc.. These locations are listed in Table 2-3 and also shown on Exhibit A.

Previous Studies

Survey data for this study was back-checked to the following previous studies:

- Cave Creek Below Carefree Highway FIS Floodplain Delineation Study, performed by Willdan Associates in June 1997.
- Cave Creek Above Carefree Highway Floodplain Delineation Study, Performed by George V. Sabol Consulting Engineers, Inc. in July 1997.
- Skunk Creek Floodplain Redelineation and Hydraulic Analysis, performed by Erie and Associates, Inc. in November 1996.
- Apache Wash Flood Insurance Study, performed by Jerry R. Jones & Associates, Inc. (A David Evans and Associates, Inc. Company) in August 1992.

One ERM was found common in the Apache Wash Flood Insurance Study to this study. That point is number 5002 on Exhibit A. This point is listed as a USGS brass cap in the concrete on the north side of New River Road. It is stamped "8HRP". Since this study and Jerry Jones's report are on NGVD29 datum, the elevation checks at 1923.69. No horizontal information was given in the Jerry Jones report, but different horizontal data was used for the Jerry Jones report anyway.

Supplemental Topography Points

Table 2-4 is a list of points that were used as supplemental topography to verify sedimentation that has occurred upstream of Cave Creek Dam since the construction of Cave Buttes Dam. The equalization channel cut around Cave Creek Dam was also surveyed. This information was used in the development of hydraulic rating curves for Cave Creek Dam to estimate the peak stage resulting

from storms of various frequencies. Refer to Attachment 4 for the results of the sedimentation study, and Attachment 3 for the results of the stage versus discharge curves for Cave Creek and Cave Buttes Dam.

Table 2-1
Elevation Reference Marks (ERM's)

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|-----------------------|
| 5001 | 1036786.923 | 665454.078 | 2063.606 | GLO BC 22/23 |
| 5002 | 1022793.315 | 676015.237 | 1923.69 | USGS BM 8HRP |
| 5003 | 1018345.118 | 676186.123 | 1879.02 | BM 1880-29 COP |
| 5004 | 1013461.551 | 672517.094 | 1836.004 | CC059 BC |
| 5005 | 994489.945 | 665433.874 | 1655.984 | CC056 BC |
| 5006 | 1026173.865 | 670738.474 | 1955.456 | STA. NR06 CTRL |
| 5007 | 1007742.236 | 665458.084 | 1749.168 | CC058 BC |
| 5010 | 991814.284 | 659425.034 | 1651.818 | NS 60-D |
| 5011 | 991877.035 | 659446.658 | 1649.147 | NS 60-D |
| 5012 | 991838.047 | 659489.979 | 1641.632 | TOP DAM W END |
| 5013 | 991349.537 | 661086.734 | 1641.602 | TOP DAM E END |
| 5014 | 991301.305 | 661079.341 | 1638.039 | NS 60-D |
| 5060 | 1005089.612 | 665458.813 | 1720.783 | 1" PIPE E 1/4 SEC 22 |
| 5065 | 1002426.879 | 660146.462 | 1667.793 | STONE |
| 5070 | 1007742.344 | 665468.208 | 1749.084 | 1" PIPE NE COR SEC 22 |

Table 2-2
Panel Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 5054 | 1013049.529 | 660127.314 | 1749.025 | PANEL O |
| 5071 | 1010887.783 | 670668.995 | 1807.332 | PANEL N |
| 5072 | 1012322.996 | 675919.236 | 1853.757 | PANEL E |
| 5073 | 1002488.029 | 670672.53 | 1743.836 | PANEL I |
| 5074 | 999426.503 | 666454.597 | 1696.21 | PANEL B |
| 5075 | 992718.661 | 667068.522 | 1648.919 | PANEL A |
| 5076 | 996195.072 | 660675.244 | 1633.17 | PANEL C |
| 5077 | 998852.669 | 661181.212 | 1662.682 | PANEL D |
| 5078 | 1002396.338 | 654889.87 | 1667.367 | PANEL L |
| 5079 | 998820.713 | 659529.786 | 1639.436 | PANEL X |
| 5080 | 1006609.241 | 665180.044 | 1732.738 | PANEL J |
| 5081 | 1010349.68 | 665469.884 | 1771.975 | PANEL M |
| 5082 | 1006019.462 | 659037.521 | 1703.253 | PANEL K |
| 5083 | 1018229.065 | 665447.882 | 1811.014 | PANEL P |
| 5084 | 1018253.012 | 671040.63 | 1855.474 | PANEL Q |
| 5085 | 1018213.015 | 678689.563 | 1908 | PANEL F |
| 5086 | 1020271.648 | 684801.621 | 2004.57 | PANEL G |
| 5087 | 1023708.136 | 661525.559 | 1846.548 | PANEL T |
| 5088 | 1025295.911 | 665357.301 | 1884.12 | PANEL S |
| 5089 | 1031456.22 | 665930.215 | 1955.786 | PANEL U |
| 5090 | 1036819.81 | 669932.274 | 2091.571 | PANEL V |
| 5091 | 1036447.751 | 663580.348 | 2120.052 | PANEL W |
| 5092 | 1022920.384 | 669628.062 | 1886.188 | PANEL R |
| 5093 | 1022758.147 | 676014.704 | 1920.791 | PANEL H |

