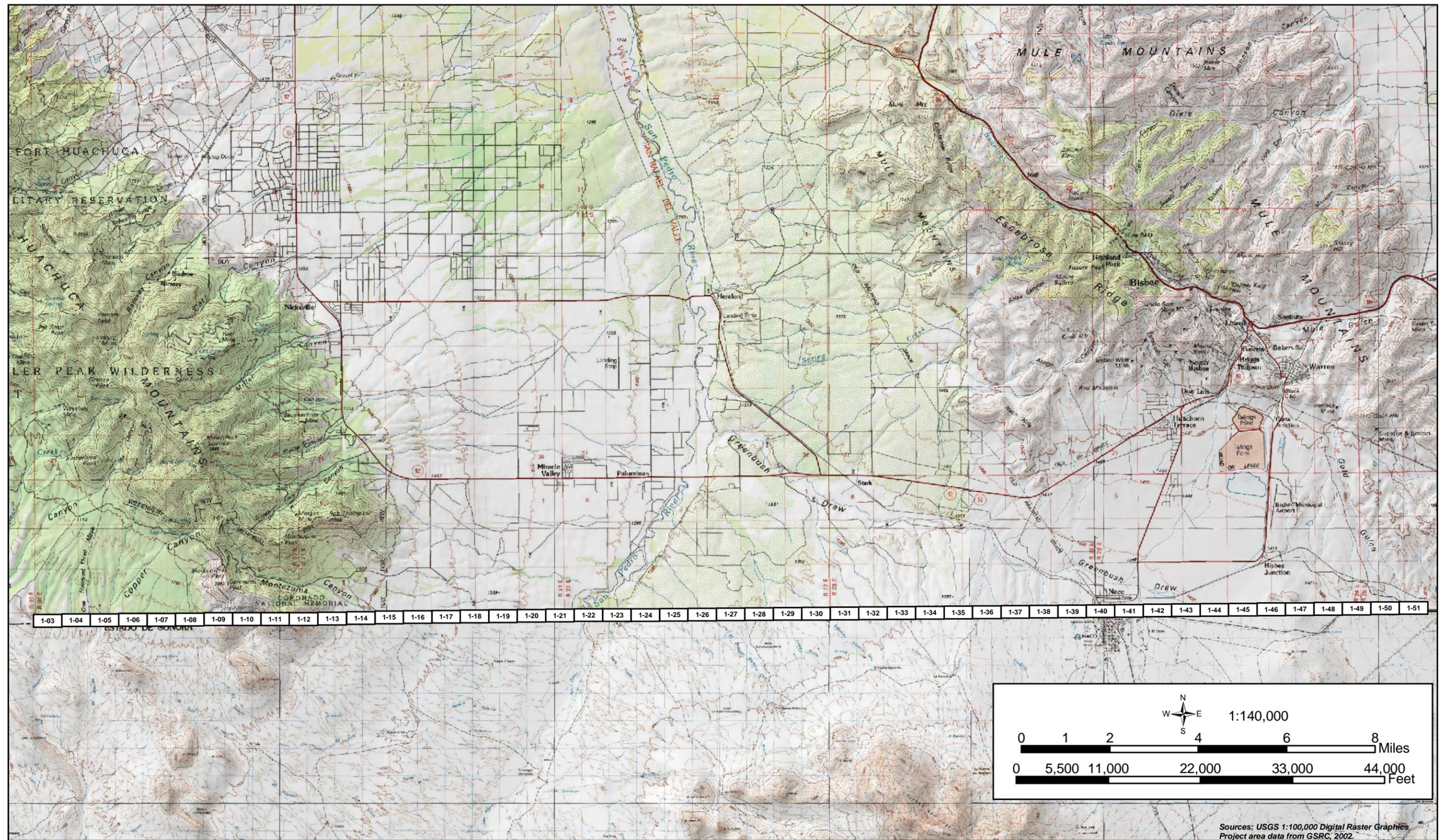
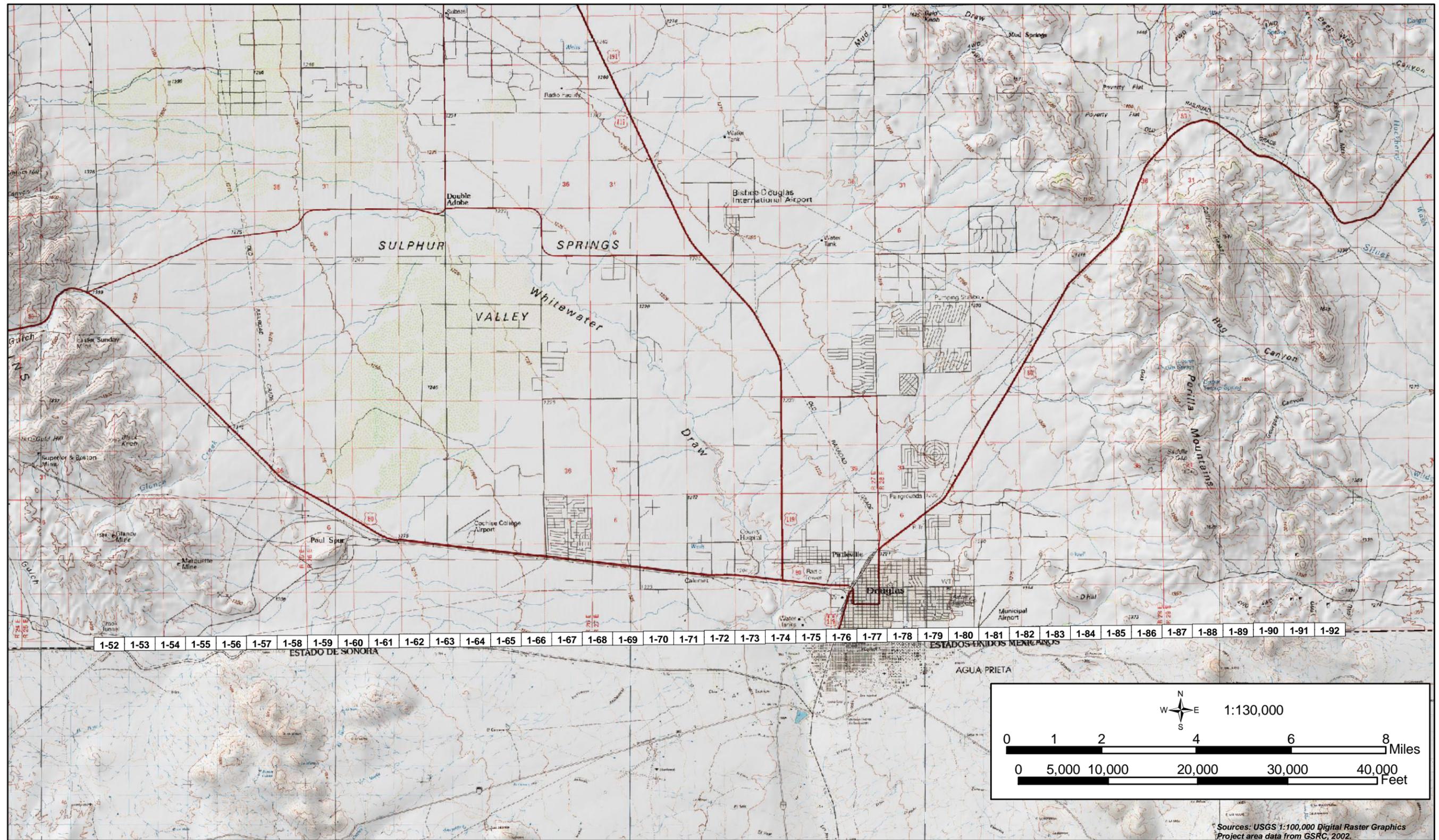

Appendix A
VEGETATIVE SURVEY ANALYSIS



Appendix A
Vegetative Survey Analysis
Panel Index



Date: April 2003



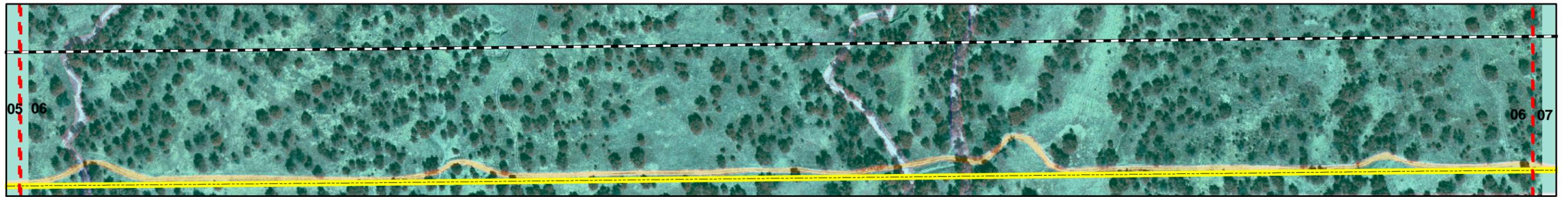
Appendix A
Vegetative Survey Analysis
Panel Index



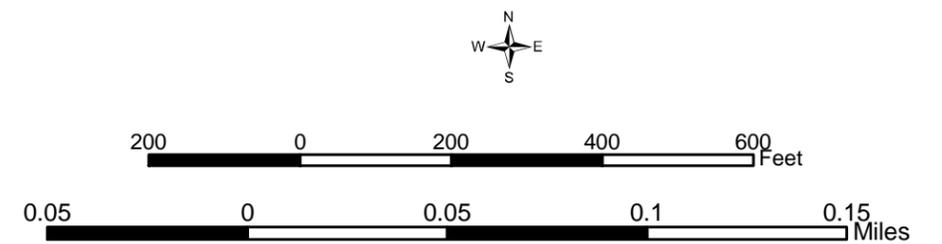
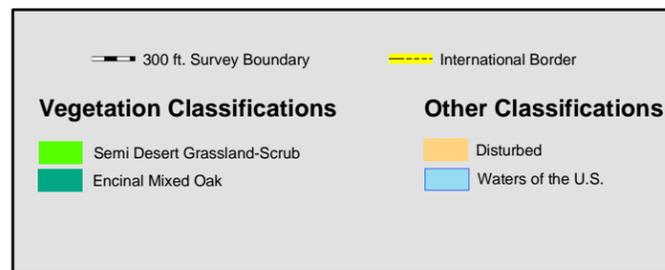
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1-05



1-06

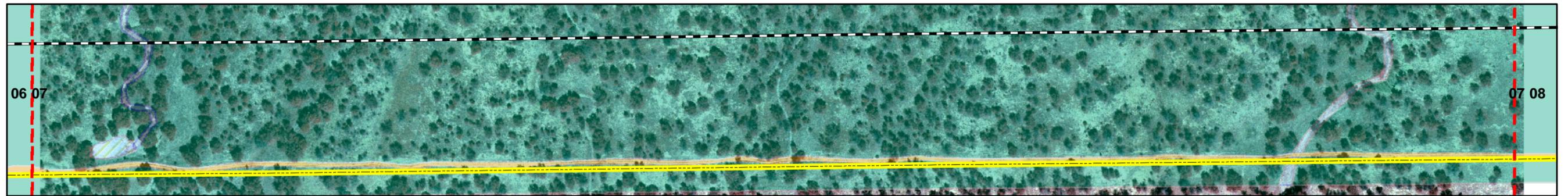


Appendix A Panels 1-06, 1-05, 1-04

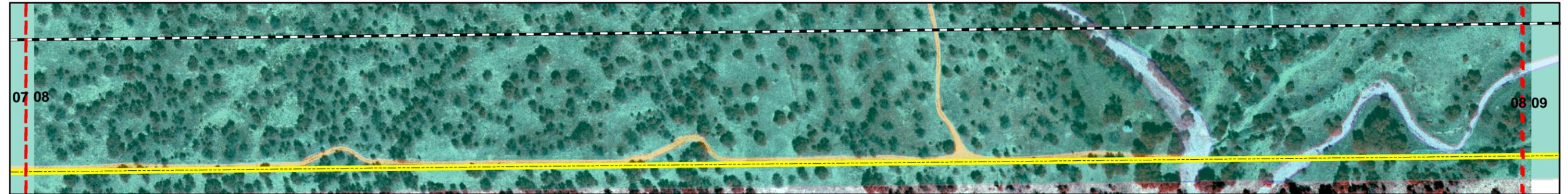
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



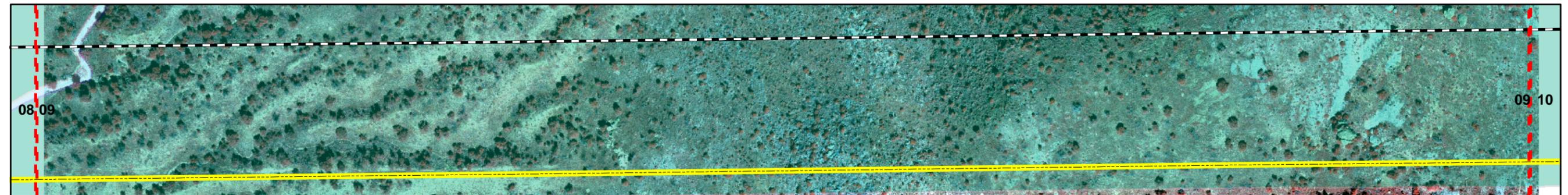
Date: April 2003



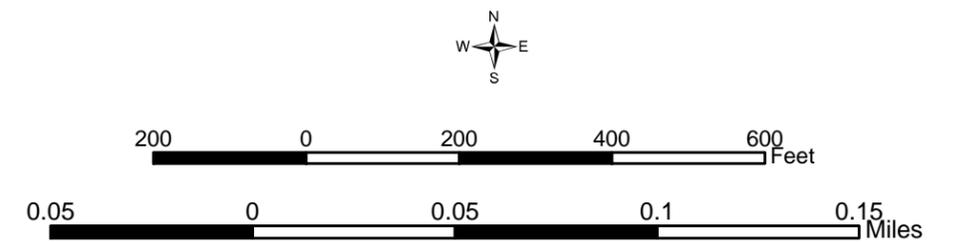
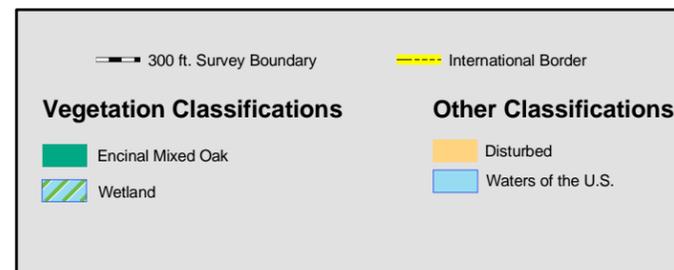
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1-08



1-09

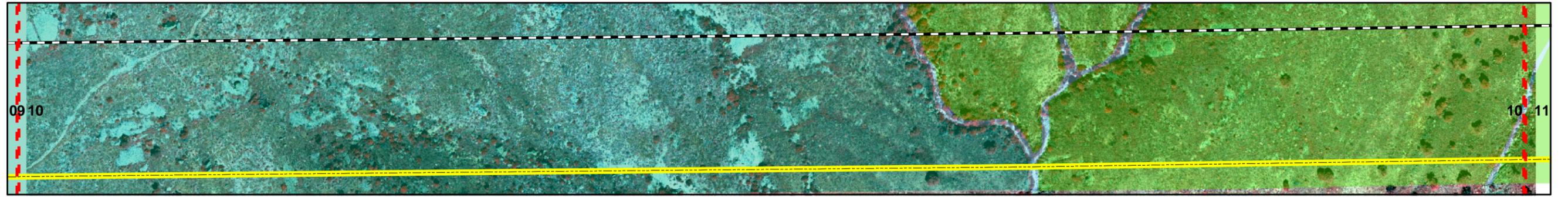


Appendix A Panels 1-09, 1-08, 1-07

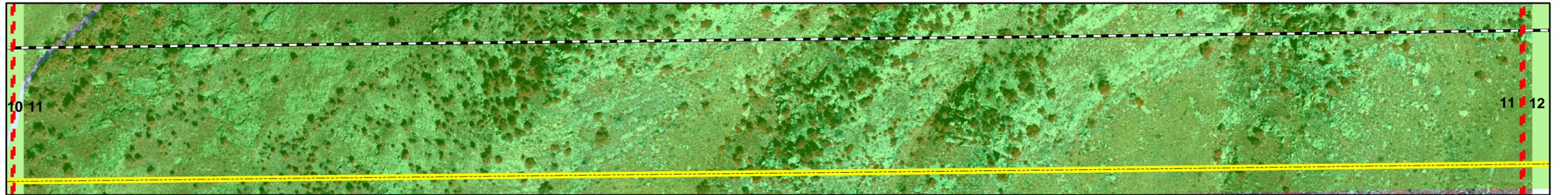
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



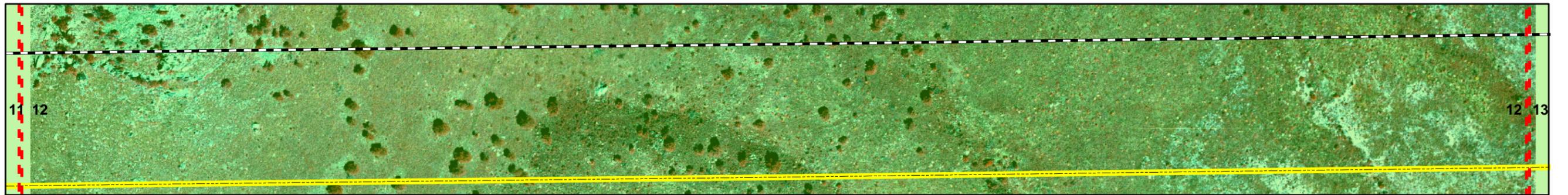
Date: April 2003



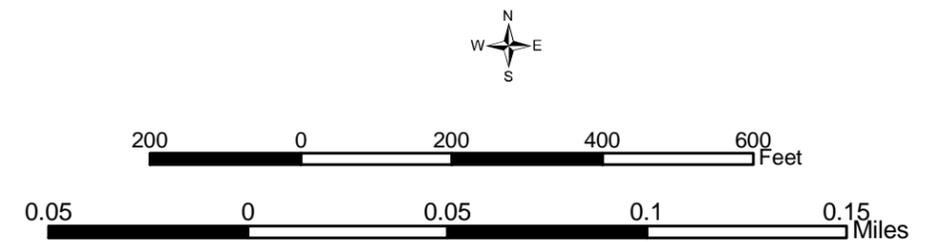
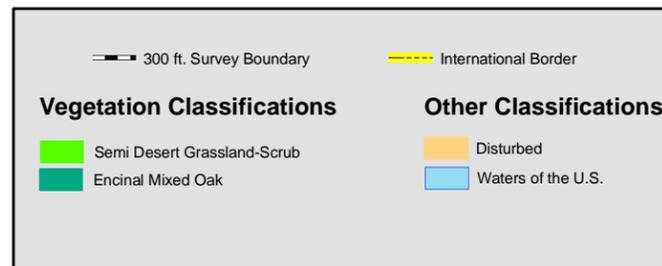
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1-12

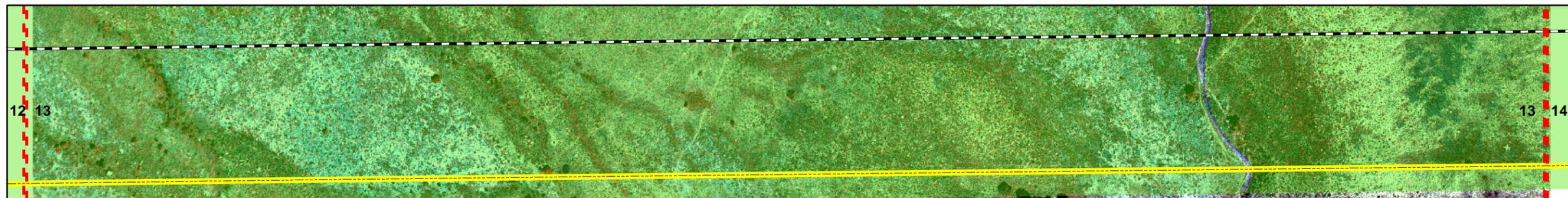


Appendix A Panels 1-12, 1-11, 1-10

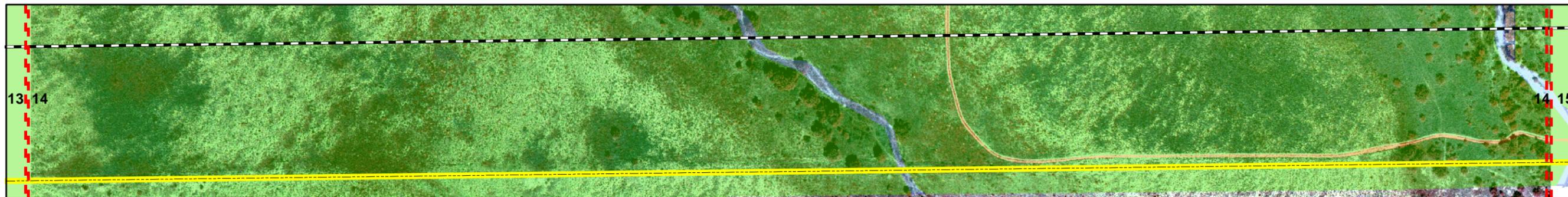
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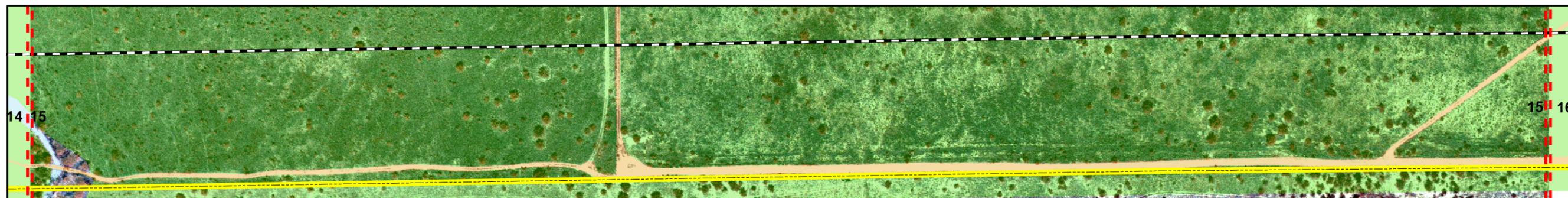
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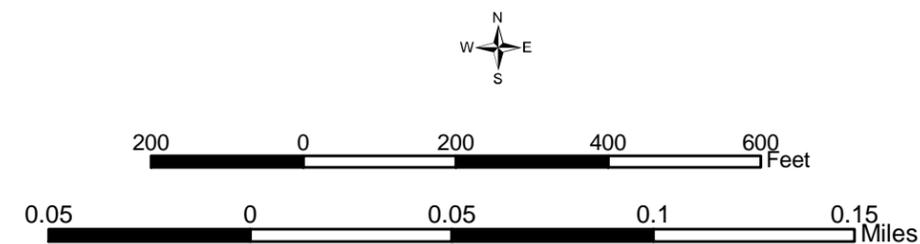
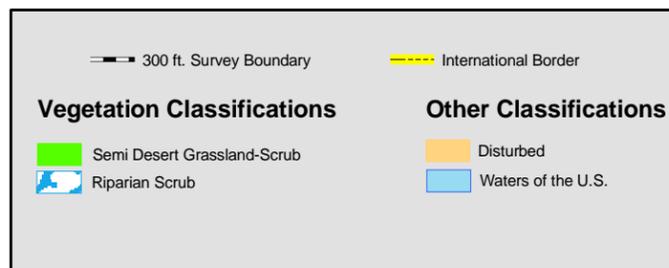
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1-14



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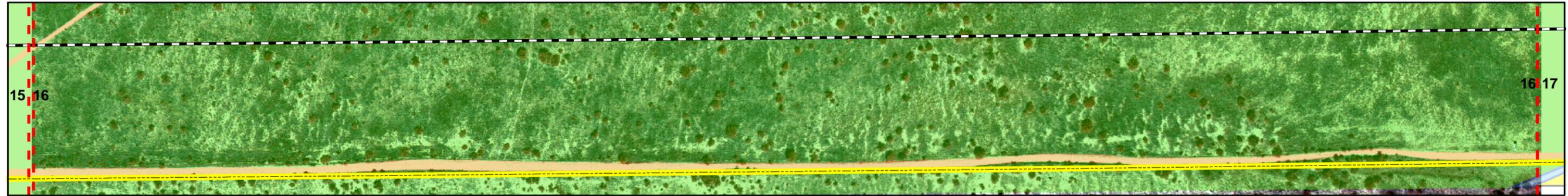


Appendix A Panels 1-15, 1-14, 1-13

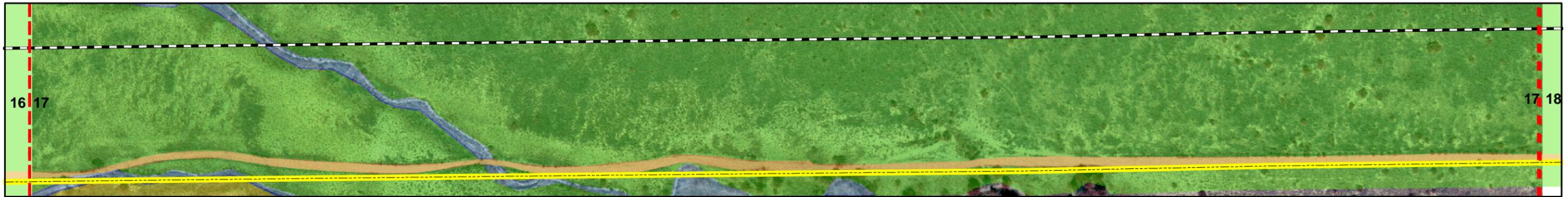
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



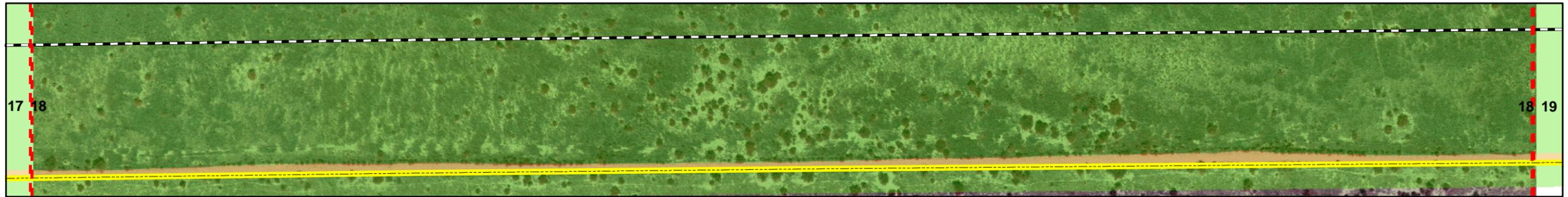
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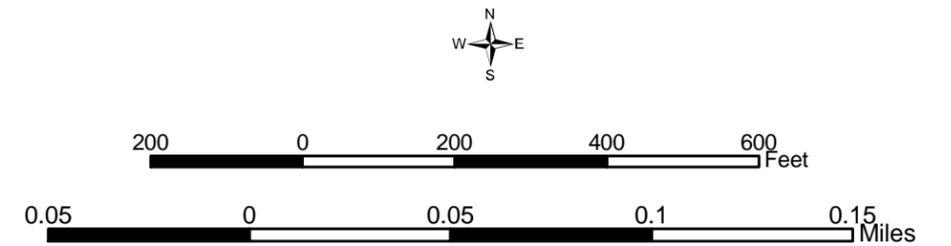
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1-18



Appendix A Panels 1-18, 1-17, 1-16

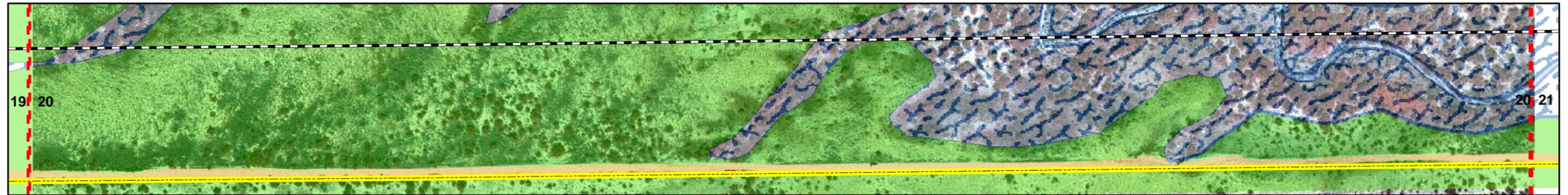
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



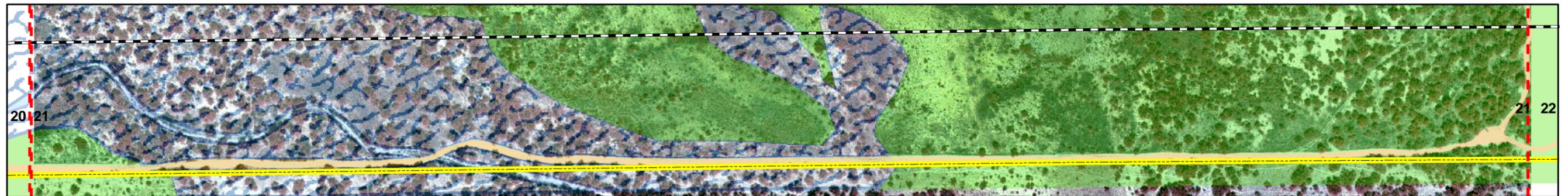
Date: April 2003



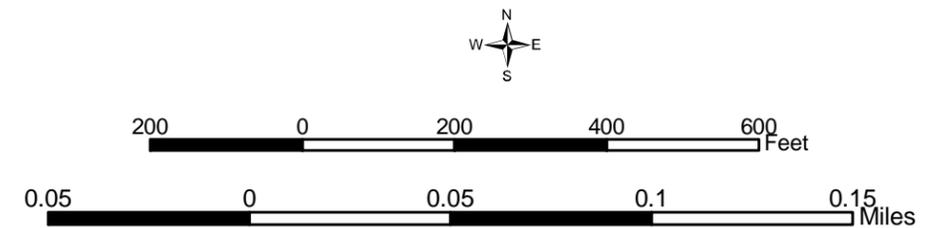
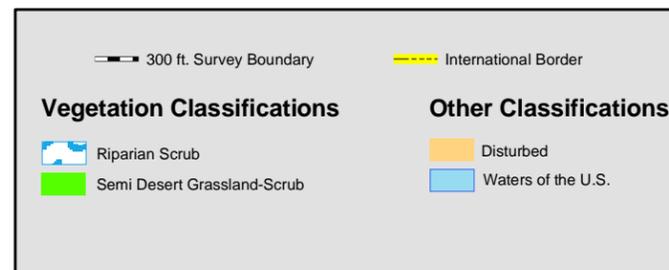
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1-21

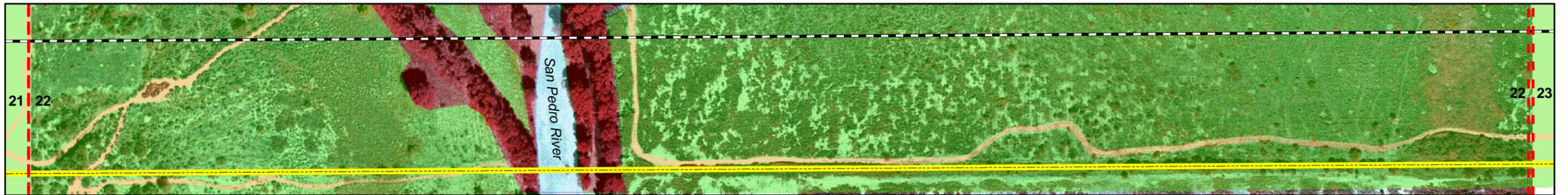


Appendix A Panels 1-21, 1-20, 1-19

Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



Date: April 2003



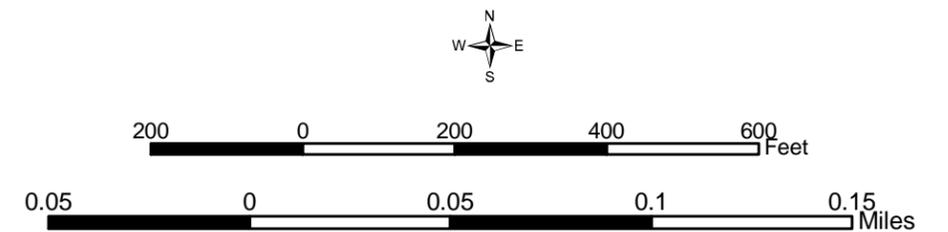
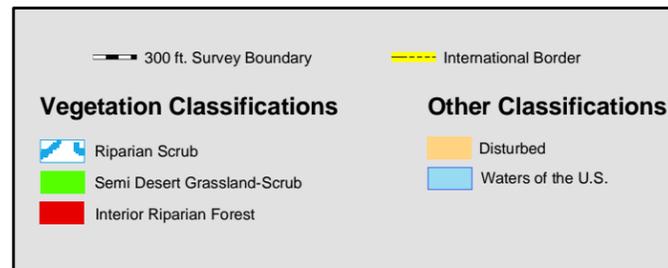
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1-23



1-24

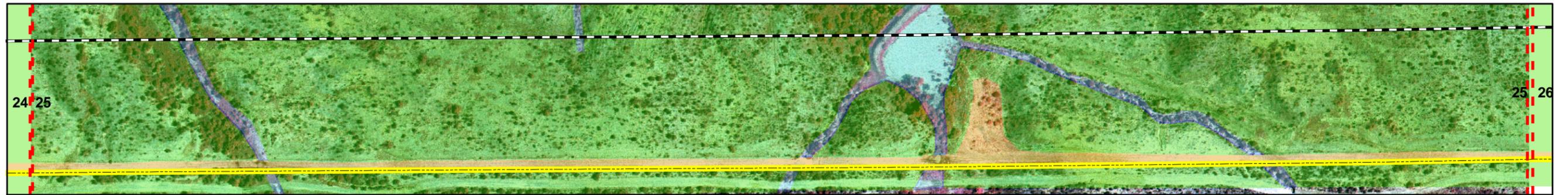


Appendix A Panels 1-24, 1-23, 1-22

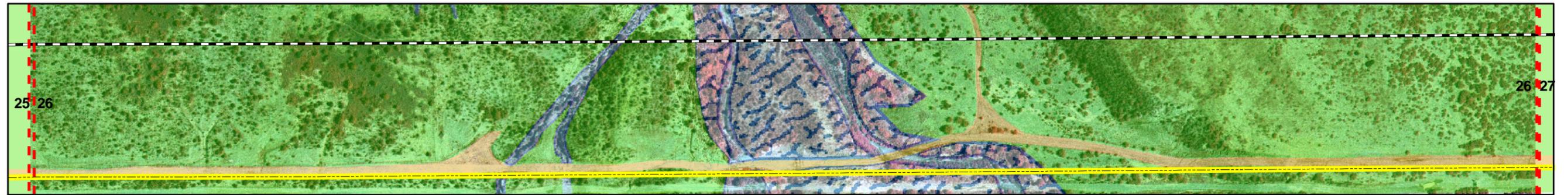
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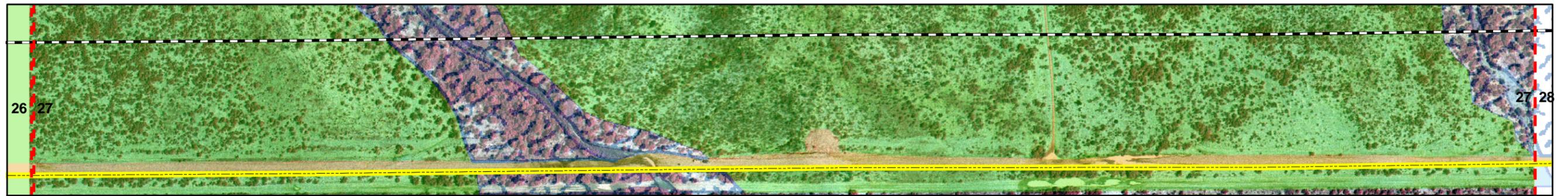
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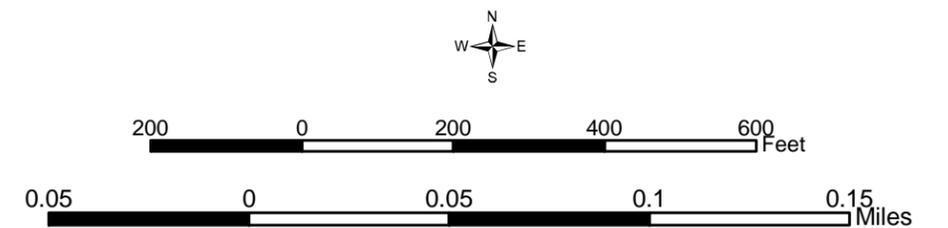
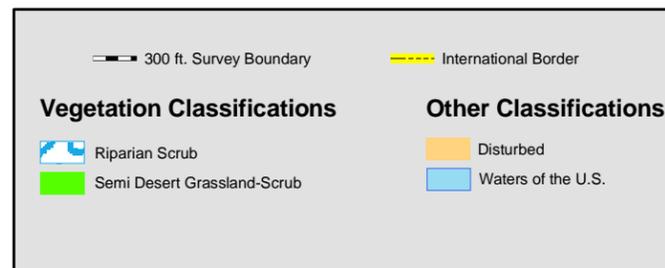
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1-27



Appendix A Panels 1-27, 1-26, 1-25

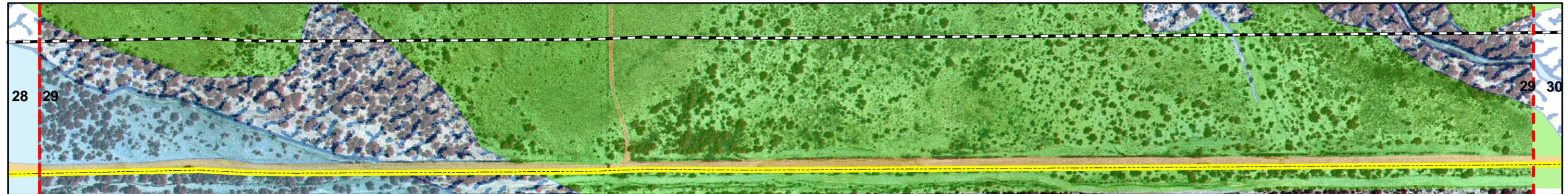
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



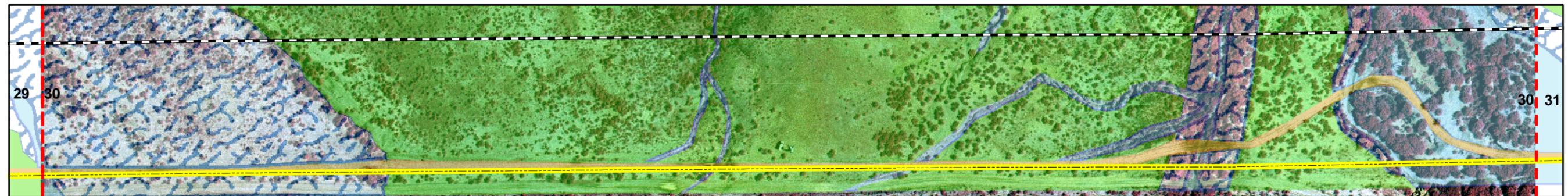
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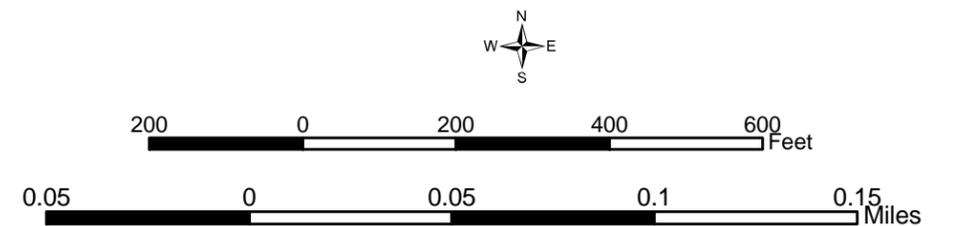
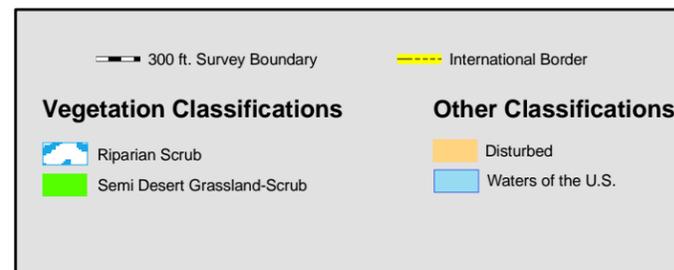
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1-29



1-30

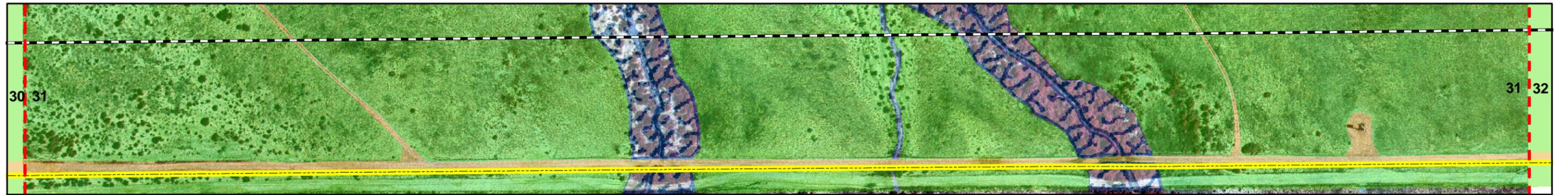


Appendix A Panels 1-30, 1-29, 1-28

Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



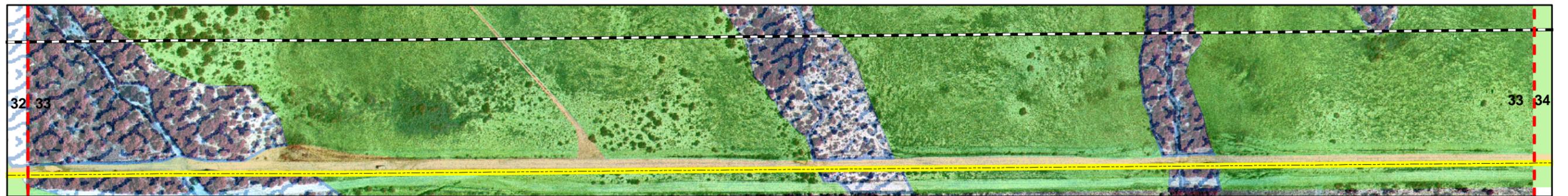
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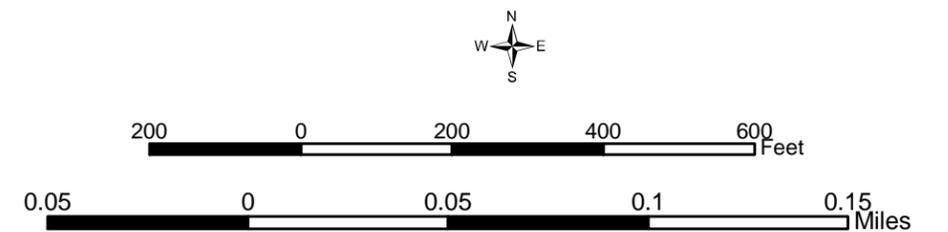
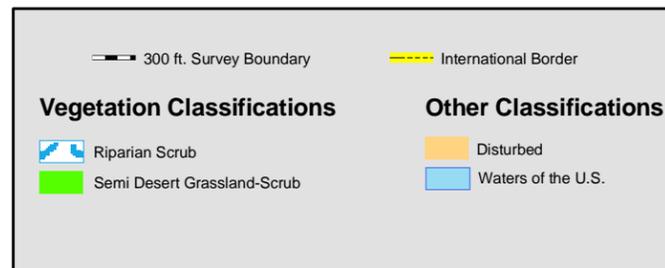
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1-33



Appendix A Panels 1-33, 1-32, 1-31

Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



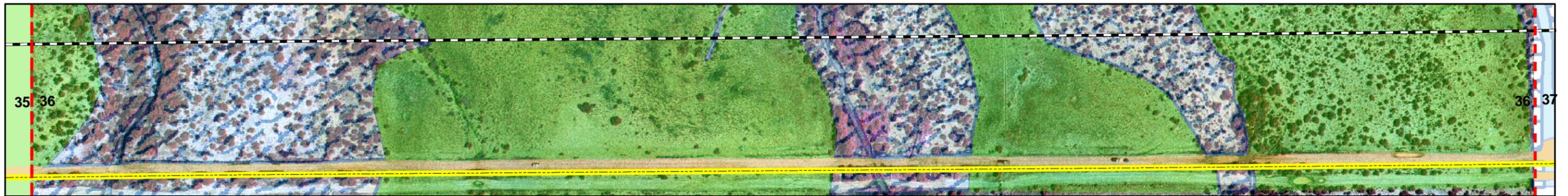
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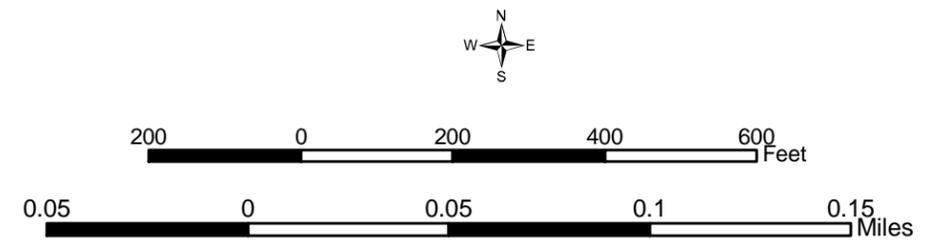
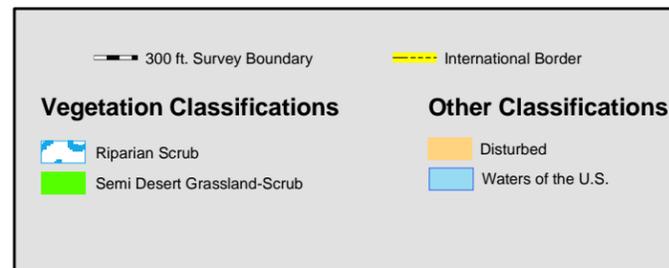
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1-35



1-36

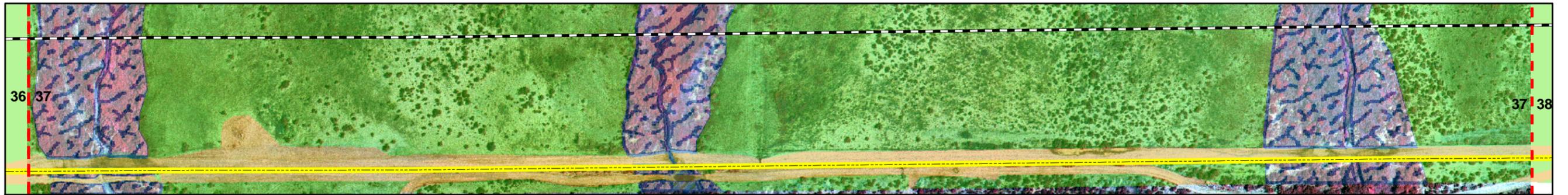


Appendix A Panels 1-36, 1-35, 1-34

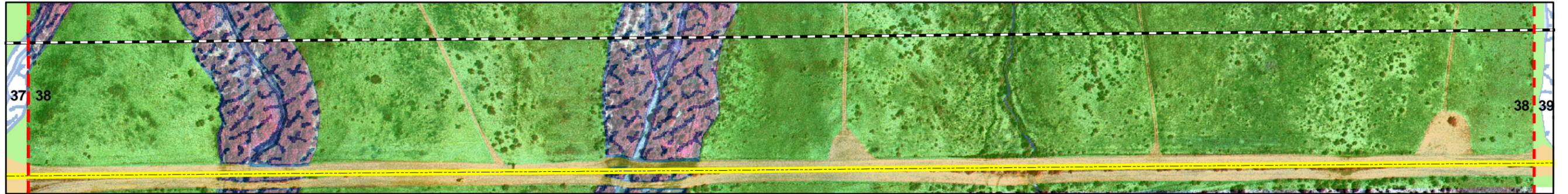
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



Date: April 2003



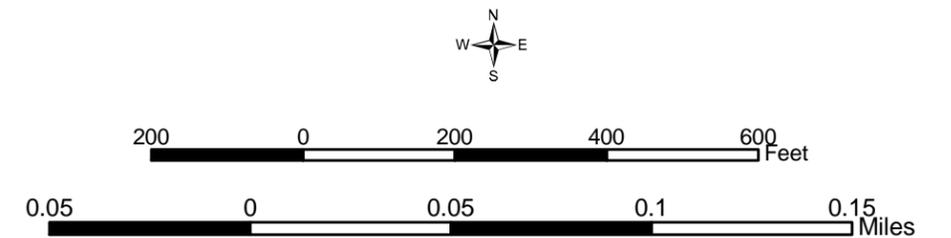
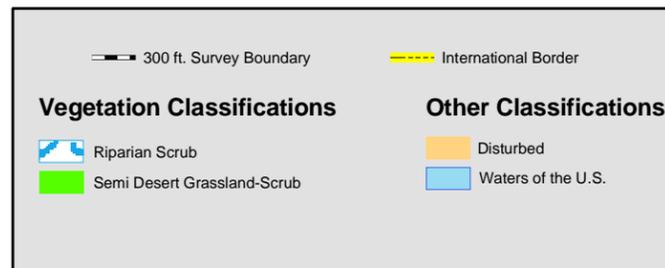
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1-39



Appendix A Panels 1-39, 1-38, 1-37

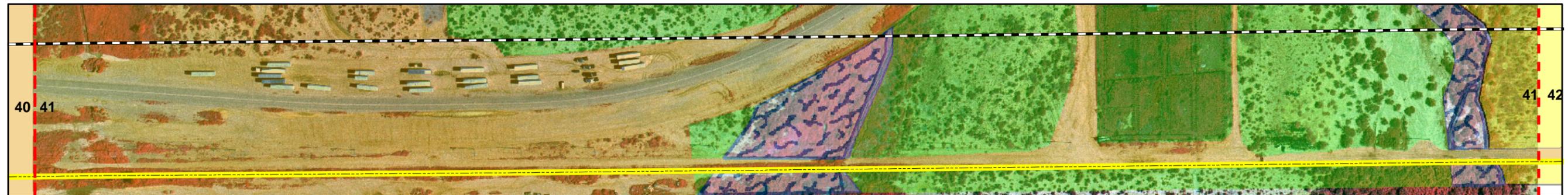
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



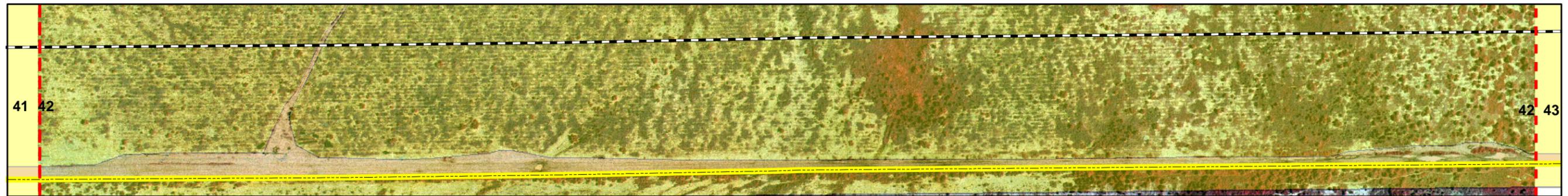
Date: April 2003



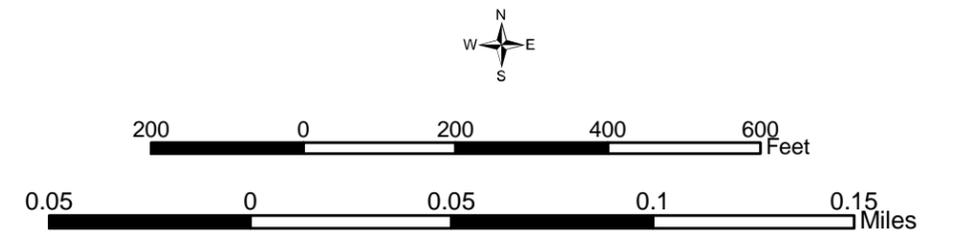
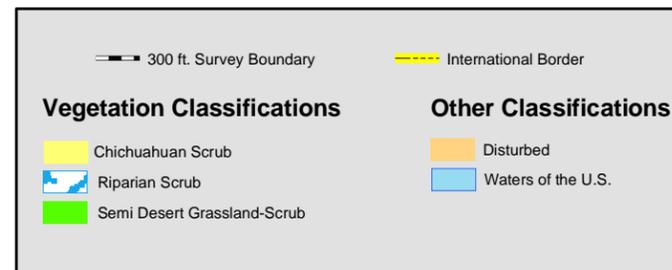
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1-41



1-42

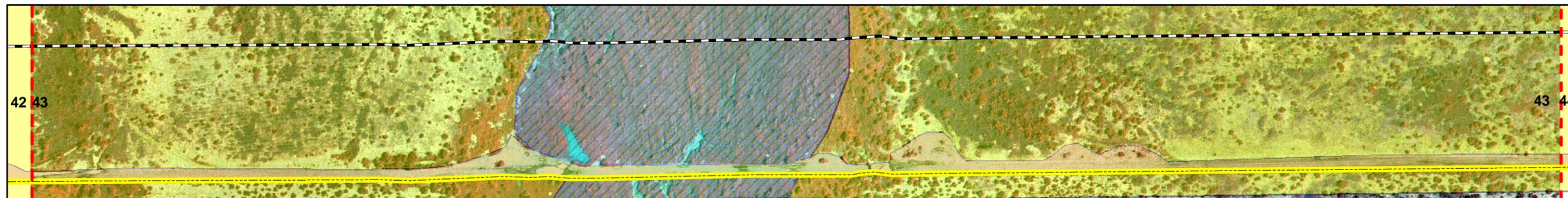


Appendix A Panels 1-42, 1-41, 1-40

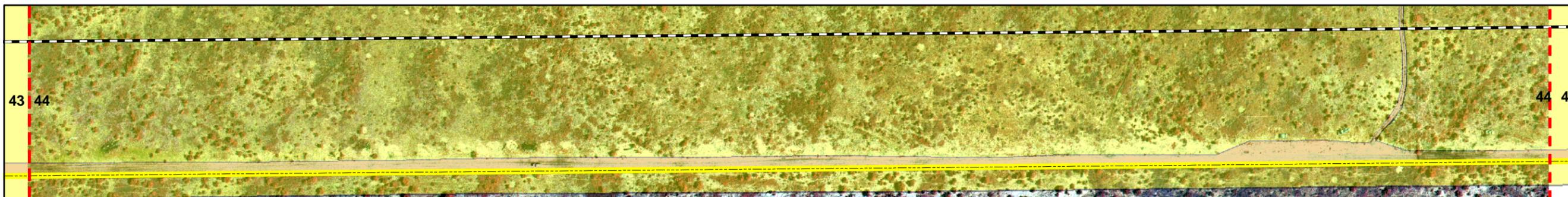
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



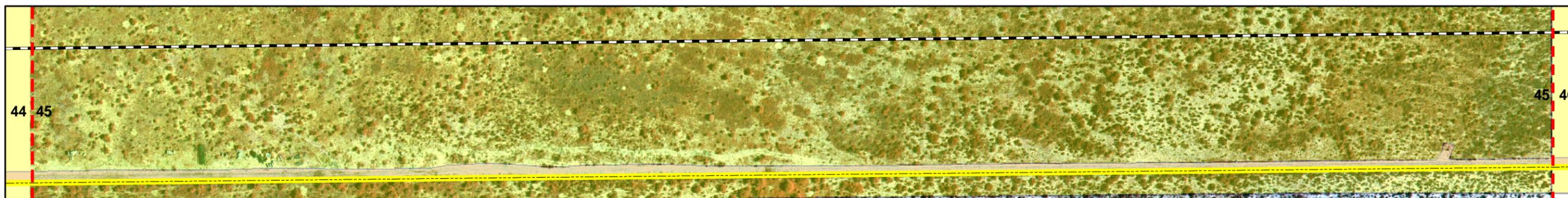
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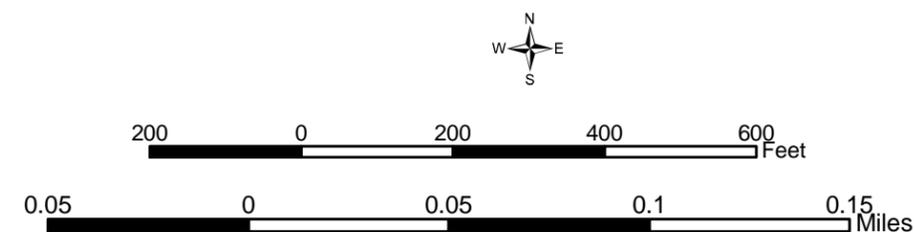
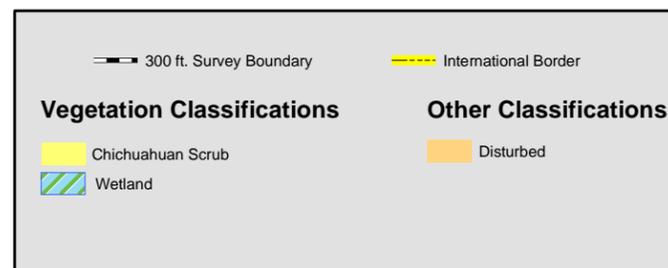
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1-44