Table 2-3
Geomorphology Soil Test Pit Locations

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 5100 | 1016297.349 | 674730.783 | 1833.709 | 11-CHL |
| 5101 | 1016406.217 | 674524.165 | 1844.306 | 11-ROB1 |
| 5102 | 1013502.552 | 672434.445 | 1799.771 | 12-CHL |
| 5103 | 1013693.832 | 672217.612 | 1811.144 | 12-ROB1 |
| 5104 | 1013992.881 | 671977.795 | 1813.028 | 12-ROB2 |
| 5105 | 1014192.162 | 671809.823 | 1817.756 | 12-ROB3 |
| 5106 | 1011681.003 | 670590.55 | 1782.117 | 13-CHL |
| 5107 | 1011685.543 | 670809.163 | 1788.639 | 13-ISLAND |
| 5108 | 1011747.607 | 670215.073 | 1792.755 | 13-ROB1 |
| 5109 | 1009200.269 | 668904.067 | 1750.087 | 14-CHL |
| 5110 | 1009466.787 | 668849.867 | 1762.914 | 14-ROB1 |
| 5111 | 1009846.973 | 668666.275 | 1765.348 | 14-ROB2 |
| 5112 | 1010165.242 | 668232.942 | 1771.188 | 14-ROB3 |
| 5113 | 1007215.099 | 667556.36 | 1726.716 | 15-CHL |
| 5114 | 1007465.376 | 667118.1 | 1738.274 | 15-ROB1 |
| 5115 | 1004578.583 | 667051.142 | 1702.951 | 16-CHL |
| 5116 | 1004561.175 | 666452.223 | 1713.965 | 16-ROB1 |
| 5117 | 1004372.162 | 665767.52 | 1712.734 | 16-ROB2 |
| 5118 | 1004310.113 | 665540.241 | 1715.747 | 16-ROB3 |
| 5119 | 997811.137 | 665250.032 | 1661.184 | 18-LOB1 |
| 5120 | 997471.993 | 666174.759 | 1671.903 | 18-LOB2 |
| 5121 | 997584.71 | 666558.051 | 1683.018 | 18-LOB3 |
| 5122 | 998285.972 | 664689.416 | 1655.667 | 18-ROB1 |
| 5123 | 998607.988 | 664165.997 | 1657.61 | 18-ROB2 |
| 5124 | 995240.637 | 663758.402 | 1629.863 | 19-LOB1 |
| 5125 | 995534.774 | 663867.859 | 1638.334 | 19-LOB2 |
| 5126 | 1000384.759 | 658399.839 | 1642.082 | AW1-CHL |
| 5127 | 1000434.332 | 659171.753 | 1651.287 | AW1-LOB |
| 5128 | 1004412.559 | 661330.354 | 1682.838 | AW2-CHL |
| 5129 | 1004316.338 | 661725.236 | 1709.961 | AW2-LOB |
| 5130 | 1004521.249 | 660769.704 | 1685.569 | AW2-ROB1 |
| 5131 | 1004662.465 | 660252.157 | 1686.705 | AW2-ROB2 |
| 5132 | 1010174.934 | 662540.654 | 1720.649 | AW3-CHL |
| 5133 | 1010159.524 | 662413.353 | 1729.224 | AW3-ROB1 |
| 5134 | 1016552.606 | 664176.388 | 1783.531 | AW5-CHL |
| 5135 | 1016535.934 | 663982.146 | 1790.876 | AW5-ROB1 |

Note: Refer to Attachment 5, Chapter 4 for more detail on the test pit locations.

Table 2-4
Supplemental Topography Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 1000 | 992517.34 | 659558.768 | 1617.672 | EG |
| 1001 | 992498.745 | 659620.199 | 1612.388 | EG |
| 1002 | 992467.429 | 659722.281 | 1610.476 | EG |
| 1003 | 992437.86 | 659820.664 | 1610.71 | EG |
| 1004 | 992398.882 | 659945.543 | 1611.972 | EG |
| 1005 | 992392.137 | 659969.499 | 1606.457 | EG |
| 1006 | 992387.977 | 659983.388 | 1603.481 | EG |
| 1007 | 992385.804 | 659989.21 | 1609.334 | EG |
| 1008 | 992375.999 | 660020.708 | 1613.803 | EG |
| 1009 | 992365.629 | 660052.041 | 1613.325 | EG |
| 1010 | 992349.956 | 660106.627 | 1605.669 | EG |
| 1011 | 992317.944 | 660211.387 | 1605.366 | EG |
| 1012 | 992300.735 | 660269.487 | 1609.815 | EG |
| 1013 | 992266.876 | 660377.733 | 1608.367 | EG |
| 1014 | 992260.152 | 660401.4 | 1604.754 | EG |
| 1015 | 992223.875 | 660519.972 | 1605.494 | EG |
| 1016 | 992213.271 | 660553.518 | 1609.659 | EG |
| 1017 | 992206.906 | 660575.745 | 1610.143 | EG |
| 1018 | 992181.271 | 660604.55 | 1606.992 | EG |
| 1019 | 992191.145 | 660628.096 | 1602.138 | EG |
| 1020 | 992184.851 | 660646.791 | 1602.794 | EG |
| 1021 | 992180.961 | 660658.64 | 1607.351 | EG |
| 1022 | 992155.189 | 660744.259 | 1607.478 | EG |
| 1023 | 992123.751 | 660844.952 | 1606.665 | EG |
| 1024 | 992093.246 | 660946.27 | 1605.841 | EG |
| 1025 | 992074.782 | 661007.192 | 1606.168 | EG |
| 1026 | 992061.323 | 661050.469 | 1605.094 | EG |
| 1027 | 992050.171 | 661086.142 | 1610.185 | EG |
| 1028 | 992021.325 | 661181.264 | 1611.957 | EG |
| 1029 | 992005.817 | 661231.849 | 1612.085 | EG |
| 1030 | 991977.937 | 661323.418 | 1608.638 | EG |
| 1031 | 991939.08 | 661449.692 | 1644.608 | EG |
| 1032 | 993301.207 | 661079.276 | 1616.166 | EG |
| 1033 | 993306.328 | 660982.379 | 1616.862 | EG |
| 1034 | 993311.638 | 660875.333 | 1617.03 | EG |
| 1035 | 993317.39 | 660771.118 | 1616.296 | EG |
| 1036 | 993322.5 | 660669.168 | 1616.776 | EG |
| 1037 | 993328.189 | 660560.178 | 1615.074 | EG |
| 1038 | 993333.897 | 660453.759 | 1615.199 | EG |
| 1039 | 993339.859 | 660346.301 | 1614.548 | EG |
| 1040 | 993345.38 | 660237.343 | 1612.98 | EG |
| 1041 | 993352.246 | 660106.744 | 1612.837 | EG |
| 1042 | 993361.031 | 659945.734 | 1612.007 | EG |
| 1043 | 993380.104 | 659574.859 | 1611.388 | EG |

Table 2-4

Supplemental Topography Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 1044 | 993393.382 | 659317.932 | 1615.229 | EG |
| 1045 | 993399.857 | 659208.041 | 1618.26 | EG |
| 1046 | 993404.81 | 659102.96 | 1620.877 | EG |
| 1047 | 993408.916 | 659029.845 | 1625.322 | EG |
| 1048 | 993411.093 | 658988.743 | 1624.932 | EG |
| 1049 | 993415.049 | 658915.619 | 1617.952 | EG |
| 1050 | 993420.596 | 658811.201 | 1630.568 | EG |
| 1051 | 993426.736 | 658689.739 | 1629.672 | EG |
| 1052 | 993428.515 | 658638.847 | 1626.828 | EG |
| 1053 | 993430.961 | 658610.695 | 1622.314 | EG |
| 1054 | 993432.943 | 658568.644 | 1620.691 | EG |
| 1055 | 993442.043 | 658397.258 | 1639.186 | EG |
| 1056 | 993445.796 | 658328.206 | 1642.461 | EG |
| 1057 | 994422.621 | 658956.653 | 1629.762 | EG |
| 1058 | 994417.3 | 659066.339 | 1624.48 | EG |
| 1059 | 994412.23 | 659159.018 | 1619.371 | EG |
| 1060 | 994408.926 | 659230.424 | 1613.68 | EG |
| 1061 | 994402.284 | 659353.679 | 1613.031 | EG |
| 1062 | 994395.076 | 659486.56 | 1613.436 | EG |
| 1063 | 994383.69 | 659705.402 | 1613.623 | EG |
| 1064 | 994376.053 | 659846.263 | 1612.628 | EG |
| 1065 | 994374.785 | 659882.557 | 1618.085 | EG |
| 1066 | 994366.64 | 660030.909 | 1618.716 | EG |
| 1067 | 994361.49 | 660136.485 | 1612.907 | EG |
| 1068 | 995644.632 | 661676.676 | 1631.176 | EG |
| 1069 | 995645.793 | 661615.484 | 1629.953 | EG |
| 1070 | 995645.714 | 661558.362 | 1626.614 | EG |
| 1071 | 995638.348 | 661545.574 | 1624.344 | EG |
| 1072 | 995648.239 | 661527.89 | 1626.783 | EG |
| 1073 | 995647.462 | 661502.332 | 1627.237 | EG |
| 1074 | 995648.526 | 661497.267 | 1625.372 | EG |
| 1075 | 995650.132 | 661487.58 | 1625.622 | EG |
| 1076 | 995651.095 | 661480.79 | 1627.018 | EG |
| 1077 | 995653.87 | 661347.76 | 1630.514 | EG |
| 1078 | 995657.625 | 661142.191 | 1630.805 | EG |
| 1079 | 995664.557 | 660940.062 | 1628.619 | EG |
| 1080 | 995666.721 | 660831.966 | 1625.458 | EG |
| 1081 | 995668.296 | 660772.277 | 1625.842 | EG |
| 1082 | 995671.871 | 660639.592 | 1628.066 | EG |
| 1083 | 995674.164 | 660517.586 | 1625.012 | EG |
| 1084 | 995678.935 | 660442.497 | 1619.473 | EG |
| 1085 | 995679.874 | 660315.245 | 1618.19 | EG |
| 1086 | 995673.756 | 660237.278 | 1619.58 | EG |
| 1087 | 995675.849 | 660232.734 | 1616.84 | EG |