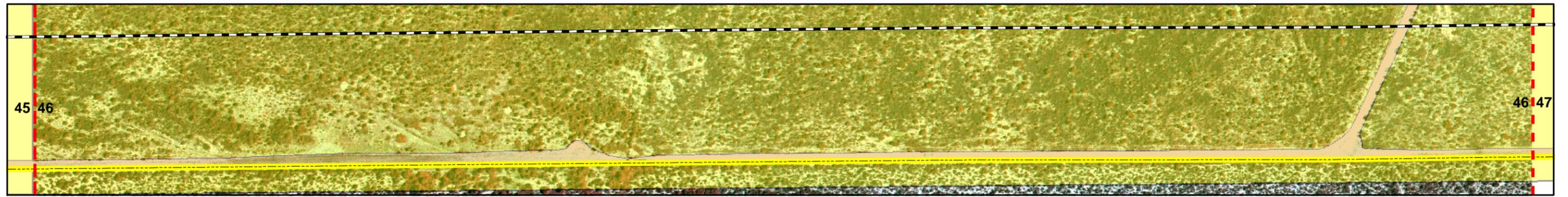
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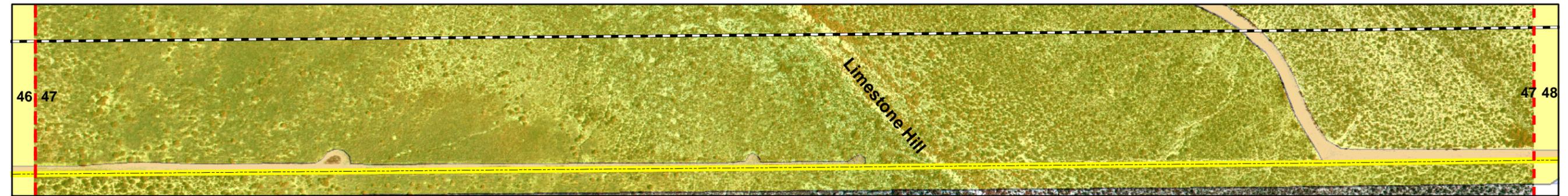
Appendix A Panels 1-45, 1-44, 1-43



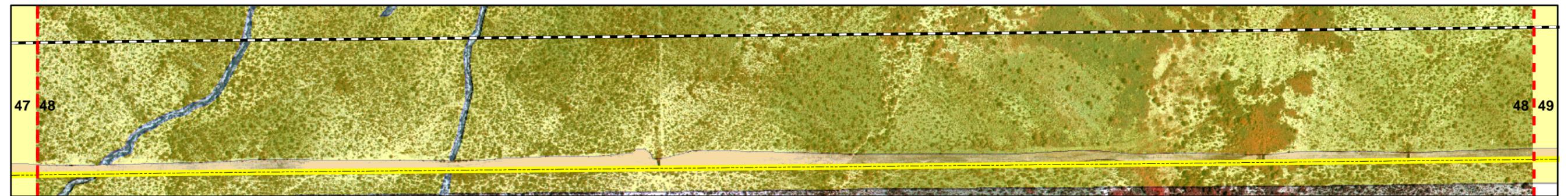
Date: April 2003



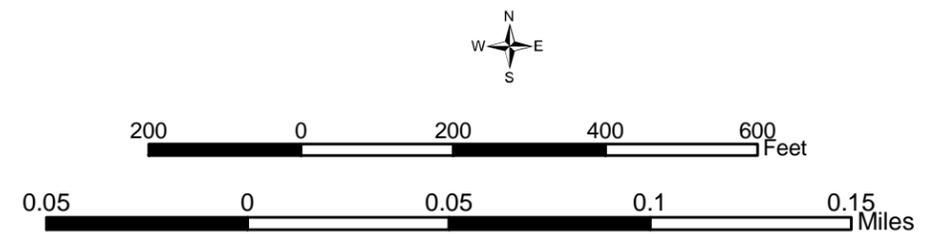
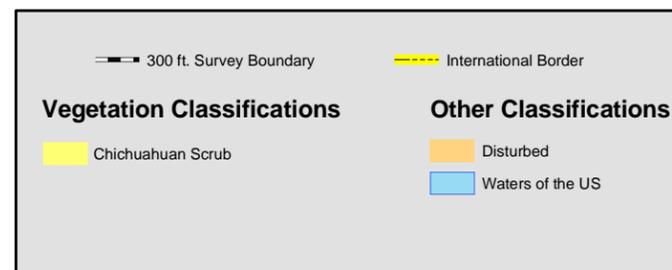
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1-47



1-48

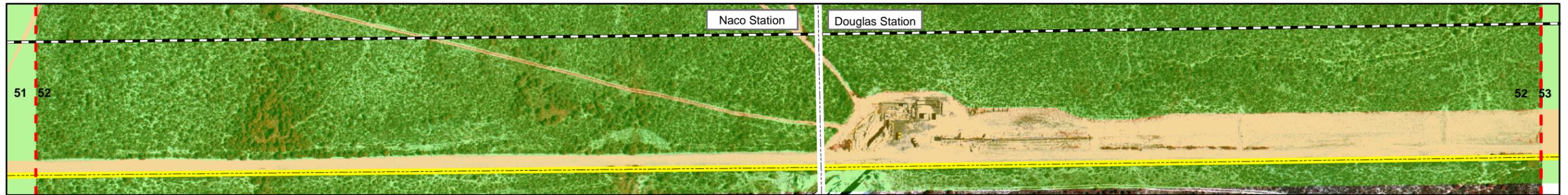


Appendix A Panels 1-48, 1-47, 1-46

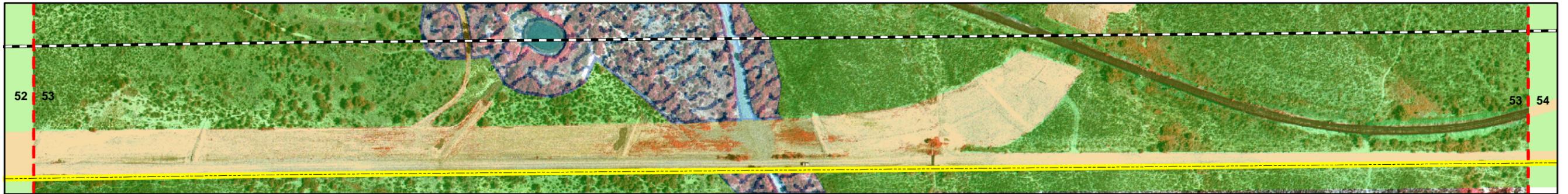
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



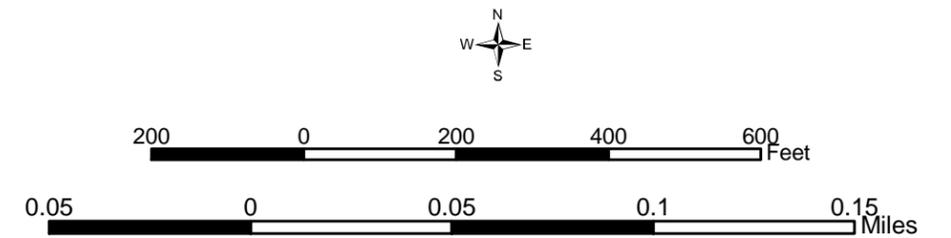
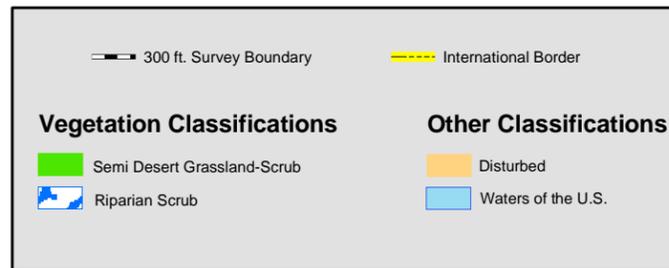
Date: April 2003



1-52



1-53

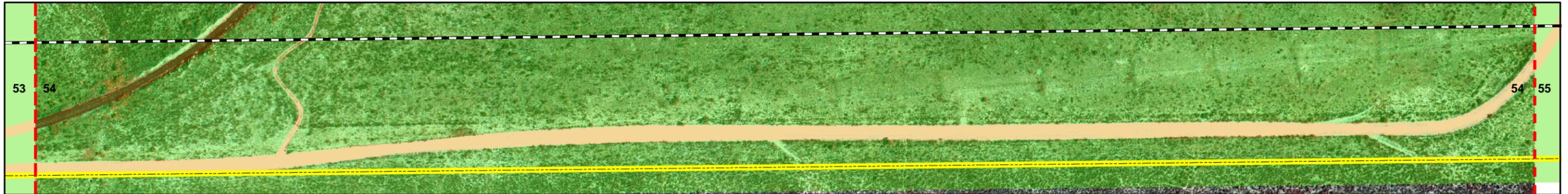


Appendix A Panels 1-53 & 1-52

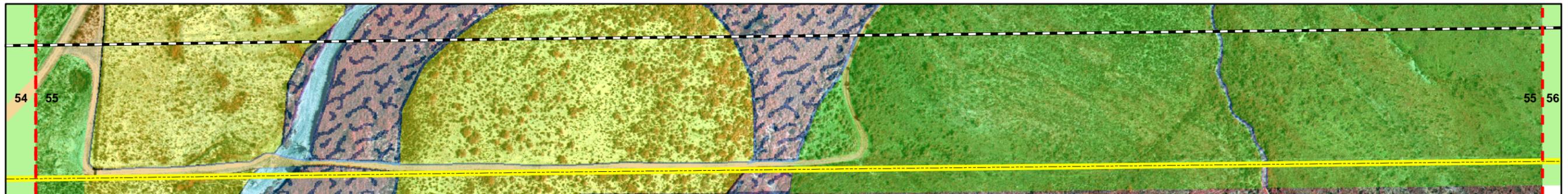
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Date: April 2003



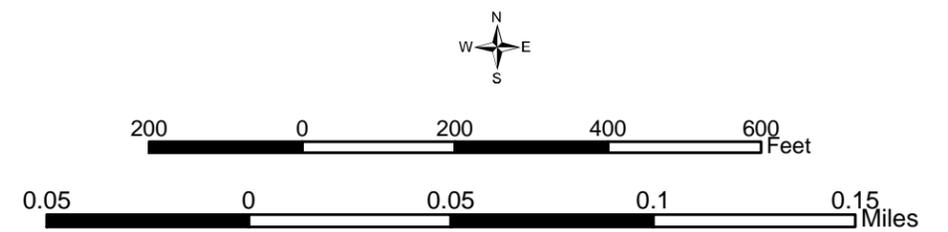
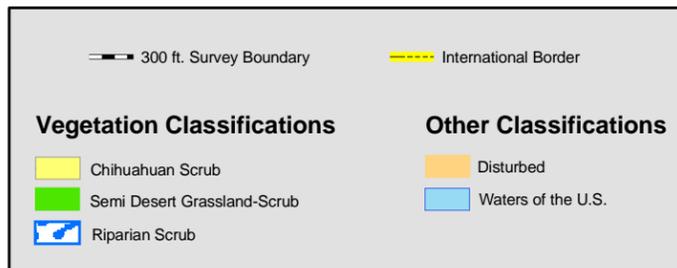
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1-55



1-56

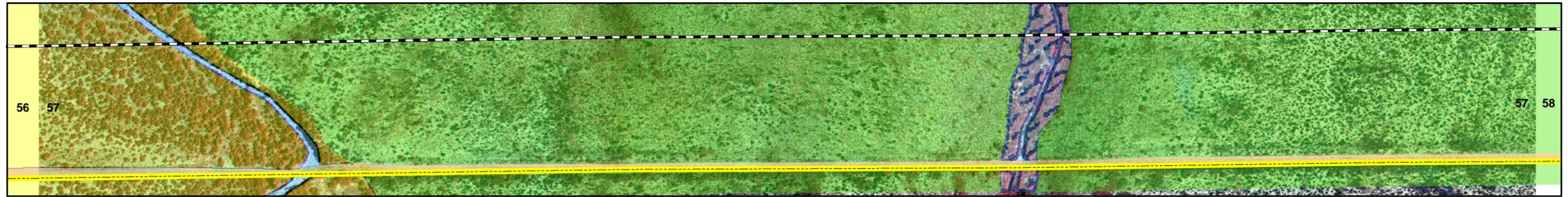


Appendix A Panels 1-56, 1-55, 1-54

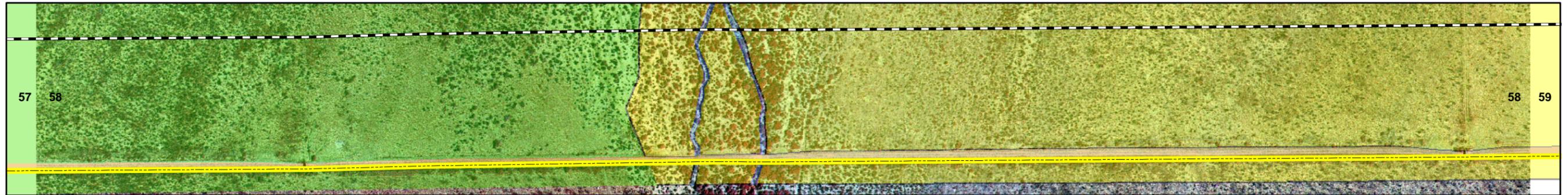
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



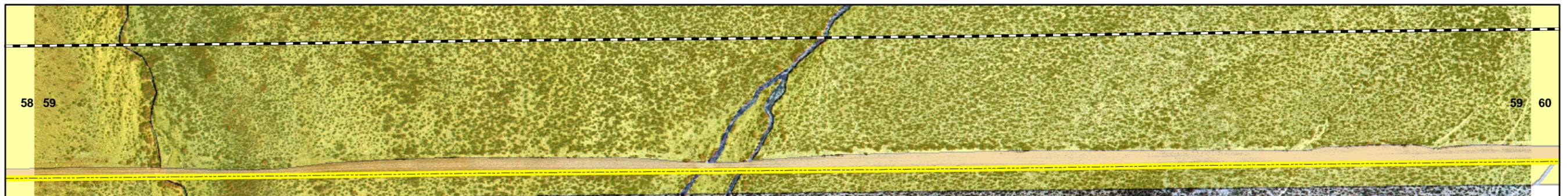
Date: April 2003



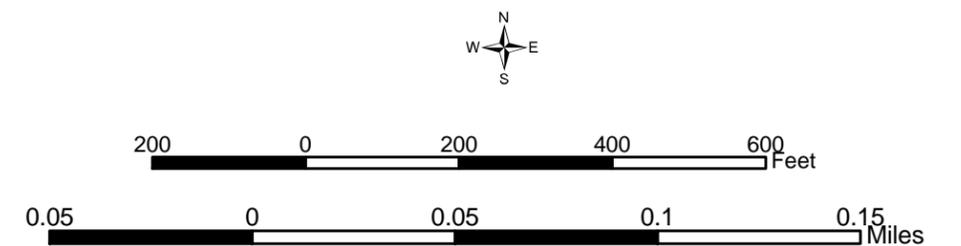
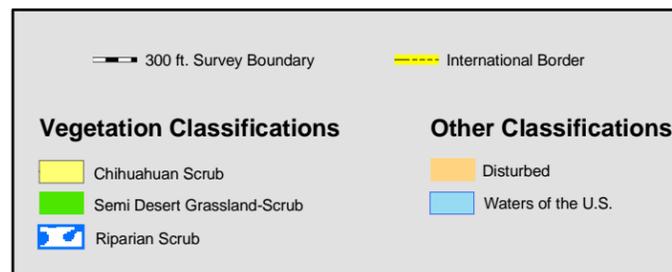
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1-58



1-59

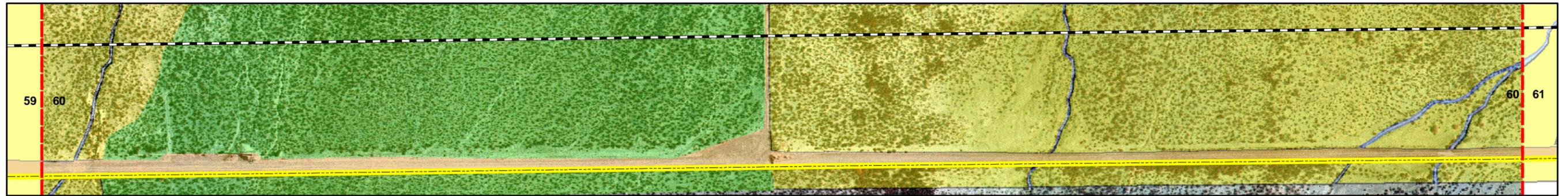


Appendix A Panels 1-59, 1-58, 1-57

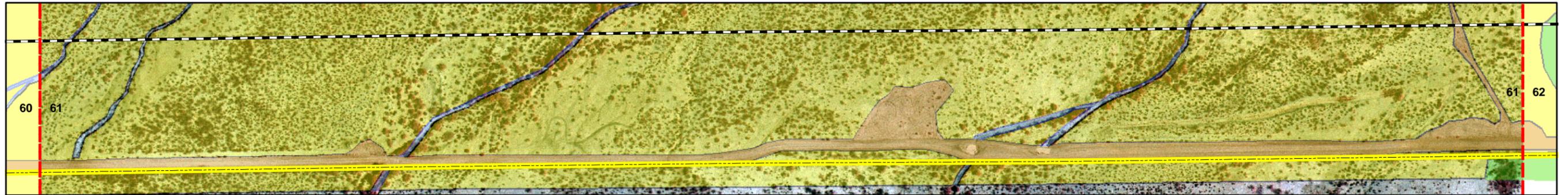
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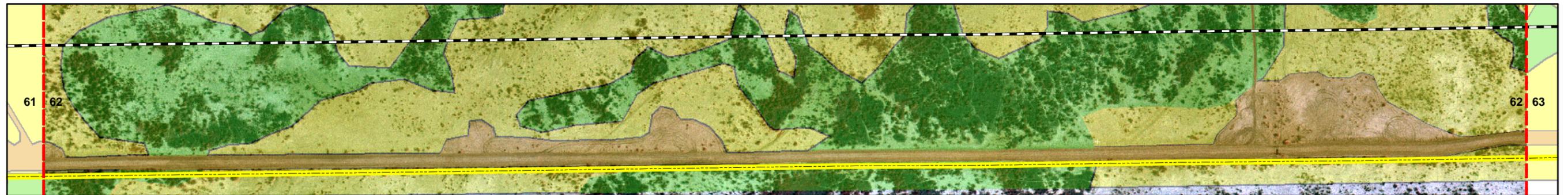
Date: April 2003



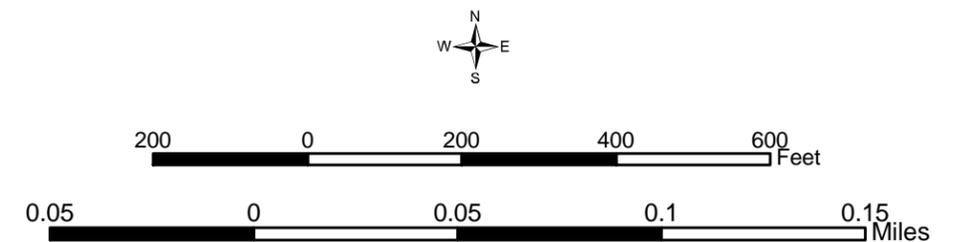
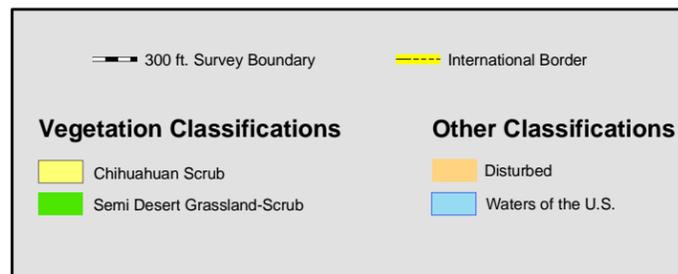
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1-61



1-62

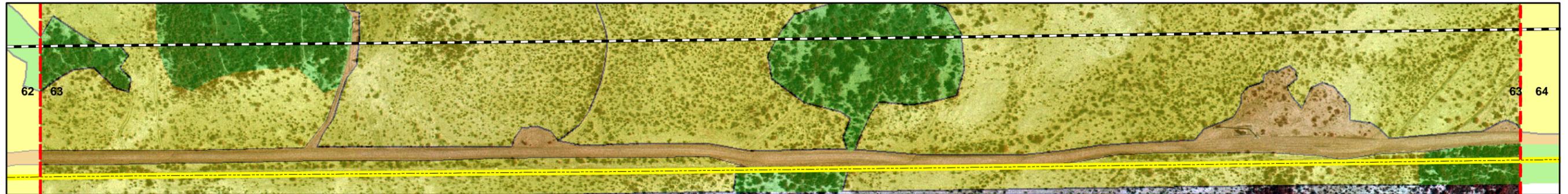


Appendix A Panels 1-62, 1-61, 1-60

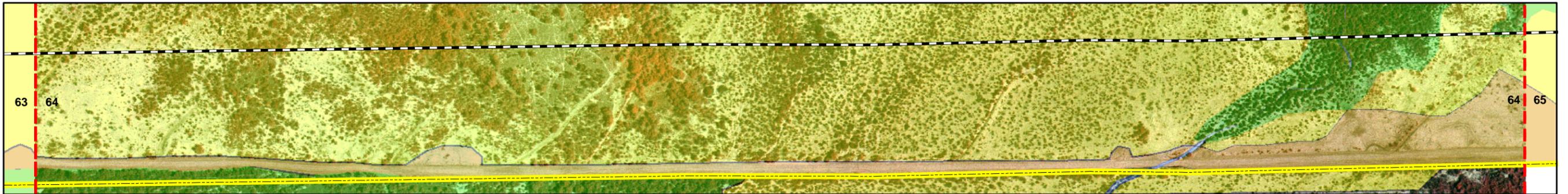
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



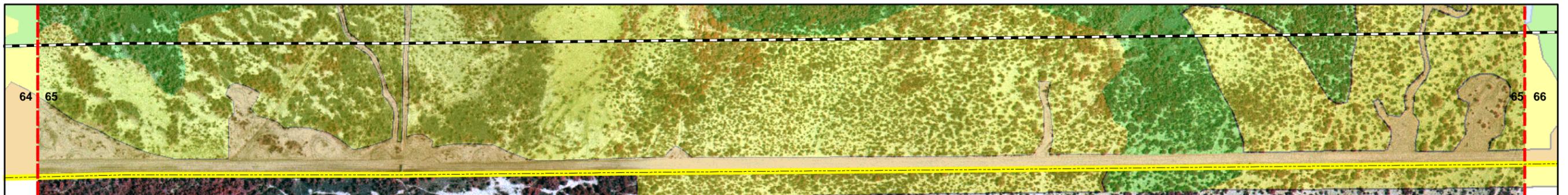
Date: April 2003



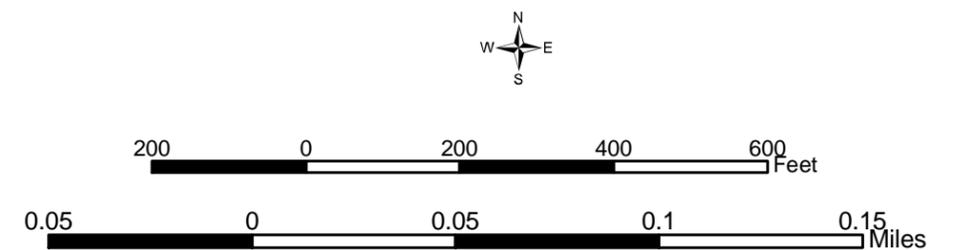
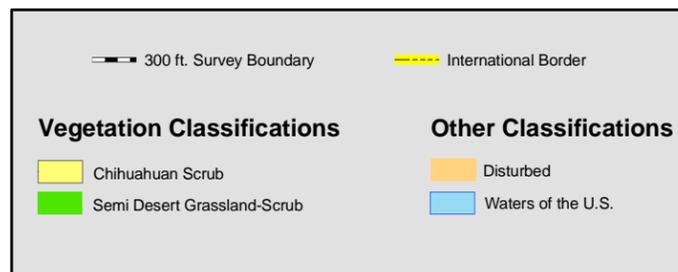
1-63



1-64



1-65

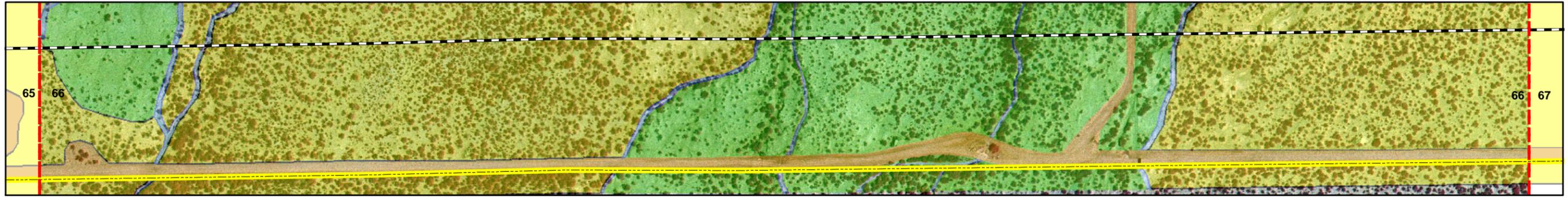


Appendix A Panels 1-65, 1-64, 1-63

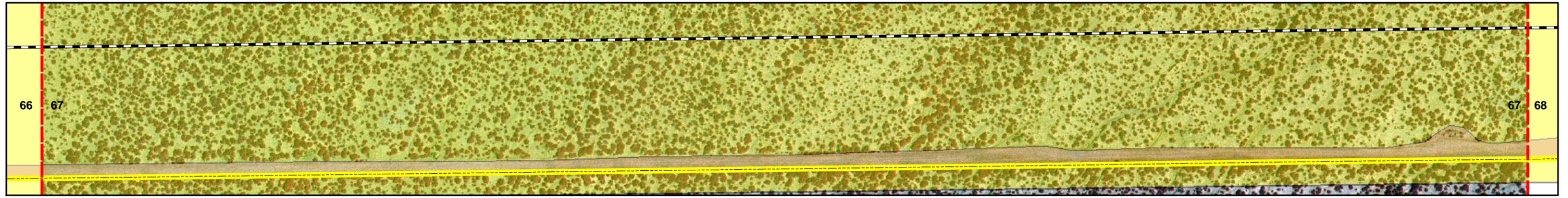
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



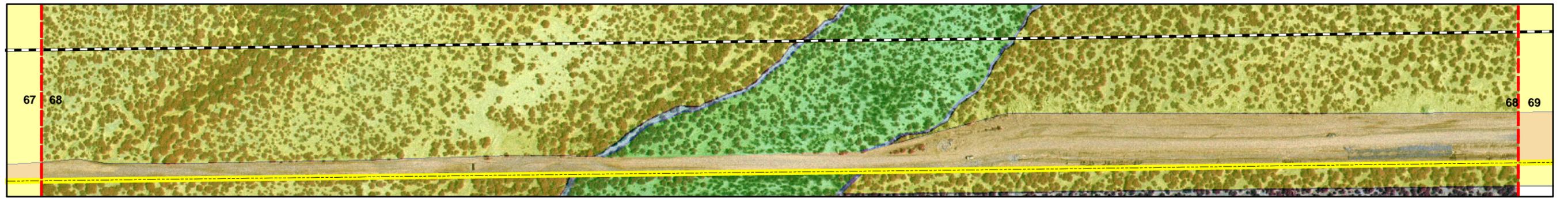
Date: April 2003



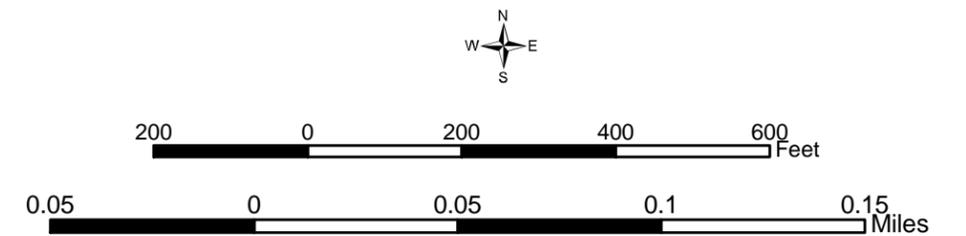
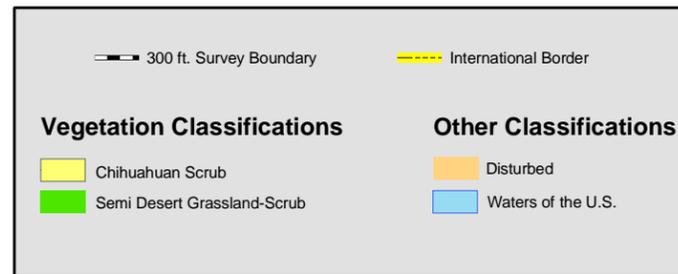
1-66