Table 2-4

Supplemental Topography Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 1088 | 995677.214 | 660223.605 | 1616.934 | EG |
| 1089 | 995681.588 | 660218.908 | 1618.766 | EG |
| 1090 | 995686.983 | 660062.587 | 1617.85 | EG |
| 1091 | 995689.51 | 659962.375 | 1615.491 | EG |
| 1092 | 995692.284 | 659890.245 | 1624.143 | EG |
| 1093 | 995693.524 | 659809.896 | 1629.126 | EG |
| 1094 | 995697.027 | 659658.368 | 1630.672 | EG |
| 1095 | 995701.619 | 659505.557 | 1635.928 | EG |
| 1096 | 995705.989 | 659350.729 | 1644.459 | EG |
| 1097 | 994425.666 | 658893.831 | 1628.563 | EG |
| 1098 | 994427.843 | 658864.339 | 1630.298 | EG |
| 1099 | 994430.42 | 658817.697 | 1627.868 | EG |
| 1100 | 994432.526 | 658770.401 | 1630.654 | EG |
| 1101 | 994435.886 | 658711.477 | 1624.522 | EG |
| 1102 | 994438.015 | 658668.964 | 1632.446 | EG |
| 1103 | 994440.483 | 658630.696 | 1633.244 | EG |
| 1104 | 994443.258 | 658564.624 | 1644.471 | EG |
| 1116 | 991799.742 | 659472.566 | 1640.675 | EG |
| 1117 | 991791.972 | 659497.961 | 1632.736 | EG |
| 1118 | 991765.875 | 659583.26 | 1618.24 | EG |
| 1119 | 991740.375 | 659666.606 | 1604.856 | EG |
| 1120 | 991727.187 | 659709.709 | 1600.414 | EG |
| 1121 | 991714.426 | 659751.414 | 1598.584 | EG |
| 1122 | 991698.102 | 659804.766 | 1598.23 | SPILLWAY W EDGE |
| 1123 | 991695.017 | 659814.851 | 1590.153 | FL SPILLWAY |
| 1124 | 991691.994 | 659824.73 | 1598.115 | SPILLWAY E EDGE |
| 1125 | 991676.146 | 659876.53 | 1595.923 | EG |
| 1126 | 991673.971 | 659883.638 | 1592.368 | EG |
| 1127 | 991666.189 | 659909.064 | 1590.945 | EG |
| 1128 | 991663.004 | 659919.484 | 1588.907 | EG |
| 1129 | 991654.062 | 659948.7 | 1588.629 | EG |
| 1130 | 991650.214 | 659961.285 | 1585.547 | EG |
| 1131 | 991645.891 | 659975.407 | 1590.195 | EG |
| 1132 | 991629.594 | 660028.671 | 1592.264 | EG |
| 1133 | 991624.305 | 660045.956 | 1585.404 | EG |
| 1134 | 991619.311 | 660062.279 | 1591.243 | EG |
| 1135 | 991616.295 | 660072.126 | 1591.199 | EG |
| 1136 | 991611.531 | 660087.697 | 1585.757 | EG |
| 1137 | 991606.963 | 660102.627 | 1590.94 | EG |
| 1138 | 991603.763 | 660113.095 | 1590.973 | EG |
| 1139 | 991598.74 | 660129.501 | 1585.113 | EG |
| 1140 | 991593.886 | 660145.378 | 1590.284 | EG |
| 1141 | 991589.872 | 660158.495 | 1590.303 | EG |
| 1142 | 991585.869 | 660171.566 | 1586.769 | EG |

Table 2-4
Supplemental Topography Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 1143 | 991583.417 | 660179.581 | 1590.669 | EG |
| 1144 | 991577 | 660200.555 | 1591.023 | EG |
| 1145 | 991573.121 | 660213.233 | 1587.872 | EG |
| 1146 | 991570.522 | 660221.725 | 1590.101 | EG |
| 1147 | 991564.119 | 660242.654 | 1590.156 | EG |
| 1148 | 991560.245 | 660255.316 | 1587.446 | EG |
| 1149 | 991557.058 | 660265.731 | 1589.903 | EG |
| 1150 | 991549.8 | 660289.451 | 1590.383 | EG |
| 1151 | 991547.54 | 660296.975 | 1589.264 | EG |
| 1152 | 991544.771 | 660306.027 | 1590.039 | EG |
| 1153 | 991537.338 | 660330.321 | 1589.421 | EG |
| 1154 | 991534.735 | 660338.817 | 1587.801 | EG |
| 1155 | 991532.332 | 660346.67 | 1589.039 | EG |
| 1156 | 991524.363 | 660372.72 | 1589.378 | EG |
| 1157 | 991521.85 | 660380.935 | 1586.666 | EG |
| 1158 | 991518.403 | 660392.202 | 1589.943 | EG |
| 1159 | 991509.114 | 660422.565 | 1590.716 | EG |
| 1160 | 991500.443 | 660450.909 | 1591.568 | EG |
| 1161 | 991496.012 | 660465.392 | 1593.333 | EG |
| 1162 | 991487.714 | 660492.515 | 1592.542 | EG |
| 1163 | 991483.365 | 660506.733 | 1587.412 | EG |
| 1164 | 991479.314 | 660519.975 | 1591.768 | EG |
| 1165 | 991470.342 | 660549.301 | 1592.914 | EG |
| 1166 | 991461.471 | 660578.298 | 1592.562 | EG |
| 1167 | 991457.658 | 660590.761 | 1588.142 | EG |
| 1168 | 991452.97 | 660606.086 | 1592.93 | EG |
| 1169 | 991449.325 | 660618.002 | 1593.024 | EG |
| 1170 | 991444.51 | 660633.741 | 1586.007 | EG |
| 1171 | 991439.78 | 660649.201 | 1592.753 | EG |
| 1172 | 991435.8 | 660662.191 | 1592.325 | EG |
| 1173 | 991431.771 | 660675.382 | 1587.458 | EG |
| 1174 | 991426.555 | 660692.43 | 1594.538 | EG |
| 1175 | 991422.948 | 660704.223 | 1594.291 | EG |
| 1176 | 991418.866 | 660717.564 | 1588.263 | EG |
| 1177 | 991414.249 | 660732.656 | 1592.589 | EG |
| 1178 | 991410.277 | 660745.639 | 1592.25 | EG |
| 1179 | 991406.019 | 660759.557 | 1587.739 | EG |
| 1180 | 991401.651 | 660773.861 | 1592.283 | EG |
| 1181 | 991396.828 | 660789.625 | 1592.146 | EG |
| 1182 | 991393.288 | 660801.196 | 1590.042 | EG |
| 1183 | 991391.375 | 660807.451 | 1592.266 | EG |
| 1184 | 991383.842 | 660832.075 | 1591.898 | EG |
| 1185 | 991380.353 | 660843.481 | 1588.582 | EG |
| 1186 | 991376.789 | 660855.129 | 1590.882 | EG |

Table 2-4
Supplemental Topography Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 1187 | 991372.615 | 660868.798 | 1590.392 | EG |
| 1188 | 991367.396 | 660885.859 | 1585.195 | EG |
| 1189 | 991363.154 | 660899.726 | 1589.697 | EG |
| 1190 | 991357.685 | 660917.629 | 1588.977 | EG |
| 1191 | 991354.547 | 660927.86 | 1587.107 | EG |
| 1192 | 991351.811 | 660936.805 | 1588.297 | EG |
| 1193 | 991344.842 | 660959.585 | 1588.963 | EG |
| 1194 | 991341.795 | 660969.546 | 1588.746 | EG |
| 1195 | 991340.233 | 660974.652 | 1589.892 | EG |
| 1196 | 991335.459 | 660990.258 | 1599.662 | EG |
| 1197 | 991328.733 | 661012.244 | 1610.703 | EG |
| 1198 | 991324.303 | 661026.724 | 1619.029 | EG |
| 1199 | 991315.751 | 661054.682 | 1630.198 | EG |
| 1200 | 991308.181 | 661079.426 | 1638.474 | EG |
| 1201 | 991303.929 | 661093.297 | 1639.257 | EG |
| 1202 | 991300.398 | 661104.839 | 1642.832 | EG |
| 1203 | 991368.02 | 661110.484 | 1644.321 | EG |
| 1204 | 991373.155 | 661093.7 | 1637.245 | EG |
| 1205 | 991383.571 | 661059.652 | 1623.25 | EG |
| 1206 | 991390.656 | 661036.494 | 1613.847 | EG |
| 1207 | 991398.447 | 661011.025 | 1611.373 | EG |
| 1208 | 991424.27 | 660926.618 | 1609.326 | EG |
| 1209 | 991439.322 | 660877.418 | 1608.362 | EG |
| 1210 | 991450.454 | 660841.007 | 1605.736 | EG |
| 1211 | 991475.691 | 660758.536 | 1604.668 | EG |
| 1212 | 991489.083 | 660714.762 | 1606.937 | EG |
| 1213 | 991501.954 | 660672.69 | 1608.611 | EG |
| 1214 | 991514.57 | 660631.454 | 1608.808 | EG |
| 1215 | 991540.155 | 660547.822 | 1607.709 | EG |
| 1216 | 991552.883 | 660506.201 | 1607.698 | EG |
| 1217 | 991578.795 | 660421.519 | 1606.119 | EG |
| 1218 | 991604.248 | 660338.321 | 1605.075 | EG |
| 1219 | 991615.621 | 660301.146 | 1604.359 | EG |
| 1220 | 991630.019 | 660254.07 | 1599.057 | EG |
| 1221 | 991655.685 | 660170.175 | 1596.687 | EG |
| 1222 | 991681.79 | 660084.848 | 1596.219 | EG |
| 1223 | 991708.085 | 659998.897 | 1596.46 | EG |
| 1224 | 991732.935 | 659917.663 | 1595.965 | EG |
| 1225 | 991752.095 | 659855.039 | 1595.587 | EG |
| 1226 | 991756.064 | 659842.066 | 1593.956 | EG |
| 1227 | 991760.768 | 659826.689 | 1593.699 | EG |
| 1228 | 991765.818 | 659810.183 | 1599.873 | EG |
| 1229 | 991779.655 | 659764.955 | 1608.994 | EG |
| 1230 | 991784.947 | 659747.658 | 1610.67 | EG |