1-67



1-68

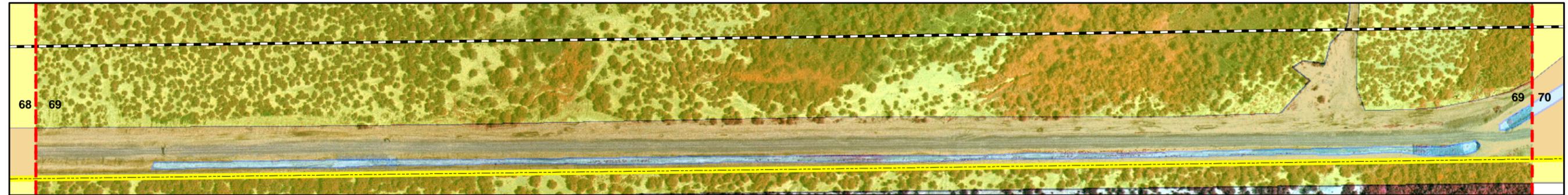


Appendix A Panels 1-68, 1-67, 1-66

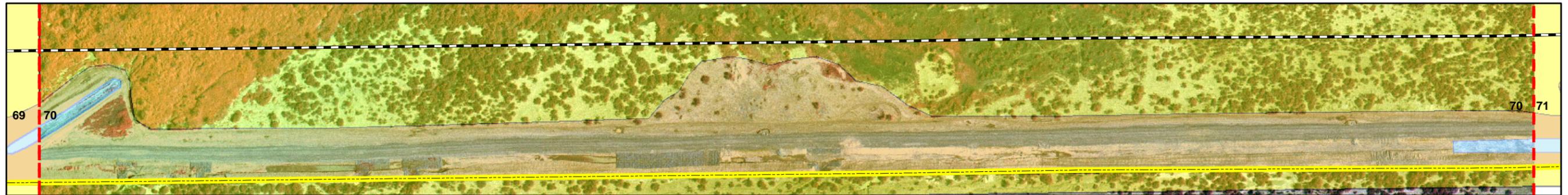
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



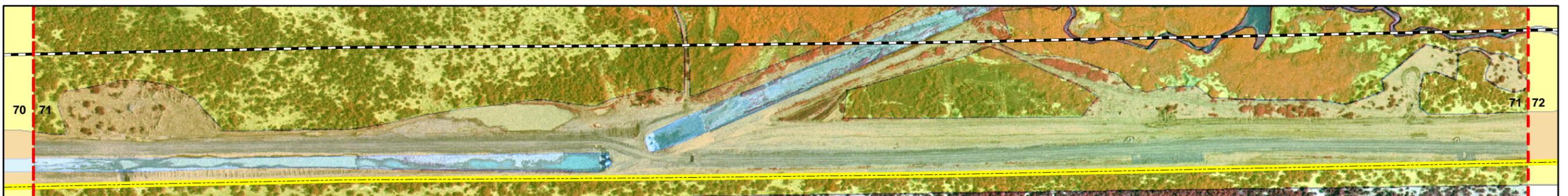
Date: April 2003



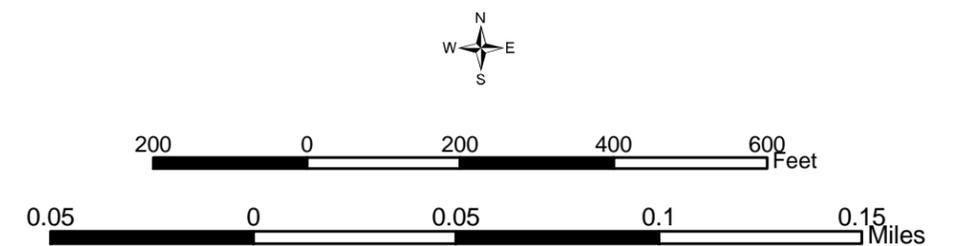
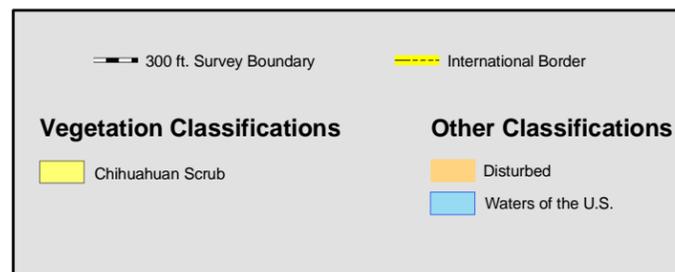
1-69



1-70



1-71



Appendix A Panels 1-71, 1-70, 1-69

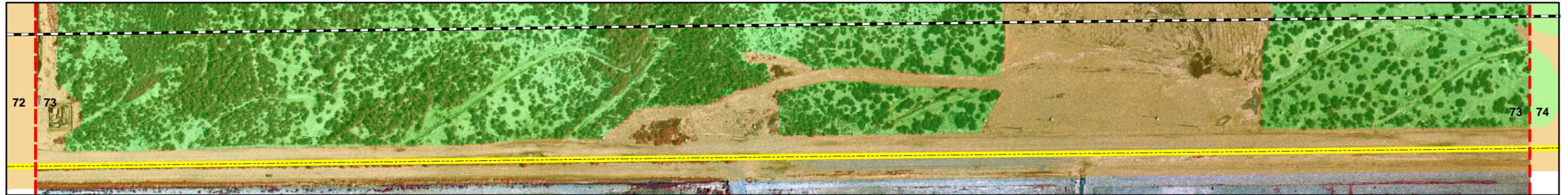
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



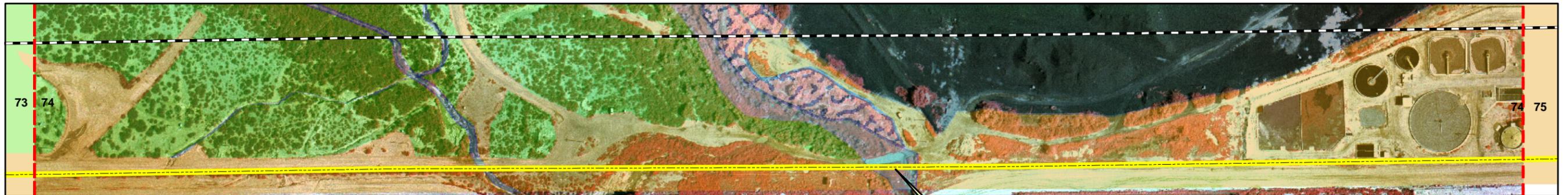
Date: April 2003



1-72

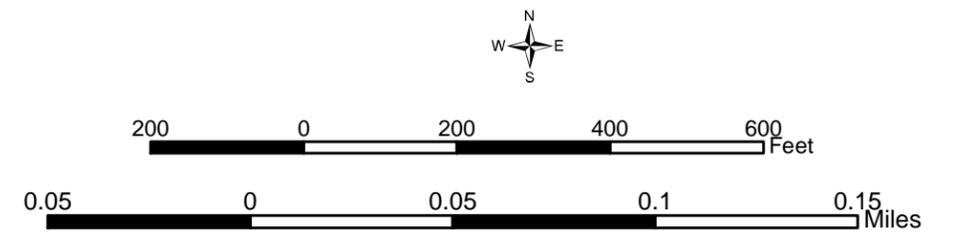
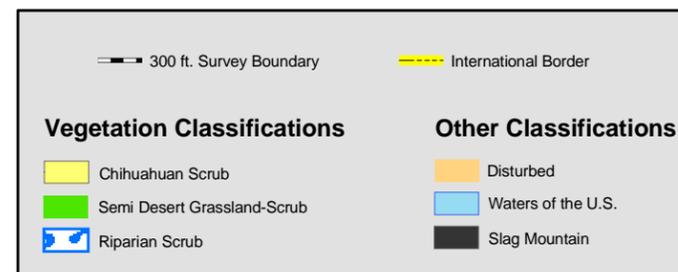


1-73



1-74

Whitewater Draw



Appendix A Panels 1-74, 1-73, 1-72

Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



Date: April 2003



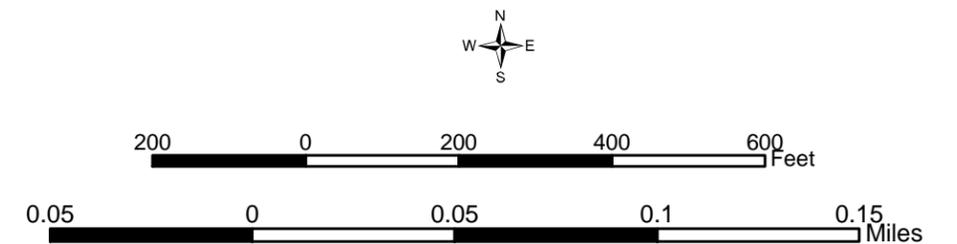
1-75



1-76



1-77



Appendix A Panels 1-77, 1-76, 1-75

Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



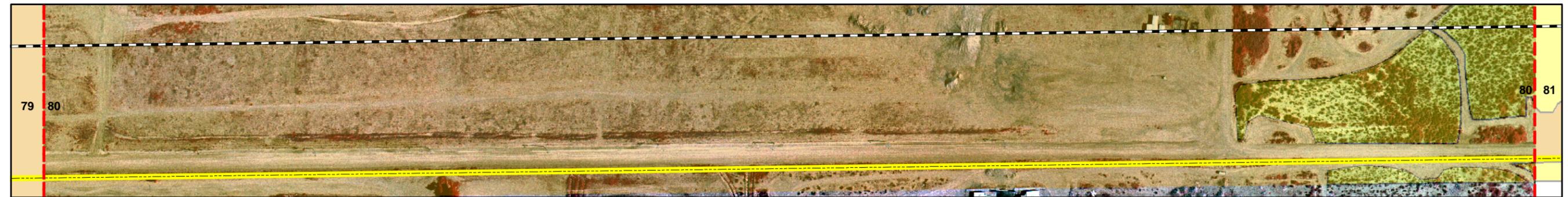
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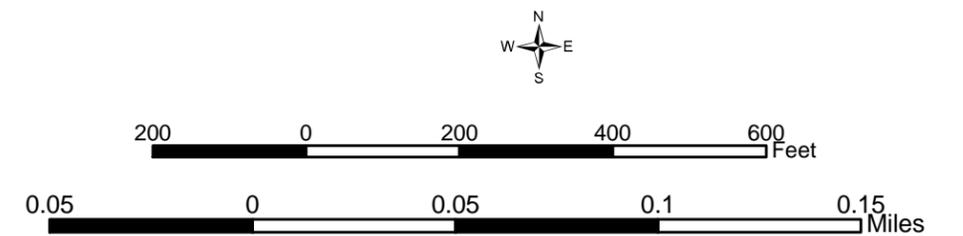
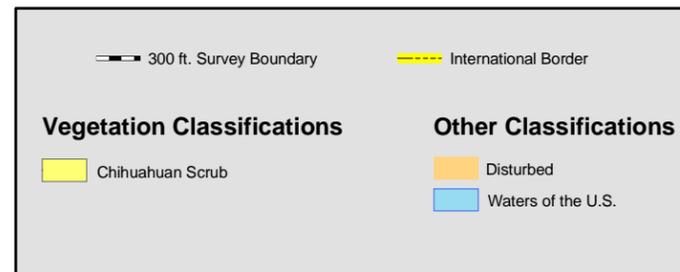
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1-79

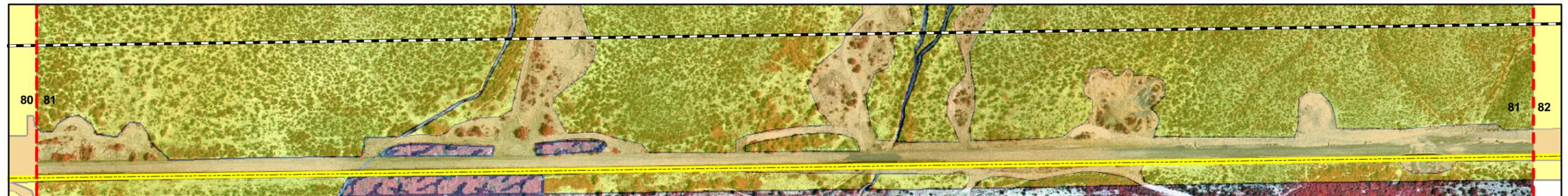


1-80



Appendix A Panels 1-80, 1-79, 1-78

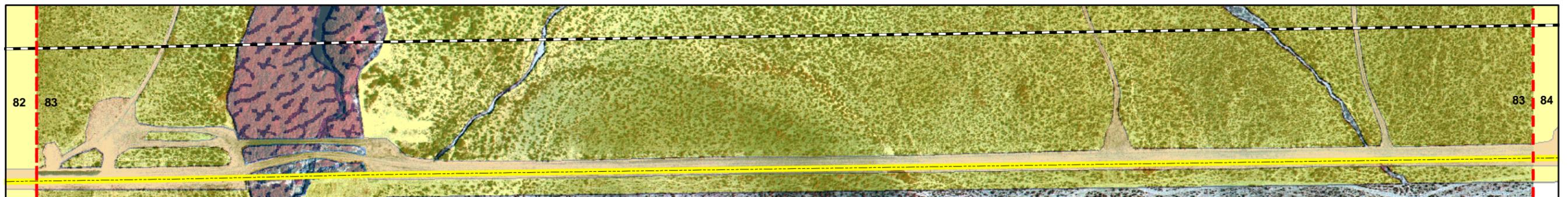
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



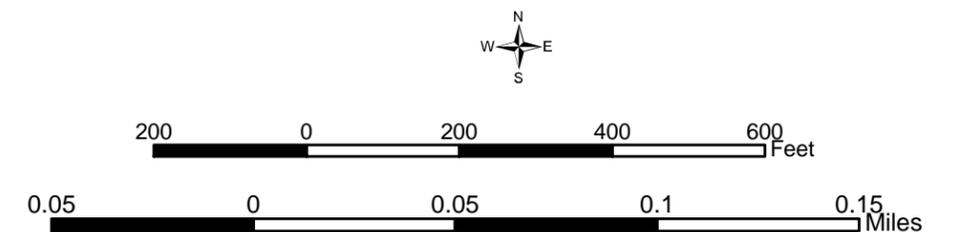
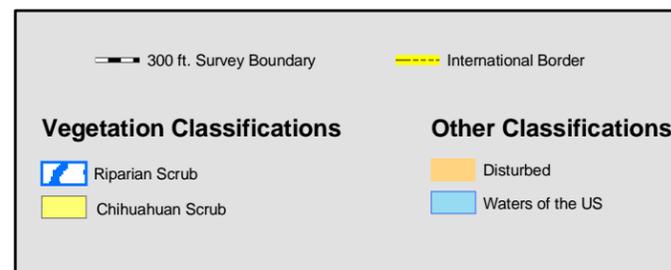
1-81



1-82



1-83

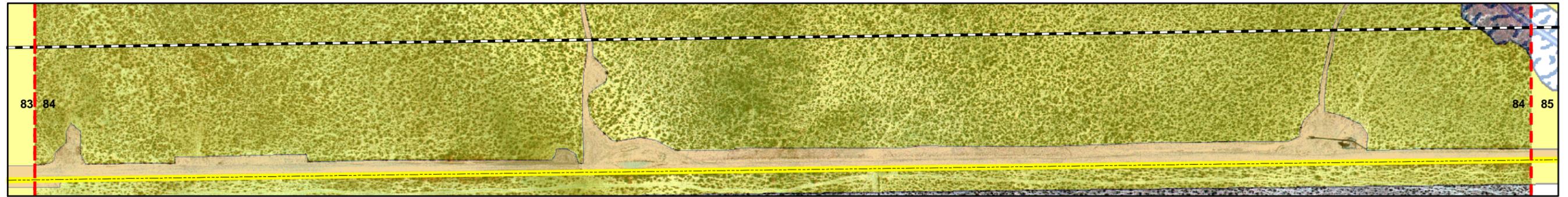


Appendix A Panels 1-83, 1-82, 1-81

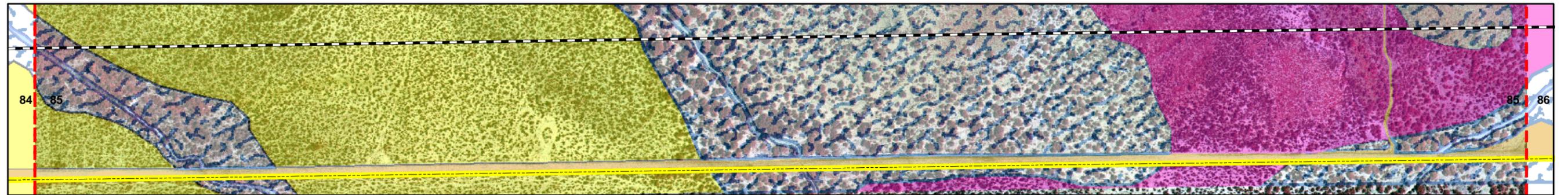
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



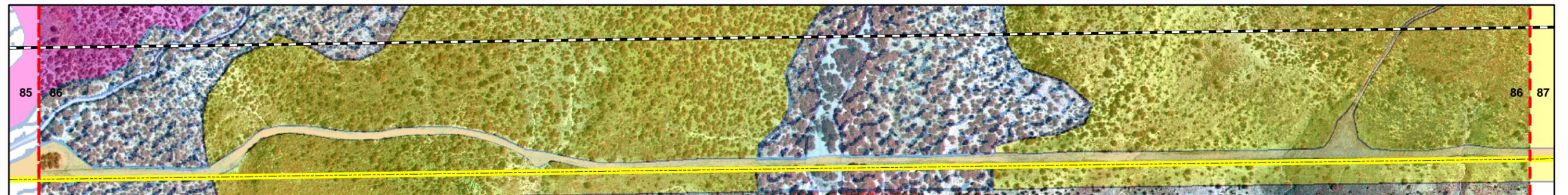
Date: April 2003



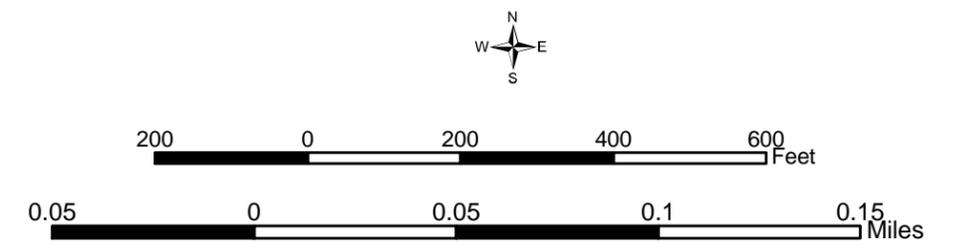
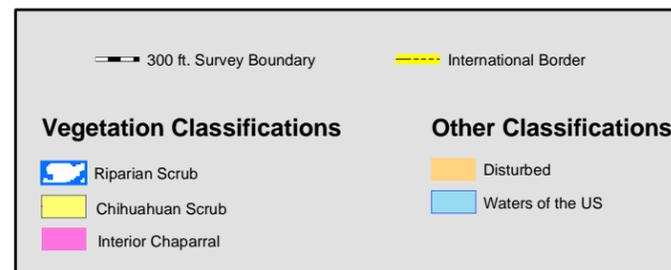
1-84



1-85



1-86

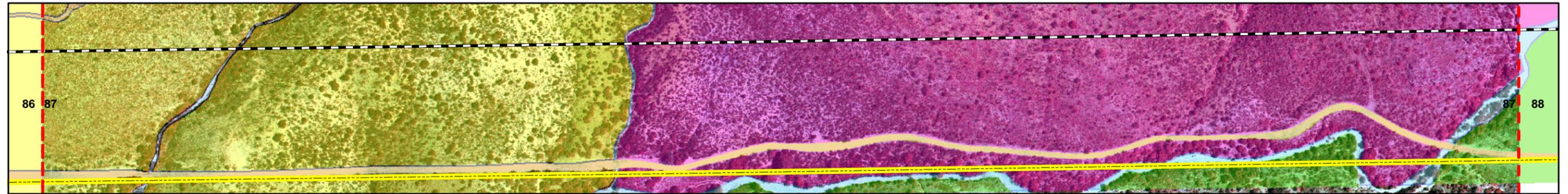


Appendix A Panels 1-86, 1-85, 1-84

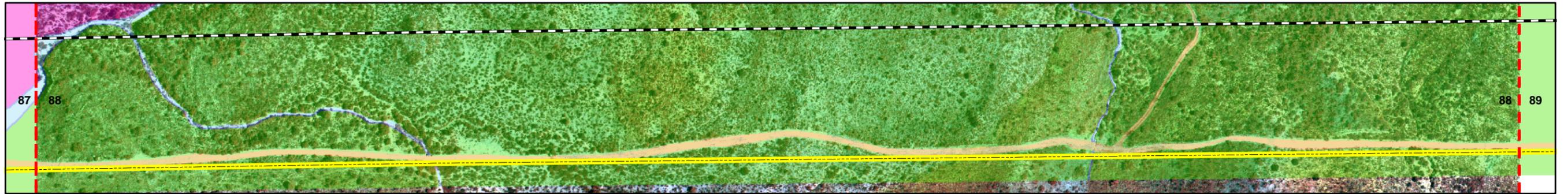
Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



Date: April 2003



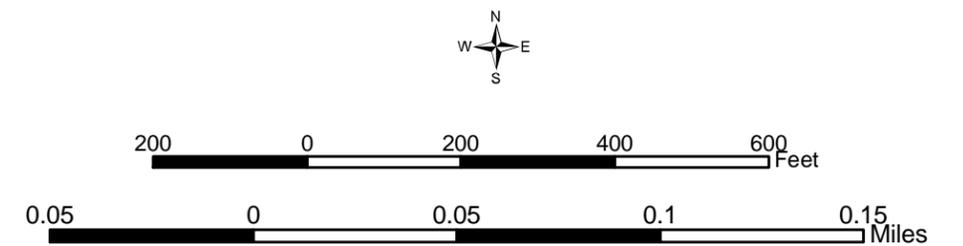
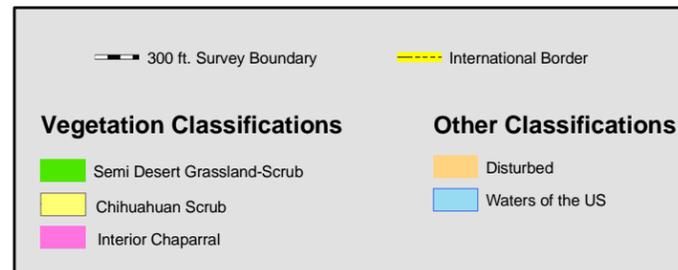
1-87



1-88



1-89



Appendix A Panels 1-89, 1-88, 1-87

Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



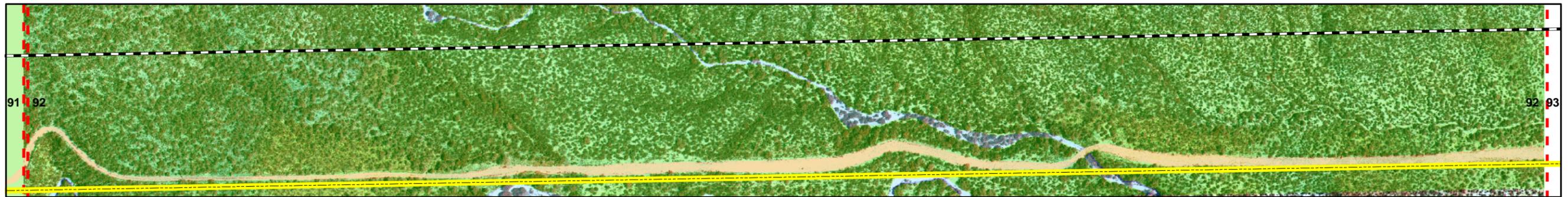
Date: April 2003



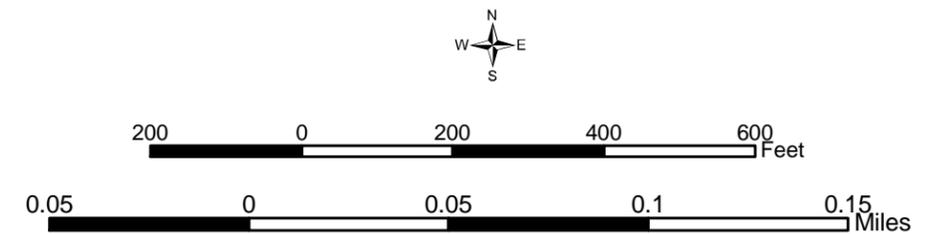
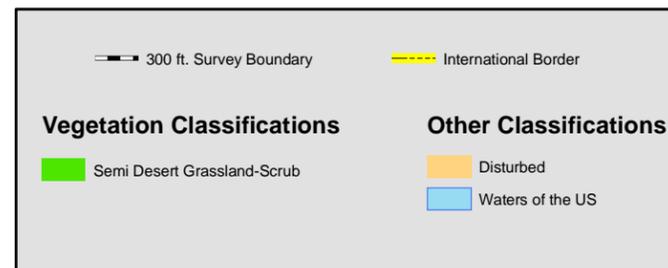
1-90



1-91



1-92



Appendix A Panels 1-92, 1-91, 1-90

Sources: Vegetation and other classifications were surveyed and digitized by GSRC, 2002.



Date: April 2003

Appendix B
AGENCY CORRESPONDENCE



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF.

April 1, 2002

Planning, Environmental and Regulatory Division

U.S. Fish and Wildlife Service
Arizona Ecological Service
ATTN: Mr. David Harlow, Field Supervisor
2321 West Royal Palm Road, Suite 103
Phoenix, AZ 85021-4915

Dear Mr. Harlow:

The U.S. Army Corps of Engineers, Fort Worth District is acting on behalf of the Immigration and Naturalization Service (INS) in preparing an Environmental Assessment (EA) for various Border Patrol projects within a 300-foot corridor along the U.S./Mexico International Border from the western edge of Douglas, AZ to the eastern edge of Naco, AZ (approximately 30 miles).

We are currently in the process of gathering the most current information available regarding Federally listed species potentially occurring within this area of Naco and Douglas, Arizona. A quadrangle map showing the project location is enclosed. The USACE respectfully requests that your agency provide a list of the protected species in Cochise County along with a description of the sensitive resources (e.g., rare or unique plant communities, threatened and endangered and candidate species, etc.) that you believe may be affected by the proposed INS activities. Any information you may have regarding proposed species, potential or known presence, critical habitat areas, general habitat description, distribution and status of these species would be appreciated. Any GIS information, or information sources, you could provide regarding current distribution of protected species would also be greatly appreciated.

We intend to provide your agency with a copy of the Draft EA once it is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to call Mr. Charles McGregor at (817) 886-1708.

Sincerely,

A handwritten signature in black ink that reads "William Fickel, Jr." with a stylized flourish at the end.

William Fickel, Jr.
Chief of Planning, Environmental
and Regulatory Division

Enclosure



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

203151356
Correspondence

REPLY TO
ATTENTION OF:

May 13, 2002

Planning, Environmental and Regulatory Division

Subject: USFWS letter Responding to 300 Foot Corridor Along the U.S. and Mexico
Border Western Edge of Douglas to Naco Arizona

Gulf South Research Corporation
Attn: Mr. Chris Ingram
P.O. Box 83564
Baton Rouge, LA 79884-3564

Dear Mr. Ingram,

Please find enclosed documents from the US Department of Interior - Fish and Wildlife
Service Arizona Ecological Field Office dated April 25, 2002. This document was
provided in response to our request for the most current information available regarding
Federally listed threatened and endangered species in the respective areas.

Sincerely,


Charles H. McGregor, Jr.

Enclosure



United States Department of the Interior

U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951

Telephone: (602) 242-0210 Fax: (602) 242-2513



In Reply Refer to:

AESO/SE

2-21-02-I-156

April 25, 2002

Mr. William Fickel, Jr.
U.S. Department of the Army
Army Corps of Engineers
P O Box 17300
Fort Worth, Texas 76102-0300

RE: 300 Foot Corridor Along U.S. and Mexico Border Western Edge of Douglas to Naco Arizona

Dear Mr. Fickel:

This letter responds to your April 1, 2002, request for an inventory of threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may potentially occur in your project area (Cochise County). The enclosed list may include candidate species as well. We hope the enclosed county list of species will be helpful. In future communications regarding this project, please refer to consultation number 2-21-02-I-156.

The enclosed list of the endangered, threatened, proposed, and candidate species includes all those potentially occurring anywhere in the county, or counties, where your project occurs. Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Also on the enclosed list is the Code of Federal Regulations (CFR) citation for each list and is available at most public libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency must request formal consultation with the Service. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency must enter into a section 7 conference with the Service. Candidate species are those which are being considered for addition to the list of threatened or endangered species. Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

Mr. William Fickel, Jr.

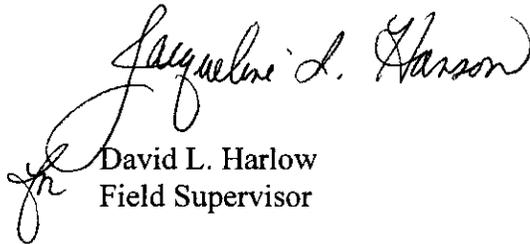
2

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, the Service recommends the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona protects some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species in your project area.

The Service appreciates your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please feel free to contact Sherry Barrett at (520) 670-4617.

Sincerely,


David L. Harlow
Field Supervisor

Enclosure

cc: Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ

W:\Cathy Gordon\species list letters\army corp 300ft corridor along u.s.mexico border.wpd:egg

10/11/2001

1) LISTED

TOTAL= 21

NAME: CANELO HILLS LADIES' TRESSES

SPIRANTHES DELITESCENS

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: SLENDER ERECT MEMBER OF THE ORCHID FAMILY (ORCHIDACEAE).

FLOWER: STALK 50 CM TALL, MAY CONTAIN 40 WHITE FLOWERS
SPIRALLY ARRANGED ON THE FLOWERING STALK.

ELEVATION

RANGE: about 5000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: FINELY GRAINED, HIGHLY ORGANIC, SATURATED SOILS OF CIENEGAS

POTENTIAL HABITAT OCCURS IN SONORA, MEXICO, BUT NO POPULATIONS HAVE BEEN FOUND.

NAME: COCHISE PINCUSHION CACTUS

CORYPHANTHA ROBBINSORUM

STATUS: THREATENED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 51 FR 952, 1-9-1986

DESCRIPTION: A SMALL UNBRANCHED CACTUS WITH NO CENTRAL SPINES AND 11-17

WHITE RADIAL SPINES. THE BELL-SHAPED FLOWERS ARE BORNE ON
THE ENDS OF TUBERCLES (Protrusions). FLOWERS: BELL SHAPED,
PALE YELLOW-GREEN. FRUITS: ORANGE-RED TO RED

ELEVATION

RANGE: >4200 FT.

COUNTIES: COCHISE AND SONORA, MEXICO

HABITAT: SEMIDESERT GRASSLAND WITH SMALL SHRUBS, AGAVE, OTHER CACTI, AND GRAMA GRASS.

-GROWS ON GRAY LIMESTONE HILLS.

NAME: HUACHUCA WATER UMBEL

LILAEOPSIS SCHAFFNERIANA ssp RECURVA

STATUS: ENDANGERED

CRITICAL HAB Yes RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: HERBACEOUS, SEMI-AQUATIC PERENNIAL IN THE PARSLEY FAMILY
(UMBELLIFERAE) WITH SLENDER ERECT, HOLLOW, LEAVES THAT GROW
FROM THE NODES OF CREEPING RHIZOMES. FLOWER: 3 TO 10
FLOWERED UMBELS ARISE FROM ROOT NODES.

ELEVATION

RANGE: 3500-6500 FT.

COUNTIES: PIMA, SANTA CRUZ, COCHISE

HABITAT: CIENEGAS, PERENNIAL LOW GRADIENT STREAMS, WETLANDS

AND IN ADJACENT SONORA, MEXICO, WEST OF THE CONTINENTAL DIVIDE. POPULATIONS ALSO ON FORT
HUACHUCA MILITARY RESERVATION. CRITICAL HABITAT IN COCHISE AND SANTA CRUZ COUNTIES (63 FR 37441)

10/11/2001

NAME: NEW MEXICAN RIDGE-NOSED RATTLESNAKE *CROTALUS WILLARDI OBSCURUS*

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 43 FR 34479, 04-04-1978

DESCRIPTION: SMALL 12-24 INCHES, SECRETIVE GRAYISH-BROWN WITH DISTINCT RIDGE ON THE END OF THE SNOUT. THE DORSAL SURFACE HAS OBSCURE, IRREGULARLY SPACED WHITE CROSSBARS EDGED WITH BROWN (NOT A BOLD PATTERN).

ELEVATION

RANGE: 5000-6600 FT.

COUNTIES: COCHISE

HABITAT: PRIMARILY CANYON BOTTOMS IN PINE-OAK COMMUNITIES

THE SUBSPECIES HAS BEEN DOCUMENTED IN THE PELONCILO MOUNTAINS IN ARIZONA. ONLY THREE KNOWN RECORDS FROM ARIZONA. ALSO OCCURS IN ANIMAS MOUNTAINS OF NEW MEXICO AND SIERRA SAN LUIS IN SONORA/CHIHUAHUA.

NAME: LESSER LONG-NOSED BAT

LEPTONYCTERIS CURASOAE YERBABUENAE

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 53 FR 38456, 09-30-88

DESCRIPTION: ELONGATED MUZZLE, SMALL LEAF NOSE, AND LONG TONGUE. YELLOWISH BROWN OR GRAY ABOVE AND CINNAMON BROWN BELOW. TAIL MINUTE AND APPEARS TO BE LACKING. EASILY DISTURBED.

ELEVATION

RANGE: <6000 FT.

COUNTIES: COCHISE, GILA, GRAHAM, GREENLEE, MARICOPA, PIMA, PINAL, SANTA CRUZ, YAVAPAI

HABITAT: DESERT SCRUB HABITAT WITH AGAVE AND COLUMNAR CACTI PRESENT AS FOOD PLANTS

DAY ROOSTS IN CAVES AND ABANDONED TUNNELS. FORAGES AT NIGHT ON NECTAR, POLLEN, AND FRUIT OF PANICULATE AGAVES AND COLUMNAR CACTI. THIS SPECIES IS MIGRATORY AND IS PRESENT IN ARIZONA, USUALLY FROM APRIL TO SEPTMBER AND SOUTH OF THE BORDER THE REMAINDER OF THE YEAR.

NAME: MEXICAN GRAY WOLF

CANIS LUPUS BAILEYI

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67; 43

DESCRIPTION: LARGE DOG-LIKE CARNIVORE WITH VARYING COLOR, BUT USUALLY A SHADE OF GRAY. DISTINCT WHITE LIP LINE AROUND MOUTH. WEIGH 60-90 POUNDS.

FR 1912, 03-09-78

ELEVATION

RANGE: 4,000-12,000FT.

COUNTIES: APACHE, COCHISE, GREENLEE, PIMA, SANTA CRUZ

HABITAT: CHAPPARAL, WOODLAND, AND FORESTED AREAS. MAY CROSS DESERT AREAS.

HISTORIC RANGE IS CONSIDERED TO BE LARGER THAN THE COUNTIES LISTED ABOVE. UNCONFIRMED REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE (COCHISE, PIMA, SANTA CRUZ) CONTINUE TO BE RECEIVED. INDIVIDUALS MAY STILL PERSIST IN MEXICO. EXPERIMENTAL NONESSENTIAL POPULATION INTRODUCED IN THE BLUE PRIMITIVE AREA OF GREENLEE AND APACHE COUNTIES.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCHISE

10/11/2001

NAME: OCELOT

LEOPARDUS (=FELIS) PARDALIS

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 47 FR 31670; 07-21-82

DESCRIPTION: MEDIUM-SIZED SPOTTED CAT WHOSE TAIL IS ABOUT 1/2 THE LENGTH OF HEAD AND BODY. YELLOWISH WITH BLACK STREAKS AND STRIPES RUNNING FROM FRONT TO BACK. TAIL IS SPOTTED AND FACE IS LESS HEAVILY STREAKED THAN THE BACK AND SIDES.

ELEVATION RANGE: <8000 FT.

COUNTIES: SANTA CRUZ, PIMA, COCHISE

HABITAT: HUMID TROPICAL & SUB-TROPICAL FORESTS, SAVANNAHS, AND SEMI-ARID THORNSCRUB.

MAY PERSIST IN PARTLY-CLEARED FORESTS, SECOND-GROWTH WOODLAND, AND ABANDONED CULTIVATION REVERTED TO BRUSH. UNIVERSAL COMPONENT IS PRESENCE OF DENSE COVER. UNCONFIRMED REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE RECEIVED.

NAME: BEAUTIFUL SHINER

CYPRINELLA FORMOSA

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 6-31-1984

DESCRIPTION: SMALL (2.5 INCHES) SHINY MINNOW AND VERY SIMILAR TO RED SHINER. MALES COLORFUL DURING BREEDING (YELLOW-ORANGE OR ORANGE ON CAUDAL AND LOWER FINS AND BLuish BODY.

ELEVATION RANGE: <4500 FT.

COUNTIES: COCHISE

HABITAT: SMALL TO MEDIUM SIZED STREAMS AND PONDS WITH SAND, GRAVEL, AND ROCK BOTTOMS.

VIRTUALLY EXTIRPATED IN THE UNITED STATES, WITH THE EXCEPTION OF A FEW ISOLATED POPULATIONS ON NATIONAL WILDLIFE REFUGES AND IN MEXICO. SAME CRITICAL HABITAT AS YAQUI CHUB AND CATFISH (SEE 49 FR 34490, 08-31-1984).

NAME: LOACH MINNOW

TIAROGA COBITIS

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 51 FR 39468, 10-28-1986;

DESCRIPTION: SMALL (<3 INCHES LONG) SLENDER, ELONGATED FISH, OLIVE COLORED WITH DIRTY WHITE SPOTS AT THE BASE OF THE DORSAL AND CAUDAL FINS. BREEDING MALES VIVID RED ON MOUTH AND BASE OF FINS

ELEVATION RANGE: <8000 FT.

COUNTIES: PINAL, GRAHAM, GREENLEE, GILA, APACHE, NAVAJO, *YAVAPAI, *COCHISE, *PIMA

HABITAT: BENTHIC SPECIES OF SMALL TO LARGE PERENNIAL STREAMS WITH SWIFT SHALLOW WATER OVER COBBLE & GRAVEL. RECURRENT FLOODING AND NATURAL HYDROGRAPH IMPORTANT.

PRESENTLY FOUND IN ARAVAIPA CREEK, BLUE RIVER, CAMPBELL BLUE CREEK, SAN FRANCISCO RIVER, DRY BLUE CREEK, TULAROSA RIVER, EAST-WEST-AND MIDDLE FORKS OF THE GILA RIVER, EAGLE CREEK, EAST FORK, BLACK RIVER, AND THE MAINSTEM UPPER GILA RIVER. CRITICAL HABITAT WAS REMOVED IN MARCH 1998; BUT RE-PROPOSED DEC 1999 AND FINALIZED APRIL 2000. SPECIES ALSO FOUND IN CATRON, GRANT, AND HIDALGO COUNTIES IN NEW MEXICO. *COUNTIES WITH CRITICAL HABITAT PRESENTLY CONTAIN NO KNOWN EXISTING POPULATIONS OF LOACH MINNOW.

10/11/2001

NAME: SPIKEDACE

MEDA FULGIDA

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 51 FR 23769,07-01-1986;

DESCRIPTION: SMALL (<3 INCHES) SLIM WITH SILVERY SIDES & 'SPINE' ON DORSAL
FIN. BREEDING MALES BRASSY GOLDEN COLOR

65 FR 24327, 04-25-2000

ELEVATION

RANGE: <6000 FT.

COUNTIES: GRAHAM, PINAL, GREENLEE, YAVAPAI, APACHE*, COCHISE*, GILA*, NAVAJO, PIMA*

HABITAT: MODERATE TO LARGE PERENNIAL STREAMS WITH GRAVEL COBBLE SUBSTRATES AND MODERATE TO SWIFT VELOCITIES OVER SAND AND GRAVEL SUBSTRATES. RECURRENT FLOODING AND NATURAL

PRESENTLY FOUND IN ARAVAIPA CREEK, EAGLE CREEK, VERDE RIVER, EAST-WEST- MAIN AND MIDDLE FORKS OF THE GILA RIVER IN NEW MEXICO, AND GILA RIVER FROM SAN PEDRO RIVER TO ASHURST HAYDEN DAM. CRITICAL HABITAT WAS REMOVED IN MARCH 1998, BUT RE-PROPOSED DEC 1999 AND FINALIZED IN APRIL 2000. SPECIES ALSO FOUND IN CATRON, GRANT, AND HIDALGO COUNTIES IN NEW MEXICO. *COUNTIES WITH CRITICAL HABITAT PRESENTLY CONTAIN NO KNOWN EXISTING POPULATIONS OF SPIKEDACE.

NAME: YAQUI CATFISH

ICTALURUS PRICEI

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 08-31-1984

DESCRIPTION: SIMILAR TO CHANNEL CATFISH (*Ictalurus punctatus*) EXCEPT ANAL FIN
BASE IS SHORTER AND THE DISTAL MARGIN OF THE ANAL FIN IS
BROADLY ROUNDED WITH 23-25 SOFT RAYS. BODY USUALLY
PROFUSELY SPECKLED.

ELEVATION

RANGE: 4000-5000 FT.

COUNTIES: COCHISE

HABITAT: MODERATE TO LARGE STREAMS WITH SLOW CURRENT OVER SAND AND ROCK BOTTOMS

CRITICAL HABITAT ALL AQUATIC HABITATS IN THE MAIN PORTION OF SAN BERNADINO NATIONAL WILDLIFE REFUGE

NAME: YAQUI CHUB

GILA PURPUREA

STATUS: ENDANGERED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 08-31-1984

DESCRIPTION: MEDIUM SIZED MINNOW (<6 INCHES) DARK COLORED, LIGHTER BELOW.
DARK TRIANGULAR CAUDAL SPOT

ELEVATION

RANGE: 4000-6000 FT.

COUNTIES: COCHISE (AZ), MEXICO

HABITAT: DEEP POOLS OF SMALL STREAMS, POOLS, OR PONDS NEAR UNDERCUT BANKS.

CRITICAL HABITAT INCLUDES ALL AQUATIC HABITATS OF THE MAIN PORTION SAN BERNADINO NATIONAL WILDLIFE REFUGE.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCHISE

10/11/2001

NAME: YAQUI TOPMINNOW

POECILIOPSIS OCCIDENTALIS SONORIENSIS

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967

DESCRIPTION: SMALL (2 INCHES) TOPMINNOW GUPPY-LIKE, LIVE BEARING, LACKING DARK SPOTS, BREEDING MALES JET BLACK WITH YELLOW FINS.

ELEVATION
RANGE: <4500 FT.

COUNTIES: COCHISE

HABITAT: SMALL TO MODERATE SIZED STREAMS, SPRINGS, & CIENEGAS GENERALLY IN SHALLOWS

NAME: BALD EAGLE

HALIAEETUS LEUCOCEPHALUS

STATUS: THREATENED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 60 FR 35999, 07-12-95

DESCRIPTION: LARGE, ADULTS HAVE WHITE HEAD AND TAIL. HEIGHT 28 - 38"; WINGSPAN 66 - 96". 1-4 YRS DARK WITH VARYING DEGREES OF MOTTLED BROWN PLUMAGE. FEET BARE OF FEATHERS.

ELEVATION
RANGE: VARIES FT.

COUNTIES: YUMA, LA PAZ, MOHAVE, YAVAPAI, MARICOPA, PINAL, COCONINO, NAVAJO, APACHE, SANTA CRUZ, PIMA, GILA, GRAHAM, COCHISE

HABITAT: LARGE TREES OR CLIFFS NEAR WATER (RESERVOIRS, RIVERS AND STREAMS) WITH ABUNDANT PREY

SOME BIRDS ARE NESTING RESIDENTS WHILE A LARGER NUMBER WINTERS ALONG RIVERS AND RESERVOIRS. AN ESTIMATED 200 TO 300 BIRDS WINTER IN ARIZONA. ONCE ENDANGERED (32 FR 4001, 03-11-1967; 43 FR 6233, 02-14-78) BECAUSE OF REPRODUCTIVE FAILURES FROM PESTICIDE POISONING AND LOSS OF HABITAT, THIS SPECIES WAS DOWN LISTED TO THREATENED ON AUGUST 11, 1995. ILLEGAL SHOOTING, DISTURBANCE, LOSS OF HABITAT CONTINUES TO BE A PROBLEM. SPECIES HAS BEEN PROPOSED FOR DELISTING (64 FR 36454) BUT STILL RECEIVES FULL PROTECTION UNDER ESA.

NAME: BROWN PELICAN

PELECANUS OCCIDENTALIS CALIFORNICUS

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 35 FR 16047, 10-13-70; 35 FR 18320, 12-02-70

DESCRIPTION: LARGE DARK GRAY-BROWN WATER BIRD WITH A POUCH UNDERNEATH LONG BILL AND WEBBED FEET. ADULTS HAVE A WHITE HEAD AND NECK, BROWNISH BLACK BREAST, AND SILVER GRAY UPPER PARTS.

ELEVATION
RANGE: VARIES FT.

COUNTIES: APACHE, COCHISE, COCONINO, GILA, GRAHAM, GREENLEE LA PAZ, MARICOPA, MOHAVE, NAVAJO, PIMA, PINAL, SANTA CRUZ, YAVAPAI, YUMA

HABITAT: COASTAL LAND AND ISLANDS; ARIZONA LAKES AND RIVERS

SUBSPECIES IS FOUND ON PACIFIC COAST AND IS ENDANGERED DUE TO PESTICIDES. IT IS AN UNCOMMON TRANSIENT IN ARIZONA ON MANY ARIZONA LAKES AND RIVERS. INDIVIDUALS WANDER UP FROM MEXICO IN SUMMER AND FALL. NO BREEDING RECORDS IN ARIZONA.

10/11/2001

NAME: CACTUS FERRUGINOUS PYGMY-OWL

GLAUCIDIUM BRASILIANUM CACTORUM

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: No CFR: 62 FR 10730, 3-10-97

DESCRIPTION: SMALL (APPROX. 7"), DIURNAL OWL REDDISH BROWN OVERALL WITH CREAM-COLORED BELLY STREAKED WITH REDDISH BROWN. SOME INDIVIDUALS ARE GRAYISH BROWN

ELEVATION
RANGE: <4000 FT.

COUNTIES: MARICOPA, YUMA, SANTA CRUZ, GRAHAM, GREENLEE, PIMA, PINAL, GILA, COCHISE

HABITAT: MATURE COTTONWOOD/WILLOW, MESQUITE BOSQUES, AND SONORAN DESERTSCRUB

RANGE LIMIT IN ARIZONA IS FROM NEW RIVER (NORTH) TO GILA BOX (EAST) TO CABEZA PRIETA MOUNTAINS (WEST). ONLY A FEW DOCUMENTED SITES WHERE THIS SPECIES PERSISTS ARE KNOWN, ADDITIONAL SURVEYS ARE NEEDED. CRITICAL HABITAT WAS VACATED BY THE U.S. DISTRICT COURT FOR THE DISTRICT OF ARIZONA (9/19/01).

NAME: MEXICAN SPOTTED OWL

STRIX OCCIDENTALIS LUCIDA

STATUS: THREATENED

CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 56 FR 14678, 04-11-91; 66 FR 8530, 2/1/01

DESCRIPTION: MEDIUM SIZED WITH DARK EYES AND NO EAR TUFTS. BROWNISH AND HEAVILY SPOTTED WITH WHITE OR BEIGE.

ELEVATION
RANGE: 4100-9000 FT.

COUNTIES: MOHAVE, COCONINO, NAVAJO, APACHE, YAVAPAI, GRAHAM, GREENLEE, COCHISE, SANTA CRUZ, PIMA, PINAL, GILA, MARICOPA

HABITAT: NESTS IN CANYONS AND DENSE FORESTS WITH MULTI-LAYERED FOLIAGE STRUCTURE

GENERALLY NESTS IN OLDER FORESTS OF MIXED CONIFER OR PONDEROSA PINE/GAMBEL OAK TYPE, IN CANYONS, AND USE VARIETY OF HABITATS FOR FORAGING. SITES WITH COOL MICROCLIMATES APPEAR TO BE OF IMPORTANCE OR ARE PREFERRED. CRITICAL HABITAT WAS REMOVED IN 1998 BUT RE-PROPOSED IN JULY 2000 AND FINALIZED IN FEB 2001 FOR APACHE, COCHISE, COCONINO, GRAHAM, MOHAVE, PIMA COUNTIES; ALSO IN NEW MEXICO, UTAH, AND COLORADO.

NAME: NORTHERN APLOMADO FALCON

FALCO FEMORALIS SEPTENTRIONALIS

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 51 FR 6686, 01-26-86

DESCRIPTION: RUFIOUS UNDERPARTS, GRAY BACK, LONG BANDED TAIL, AND A DISTINCT BLACK AND WHITE FACIAL PATTERN. SMALLER THAN PEREGRINE LARGER THAN KESTREL. BREEDS BETWEEN MARCH- JUNE

ELEVATION
RANGE: 3500-9000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: GRASSLAND AND SAVANNAH

SPECIES FORMERLY NESTED IN SOUTHWESTERN US. NOW OCCURS AS AN ACCIDENTAL. GOOD HABITAT HAS LOW GROUND COVER AND MESQUITE OR YUCCA FOR NESTING PLATFORMS. CONTINUED USE OF PESTICIDES IN MEXICO ENDANGERS THIS SPECIES. NO RECENT CONFIRMED REPORTS FOR ARIZONA.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCHISE

10/11/2001

NAME: SOUTHWESTERN WILLOW FLYCATCHER *EMPIDONAX TRAILLII EXTIMUS*

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: No CFR: 60 FR 10694, 02-27-95

DESCRIPTION: SMALL PASSERINE (ABOUT 6") GRAYISH-GREEN BACK AND WINGS,
WHITISH THROAT, LIGHT OLIVE-GRAY BREAST AND PALE YELLOWISH
BELLY. TWO WINGBARS VISIBLE. EYE-RING FAINT OR ABSENT. ELEVATION
RANGE: <8500 FT.

COUNTIES: YAVAPAI, GILA, MARICOPA, MOHAVE, COCONINO, NAVAJO, APACHE, PINAL, LA PAZ, GREENLEE, GRAHAM,
YUMA, PIMA, COCHISE, SANTA CRUZ

HABITAT: COTTONWOOD/WILLOW & TAMARISK VEGETATION COMMUNITIES ALONG RIVERS & STREAMS

MIGRATORY RIPARIAN OBLIGATE SPECIES THAT OCCUPIES BREEDING HABITAT FROM LATE APRIL TO
SEPTEMBER. DISTRIBUTION WITHIN ITS RANGE IS RESTRICTED TO RIPARIAN CORRIDORS. DIFFICULT TO
DISTINGUISH FROM OTHER MEMBERS OF THE EMPIDONAX COMPLEX BY SIGHT ALONE. TRAINING SEMINAR
REQUIRED FOR THOSE CONDUCTING FLYCATCHER SURVEYS. CRITICAL HABITAT WAS SET ASIDE BY THE 10TH
CIRCUIT COURT OF APPEALS (5/17/01).

NAME: WHOOPING CRANE *GRUS AMERICANA*

STATUS: ENDANGERED CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967; 43
FR 20938, 05-15-78

DESCRIPTION: TALLEST AMERICAN BIRD (UP TO 5 FEET) SNOWY WHITE, LONG NECK
AND LEGS, BLACK WING TIPS, RED CROWN, AND BLACK WEDGE
SHAPED PATCH OF FEATHERS BEHIND ITS EYE. ELEVATION
RANGE: 4500 FT.

COUNTIES: COCHISE

HABITAT: MARSHES, PRAIRIES, RIVER BOTTOMS

BIRDS IN THE ROCKY MOUNTAIN POPULATION ARE OCCASIONAL VISITORS IN ARIZONA DURING MIGRATION.
USUALLY NEAR WILCOX PLAYA.

NAME: SONORA TIGER SALAMANDER *AMBYSTOMA TIGRINUM STEBBINSI*

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: 2.6 TO 4.9" SNOUT-VENT LENGTH WITH LIGHT-COLORED BANDS ON A
DARK BACKGROUND. AQUATIC LARVAE ARE UNIFORM DARK COLOR
WITH PLUME-LIKE GILLS AND TAIL FINS. ELEVATION
RANGE: 4000-6300 FT.

COUNTIES: SANTA CRUZ, COCHISE

HABITAT: STOCK TANKS AND IMPOUNDED CIENEGAS IN SAN RAFAEL VALLEY, HUACHUCA MOUNTAINS

ALSO OCCURS IN THE FOOTHILLS OF THE EAST SLOPE OF THE PATAGONIA AND HUACHUCA MOUNTAINS.
POPULATIONS ALSO ON FORT HUACHUCA.

10/11/2001

2) PROPOSED

TOTAL= 2

NAME: MOUNTAIN PLOVER

CHARADRIUS MONTANUS

STATUS: PROPOSED THREATENED CRITICAL HAB No RECOVERY PLAN: No CFR: 64 FR 7587; 02-16-1999

DESCRIPTION: IN BREEDING SEASON WITH WHITE FOREHEAD AND LINE OVER THE EYE; CONTRASTING WITH DARK CROWN; NONDESCRIPT IN WINTER. VOICE IS LOW, VARIABLE WHISTLE.

ELEVATION
RANGE: VARIABLE FT.

COUNTIES: YUMA, PIMA, COCHISE, PINAL, APACHE

HABITAT: OPEN ARID PLAINS, SHORT-GRASS PRAIRIES, AND CULTIVATED FORMS.

SPECIES PRIMARILY FOUND IN ROCKY MOUNTAIN STATES FROM CANADA TO MEXICO. AZ PRIMARILY PROVIDES WINTERING HABITAT. BREEDING HAS BEEN DOCUMENTED, BUT IS RARE, AND IS LIKELY RESTRICTED TO TRIBAL AND STATE LANDS IN APACHE COUNTY.

NAME: CHIRICAHUA LEOPARD FROG

RANA CHIRICAHUENSIS

STATUS: PROPOSED CRITICAL HAB No RECOVERY PLAN: No CFR: 65 FR 37343, 6-14-2000

DESCRIPTION: CREAM COLORED TUBERCLES (spots) ON A DARK BACKGROUND ON THE REAR OF THE THIGH, DORSOLATERAL FOLDS THAT ARE INTERRUPTED AND DEFLECTED MEDIALY, AND A CALL GIVEN OUT OF WATER DISTINGUISH THIS SPOTTED FROG FROM OTHER LEOPRD

ELEVATION
RANGE: 3300-8900 FT.

COUNTIES: SANTA CRUZ, APACHE, GILA, PIMA, COCHISE, GREENLEE, GRAHAM, YAVAPAI, COCONINO, NAVAJO

HABITAT: STREAMS, RIVERS, BACKWATERS, PONDS, AND STOCK TANKS THAT ARE MOSTLY FREE FROM INTRODUCED FISH, CRAYFISH, AND BULLFROGS

REQUIRE PERMANENT OR NEARLY PERMANENT WATER SOURCES. POPULATIONS NORTH OF THE GILA RIVER MAY BE CLOSELY-RELATED, BUT DISTINCT, UNDESCRIBED SPECIES.

10/11/2001

3) CANDIDATE

TOTAL= 5

NAME: LEMMON FLEABANE

ERIGERON LEMMONII

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: A PROSTRATE PERENNIAL IN THE SUNFLOWER FAMILY. STEMS AND LEAVES ARE DENSELY HAIRY. FLOWERS LOOK LIKE SMALL DELICATE DAISIES, WITH WHITE TO LIGHT PURPLE OUTER PETALS AND YELLOW INNER PETALS.

ELEVATION RANGE: 1500-6000 FT.

COUNTIES: COCHISE

HABITAT: GROWS IN DENSE CLUMPS IN CREVICES, LEDGES, AND BOULDERS IN CANYON BOTTOMS IN PINE-OAK WOODLAND

ONE SITE ON FORT HUACHUCA MILITARY RESERVATION

NAME: BLACK-TAILED PRAIRIE DOG

CYNOMYS LUDOVICIANUS

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: SMALL, STOUT GROUND SQUIRRELS. TOTAL LENGTH OF ADULT 14-17 INCHES; ABOUT 1-3 LBS. INDIVIDUALS IN MIXED COLORS OF BROWN, BLACK, GRAY, AND WHITE. BLACK-TIPPED TAIL. A SOCIAL ANIMAL LIVING IN AGGREGATIONS CALLED TOWNS, COLONIES, OR VILLAGES.

ELEVATION RANGE: APPROX. 5,FT.