Table 2-4
Supplemental Topography Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 1231 | 991797.114 | 659707.888 | 1612.874 | EG |
| 1232 | 991810.125 | 659665.364 | 1614.633 | EG |
| 1233 | 991829.128 | 659603.251 | 1623.613 | EG |
| 1234 | 991838.229 | 659573.501 | 1627.679 | EG |
| 1235 | 991852.516 | 659526.801 | 1631.623 | EG |
| 1236 | 991857.476 | 659510.59 | 1635.668 | EG |
| 1237 | 991865.865 | 659483.169 | 1641.689 | EG |
| 1238 | 991823.952 | 659513.741 | 1640.059 | 38/39 ELEV MARK |
| 1239 | 991823.198 | 659512.397 | 1639.932 | 39/40 OLD ELEV |
| 2000 | 993295.752 | 661179.403 | 1616.272 | EG |
| 2001 | 993295.672 | 661192.112 | 1608.067 | EG |
| 2002 | 993292.975 | 661230.402 | 1607.856 | EG |
| 2003 | 993291.608 | 661255.715 | 1611.719 | EG |
| 2004 | 993284.433 | 661393.463 | 1614.482 | EG |
| 2005 | 993280.386 | 661466.358 | 1615.11 | EG |
| 2006 | 993276.641 | 661540.144 | 1613.445 | EG |
| 2007 | 993275.943 | 661556.744 | 1610.997 | EG |
| 2008 | 993273.515 | 661603.069 | 1610.118 | EG |
| 2009 | 993262.142 | 661820.043 | 1611.031 | EG |
| 2010 | 993261.071 | 661843.864 | 1616.259 | EG |
| 2011 | 993256.426 | 661930.927 | 1618.48 | EG |
| 2012 | 993253.979 | 661971.874 | 1617.77 | EG |
| 2013 | 993252.091 | 662014.323 | 1615.064 | EG |
| 2014 | 993243.715 | 662173.905 | 1614.464 | EG |
| 2015 | 993235.535 | 662325.29 | 1615.46 | EG |
| 2016 | 993231.046 | 662414.255 | 1617.633 | EG |
| 2017 | 993224.858 | 662531.158 | 1616.787 | EG |
| 2018 | 993221.091 | 662605.659 | 1615.74 | EG |
| 2019 | 993208.19 | 662847.107 | 1615.815 | EG |
| 2020 | 993200.44 | 662996.198 | 1614.823 | EG |
| 2021 | 993195.231 | 663093.243 | 1620.531 | EG |
| 2022 | 993188.876 | 663216.488 | 1621.412 | EG |
| 2023 | 993186.792 | 663251.92 | 1622.739 | EG |
| 2024 | 993186.279 | 663264.837 | 1624.101 | EG |
| 2025 | 993181.128 | 663361.638 | 1623.988 | EG |
| 2026 | 993174.15 | 663490.972 | 1625.976 | EG |
| 2027 | 993171.916 | 663536.51 | 1623.835 | EG |
| 2028 | 993170.983 | 663559.466 | 1623.877 | EG |
| 2029 | 993166.076 | 663644.567 | 1630.392 | EG |
| 2030 | 993161.784 | 663730.275 | 1633.039 | EG |
| 2031 | 993154.603 | 663865.002 | 1633.949 | EG |
| 2032 | 993143.979 | 664065.879 | 1634.476 | EG |
| 2033 | 993135.872 | 664222.588 | 1635.878 | EG |
| 2034 | 993131.794 | 664295.268 | 1638.19 | EG |