COUNTIES: COCHISE, GRAHAM, AND GREENLEE

HABITAT: IN BURROWS IN PLAINS AND GRASSLAND HABITATS.

SPECIES IS CURRENTLY EXTIRPATED FROM THE STATE, BUT CONSERVATION EFFORTS ARE UNDERWAY. TWELVE-MONTH PETITION FINDING PUBLISHED 2/4/00. EXTIRPATED FROM AZ AROUND 1938. REINTRODUCTION ATTEMPTED IN 1972, BUT FAILED.

NAME: GILA CHUB

GILA INTERMEDIA

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: DEEP COMPRESSED BODY, FLAT HEAD. DARK OLIVE-GRAY COLOR ABOVE, SILVER SIDES. ENDEMIC TO GILA RIVER BASIN.

ELEVATION RANGE: 2000 - 3500 FT.

COUNTIES: SANTA CRUZ, GILA, GREENLEE, PIMA, COCHISE, GRAHAM, YAVAPAI

HABITAT: POOLS, SPRINGS, CIENEGAS, AND STREAMS

MULTIPLE PRIVATE LANDOWNERS, INCLUDING THE NATURE CONSERVANCY, THE AUDUBON SOCIETY, AND OTHERS. ALSO FT. HUACHUCA. SPECIES ALSO FOUND IN SONORA, MEXICO.

10/11/2001

NAME: YELLOW-BILLED CUCKOO

COCCYZUS AMERICANUS

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR: 66 FR 38611; 07-25-01

DESCRIPTION: MEDIUM-SIZED BIRD WITH A SLENDER, LONG-TAILED PROFILE,
SLIGHTLY DOWN-CURVED BILL, WHICH IS BLUE-BLACK WITH YELLOW
ON THE LOWER HALF OF THE BILL. PLUMAGE IS GRAYISH-BROWN
ELEVATION
ABOVE AND WHITE BELOW, WITH RUFOUS PRIMARY FLIGHT FEATHERS. RANGE: <6,500 FT.

COUNTIES: APACHE, COCHISE, COCONINO, GILA, GRAHAM, GREENLEE, LA PAZ, MARICOPA, MOHAVE, NAVAJO, PIMA,
PINAL, SANTA CRUZ, YAVAPAI, YUMA

HABITAT: LARGE BLOCKS OF RIPARIAN WOODLANDS (COTTONWOOD, WILLOW, OR TAMARISK GALLERIES)

SPECIES WAS FOUND WARRANTED, BUT PRECLUDED FOR LISTING AS A DISTINCT VERTEBRATE POPULATION
SEGMENT IN THE WESTERN U.S. ON JULY 25, 2001. THIS FINDING INDICATES THAT THE SERVICE HAS SUFFICIENT
INFORMATION TO LIST THE BIRD, BUT OTHER, HIGHER PRIORITY LISTING ACTIONS PREVENT THE SERVICE FROM
ADDRESSING THE LISTING OF THE CUCKOO AT THIS TIME.

NAME: HUACHUCA SPRINGSNAIL

PYRGULOPSIS THOMPSONI

STATUS: CANDIDATE

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: VERY SMALL (1.7-3.2mm) CONICAL SHELL. IDENTIFICATION MUST BE
VERIFIED BY CHARACTERISTICS OF REPRODUCTIVE ORGANS.

ELEVATION
RANGE: 4500-6000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: AQUATIC AREAS, SMALL SPRINGS WITH VEGETATION SLOW TO MODERATE FLOW.

INDIVIDUALS FOUND ON FIRM SUBSTANCES (ROOTS, WOOD, AND ROCKS) OTHER POPULATIONS FOUND ON FORT
HUACHUCA MILITARY PROPERTY

10/11/2001

CONSERVATION AGREEMENT

TOTAL= 1

NAME: RAMSEY CANYON LEOPARD FROG

RANA SUBAQUAVOCALIS

STATUS: CONSERVATION AGREEMENT CRITICAL HAB No RECOVERY PLAN: No CFR: 59 FR 58996

DESCRIPTION: BROWN OR GREEN FROG, 2.5 TO 4 INCHES LONG; SPOTS ROUNDED
WITH LIGHT BORDERS; DORSOLATERAL FOLDS ARE INTERRUPTED
POSTERIORLY AND DEFLECTED MEDIALY; YELLOWISH PIGMENTATION ON THE GROIN WHICH MAY EXTEND INTO THE POSTERIOR VENTER ELEVATION RANGE: 5,000 FT FT.

COUNTIES: COCHISE

HABITAT: ARTIFICIAL PONDS IN TINKER, BROWN, AND RAMSEY CANYONS ON THE EAST SLOPE OF THE HUACHUCA MOUNTAINS.

CONSERVATION AGREEMENT BETWEEN THE SERVICE, ARIZONA GAME AND FISH DEPARTMENT, THE NATURE CONSERVANCY, BUREAU OF LAND MANAGEMENT, CORONADO NATIONAL FOREST, THE US ARMY INTELLIGENCE CENTER AND FORT HUACHUCA, AND A PRIVATE LANDOWNER WAS SIGNED IN AUGUST 1996. SPECIES ALSO OCCURS ON FORT HUACHUCA.

803051356
Correspondance



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300

June 6, 2002

Arizona Game & Fish
ATTN: Ms. Sherry Ruther, Field Supervisor
555 N Greasewood Road
Tucson, AZ 85745

Dear Ms. Ruther:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

INS is currently in the process of identifying and scoping the projects, as well as, identifying potential impacts. In doing so, the INS will conduct an informal State and Federal Agency scoping meeting. The intent of this meeting is to inform agencies of the USBP's intent to increase infrastructure along the border, explain the proposed activities and to solicit input and concerns.

The scoping meeting will be conducted on June 27, 2002. The meeting will be from 09:00 a.m. to 12:00 p.m. at the Bureau of Land Management's San Pedro Project Office conference room located at 1763 Paseo San Luis Street, Sierra Vista, Arizona, (520) 458-3559.

If you and /or another representative from your staff would like to attend, please RSVP not later than June 20, 2002. We look forward to seeing you at the agency scoping meeting. Please direct questions and RSVPs to Mr. John P. Mire at (225) 757-8088, Fax (225) 761-8077 or email johnm@gsrcorp.com.

Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

*Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300*

June 6, 2002

U.S. Department of Agriculture
Natural Resources Conservation Service
Douglas Field Office
ATTN: Mr. Jaque Zamora, District Conservationist
Leslie Canyon Road Route 1, Box 226
Douglas, AZ 85607-9716

Dear Mr. Zamora:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please find The Project Area Map enclosed for your reference.

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Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300

June 6, 2002

U.S. Forest Service
ATTN: Mr. Keith Graves
303 Old Tucson Road
Nogales, AZ 85021-4951

Dear Mr. Graves:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

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Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



**U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center**

*Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300*

June 6, 2002

U.S. Forest Service
Coronado National Forest
ATTN: Mr. Doug Hardy
3081 N. Canyon Road
Douglas, AZ 85607

Dear Mr. Hardy:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

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Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300

June 6, 2002

National Park Service
Coronado National Memorial
ATTN: Mr. Cliff Spencer
4101 East Montezuma Canyon Road
Hereford, AZ 85615

Dear Mr. Spencer:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

INS is currently in the process of identifying and scoping the projects, as well as, identifying potential impacts. In doing so, the INS will conduct an informal State and Federal Agency scoping meeting. The intent of this meeting is to inform agencies of the USBP's intent to increase infrastructure along the border, explain the proposed activities and to solicit input and concerns.

The scoping meeting will be conducted on June 27, 2002. The meeting will be from 09:00 a.m. to 12:00 p.m. at the Bureau of Land Management's San Pedro Project Office conference room located at 1763 Paseo San Luis Street, Sierra Vista, Arizona, (520) 458-3559.

If you and /or another representative from your staff would like to attend, please RSVP not later than June 20, 2002. We look forward to seeing you at the agency scoping meeting. Please direct questions and RSVPs to Mr. John P. Mire at (225) 757-8088, Fax (225) 761-8077 or email johnm@gsrcorp.com.

Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300

June 6, 2002

Bureau of Land Management
San Pedro Project Office
ATTN: Mr. Bill Childress
1763 Paseo San Luis
Sierra Vista, AZ 85635

Dear Mr. Childress:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

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Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

*Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300*

June 6, 2002

Arizona Department of Environmental Quality
Southern Regional Office
ATTN: Mr. Martin McCarthy P.E., Compliance Programs Manager
400 W. Congress, Suite 433
Tucson, AZ 85701

Dear Mr. McCarthy:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please find The Project Area Map enclosed for your reference.

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Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

*Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300*

June 6, 2002

U. S. Fish & Wildlife Service
ATTN: Mr. Mike Coffeen
2321 w. royal Palm Road Suite 103
Phoenix, AZ 85021-4951

Dear Mr. Coffeen:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

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Sincerely,

A handwritten signature in black ink that reads "Eric W. Verwers".

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300

June 6, 2002

U. S. Fish & Wildlife Service
Southern Arizona
ATTN: Ms. Sherry Barret, Assistant Field Supervisor
110 S. Church Ave., Box 52
Tucson, AZ 85701

Dear Ms. Barret:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

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Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service
Architect-Engineer Resource Center

*Attention: CESWF-PM-INS
819 Taylor Street, Room 3A28
P.O. Box 17300
Fort Worth, TX 76102-0300*

June 6, 2002

U.S. Army Corps of Engineers
Los Angeles District
Phoenix Office
ATTN: Mr. Robert Dummer, Project Manager
3636 N. Central Ave., Suite 760
Phoenix, AZ 85012-1936

Dear Mr. Dummer:

The Immigration and Naturalization Service (INS) and the U.S. Border Patrol (USBP) intends to prepare two USBP Station level Environmental Assessments (EAs) for various USBP projects (i.e., roads, fences and lights) within the 300-foot corridor along the U.S./Mexico International Border. These projects will be within the Naco and Douglas USBP Station boundaries. Please fine The Project Area Map enclosed for your reference.

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Sincerely,

Eric W. Verwers
Director, INS A-E Resource Center

Enclosure: Project Area Map



U.S. Department of Justice
Immigration and Naturalization Service

INFORMAL AGENCY SCOPING MEETING
FOR
ENVIRONMENTAL ASSESMENTS
FOR THE US BORDER PATROL PROPOSED INFRASTRUCTURE
TUCSON SECTOR
NACO & DOUGLAS STATIONS

Name	Address	Representing
Chris Ingram	7602 GSRE Ave Baton Rouge, LA 70820	GULF SOUTH RESEARCH CORP
Bill Childress	1763 Paseo San Luis Sierra Vista, AZ 85635	BLM - San Pedro Manager
Jane Childress	SAME ↑	BLM San Pedro Archaeologist
Denver Heath	819 Taylor Street Fort Worth TX 76102	COE / INS
ROBERT BOATRIGHT	2136 S. Naco Highway Bisbee, AZ 85605 520-432-5121	U.S. BORDER PATROL NACO STATION
Dale Buskirk	906 S. 17th Ave. Phoenix, AZ 85007	ADCT
Mark Fredlake	BLM San Pedro NRCA 1763 Paseo San Luis SV 85635	BLM
Ray Montoya	1051 W. Lawrence Douglas, AZ 85607	USBP
GARY ROBISON	" "	USBP Douglas Station

Page 1 of 3
Thane Weigand

4101 E. Montezuma Cy Rd.
Hereford, Az. 85615

National Park St.
Coronado N.M.

Date _____



U.S. Department of Justice
Immigration and Naturalization Service

INFORMAL AGENCY SCOPING MEETING
FOR
ENVIRONMENTAL ASSESMENTS
FOR THE US BORDER PATROL PROPOSED INFRASTRUCTURE
TUCSON SECTOR
NACO & DOUGLAS STATIONS

Name	Address	Representing
John P. Mice	2620 G SRI Ave Baton Rouge LA 70820	GSRC
Steve Gundzel	US Forest Service 5009 S Hwy 92, Houston AZ	SIERRA VISTA R.D. Coronado NF.
DOUGLAS HARDY	US Forest Service 3081 N. Leslie Canyon Rd Douglas AZ	Douglas Ranger Dist. Coronado NF
John E Eyre	ADEQ-SRO 400 W Congress, Ste. 433, Tucson 85701	ADEQ-SRO
Tim Morrison	2141 E. Highland Ave Phoenix, AZ 85016-4736	HDR Eng.
Randy Adams	USBP 1051 E Lawrence, Douglas, AZ 85608	US Border Patrol - Douglas
Kurt Watzek	2141 E Highland Ave Suite 250 Phoenix, AZ 85016	HDR Engineering, Inc.
Jim Mahoney	BLM-SPRNCA 1763 Paseo San Luis Sierra Vista, AZ 85635	U.S. Bureau of Land Mgmt.
JOE LAMPHEAR	3400 AVILA ROAD LAGUNA NIQUEL, CA 92677	INS - WESTERN REGION ENVIRONMENTAL



U.S. Department of Justice
Immigration and Naturalization Service

INFORMAL AGENCY SCOPING MEETING
FOR
ENVIRONMENTAL ASSESMENTS
FOR THE US BORDER PATROL PROPOSED INFRASTRUCTURE
TUCSON SECTOR
NACO & DOUGLAS STATIONS

Name	Address	Representing
Sue Keith	PO Box 12101 Ft Huachuca Az 85670-2101	ADEQ
Placido Dos Santos	400 W. Congress, Ste 433 Tucson, AZ 85701	Az. Dept. of Environmental Quality
GILBERT R ESTRADA	1570 W. Aguirre Tucson AZ 85713	US BORDER PATROL TUCSON AZ
Amy Edwards	2141 E. Highland Ave #250 Phoenix AZ 85017	HDR



803051352
Meeting

**INFORMAL AGENCY SCOPING MEETING AGENDA
IMMIGRATION AND NATURALIZATION SERVICE
ENVIRONMENTAL ASSESMENTS
FOR
USBP PROPOSED INFRASTRUCTURE
TUCSON SECTOR'S
NACO & DOUGLAS STATION**

Introduction

- a. Southwest Border Strategy (Refer to attached handout)
- b. INS and JTF-6 Supplemental PEIS
- c. Tucson Sector PEIS
- d. Current Situation (Station Level EAs Naco & Douglas)

Meeting Purpose

- a. Inform interested agencies of the USBP's intent to construct infrastructure along border areas of Naco Station and Douglas Station to achieve strategic and tactical control along the U.S./Mexico border
- b. Informally solicit any interested agency's comments and concerns regarding possible environmental issues and/or suggestions to aid in success of the proposed project by minimizing impacts.

Project Description

- a. Proposed Action Alternative
- b. Description of Proposed Infrastructure

Review proposed actions in Naco

Review proposed actions in Douglas

Discussion forum

- a. Comments & Agency Concerns

Closing remarks

803051356
Meeting/Asst
References



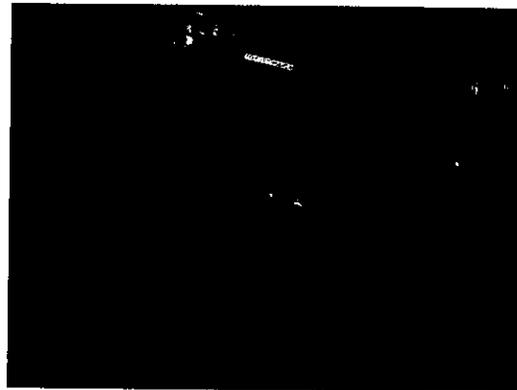
**INFORMAL AGENCY SCOPING MEETING HANDOUT
IMMIGRATION AND NATURALIZATION SERVICE
ENVIRONMENTAL ASSESMENTS
FOR
USBP PROPOSED INFRASTRUCTURE
TUCSON SECTOR
NACO & DOUGLAS
STATIONS**

The Immigration and Naturalization Service (INS) and its enforcement arm, the US Border Patrol (USBP), are responsible for the control of immigration into the United States. This involves the implementation of immigration laws and the detention of illegal aliens.

The U.S. experiences a substantial influx of illegal immigrants and drugs each year. Both of these illegal activities cost the American citizens billions of dollars annually due directly to criminal activities, as well as the cost of apprehension, detention and incarceration of criminals. Indirectly, costs take the form of loss of property, illegal participation in government programs and increased insurance costs. INS has estimated that there are approximately 7 to 9 million illegal aliens residing in the U.S. and their numbers increased at an average rate of about 275,000 per year between October 1992 and October 1996

The USBP's primary function is to detect and prevent the unlawful entry of aliens and smuggling along the nation's borders. Recent increases in unlawful entry and smuggling, coupled with an increase in illegal drug trafficking, have resulted in the apprehension of over 1.5 million illegal immigrants by the USBP along the southwestern border alone.

Illegal immigrants and/or drug traffickers use many areas of the border to gain access to the U.S. The USBP Tucson Sector uses a variety of methods



U.S. Border Patrol infrastructure on the border.

to detect and deter illegal drug traffickers. Deterrence is effective through the actual presence (24 hours per day, seven days per week) of the USBP agents on the border, fences and other physical (natural and man-made) barriers, lighting, and the knowledge that the illegal entrants will be detected and apprehended. Detection of the illegal traffickers is accomplished through a variety of low-technology and high-technology resources including observing physical signs of illegal entry (vehicle tracks and footprints, clothes, etc.), visual observation of the illegal entries by ground patrols and aerial reconnaissance surveys, information provided by private landowners or the general public, ground sensors and remote video surveillance systems.

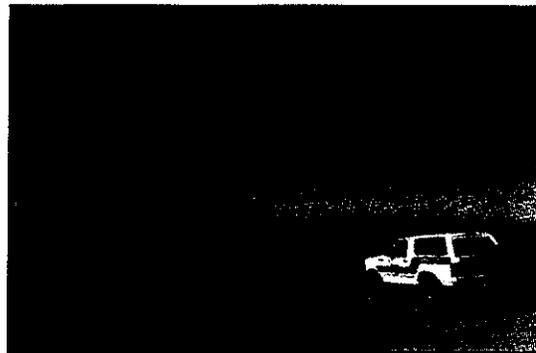
The combination of sound infrastructure (e.g., roads, fences, barriers, and ISIS components), adequate resources (e.g., vehicles, field agents, support personnel, etc.) and daily operations is essential for the effective enforcement of the border strategy and integral to the success of the USBP to gain, maintain and extend control of the border.

The INS will prepare an Environmental Assessment (EA) for both the Naco and Douglas Stations to address the potential effects of implementing the required infrastructure along a 300-foot corridor and the U.S./Mexico Border. The proposed infrastructure consists of construction of primary and secondary pedestrian and vehicle barriers, patrol roads, service roads, drag roads, permanent lighting and surveillance equipment. Low-water crossings and one bridge are planned to compliment the above infrastructure.

These EAs will assess the environmental and socioeconomic impacts, adverse and beneficial, of the proposed construction and operation actions. The No Action alternative, as required by the National Environmental Policy Act (NEPA), will also be considered in the EAs. Each EA will provide information regarding the cumulative effects of the INS's activities with that of other governmental agencies and non-governmental entities, as applicable.

This informal scoping meeting is being conducted in order to determine the range of environmental analysis needed, solicit input about sensitive resources and alternate designs, and to invite the participation of the interested State and Federal agencies in the preparation of

the EAs. In addition, an important part of the scoping process is to provide a forum that allows comments to the INS relative to the project goals and effects.



U.S. Border Patrol on the border.



U.S. ARMY CORPS OF ENGINEERS
Fort Worth District Environmental Division
819 Taylor Street Box 17300
Fort Worth, TX 76102-0300
CESWF-EV-E

Date 7/5/2002 Pages 15

(including cover)

TO:

Name John Mire

Office GSRC

Telephone 225-757-8088

FAX Number 225-761-8477

FROM:

Name Charles McGregor

Office Environmental Resources Branch

Telephone 817-886-1708

FAX Number 886-6499
(817) 978-9947

REMARKS: *Agency letter and response from
AZ-USFWS re Various Projects along the border*

Authorization Signature C. D. M. Gregor



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF.

April 1, 2002

Planning, Environmental and Regulatory Division

U.S. Fish and Wildlife Service
Arizona Ecological Service
ATTN: Mr. David Harlow, Field Supervisor
2321 West Royal Palm Road, Suite 103
Phoenix, AZ 85021-4915

Dear Mr. Harlow:

The U.S. Army Corps of Engineers, Fort Worth District is acting on behalf of the Immigration and Naturalization Service (INS) in preparing an Environmental Assessment (EA) for various Border Patrol projects within a 300-foot corridor along the U.S./Mexico International Border from the western edge of Douglas, AZ to the eastern edge of Naco, AZ (approximately 30 miles).

We are currently in the process of gathering the most current information available regarding Federally listed species potentially occurring within this area of Naco and Douglas, Arizona. A quadrangle map showing the project location is enclosed. The USACE respectfully requests that your agency provide a list of the protected species in Cochise County along with a description of the sensitive resources (e.g., rare or unique plant communities, threatened and endangered and candidate species, etc.) that you believe may be affected by the proposed INS activities. Any information you may have regarding proposed species, potential or known presence, critical habitat areas, general habitat description, distribution and status of these species would be appreciated. Any GIS information, or information sources, you could provide regarding current distribution of protected species would also be greatly appreciated.

We intend to provide your agency with a copy of the Draft EA once it is completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to call Mr. Charles McGregor at (817) 886-1708.

Sincerely,


William Fickel, Jr.
Chief of Planning, Environmental
and Regulatory Division

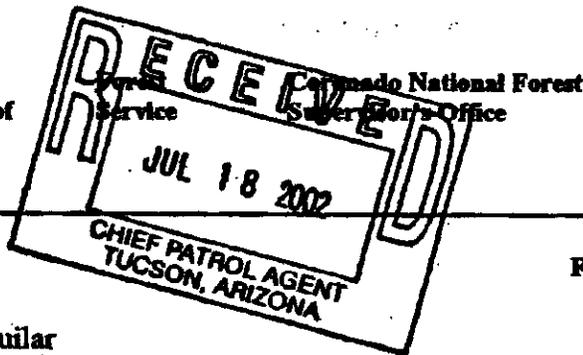
Enclosure

803051356

TCA 50/2.2-C



United States
Department of
Agriculture



300 W. Congress
Tucson, Arizona 85701
Phone (520) 670-4552
FAX (520) 670-4567
TTY (520) 670-4584

File Code: 1950-1
Date: July 17, 2002

David V. Aguilar
Chief Patrol Agent
Tucson Sector, U.S. Border Patrol
1970 West Ajo Way
Tucson, AZ 85713-5698

Dear Chief Aguilar:

Members of my staff recently attended an informal agency scoping meeting in Sierra Vista about proposals to develop environmental assessments to expand the U.S. Border Patrol's infrastructure in the Tucson Sector's Naco and Douglas Stations. Based on the preliminary information obtained during the meeting, it appears that roughly the last 4 miles, from Montezuma Pass to border mile marker 103, of the proposed expansion is located on National Forest System lands administered by the Coronado National Forest.

The proposed action consists of constructing primary and secondary pedestrian and vehicle barriers, patrol roads, service roads, drag roads, and installation of permanent lightning and surveillance equipment over a 300-foot wide corridor immediately adjacent to the international border.

Because the majority of the proposal in this segment falls on National Forest System lands, I am asking for cooperating agency status in this NEPA process (reference 40 CFR 1501.5). As designed, this proposal may be in conflict with the *Land and Resource Management Plan for the Coronado National Forest*; an amendment may be necessary before the proposed action could be implemented. The Forest Service is the agency of jurisdiction in this area and I will need to make a separate decision regarding the proposal's affects on National Forest System lands. That decision will be subject to our administrative appeal regulations. I will have my staff work closely with you to make the environmental analysis process work smoothly and ensure we are in compliance with applicable law, regulation, and policy.

I suggest we meet to further discuss and refine this proposal and the associated timelines for the process. I understand the important nature of your work and I will work closely with you to facilitate a timely decision.

Sincerely,

JOHN M. MCGEE
Forest Supervisor

cc: Kurt Watzek HDR Engineering Inc.





United States Department of the Interior

U.S. Fish and Wildlife Service

Arizona Ecological Services Field Office

2321 West Royal Palm Road, Suite 103

Phoenix, Arizona 85021-4951

Telephone: (602) 242-0210 Fax: (602) 242-2513



In Reply Refer to:

AESO/SE
2-21-02-I-156

July 25, 2002

PER-E
803651356
correspondence

Mr. William Fickel, Jr
Department of the Army
Planning, Environmental, and Regulatory Division
P.O. Box 17300
Fort Worth, Texas 76102-0300

RE: U.S. Border Patrol Construction Project, 300 Foot Corridor Along U.S. and Mexico Border and
Western Edge of Douglas to Naco Arizona

Dear Mr. Fickel:

This letter responds to your recent request for information on threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may occur in your project area. The Arizona Ecological Service Field Office has posted lists of the endangered, threatened, proposed, and candidate species occurring in each of Arizona's 15 counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: <http://arizonaes.fws.gov>

If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find Arizona County/Species List on the main page. Then click on the county of interest. The arrows on the left will guide you through information on species that are listed, proposed, candidates, or have conservation agreements. Here you will find information on the species' status, a physical description, all counties where the species occurs, habitat, elevation, and some general comments. Additional information can be obtained by going back to the main page. On the left side of the screen, click on Document Library, then click on Documents by Species, then click on the name of the species of interest to obtain General Species Information, or other documents when that may be available. Click on the cactus icon to view the desired document.

Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Under the General Species Information, citations for the Federal Register (FR) are included for each listed and proposed species. The FR is available at most public libraries. This information should assist you in determining which species may or may not

occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

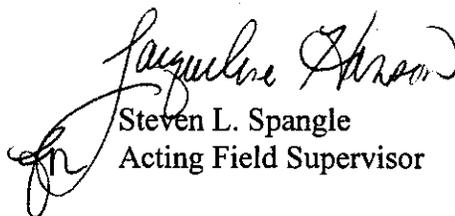
Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency will need to request formal consultation with us. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency will need to enter into a section 7 conference. The county list may also contain candidate species. Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, we recommend the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona protects some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species in your project area.

For future projects, you do not need to contact our office to obtain a project number. However, for additional communications regarding this project, please refer to consultation number 2-21-02-I-156. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please feel free to contact Tom Gatz for projects in northern Arizona or along the Colorado River (x240) or Sherry Barrett for projects in southern Arizona.

Sincerely,


Steven L. Spangle
Acting Field Supervisor

cc: John Kennedy, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

2221 WEST GREENWAY ROAD, PHOENIX, AZ 85023-4399
(602) 942-3000 • WWW.AZGFD.COM

8030 51376
Correspondence
WJ
PR-1
40

GOVERNOR
JANE DEE HULL

COMMISSIONERS
CHAIRMAN, MICHAEL M. GOLIGHTLY, FLAGSTAFF
JOE CARTER, SAFFORD
SUSAN E. CHILTON, ARIVACA
W. HAYS GILSTRAP, PHOENIX
JOE MELTON, YUMA

DIRECTOR
DUANE L. SHROUFE

DEPUTY DIRECTOR
STEVE K. FERRELL



August 1, 2002

Mr. Williams Fickel, Jr.
Department of the Army
Fort Worth District, Corps of Engineers
PO Box 17300
Fort Worth, TX 76102-0300

Re: **Special Status Species Information for Arizona/Mexico International Border,
San Pedro River to Black Water Draw (Naco and Douglas Stations);
Border Patrol.**

Dear Mr. Fickel:

The Arizona Game and Fish Department (Department) has reviewed your request, dated July 23, 2002, regarding special status species information associated with the above-referenced project area. The Department's Heritage Data Management System (HDMS) has been accessed and current records show that the special status species listed on the attachment have been documented as occurring in the project area (5-mile buffer). In addition, this project occurs in the vicinity of any designated Critical Habitats for the loachminnow and spikedace (San Pedro River) and the Yaqui catfish, Yaqui shiner, and Yaqui chub (Black Water Draw).

The Department's HDMS data are not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity.

Making available this information does not substitute for the Department's review of project proposals, and should not decrease our opportunities to review and evaluate new project proposals and sites. The Department is also concerned about other resource values, such as other wildlife, including game species, and wildlife-related recreation. The Department would appreciate the opportunity to provide an evaluation of impacts to wildlife or wildlife habitats associated with project activities occurring in the subject area, when specific details become available.

Mr. William Fickel, Jr.

August 1, 2002

2

The Department, at this time, is unable to provide you with any information relative to potential project-related impacts to wildlife resources that might occur in the study area. We will require information on the locations of specific activities, at a minimum, in order to provide you with more specific comments. Whenever this information becomes available, please forward it to the Department so that we might assist you in identifying potential impacts to wildlife resources.

If you have any questions regarding the attached species list, please contact me at (602) 789-3618. General status information, state-wide and county distribution lists, and abstracts for some special status species are also available on our web site at: http://www.azgfd.com/frames/fishwild/hdms_site/Home.htm.

Sincerely,



Sabra S. Schwartz
Heritage Data Management System, Coordinator

SSS:ss

Attachment

cc: Bob Broscheid, Project Evaluation Program Supervisor
Joan Scott, Habitat Program Manager, Region V

AGFD #7-19-02(16)

Special Status Species within 5 Miles of AZ/Mexico Border, San Pedro River to Black Water Draw

Arizona Game and Fish Department, Heritage Data Management System
August 1, 2002

Scientific Name	Common Name	ESA	USFS	BLM	WSCA
<i>AGOSIA CHRYSOGASTER</i>	LONGFIN DACE	SC		S	
<i>AMMODRAMUS BAIRDII</i>	BAIRD'S SPARROW	SC			WC
<i>CAMPOSTOMA ORNATUM</i>	MEXICAN STONEROLLER	SC	S		
<i>CAREX CHIHUAHUENSIS</i>	A SEDGE		S		
<i>CLEOME MULTICAULIS</i>	PLAYA SPIDER PLANT	SC			
<i>COCCYZUS AMERICANUS</i>	YELLOW-BILLED CUCKOO	C	S		WC
<i>CYPRINELLA FORMOSA</i>	BEAUTIFUL SHINER	LT			WC
<i>ECHINOCEREUS PECTINATUS</i> VAR <i>PECTINATUS</i>	TEXAS RAINBOW CACTUS				
<i>EUMOPS PEROTIS CALIFORNICUS</i>	GREATER WESTERN MASTIFF BAT	SC			
<i>GILA PURPUREA</i>	YAQUI CHUB	LE			WC
<i>IBERVILLEA TENUISECTA</i>	TEXAS GLOBE BERRY			S	
<i>ICTALURUS PRICEI</i>	YAQUI CATFISH	LT			WC
<i>LASIURUS BLOSSEVILLII</i>	WESTERN RED BAT				WC
<i>LASIURUS XANTHINUS</i>	WESTERN YELLOW BAT				WC
<i>LEPTONYCTERIS CURASOAE YERBABUENAE</i>	LESSER LONG-NOSED BAT	LE	S		WC
<i>LILAEOPSIS SCHAFFNERIANA</i> VAR <i>RECURVA</i>	HUACHUCA WATER UMBEL	LE			
<i>MYOTIS VELIFER</i>	CAVE MYOTIS	SC		S	
<i>PENIOCEREUS GREGGII</i> VAR <i>GREGGII</i>	NIGHT-BLOOMING CEREUS	SC			
<i>PHRYNOSOMA CORNUTUM</i>	TEXAS HORNED LIZARD	SC		S	
<i>PHYSALIS LATIPHYSA</i>	BROAD-LEAF GROUND-CHERRY		S		
<i>POECILIOPSIS OCCIDENTALIS SONORIENSIS</i>	YAQUI TOPMINNOW	LE			WC
<i>PYRGULOPSIS BERNARDINA</i>	SAN BERNARDINO SPRINGSNAIL	SC	S	S	
<i>RANA CHIRICAHUENSIS</i>	CHIRICAHUA LEOPARD FROG	PT	S		WC
<i>RANA YAVAPAIENSIS</i>	LOWLAND LEOPARD FROG	SC	S		WC
<i>SIGMODON OCHROGNATHUS</i>	YELLOW-NOSED COTTON RAT	SC			
<i>THAMNOPHIS EQUES MEGALOPS</i>	MEXICAN GARTER SNAKE	SC	S		WC
<i>TYRANNUS MELANCHOLICUS</i>	TROPICAL KINGBIRD				WC

Critical Habitats for the loachminnow, spikedeace (San Pedro River) and Yaqui chub, Yaqui shiner, and Yaqui catfish (Black Water Draw) in project area. AGFD# 7-19-02(16), Border Patrol activities, Douglas and Naco Districts.

STATUS DEFINITIONS
ARIZONA GAME AND FISH DEPARTMENT (AGFD)
HERITAGE DATA MANAGEMENT SYSTEM (HDMS)

FEDERAL US STATUS

ESA **Endangered Species Act (1973 as amended)**
US Department of Interior, Fish and Wildlife Service (<http://arizonaes.fws.gov>)

Listed

- LE** Listed Endangered: imminent jeopardy of extinction.
- LT** Listed Threatened: imminent jeopardy of becoming Endangered.
- XN** Experimental Nonessential population.

Proposed for Listing

- PE** Proposed Endangered.
- PT** Proposed Threatened.

Candidate (Notice of Review: 1999)

- C** Candidate. Species for which USFWS has sufficient information on biological vulnerability and threats to support proposals to list as Endangered or Threatened under ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity.
- SC** Species of Concern. The terms "Species of Concern" or "Species at Risk" should be considered as terms-of-art that describe the entire realm of taxa whose conservation status may be of concern to the US Fish and Wildlife Service, but neither term has official status (currently all former C2 species).

Critical Habitat (check with state or regional USFWS office for location details)

- Y** Yes: Critical Habitat has been designated.
- P** Proposed: Critical Habitat has been proposed.

[**\N** No Status: certain populations of this taxon do not have designated status (check with state or regional USFWS office for details about which populations have designated status)].

USFS **US Forest Service** (1999 Animals, 1999 Plants: corrected 2000)
US Department of Agriculture, Forest Service, Region 3 (<http://www.fs.fed.us/r3/>)

- S** Sensitive: those taxa occurring on National Forests in Arizona which are considered sensitive by the Regional Forester.

BLM **US Bureau of Land Management** (2000 Animals, 2000 Plants)
US Department of Interior, Bureau of Land Management, Arizona State Office
(<http://azwww.az.blm.gov>)

- S** Sensitive: those taxa occurring on BLM Field Office Lands in Arizona which are considered sensitive by the Arizona State Office.
- P** Population: only those populations of Banded Gila monster (*Heloderma suspectum cinctum*) that occur north and west of the Colorado River, are considered sensitive by the Arizona State Office.

TRIBAL STATUS

NESL Navajo Endangered Species List (2000)
Navajo Nation, Navajo Fish and Wildlife Department
(<http://www.heritage.tnc.org/nhp/us/navajo/esl.html>)

The Navajo Endangered Species List contains taxa with status from the entire Navajo Nation which includes parts of Arizona, Utah, and New Mexico. In this notebook we provide NESL status for only those taxa whose distribution includes part or all of the Arizona portion of the Navajo Nation.

Groups

- 1** Those species or subspecies that no longer occur on the Navajo Nation.
- 2** Any species or subspecies which is in danger of being eliminated from all or a significant portion of its range on the Navajo Nation.
- 3** Any species or subspecies which is likely to become an endangered species, within the foreseeable future, throughout all or a significant portion of its range on the Navajo Nation.
- 4** Any species or subspecies for which the Navajo Fish and Wildlife Department (NF&WD) does not currently have sufficient information to support their being listed in Group 2 or Group 3 but has reason to consider them. The NF&WD will actively seek information on these species to determine if they warrant inclusion in a different group or removal from the list.

MEXICAN STATUS

MEX Mexican Federal Endangered Species List (October 16, 2000)
Proyecto de Norma Oficial Mexicana PROY-NOM-059-ECOL-2000

The Mexican Federal Endangered Species List contains taxa with status from the entire Mexican Republic and waters under its jurisdiction. In this notebook we provide MEX designations for only those taxa occurring in Arizona and also in Mexico.

- P** En Peligro de Extinción (Determined Endangered in Mexico): in danger of extinction.
- A** Amenazada (Determined Threatened in Mexico): could become endangered if factors causing habitat deterioration or population decline continue.
- Pr** Sujeta a Protección Especial (Determined Subject to Special Protection in Mexico): utilization limited due to reduced populations, restricted distribution, or to favor recovery and conservation of the taxon or associated taxa.
- E** Probablemente extinta en el medio silvestre (Probably extinct in the wild of Mexico): A native species whose individuals in the wild have disappeared, based on pertinent documentation and studies that prove it. The only existing individuals of the species are in captivity or outside the Mexican territory.

[| = One or more subspecies of this species has status in Mexico, but the HDMS does not track it at the subspecies level (most of these subspecies are endemic to Mexico). Please consult the NORMA Oficial Mexicana PROY-NOM-059-ECOL-2000 for details.]

STATE STATUS**NPL Arizona Native Plant Law (1999)**

Arizona Department of Agriculture (<http://agriculture.state.az.us/PSD/nativeplants.htm>)

- HS** Highly Safeguarded: no collection allowed.
- SR** Salvage Restricted: collection only with permit.
- ER** Export Restricted: transport out of State prohibited.
- SA** Salvage Assessed: permits required to remove live trees.
- HR** Harvest Restricted: permits required to remove plant by-products.

WSCA Wildlife of Special Concern in Arizona (1996 in prep)

Arizona Game and Fish Department (<http://www.azgfd.com>)

- WC** Wildlife of Special Concern in Arizona. Species whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats or population declines, as described by the Arizona Game and Fish Department's listing of Wildlife of Special Concern in Arizona (WSCA, in prep). Species indicated on printouts as WC are currently the same as those in **Threatened Native Wildlife in Arizona (1988)**.

Revised 10/3/01, AGFD HDMS

J:\HDMS\DOCUMENT\NBOOKS\TEMPLATE\EORDEFS\STATDEF



U.S. Department of Justice
Immigration and Naturalization Service
U.S. Border Patrol

TCA 50/2.2-C

Office of the Chief Patrol Agent

1970 W. Ajo Way
Tucson, AZ 85713
(520) 670-6871

August 1, 2002

Mr. John M. McGee
Forest Supervisor
300 W. Congress
Tucson, Arizona 85701

RE: File Code 1950-1
Letter dated 17 July 2002

Dear Mr. McGee:

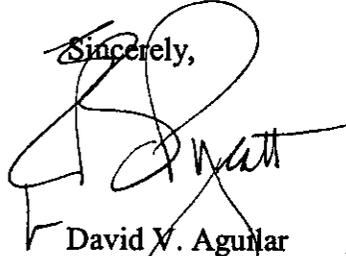
This letter is in response to your letter, referenced above, requesting cooperating agency status during the preparation of the U.S. Border Patrol's Naco and Douglas Stations environmental assessments (EA). We welcome the opportunity to have the U.S. Forest Service as a cooperating agency during the NEPA process and would appreciate any assistance you could provide in developing an EA that not only addresses the needs and mission of two agencies, but also protects the environment to the extent practicable.

To this end, I request that you identify the level of assistance that your agency is willing to provide. This assistance can be agreed upon at the meeting you suggested. My Senior Tactical Coordinator, Mr. Gilbert Estrada, will coordinate with your staff regarding a convenient time and place for that meeting. I would anticipate, at a minimum, that we would have your staff involved in our internal review process and any interagency coordination meetings. This effort would ensure that actions that we ultimately propose are in compliance with the *Land and Resource Management Plan for the Coronado National Forest*, or that the plan could be easily amended to accommodate the proposed action.

Mr. John M. McGee
Page 2

In the meantime, if you have any questions, please do not hesitate to call Mr. Estrada at (520) 584-4006 or me at (520) 670-6871. I thank you in advance for your cooperation and assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Aguilar', written over the word 'Sincerely,'.

David V. Aguilar
Chief Patrol Agent
Tucson Sector, U.S. Border Patrol

cc: Mr. Ken Ehinger, Director Facilities and Engineering Division, HQ INS
Gilbert Estrada, Senior Tactical Coordinator, USBP Tucson Sector
Amy Edwards, HDR Engineering
Denver Heath, Assistant Director, INS AERC
Chris Ingram, GSRC

80305139



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 760
PHOENIX, ARIZONA 85012-1936

August 2, 2002

REPLY TO

Office of the Chief
Regulatory Branch

Mr. Eric W. Verwers
U.S. Army Corps of Engineers
Attention: CESWF-PM-INS
P.O. Box 17300
Fort Worth, Texas 76102-0300

File Number: 2002-01248-RJD

Dear Mr. Verwers:

It has come to our attention that the Immigration and Naturalization Service and U.S. Border Patrol intend to construct various improvements, including road crossings, in the washes that flow across a 300-foot wide corridor along a 55-mile reach of the U.S./Mexico International Border near Douglas and Naco, Cochise County, Arizona.

These improvements may require a Department of the Army permit issued under Section 404 of the Clean Water Act. A Section 404 permit is required for the discharge of dredged or fill material into the "waters of the United States," including adjacent wetlands. Examples of activities requiring a permit are placing bank protection, temporary or permanent stock-piling of excavated material, grading roads, grading (including vegetative clearing operations) that involves the filling of low areas or leveling the land, constructing weirs or diversion dikes, constructing approach fills, and discharging dredged or fill material as part of any other activity.

Enclosed you will find a permit application form and a pamphlet that describes our regulatory program. If you have questions, please contact Robert J. Dummer at (602) 640-5385 x 224. Please refer to file number 2002-01248-RJD in your reply.

Sincerely,

/signed/

Cindy Lester
Chief, Arizona Section
Regulatory Branch

Enclosure(s)

Copies Furnished:
(Without Enclosures)


Gulf South Research Corporation
P.O. Box 83564
Baton Rouge, Louisiana 70884



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

For
John
Mize
(I think!)

803057356
Corres

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Mr. James Garrison, State Historic Preservation Officer
ATTN: Ms. Joanne Medley
Arizona State Parks
1300 West Washington
Phoenix, Arizona 85007

Dear Mr. Garrison:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), is continuing the consultation process with your office regarding the proposed project noted above within the Naco-Douglas corridor.

The proposed action would involve construction (26 miles in Douglas and 31 miles in Naco) of a seamless barrier system (which includes construction of patrol roads drag roads, permanent lights, primary and secondary barriers and accompanying drainage structures) consisting of a 300 ft enforcement zone along the U.S.-Mexico border. However, a small portion of the enforcement zone within Douglas would be as narrow as 60 feet.

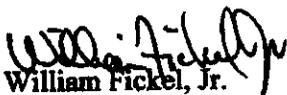
This system would satisfy tactical considerations, including line-of-sight, in such a manner that USBP agents consistently occupy a strategically superior position. These considerations dictate a project alignment that is maintained within a virtually straight and parallel corridor. This alternative would provide an enforcement zone that is 60 to 300 feet wide the from the border. Implementation of the proposed infrastructure would provide a level of control that will accommodate present and future tactical needs and allow the USBP to gain and maintain control of the border region. This design would ensure and convey absolute certainty of apprehension, thereby enhancing the overall deterrent effect. The all weather access to rural areas within the project area would also provide additional safety for the USBP agents. This alternative would provide the most effective means to satisfy the mission of the USBP.

-2-

As this undertaking is a continuation of proposed projects within the Naco-Douglas corridor, an archaeological survey has been accomplished for the extended area (this includes 300 feet north of the border). Once the results of the survey are known and you have time to review the draft survey report, we will seek the appropriate determinations in accordance with 36 CFR Part 800.

If you require any additional information at this time please contact Ms. Patience Patterson of my staff at (817) 886-1723.

Sincerely,


William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosures

Copy furnished w/o enclosures

Charles H. Parsons
Regional Environmental Officer
Immigration and Naturalization Service
Administrative Center Laguna
P.O. Box 30080 Laguna Niguel, CA 92607-0080

Mr. Gilbert R. Estrada
Senior Tactical Coordinator
United State Border Patrol
Tucson Sector
1970 West Ajo Way
Tucson, Arizona 85713



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Honorable Delia Carlyle, Chairperson
Ak Chin Indian Community Council
42507 W. Peters & Nall Road
Maricopa, AZ 85239

Dear Chairperson Carlyle:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), wishes to continue consultation in this area and to solicit your comments on this project. We also have initiated the Section 106 coordination process with the Arizona State Historic Preservation Officer (SHPO) for this project as noted in 36 CFR Part 800.3.

The proposed action would involve construction (26 miles in Douglas and 31 miles in Naco) of a seamless barrier system (which includes construction of patrol roads drag roads, permanent lights, primary and secondary barriers and accompanying drainage structures) consisting of a 300 ft enforcement zone along the U.S.-Mexico border. However, a small portion of the enforcement zone within Douglas would be as narrow as 60 feet.

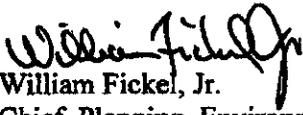
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-2-

As this undertaking is a continuation of proposed projects within the Naco-Douglas corridor, an archaeological survey has been accomplished for the extended area (this includes 300 feet north of the border). Once the results of the survey are known, we will seek the appropriate determinations from the SHPO in accordance with 36 CFR Part 800. We will provide you with a copy of the archaeological survey report and a copy of the draft Environmental Assessment for your review and comment.

If you require any additional information at this time please contact Ms. Patience Patterson of my staff at (817) 886-1723.

Sincerely,


William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosures

Copy furnished w/o enclosures

Charles H. Parsons
Regional Environmental Officer
Immigration and Naturalization Service
Administrative Center Laguna
P.O. Box 30080 Laguna Niguel, CA 92607-0080

Mr. Gilbert R. Estrada
Senior Tactical Coordinator
United State Border Patrol
Tucson Sector
1970 West Ajo Way
Tucson, Arizona 85713



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Honorable Donald R. Antone, Governor
Gila River Indian Community Council
P.O. Box 97
Sacaton, AZ 85247

Dear Governor Antone:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), wishes to continue consultation in this area and to solicit your comments on this project. We also have initiated the Section 106 coordination process with the Arizona State Historic Preservation Officer (SHPO) for this project as noted in 36 CFR Part 800.3.

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DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Honorable Wayne Taylor, Jr., Chairman
ATTN: Mr. Leigh J. Kuwanwisiwma
Hopi Tribal Council
P.O. Box 123
Kykotsmovi, AZ 86039

Dear Chairman Taylor:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), wishes to continue consultation in this area and to solicit your comments on this project. We also have initiated the Section 106 coordination process with the Arizona State Historic Preservation Officer (SHPO) for this project as noted in 36 CFR Part 800.3.

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DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Honorable Ivan Makil, President
Salt River Pima-Maricopa Indian Community Council
10005 E. Osborn
Scottsdale, AZ 85256

Dear President Makil:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), wishes to continue consultation in this area and to solicit your comments on this project. We also have initiated the Section 106 coordination process with the Arizona State Historic Preservation Officer (SHPO) for this project as noted in 36 CFR Part 800.3.

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**DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300**

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Honorable Raymond Stanley, Jr., Chairman
San Carlos Tribal Council
P.O. Box 0
San Carlos, AZ 85550

Dear Chairman Stanley:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), wishes to continue consultation in this area and to solicit your comments on this project. We also have initiated the Section 106 coordination process with the Arizona State Historic Preservation Officer (SHPO) for this project as noted in 36 CFR Part 800.3.

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DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Honorable Edward Manuel, Chairman
ATTN: Mr. Peter Steere, Cultural Resources Manager
Tohono O'odham Nation
P.O. Box 837
Sells, AZ 85634

Dear Chairman Manuel:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), wishes to continue consultation in this area and to solicit your comments on this project. We also have initiated the Section 106 coordination process with the Arizona State Historic Preservation Officer (SHPO) for this project as noted in 36 CFR Part 800.3.

The proposed action would involve construction (26 miles in Douglas and 31 miles in Naco) of a seamless barrier system (which includes construction of patrol roads drag roads, permanent lights, primary and secondary barriers and accompanying drainage structures) consisting of a 300 ft enforcement zone along the U.S.-Mexico border. However, a small portion of the enforcement zone within Douglas would be as narrow as 60 feet.

This system would satisfy tactical considerations, including line-of-sight, in such a manner that USBP agents consistently occupy a strategically superior position. These considerations dictate a project alignment that is maintained within a virtually straight and parallel corridor. This alternative would provide an enforcement zone that is 60 to 300 feet wide from the border. Implementation of the proposed infrastructure would provide a level of control that will accommodate present and future tactical needs and allow the USBP to gain and maintain control of the border region. This design would ensure and convey absolute certainty of apprehension, thereby enhancing the overall deterrent effect. The all weather access to rural areas within the project area would also provide additional safety for the USBP agents. This alternative would provide the most effective means to satisfy the mission of the USBP.



**DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 78102-0300**

September 19, 2002

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Immigration & Naturalization Service (INS) Naco-Douglas Station Level Environmental Assessments

Honorable Dallas Massey, Sr., Chairman
White Mountain Apache Tribal Council
202 East Walnut Street
Whiteriver, AZ 85941

Dear Chairman Massey:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Fort Worth District of the US Army Corps of Engineers, acting on behalf of the Immigration and Naturalization Service (INS) and the US Border Patrol (USBP), wishes to continue consultation in this area and to solicit your comments on this project. We also have initiated the Section 106 coordination process with the Arizona State Historic Preservation Officer (SHPO) for this project as noted in 36 CFR Part 800.3.

The proposed action would involve construction (26 miles in Douglas and 31 miles in Naco) of a seamless barrier system (which includes construction of patrol roads drag roads, permanent lights, primary and secondary barriers and accompanying drainage structures) consisting of a 300 ft enforcement zone along the U.S.-Mexico border. However, a small portion of the enforcement zone within Douglas would be as narrow as 60 feet.

This system would satisfy tactical considerations, including line-of-sight, in such a manner that USBP agents consistently occupy a strategically superior position. These considerations dictate a project alignment that is maintained within a virtually straight and parallel corridor. This alternative would provide an enforcement zone that is 60 to 300 feet wide from the border. Implementation of the proposed infrastructure would provide a level of control that will accommodate present and future tactical needs and allow the USBP to gain and maintain control of the border region. This design would ensure and convey absolute certainty of apprehension, thereby enhancing the overall deterrent effect. The all weather access to rural areas within the project area would also provide additional safety for the USBP agents. This alternative would provide the most effective means to satisfy the mission of the USBP.



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

July 5, 2002

Planning, Environmental, and Regulatory Division

SUBJECT: U.S. Immigration and Naturalization/ U.S. Border Patrol Projects Along the U.S.- Mexico Border

Arizona Game and Fish Department
Regional Supervisor
ATTN: Mr. Jerry Perry
555 North Greasewood Road
Tucson, AZ 85745

Dear Mr. Perry:

The U.S. Army Corps of Engineers (USACE), Fort Worth District, is acting on behalf of the U.S. Immigration and Naturalization Service (INS), in preparing two Environmental Assessments (EAs) for various U.S. Border Patrol (USBP) projects (construction of fences, all weather border patrol roads, drag roads, permanent lights and low-water crossings) within a 300-foot corridor along the U.S.- Mexico International Border within the USBP Naco and Douglas Stations in Southeastern Arizona.

Enclosed is a quadrangle map identifying the project area. We are currently in the process of gathering the most current information available regarding state listed species potentially occurring within this area of Naco and Douglas, Arizona. USACE respectfully requests that your agency provide a list of the protected species of Cochise County along with a description of the sensitive resources (e.g., rare or unique plant communities, threatened and endangered and candidate species, etc.) that you believe may be affected by the proposed activities. Any information you may have regarding critical habitat areas for these species would also be greatly appreciated.

We intend to provide your agency with a copy of the Draft EAs once they are completed. Please inform us if additional copies are needed and/or if someone else within your agency other than you should receive the Draft EAs.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to call Mr. Charles McGregor at (817) 886-1708.

Sincerely,


William Fickel, Jr.
Chief, Planning, Environmental, and
Regulatory Division

Enclosure

Status Definitions

3

AGFD, HDMS

STATE STATUS**NPL Arizona Native Plant Law (1999)**Arizona Department of Agriculture (<http://agriculture.state.az.us/PSD/nativeplants.htm>)

- HS** Highly Safeguarded: no collection allowed.
- SR** Salvage Restricted: collection only with permit.
- ER** Export Restricted: transport out of State prohibited.
- SA** Salvage Assessed: permits required to remove live trees.
- HR** Harvest Restricted: permits required to remove plant by-products.

WSCA Wildlife of Special Concern in Arizona (1996 in prep)Arizona Game and Fish Department (<http://www.azgfd.com>)

- WC** Wildlife of Special Concern in Arizona. Species whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats or population declines, as described by the Arizona Game and Fish Department's listing of Wildlife of Special Concern in Arizona (WSCA, in prep). Species indicated on printouts as WC are currently the same as those in **Threatened Native Wildlife in Arizona (1988)**.

Revised 10/3/01, AGFD HDMS

J:\HDMS\DOCUMENT\NBOOKS\TEMPLATE\ORDEF\STATDEF

Appendix C
LIST OF ARIZONA PROTECTED SPECIES
OCCURRING IN COCHISE COUNTY

Appendix C
State Protected Species of Potential Occurrence in Cochise County, Arizona

Common Name	Scientific Name	WSCA Status	NPL Status
MAMMALS			
Mexican long-tongued bat	<i>Choeronycteris mexicana</i>	WC	--
western red bat	<i>Lasiurus blossevillii</i>	WC	--
western yellow bat	<i>Lasiurus xanthinus</i>	WC	--
lesser long-nosed bat	<i>Leptonycteris curasoae yerbabuenae</i>	WC	--
jaguar	<i>Panthera onca</i>	WC	--
Arizona shrew	<i>Sorex arizonae</i>	WC	--
BIRDS			
northern goshawk	<i>Accipiter gentilis</i>	WC	--
violet-crowned hummingbird	<i>Amazilia violiceps</i>	WC	--
Baird's sparrow	<i>Ammodramus bairdii ammordramus</i>	WC	--
northern gray hawk	<i>Asturina nitida maxima</i>	WC	--
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	WC	--
black-bellied whistling duck	<i>Dendrocygna autumnalis</i>	WC	--
northern buff-breasted flycatcher	<i>Empidonax fulvifrons pygmaeus</i>	WC	--
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	WC	--
American peregrine falcon	<i>Falco peregrinus anatum</i>	WC	--
Mexican spotted owl	<i>Strix occidentalis lucida</i>	WC	--
elegant trogon	<i>Trogon elegans tyrannus</i>	WC	--
thick-billed kingbird	<i>Crassirostris tyrannus</i>	WC	--
tropical kingbird	<i>Melanocholicus agosia</i>	WC	--
REPTILES			
Arizona ridgenose rattlesnake	<i>Crotalus willardi willardi</i>	WC	--
Sonoran desert tortoise	<i>Gopherus agassizii</i>	WC	--
desert massasauga	<i>Sistrurus catenatus edwardsi</i>	WC	--
Mexican garter snake	<i>Thamnophis eques megalops</i>	WC	--
AMPHIBIANS			
Sonoran tiger salamander	<i>Ambystoma tigrinum stebbinsi</i>	WC	--
western barking frog	<i>Eleutherodactylus augusti cactorum</i>	WC	--
plains leopard frog	<i>Rana blairi</i>	WC	--
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	WC	--
Ramsey Canyon leopard frog	<i>Rana subaquavocalis</i>	WC	--
lowland leopard frog	<i>Rana yavapaiensis</i>	WC	--
FISH			
Mexican stoneroller	<i>Campostoma ornatum</i>	WC	--
beautiful shiner	<i>Cyprinella formosa</i>	WC	--
Yaqui chub	<i>Gila purpurea</i>	WC	--
Yaqui topminnow	<i>Poeciliopsis occidentalis sonoriensis</i>	WC	--
PLANTS			
plummer onion	<i>Allium plummerae</i>	--	SR
redflower onion	<i>Allium rhizomatum</i>	--	SR

Cochise County Continued.