Table 2-4
Supplemental Topography Points

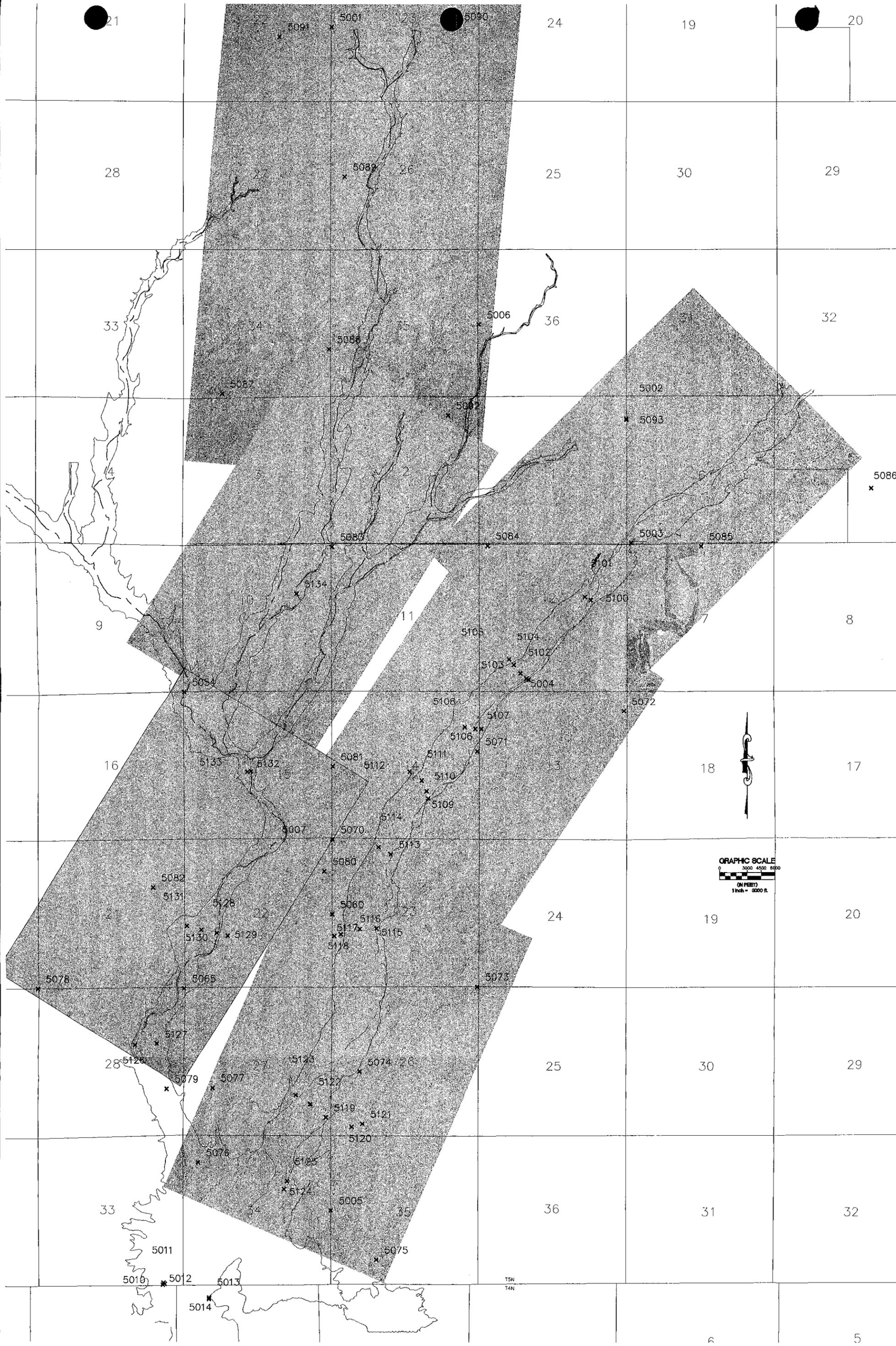
| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 2035 | 993129.048 | 664348.464 | 1639.06 | EG |
| 2036 | 993124.716 | 664433.951 | 1638.166 | EG |
| 2037 | 993118.76 | 664549.669 | 1635.394 | EG |
| 2038 | 994150.437 | 664146.154 | 1647.632 | EG |
| 2039 | 994153.262 | 664091.58 | 1642.102 | EG |
| 2040 | 994156.035 | 664036.342 | 1639.47 | EG |
| 2041 | 994158.034 | 664000.483 | 1635.635 | EG |
| 2042 | 994160.827 | 663944.555 | 1626.17 | EG |
| 2043 | 994164.499 | 663871.527 | 1621.806 | EG |
| 2044 | 994172.837 | 663715.135 | 1619.405 | EG |
| 2045 | 994175.058 | 663677.915 | 1620.588 | EG |
| 2046 | 994181.486 | 663555.892 | 1620.866 | EG |
| 2047 | 994188.348 | 663423.672 | 1619.084 | EG |
| 2048 | 994191.755 | 663357.746 | 1620.716 | EG |
| 2049 | 994201.506 | 663176.608 | 1620.827 | EG |
| 2050 | 994208.037 | 663048.508 | 1620.609 | EG |
| 2051 | 994211.952 | 662974.075 | 1627.281 | EG |
| 2052 | 994215.932 | 662899.05 | 1626.985 | EG |
| 2053 | 994218.37 | 662855.899 | 1621.857 | EG |
| 2054 | 994221.554 | 662793.849 | 1622.209 | EG |
| 2055 | 994229.545 | 662640.495 | 1622.782 | EG |
| 2056 | 994230.964 | 662615.071 | 1621.931 | EG |
| 2057 | 994231.594 | 662607.648 | 1620.293 | EG |
| 2058 | 994235.097 | 662533.979 | 1619.835 | EG |
| 2059 | 994239.903 | 662442.823 | 1617.697 | EG |
| 2060 | 994240.225 | 662435.929 | 1620.12 | EG |
| 2061 | 994245.168 | 662343.424 | 1620.232 | EG |
| 2062 | 994246.331 | 662323.256 | 1618.797 | EG |
| 2063 | 994246.992 | 662308.141 | 1620.264 | EG |
| 2064 | 994253.867 | 662178.809 | 1619.734 | EG |
| 2065 | 994259.632 | 662070.441 | 1618.478 | EG |
| 2066 | 994264.408 | 661976.515 | 1619.404 | EG |
| 2067 | 994269.509 | 661879.185 | 1618.403 | EG |
| 2068 | 994270.216 | 661863.803 | 1616.778 | EG |
| 2069 | 994277.773 | 661723.974 | 1616.149 | EG |
| 2070 | 994289.893 | 661496.418 | 1614.839 | EG |
| 2071 | 994295.47 | 661387.143 | 1614.749 | EG |
| 2072 | 994299.308 | 661313.419 | 1614.227 | EG |
| 2073 | 994303.945 | 661226.616 | 1622.267 | EG |
| 2074 | 994310.79 | 661097.418 | 1622.393 | EG |
| 2075 | 994312.87 | 661058.039 | 1622.982 | EG |
| 2076 | 994319.493 | 660930.09 | 1622.116 | EG |
| 2077 | 994325.905 | 660806.379 | 1622.643 | EG |
| 2078 | 994333.622 | 660660.745 | 1621.429 | EG |