Common Name	Scientific Name	WSCA Status	NPL Status
chiricahua rock flower	<i>Apacheria chiricahueniss</i>	--	SR
coppermine milk-vetch	<i>Cobrensis var. maguirei</i>	--	SR
Huachuca milk-vetch	<i>Astragalus hypoxylus</i>	--	SR
playa spider plant	<i>Cleome multicaulis</i>	--	SR
Cochise pincushion cactus	<i>Coryphantha robbinsorum</i>	--	HS
slender needle corycactus	<i>Coryphantha scheeri var. valida</i>	--	SR
cob corycactus	<i>Coryphantha strobiliformis</i>	--	SR
pinaleno hedgehog cactus	<i>Echinocereus ledingii</i>	--	SR
Texas rainbow cactus	<i>Echinocereus pectinatus var. pectinatus</i>	--	SR
needle-spined pineapple cactus	<i>Echinomastus erectocentrus var. erectocentrus</i>	--	SR
button cactus	<i>Epithelantha micromeris</i>	--	SR
chiricahua fleabane	<i>Erigeron kuschei</i>	--	SR
lemmon fleabane	<i>Erigeron lemmonii</i>	--	HS
woodland spurge	<i>Euphorbia macropus</i>	--	SR
Wislizeni gentian	<i>Gentianella wislizeni</i>	--	SR
Bartram stonecrop	<i>Graptopetalum bartramii</i>	--	SR
crested coral root	<i>Hexalectris spicata</i>	--	SR
Texas purple spike	<i>Hexalectris warnockii</i>	--	HS
Huachuca water umbel	<i>Lilaeopsis schaffneriana var. recurva</i>	--	HS
lemmon lily	<i>Lilium parryi</i>	--	SR
Madrean adders mouth	<i>Malaxis corymbosa</i>	--	SR
purple adders mouth	<i>Malaxis porphyrea</i>	--	SR
slender adders mouth	<i>Malaxis tenuis</i>	--	SR
varied fishhook cactus	<i>Mammillaria viridiflora</i>	--	SR
Wilcox fishhook cactus	<i>Mammillaria wrightii var. wilcoxii</i>	--	SR
night-blooming cereus	<i>Peniocereus greggii var. greggii</i>	--	SR
catalina beardtongue	<i>Penstemon discolor</i>	--	HS
Chiricahua rock daisy	<i>Perityle cochisensis</i>	--	SR
Thurber's bog orchid	<i>Platanthera limosa</i>	--	SR
blumer's dock	<i>Rumex orthoneurus</i>	--	HS
fallen ladies'-tresses	<i>Schiedeella parasitica</i>	--	SR
Huachuca groundsel	<i>Senecio huachucanus</i>	--	HS
Michoacan ladies'-tresses	<i>Stenorrhynchos michuacanus</i>	--	SR
tepic flame flower	<i>Talinum marginatum</i>	--	SR
limestone Arizona rosewood	<i>Vauquelinia californica spp. pauciflora</i>	--	SR
green death camas	<i>Zigadenus virescens</i>	--	SR

Legend: WSCA – Wildlife of Special Concern in Arizona
 NPL – Arizona Native Plant Law
 E – Federally Endangered
 T – Federally Threatened
 C – Candidate
 PT – Proposed Threatened
 SC – Species of Concern
 WC – Wildlife of Special Concern
 SR – Salvage Restricted: collection only with permit
 HS– Harvest Restricted: permits required to remove plant by-products

Source: Arizona Game and Fish Department 2003. Last Updated by AGFD, January, 2003.

Appendix D
AIR QUALITY IMPACT AND
CONFORMITY ANALYSIS

**NACO AND DOUGLAS STATIONS LEVEL INFRASTRUCTURE PROJECTS
ENVIRONMENTAL ASSESSMENT
AIR QUALITY IMPACT AND CONFORMITY ANALYSIS**

1.0 Overview as Related to Air Emissions

The United States Border Patrol (USBP) proposes two projects to construct four roads within the 300 foot corridor of the enforcement zone in Cochise County, Arizona. A detailed description of the projects is included in the preceding sections of this document. Part of Cochise County is classified as a Nonattainment Area for sulfur dioxide (SO₂) and as a moderate Nonattainment Area for particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀). Emissions of these two pollutants from the projects are addressed in this section as they relate to the General Conformity Rule under the Clean Air Act (CAA).

Construction activities will be conducted on ten day rotations for approximately seventy-five days annually. The construction will take place on two separate projects: the Naco Station Level Infrastructure Project and the Douglas Station Level Infrastructure Project. The Naco project will be approximately thirty-one miles and the Douglas project approximately twenty-six miles. Sources of air emissions associated with construction will include SO₂ from combustion engines and PM₁₀ emissions from vehicle traffic on unpaved roads, bulldozing and compacting, grading, loading excavated material to trucks and dumping, scraping, and blasting. Emissions from unpaved roads will result from construction vehicle traffic, such as, light trucks (pickup trucks), busses, dump trucks, heavy trucks (tractor-trailers), and water trucks. The water trucks will apply water to the road surface to control fugitive dust emissions from vehicle traffic and other construction activities.

Currently, the USBP patrols a degraded unpaved road along the border. Large sections of the border do not have road access at all. USBP agents patrol the area using four wheel drive vehicles, all-terrain vehicles (ATVs), bicycles, and horses. Drag roads are used as an essential tool in detecting illegal border crossings. During dragging operations, road surfaces are smoothed to show fresh signs of illegal alien crossings. After construction, agents will patrol and drag the area in much the same manner.

2.0 Air Emissions Estimations

Increases in air emissions due to the two proposed projects have been evaluated to determine the applicability of the General Conformity Rule (discussed in Section 3.0 below). Increased air emissions are expected during road construction. Air emissions due to routine patrol activities are expected to be the same before and after the construction of the new roads; therefore, the air emissions evaluation is focused only on emissions from road construction activities.

Generally, emission factors from the Environmental Protection Agency's (EPA) Compilation of Air Pollutant Emission Factors AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources were used to estimate emissions. Additional sources were EPA's Air/Superfund National Technical Guidance Study Series: *Estimation of Air Impacts from Area Sources of Particulate Matter Emissions at Superfund Sites* (EPA-451/R-93-004), the National Climatic Data Center's (NCDC) *Climatic Wind Data for the*

United States, and Revised Universal Soil Loss Equation (RUSLE) Related Attributes. Supporting emission calculations are provided as part of this analysis.

Sulfur dioxide emissions were calculated based on AP-42 Section 3.3 Table 3.3-1. SO₂ emission factors in pounds per million British thermal units (lb/MM Btu) for from gasoline and diesel fuel were converted to weight per volume (lb/1,000 gallons) of fuel used. Fuel usage was derived from the average mileage of each vehicle and the estimated hourly and annual miles traveled.

A summary of the resulting SO₂ emissions estimates is provided in Table 2-1 below. Detailed assumptions and calculations are presented in Appendix A.

Table 2-1
SO₂ Emissions Summary

Construction Activity	Naco Station Project (tons/yr)	Douglas Station Project (tons/yr)
Light Truck	0.001	0.001
Bus	0.001	0.001
Dump Truck	0.05	0.05
Heavy Truck (Tractor-Trailer)	Negligible	Negligible
Water Truck	0.07	0.07
Bulldozers/Graders	0.45	0.45
Scrapers	0.001	0.001
Total Emissions	0.57	0.57

Particulate emissions from unpaved roads was calculated using AP-42 Section 13.2.2 Equation (2). The equation calculates an emission factor in pounds per vehicle mile traveled using the surface material moisture content, the mean vehicle weight, and the surface material silt content. The moisture content was obtained from the AP-42 Section 13.2.2 Related Information document. Water sprays will be used every half hour to saturate loose soil at the construction site. Based on AP-42, it is estimated that thoroughly watered soil will hold approximately 20% moisture. Based on the silt content obtained from Cochise County RUSLE Related Attributes it was determined that the silt content range maximum provided for Equation (2) should be used. Equation (2) requires the mean vehicle weight rather than individual vehicles types. Also, the equation was developed for use at vehicle speeds greater than fifteen miles per hour. Construction equipment generally travels at lower speeds; therefore, the weighted average speed was determined and used to develop a correction coefficient (S/15) for speeds less than fifteen miles per hour. Vehicle miles traveled was determined from the greatest distance between access roads and the number of round trips required to support construction operations.

Particulate emissions from bulldozing and compacting was determined using AP-42 Sections 13.2.3 and 11.9. It was assumed that three bulldozers will operate at each project site and operations will occur during 100% of operating hours (600 hours per year). Particulate emissions from grading operations were also determined using AP-42 Sections 13.2.3 and 11.9. An emission factor (pounds per vehicle mile traveled) was developed using the mean vehicle speed, which was conservatively assumed to be five miles per hour. Vehicle miles traveled was determined from the width of the bulldozer and the area of grading per year.

Particulate emissions from loading excavated material to trucks and truck dumping was determined using AP-42 Section 13.2.4 Equation (1). The mean wind speed (Tucson, AZ) was obtained from the NCDC. A recommended material moisture content of 2% (EPA-451/R-93-004, page 13) was used rather than 20% from previous equations. This conservative decrease in moisture was assumed due to evaporation and the impracticality of water application to excavated material.

Particulate emissions from scraping operations was determined using AP-42 Section 13.2.3 where an empirical emission factor in pounds per vehicle mile traveled was given. Blasting emissions were determined from AP-42 Section 11.9. It was conservatively assumed that operations would require 600 blasts per year and each blast would be over a 31 square meter area.

A summary of the resulting PM₁₀ emissions estimates is provided in Table 2-2 below. Detailed assumptions and calculations are presented in Appendix A.

Table 2-2
PM₁₀ Emissions Summary

Construction Activity	Naco Station Project (tons/yr)	Douglas Station Project (tons/yr)
Vehicle Traffic on Unpaved Roads	13.56	13.54
Bulldozing and Compacting	2.11	2.11
Grading	0.24	0.24
Truck Loading and Dumping	0.04	0.04
Scrapers	0.62	0.62
Blasting	0.001	0.001
Total Emissions	16.57	16.55

3.0 General Conformity

The General Conformity rule is set forth in 40 CFR 51 Subpart W—Determining Conformity of General Federal Action to State or Federal Implementation Plans. According to the Code of Federal Regulations (CFR) 40 CFR 51.853(b), Federal actions require a conformity determination for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs 40 CFR 51.853(b)(1) or (2).

Douglas was first designated as a [SO₂] nonattainment area in 1978. The primary source in Douglas was the Phelps Dodge, Inc. copper smelter, which was dismantled in 1995. In December 2001, ADEQ [Arizona Department of Environmental Quality] submitted to EPA the *Douglas Moderate Area SO₂ Maintenance Plan and Request for Redesignation to Attainment*.

The Douglas PM₁₀ State Implementation Plan (SIP) demonstrates attainment "but for emissions emanating outside the United States" (Section 179B of the Clean Air Act). Ambient monitoring data reveal that the Douglas area has met the 24-hour and annual PM₁₀ standards for the last several years. The last 24-hour exceedance occurred in 1991 and the last annual violation occurred in 1989. (ADEQ, AQD Website, 2002)

Part of Cochise County is a moderate Nonattainment Area for PM₁₀. Per 40 CFR 51.853(b)(1), the moderate Nonattainment threshold value for General Conformity

determinations is 100 tons per year of PM₁₀. Part of Cochise County is also a Nonattainment Area for SO₂. Per 40 CFR 51.853(b)(1), the threshold value for all SO₂ Nonattainment Area General Conformity determinations is 100 tons per year of SO₂. The total emission rates as shown in Table 2-1, Table 2-2, and the attached supporting emission estimation calculations are less than 100 tons per year for both SO₂ and PM₁₀; therefore, a conformity determination is not required.

4.0 Conclusion

The USBP proposes two projects to construct four new roads for Naco and Douglas Stations. The roads will greatly improve the ability of the USBP to patrol the border between the United States and Mexico.

Post-construction operations will be conducted in the same manner as current operations; therefore, post-construction SO₂ and PM₁₀ emissions will not change from current emissions. Ambient air monitoring data reveal that current operations in the Douglas Nonattainment Area have not contributed to an SO₂ annual violation since 1984 nor a PM₁₀ annual violation since 1989; therefore, because there will not be an incremental increase in emissions, an analysis of post-construction emissions is not required. An analysis of estimated SO₂ and PM₁₀ emissions resulting from construction activities shows that the General Conformity threshold for the area will not be exceeded; therefore, a Conformity Determination is not required.

APPENDIX A

AIR EMISSION CALCULATIONS

**United States Border Patrol
Naco Station Level Infrastructure EA**

Construction Emissions: Equations and Data

Table 1. Constants, source conditions, and variables

Variable	Description of Variable	Value	Reference
k_1	Empirical constant (lb/VMT)	2.6	AP-42 Table 13.2.2-2
k_2	Particle size multiplier	0.35	AP-42 13.2.4, Page 3
s	Surface material silt content (%)	35.0	AP-42 Table 13.2.2-3
a	Empirical constant	0.8	AP-42 Table 13.2.2-2
W	Mean vehicle weight (tons)		
S	Mean vehicle speed (mph)		
b	Empirical constant	0.4	AP-42 Table 13.2.2-2
U	Mean wind speed (mph)	8	NCDC 11/98
A	Blasting Surface Area (m ²)		
M_1	Surface material moisture content (dry) (%)	20	AP-42 13.2.2 Related Information
M_2	Surface material moisture content (%)	2	EPA-451/R-93-004, Page 13
c	Empirical constant	0.3	AP-42 Table 13.2.2-2
E_{ext}	Size-specific emission factor (lb/VMT)		AP-42 13.2.2 Eq. (2)
$E_{(lb/ton)}$	Emission factor (lb/ton)		AP-42 13.2.4 Eq. (1)

1. Unpaved Roads¹

$$E_{ext} = \left(\frac{k_1 (s/12)^a (W/3)^b}{(M/0.2)^c} \right) \quad \text{[Equation (2), AP-42 13.2.2]}$$

2. Bulldozing and Compacting²

$$E_{lb/hr} = \left[\frac{1.0s^{1.5}}{M^{1.4}} \right] 0.75 \quad \text{[AP-42 Table 11.9-1]}$$

3. Grading²

$$E_{lb/VMT} = 0.51(S)^{2.0} (0.60) \quad \text{[AP-42 Table 11.9-1]}$$

4. Loading Excavated Material to Trucks and Truck Dumping³

$$E_{(lb/ton)} = 0.0032k_2 \frac{(U/5)^{1.3}}{(M_2/2)^{1.4}} \quad \text{[Equation (1), AP-42 13.2.4]}$$

5. Scrapers⁴

$$EF = 20.2 \text{ lb/VMT} \quad \text{[AP-42 Table 13.2.3-1]}$$

6. Blasting²

$$E_{kg/blast} = (0.52)(0.000014)A^{1.5} \quad \text{[AP-42 Table 11.9-1]}$$

1) Emission factors based on AP-42 Section 13.2.2 (9/98). Vehicle speeds less than 15 mph are corrected with the multiplier S/15. Moisture content is based on the related information document included in Section 13.2.2 Rdmoist.pdf, page 2.

2) Emission factors based on AP-42 Sections 13.2.3 (1/95) and/or 11.9 (7/98)

3) Emission factors based on AP-42 Sections 13.2.3 (1/95) and/or 13.2.4 (1/95)

4) Emission factors based on AP-42 Sections 13.2.3 (1/95)

**United States Border Patrol
Naco Station Level Infrastructure EA**

Construcion Emissions: Calculation Assumptions

General Assumptions

Rotation =	10 days =	8 hr/day
Working Days per Year =	75 days/yr =	600 hr/yr
Miles Completed per Rotation =	1 mile	
Miles Completed per Year =	7.5 miles	
Project =	31 miles	
Quantity of Soil Moved =	1,746,791 cubic yards (cy)	
Density of Soil =	1890 lb/cy	
Mass of Soil Moved =	1,650,717 tons/project	
Mass of Soil Moved per Year =	399,367 tons/yr	
Water Spray =	2 applications/hr	

Light Trucks

Number of Trucks =	3 trucks
Number of Round Trips per Day =	5 round trips/day
Maximum Trips per Hour =	1.5 round trips/hr
Number of Miles per Trip =	5 miles/round trip
Vehicle Mass =	2 ton
Avg. Fuel Use =	21 mpg

Bus

Number of Busses =	1 bus
Number of Round Trips per Day =	1 round trips/day
Maximum Trips per Hour =	0.5 round trips/hr
Number of Miles per Round Trip =	5 miles/round trip
Vehicle Mass =	5 ton
Avg. Fuel Use =	7 mpg

Dump Trucks

Number of Trucks =	4 dump trucks
Truck Payload Capacity =	20 tons
Number of Round Trips per Year =	19,200 round trips/yr
Maximum Trips per Hour =	8 round trips/hr
Number of Miles per Trip =	0.5 miles/round trip
Vehicle Mass (no load) =	5 tons
Avg. Fuel Use =	4 mpg

Heavy Trucks

Number of Trucks =	2 heavy trucks
Number of Round Trips per Day =	0.1 round trips/day
Maximum Trips per Hour =	1 round trips/hr
Number of Miles per Trip =	5 miles/round trip
Truck Payload Capacity =	20 tons
Vehicle Mass =	5 tons
Avg. Fuel Use =	5 mpg

PROVIDENCE ENGINEERING

P.O. Box 84380 • Baton Rouge, Louisiana 70884-4380 • 225-766-7400 • Fax 225-766-7440

**United States Border Patrol
Naco Station Level Infrastructure EA**

Construcion Emissions: Calculation Assumptions

Water Trucks

Number of Trucks = 3 heavy trucks
Number of Round Trips per Day = 48 round trips/day
Maximum Trips per Hour = 6 round trips/hr
Number of Miles per Trip = 5 miles/round trip
Truck Payload Capacity = 15.65 tons
Vehicle Mass = 5 tons
Avg. Fuel Use = 5 mpg

Bulldozers

Number of Bulldozers = 3 bulldozers
Hours of Operation = 600 hr/yr
Avg. Fuel Use = 37.5 gal/hr

Grading

Number of Bulldozers = 3 bulldozers
Shovel Width = 8 ft
Width of Typical Graded Section = 66 ft
Area per Year = 2,613,600 ft²/yr
Vehicle Miles Traveled per Year = 62 miles/yr
Vehicle Speed = 5 mph

Truck Loading and Dumping

Number of Trucks = 4 dump trucks
Truck Capacity = 20 tons
Mass of Soil Moved per Year = 96,000 tons/yr
Mass of Soil Moved per Hour = 160 tons/hr

Scrapers

Number of Scrapers = 2 scrapers
Cut Width = 8 ft
Width of Typical Scraped Section = 66 ft
Area per Year = 2,613,600 ft²/yr
Vehicle Miles Traveled per Year = 62 miles/yr
Vehicle Speed = 5 mph
Avg. Fuel Use = 2 mpg

Blasting

Number of Blasts per Day = 8 blast/day
Number of Blasts per Year = 600 blast/yr
Blasting Area = 31 m²

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Construction Emissions: Calculations

PM₁₀ Emissions

Vehicle				Operating Schedule/Rate						Control Efficiency (%)	Emission Factor (EF)	PM ₁₀ Emission Rates	
Type	Avg Weight (tons)	Usage (%)	Speed (mph)	Hours (hr/yr)	Vehicle Miles (VMT/hr) (VMT/yr)	Blasting (per hr) (per yr)	Excavation/Loading (tons/hr) (tons/yr)	Maximum (lb/hr)	Annual (tons/yr)				
Unpaved Roads													
Light Truck	2	6%	10		8	1,875							
Bus	5	1%	10		3	375							
Dump Truck	13	32%	5		4	9,600							
Heavy Truck	13	0.1%	5		5	38							
Water Truck	10	60%	5		30	18,000							
Fleet Wt Avg	10	100%	5.4		49	29,888			0%	2.53	44.47	13.56	
Bulldozing and Compacting													
				600					0%		7.03	2.11	
Grading													
			5		15	62			0%	7.65	114.75	0.24	
Loading Excavated Material to Trucks and Truck Dumping													
							160	96,000	0%	0.001	0.13	0.04	
Scrapers													
					10	62			0%	20.20	202	0.62	
Blasting													
							8	600	0%	0.001	0.02	0.001	
Total Construction PM₁₀ Emissions											368.40	16.57	

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**United States Border Patrol
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Construction Emissions: Calculations

SO₂ Emissions

Vehicle			Operating Schedule/Rate				Emission Factor Conversion			SO ₂ Emission Rates		
Type	Fuel	Mileage (mpg)	Hours (hr/yr)	Vehicle Miles (VMT/hr) (VMT/yr)		Fuel Usage (gal/hr) (gal/yr)		AP-42 Table 3.3-1 (lb/MM Btu)	Heat Inp (Btu/gal)	EF (lb/M gal)	Maximum (lb/hr)	Annual (tons/yr)
Light Truck	Gasoline	21		8	1,875	0.4	89	0.084	144,130	12.11	0.004	0.001
Bus	Diesel	7		3	375	0.4	54	0.29	137,030	39.74	0.014	0.001
Dump Truck	Diesel	4		4	9,600	1.0	2,400	0.29	137,030	39.74	0.04	0.05
Heavy Truck	Diesel	5		5	38	1.0	8	0.29	137,030	39.74	0.04	0.000
Water Truck	Diesel	5		30	18,000	6.0	3,600	0.29	137,030	39.74	0.24	0.07
Bulldozer	Diesel					37.5	22,500	0.29	137,030	39.74	1.49	0.45
Scraper	Diesel	2		10	62	5.0	31	0.29	137,030	39.74	0.20	0.001
Total Construction SO₂ Emissions											2.03	0.57

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Douglas Station Level Infrastructure EA**

Construction Emissions: Equations and Data

Table 2. Constants, source conditions, and variables

Variable	Description of Variable	Value	Reference
k_1	Empirical constant (lb/VMT)	2.6	AP-42 Table 13.2.2-2
k_2	Particle size multiplier	0.35	AP-42 13.2.4, Page 3
s	Surface material silt content (%)	35.0	AP-42 Table 13.2.2-3
a	Empirical constant	0.8	AP-42 Table 13.2.2-2
W	Mean vehicle weight (tons)		
S	Mean vehicle speed (mph)		
b	Empirical constant	0.4	AP-42 Table 13.2.2-2
U	Mean wind speed (mph)	8	NCDC 11/98
A	Blasting Surface Area (m ²)		
M_1	Surface material moisture content (%)	20	AP-42 13.2.2, Related Information
M_2	Surface material moisture content (%)	2	EPA-451/R-93-004, Page 13
c	Empirical constant	0.3	AP-42 Table 13.2.2-2
E_{ext}	Size-specific emission factor (lb/VMT)		AP-42 13.2.2 Eq. (2)
$E_{(lb/ton)}$	Emission factor (lb/ton)		AP-42 13.2.4 Eq. (1)

1. Unpaved Roads¹

$$E_{ext} = \left(\frac{k_1 (s/12)^a (W/3)^b}{(M/0.2)^c} \right) \quad \text{[Equation (2), AP-42 13.2.2]}$$

2. Bulldozing and Compacting²

$$E_{lb/hr} = \left[\frac{1.0s^{1.5}}{M^{1.4}} \right] 0.75 \quad \text{[AP-42 Table 11.9-1]}$$

3. Grading²

$$E_{lb/VMT} = 0.51(S)^{2.0} (0.60) \quad \text{[AP-42 Table 11.9-1]}$$

4. Loading Excavated Material to Trucks and Truck Dumping³

$$E_{(lb/ton)} = 0.0032k_2 \frac{(U/5)^{1.3}}{(M_2/2)^{1.4}} \quad \text{[Equation (1), AP-42 13.2.4]}$$

5. Scrapers⁴

$$EF = 20.2 \text{ lb/VMT} \quad \text{[AP-42 Table 13.2.3-1]}$$

6. Blasting²

$$E_{kg/blast} = (0.52)(0.000014)A^{1.5} \quad \text{[AP-42 Table 11.9-1]}$$

1) Emission factors based on AP-42 Section 13.2.2 (9/98). Vehicle speeds less than 15 mph are corrected with the multiplier S/15. Moisture content is based on the related information document included in Section 13.2.2 Rdmoist.pdf, page 2.

2) Emission factors based on AP-42 Sections 13.2.3 (1/95) and/or 11.9 (7/98)

3) Emission factors based on AP-42 Sections 13.2.3 (1/95) and/or 13.2.4 (1/95)

4) Emission factors based on AP-42 Sections 13.2.3 (1/95)

**United States Border Patrol
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Construcion Emissions: Calculation Assumptions

General Assumptions

Rotation =	10 days =	8 hr/day
Working Days per Year =	75 days/yr =	600 hr/yr
Miles Completed per Rotation =	1 mile	
Miles Completed per Year =	7.5 miles	
Project =	26 miles	
Quantity of Soil Moved =	533,675 cubic yards (cy)	
Density of Soil =	1890 lb/cy	
Mass of Soil Moved =	504,323 tons/project	
Mass of Soil Moved per Year =	145,478 tons/yr	
Water Spray =	2 applications/hr	

Light Trucks

Number of Trucks =	3 trucks
Number of Round Trips per Day =	5 round trips/day
Maximum Trips per Hour =	1.5 round trips/hr
Number of Miles per Round Trip =	5 miles/round trip
Vehicle Mass =	2 ton
Avg. Fuel Use =	21 mpg

Bus

Number of Busses =	1 bus
Number of Round Trips per Day =	1 round trips/day
Maximum Trips per Hour =	0.5 round trips/hr
Number of Miles per Round Trip =	5 miles/round trip
Vehicle Mass =	5 ton
Avg. Fuel Use =	7 mpg

Dump Trucks

Number of Trucks =	4 dump trucks
Truck Payload Capacity =	20 tons
Number of Round Trips per Year =	19,200 round trips/yr
Maximum Trips per Hour =	8 round trips/hr
Number of Miles per Round Trip =	0.5 miles/round trip
Vehicle Mass (no load) =	5 tons
Avg. Fuel Use =	4 mpg

Heavy Trucks

Number of Trucks =	2 heavy trucks
Number of Round Trips per Day =	0.1 round trips/day
Maximum Trips per Hour =	1 round trips/hr
Number of Miles per Round Trip =	5 miles/round trip
Truck Payload Capacity =	20 tons
Vehicle Mass =	5 tons
Avg. Fuel Use =	5 mpg

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Construcion Emissions: Calculation Assumptions

Water Trucks

Number of Trucks = 3 heavy trucks
Number of Round Trips per Day = 48 round trips/day
Maximum Trips per Hour = 6 round trips/hr
Number of Miles per Round Trip = 5 miles/round trip
Truck Payload Capacity = 15.65 tons
Vehicle Mass = 5 tons
Avg. Fuel Use = 5 mpg

Bulldozers

Number of Bulldozers = 3 bulldozers
Hours of Operation = 600 hr/yr
Avg. Fuel Use = 37.5 gal/hr

Grading

Number of Bulldozers = 3 bulldozers
Shovel Width = 8 ft
Width of Typical Graded Section = 66 ft
Area per Year = 2,613,600 ft²/yr
Vehicle Miles Traveled per Year = 62 miles/yr
Vehicle Speed = 5 mph

Truck Loading and Dumping

Number of Trucks = 4 dump trucks
Truck Capacity = 20 tons
Mass of Soil Moved per Year = 96,000 tons/yr
Mass of Soil Moved per Hour = 160 tons/hr

Scrapers

Number of Scrapers = 2 scrapers
Cut Width = 8 ft
Width of Typical Scraped Section = 66 ft
Area per Year = 2,613,600 ft²/yr
Vehicle Miles Traveled per Year = 62 miles/yr
Vehicle Speed = 5 mph
Avg. Fuel Use = 2 mpg

Blasting

Number of Blasts per Day = 8 blast/day
Number of Blasts per Year = 600 blast/yr
Blasting Area = 31 m²

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**United States Border Patrol
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Construction Emissions: Calculations

Vehicle				Operating Schedule/Rate						Control Efficiency (%)	Emission Factor (EF)	PM ₁₀ Emission Rates	
Type	Avg Weight (tons)	Usage (%)	Speed (mph)	Hours (hr/yr)	Vehicle Miles (VMT/hr)	Vehicle Miles (VMT/yr)	Blasting (per hr)	Blasting (per yr)	Excavation/Loading (tons/hr)			Excavation/Loading (tons/yr)	Maximum (lb/hr)
Unpaved Roads													
Light Truck	2	6%	10		8	1,875							
Bus	2	1%	10		3	375							
Dump Truck	13	32%	5		4	9,600							
Heavy Truck	13	0.1%	5		5	38							
Water Truck	10	60%	5		30	18,000							
Fleet Wt Avg	10	100%	5.4		49	29,888				0%	2.53	44.40 13.54	
Bulldozing and Compacting													
				600						0%		7.03 2.11	
Grading													
			5		15	62				0%	7.65	114.75 0.24	
Loading Excavated Material to Trucks and Truck Dumping													
								160	96,000	0%	0.001	0.13 0.04	
Scrapers													
					10	62				0%	20.20	202 0.62	
Blasting													
							8	600		0%	0.001	0.02 0.001	
Total Construction Emissions											368.33	16.55	

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**United States Border Patrol
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Construction Emissions: Calculations

SO₂ Emissions

Vehicle			Operating Schedule/Rate				Emission Factor Conversion			SO ₂ Emission Rates		
Type	Fuel	Mileage (mpg)	Hours (hr/yr)	Vehicle Miles (VMT/hr) (VMT/yr)	Fuel Usage (gal/hr) (gal/yr)		AP-42 Table 3.3-1 (lb/MM Btu)	Heat Inp (Btu/gal)	EF (lb/M gal)	Maximum (lb/hr)	Annual (tons/yr)	
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Bus	Diesel	7		3	375	0.4	54	0.29	137,030	39.74	0.014	0.001
Dump Truck	Diesel	4		4	9,600	1.0	2,400	0.29	137,030	39.74	0.04	0.05
Heavy Truck	Diesel	5		5	38	1.0	8	0.29	137,030	39.74	0.04	0.000
Water Truck	Diesel	5		30	18,000	6.0	3,600	0.29	137,030	39.74	0.24	0.07
Bulldozer	Diesel					37.5	22500	0.29	137,030	39.74	1.49	0.45
Scraper	Diesel	2		10	62	5.0	31	0.29	137,030	39.74	0.20	0.001
Total Construction SO₂ Emissions										2.03	0.57	

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Appendix E
PUBLIC INVOLVEMENT