Table 2-4
Supplemental Topography Points

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 2079 | 994340.033 | 660538.673 | 1620.372 | EG |
| 2080 | 994347.217 | 660402.563 | 1618.094 | EG |
| 2081 | 994352.567 | 660300.613 | 1616.532 | EG |
| 2082 | 994357.717 | 660203.088 | 1613.469 | EG |
| 2083 | 995641.604 | 661781.613 | 1630.481 | EG |
| 2084 | 995639.344 | 661868.789 | 1628.101 | EG |
| 2085 | 995638.875 | 661883.181 | 1624.07 | EG |
| 2086 | 995638.126 | 661910.462 | 1625.773 | EG |
| 2087 | 995637.512 | 661941.936 | 1627.758 | EG |
| 2088 | 995635.742 | 662005.722 | 1627.607 | EG |
| 2089 | 995635.289 | 662015.189 | 1626.711 | EG |
| 2090 | 995634.542 | 662045.983 | 1627.999 | EG |
| 2091 | 995633.171 | 662105.388 | 1629.122 | EG |
| 2092 | 995632.193 | 662137.083 | 1624.788 | EG |
| 2093 | 995631.521 | 662163.167 | 1623.746 | EG |
| 2094 | 995631.115 | 662180.79 | 1629.019 | EG |
| 2095 | 995628.988 | 662264.617 | 1629.51 | EG |
| 2096 | 995626.658 | 662352.857 | 1628.678 | EG |
| 2097 | 995625.453 | 662393.515 | 1628.203 | EG |
| 2098 | 995625.239 | 662399.394 | 1625.75 | EG |
| 2099 | 995624.698 | 662420.86 | 1625.8 | EG |
| 2100 | 995624.573 | 662431.727 | 1629.069 | EG |
| 2101 | 995623.504 | 662470.337 | 1628.652 | EG |
| 2102 | 995622.01 | 662525.319 | 1629.817 | EG |
| 2103 | 995621.821 | 662534.308 | 1626.089 | EG |
| 2104 | 995621.428 | 662550.032 | 1625.128 | EG |
| 2105 | 995620.865 | 662570.292 | 1626.733 | EG |
| 2106 | 995617.321 | 662703.512 | 1627.262 | EG |
| 2107 | 995614.32 | 662814.73 | 1627.808 | EG |
| 2108 | 995611.176 | 662933.973 | 1628.356 | EG |
| 2109 | 995608.166 | 663049.777 | 1630.296 | EG |
| 2110 | 995607.448 | 663079.671 | 1629.816 | EG |
| 2111 | 995607.007 | 663092.642 | 1631.776 | EG |
| 2112 | 995605.13 | 663165.337 | 1633.168 | EG |
| 2113 | 995604.927 | 663177.064 | 1630.199 | EG |
| 2114 | 995603.965 | 663207.924 | 1629.193 | EG |
| 2115 | 995602.469 | 663268.647 | 1627.859 | EG |
| 2116 | 995600.938 | 663319.943 | 1628.188 | EG |
| 2117 | 995599.98 | 663361.136 | 1630.888 | EG |
| 2118 | 995599.403 | 663383.908 | 1632.914 | EG |
| 2119 | 995597.72 | 663449.096 | 1634.344 | EG |
| 2120 | 995597.169 | 663467.498 | 1631.95 | EG |
| 2121 | 995596.599 | 663491.363 | 1632.494 | EG |
| 2122 | 995595.836 | 663521.19 | 1632.394 | EG |

Table 2-4**Supplemental Topography Points**

| Point Number | Northing | Easting | Elevation | Description |
|---------------------|-----------------|----------------|------------------|--------------------|
| 2123 | 995595.634 | 663528.553 | 1630.137 | EG |
| 2124 | 995594.926 | 663554.713 | 1630.016 | EG |
| 2125 | 995594.243 | 663577.975 | 1631.43 | EG |
| 2126 | 995593.717 | 663598.084 | 1635.093 | EG |
| 2127 | 995592.705 | 663636.053 | 1632.925 | EG |
| 2128 | 995591.822 | 663668.475 | 1635.003 | EG |
| 2129 | 995589.727 | 663749.485 | 1636.035 | EG |
| 2130 | 995589.399 | 663766.224 | 1630.116 | EG |
| 2131 | 995588.967 | 663783.437 | 1629.972 | EG |
| 2132 | 995588.399 | 663800.373 | 1627.441 | EG |
| 2133 | 995587.329 | 663840.01 | 1627.507 | EG |
| 2134 | 995587.035 | 663850.825 | 1638.435 | EG |
| 2135 | 995584.488 | 663947.413 | 1639.178 | EG |
| 2136 | 995581.162 | 664073.862 | 1638.613 | EG |
| 2137 | 995578.695 | 664164.271 | 1638.725 | EG |
| 2138 | 995575.882 | 664280.462 | 1641.445 | EG |
| 2139 | 995573.998 | 664341.877 | 1642.281 | EG |
| 2140 | 993113.681 | 664645.062 | 1633.127 | EG |
| 2141 | 993109.163 | 664728.075 | 1630.14 | EG |
| 2142 | 993108.641 | 664742.738 | 1632.018 | EG |
| 2143 | 993102.193 | 664861.98 | 1633.04 | EG |
| 2144 | 993095.701 | 664986.651 | 1635.925 | EG |
| 2145 | 993088.926 | 665119.128 | 1640.506 | EG |
| 2146 | 993086.911 | 665153.341 | 1642.161 | EG |



| NO. | REVISIONS | DATE | BY | CHK |
|-----|-----------|------|----|-----|
| | | | | |
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UPPER CAVE CREEK/APACHE WASH WCMP
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

JOB NO. 2300.0001
 DESIGNED BY JAD
 DRAWN BY JAD
 CHECKED BY JAD
 APPROVED BY TRC
 DATE 3/28/01

EXHIBIT A
SURVEY DATA
PANEL POINT LOCATIONS

SCALE: HORIZ: 1"=1000'
 CONT. INTERVAL = 10'
 DRAWING NO. **SEXA**
 SHEET NO. 1 OF 1