

FILE: Sonoran
Pronghorn



United States Department of the Interior

FISH AND WILDLIFE SERVICE
P.O. Box 1306
Albuquerque, New Mexico 87103

In Reply Refer To:
R2/OP

JUN 16 1997

Honorable John McCain
United States Senator
Attention: Mr. Kevin Adam
2400 E. Arizona Biltmore Circle, Suite 1150
Phoenix, AZ 85016

Dear Senator McCain:

This is in reference to Mr. William Howard O'Brien's letter dated April 22, 1997. Mr. O'Brien has had an ongoing and much appreciated interest in the endangered Sonoran pronghorn antelope. The staff at Cabeza Prieta National Wildlife Refuge have had contact with Mr. O'Brien over the past few years, including discussions of translocation of individual antelope to areas outside of Federal lands.

The Sonoran Pronghorn Recovery Team works through a Core Working Group that includes staff at the Cabeza Prieta NWR. This group has determined that the number of antelope in the wild are too low at this time to consider relocation. The group is investigating captive breeding with the Phoenix Zoo to assist in building stocks for future translocation, which may include areas outside current known range.

I have enclosed a copy of the latest core working group meeting notes. These notes include additional data on forage plants. Unfortunately, more information on the limiting effect of forage species and the relationship of forage to freestanding water is needed before the team would approve relocation of antelope from their current range. The Air Force has transferred funding to the Fish and Wildlife Service to continue studies of these and other critical issues in the decline of Sonoran pronghorn.

I can understand Mr. O'Brien's frustration with the pace of progress and I appreciate his desire to assist in speedy recovery efforts for this species. We share his frustration and would like nothing better than to see the Sonoran pronghorn plentiful throughout its historical range. Large mammal management is an excruciatingly slow process even when the species is not endangered.

Sincerely,

Acting Regional Director

Enclosure

cc: Senator John McCain
Washington, D.C. 20510-3101
bcc: LS(with copy of incoming)
Sam Spiller, AZ Ecological Services
Geographic Manager, AZ
Don Tiller, Refuge Manager, Cabeza Prieta National Wildlife Refuge

NOTES
SONORAN PRONGHORN CORE WORKING GROUP
MEETING
25 APRIL 1997

LOCATION: CPNWR OFFICE

PARTICIPANTS: LAURA THOMPSON-OLAIS (CPNWR); JOHN HERVERT (AGFD), LARRY VOYLES (AGFD) & JOHN KENNEDY (AGFD); BRUCE D. EILERTS (LUKE AIR FORCE BASE); RON PEARCE (UCAS, YUMA); TIM GOODMAN (BLM); GENE DAHLEN (BLM, PHOENIX); ROBERT E. BREW (UNIVERSITY OF ARIZONA).

SUMMARY/ACTIONS

- Discussed use of towers and cameras for surveillance of North and South Tac.
- Possible Collaring efforts next fall will include 10 percent of the SPH population plus a few animals from North and South Tac.
- Changes in the method of collaring include use of an attractant bait (apple mash) and dropnet capture. AGFD will prepare a proposal for this action.
- A future proposal by AGFD would explore the relationship between water and predators
- A suggestion was made to include trans.-border infra-red photos to augment the vegetation mapping project.
- The University of Arizona will proceed with a pilot study of vegetation mapping and SPH distribution after reviewing existing data.
- Experiments with watering disturbed areas to promote plant growth that may attract SPH away from live fire sites is anticipated.
- John Hervert will report back regarding research on water related subjects.
- Bob Barry will report back on the contract for ground manipulation and confer with Lorena on how to proceed.
- Bruce Eilert will report back on the format for obligating Legacy funding.
- AGFD may hire "seasonals" to do monitoring at Tac ranges.
- Ron Pearce will take care of obligating 30-50k of compliance funding for collaring.
- AGFD exploring the potential use of fixed-wing aircraft instead of helicopters.

DISCUSSION

MONEY:

LAURA: Let us discuss the funding.

RON: In regard to Biological Opinion about SPH on North and South Tac, we will work with the Air Force on monitoring. We have some compliance money for this, but the bulk of the money is to be spent on endangered species such as the cactus ferruginous owl and the desert tortoise. We need to establish

transects. There is 30-50k available this fiscal year and we need to know by July what the money is going for.

JOHN: Discussed that money with Bill- consider using it for surveillance cameras.

BRUCE: We looked at towers at Gila Bend, but the cost is too high.

RON: We are looking at towers for the use of cameras, but this money is not associated with that.

COLLARING:

JOHN: In regard to the population monitoring project, we plan to collar additional animals on the Tac ranges; on the refuge, enough animals to be within 10 per cent of the estimated SPH population and some on the ranges. The larger the sample the better the statistical evaluation. We plan to use apple mash bait and capture with a dropnet. This provides a flexibility in method- we would not normally trap them, but this is a different issue. We want to get about 10 per cent of the population and the ones on the range would be in addition.

BRUCE: We will support this and lets do it in September.

PARTICIPANT: More details?

JOHN: We will use a 5-pound bucket with holes punched in it so that SPH can smell it but not taste it. The attractant may have alcohol associated with it so we don't want the SPH to taste the bait. Cameras will be used to determine if SPH come to the bait. Our ideal situation is to mark individuals in as many groups as possible. Capture by dropnet results in less physical stress, but there is a risk of killing them- they could still have a physical injury.

LAURA: Start by putting a proposal together which Lorena (FWS Ecological Services) needs by July.

BRUCE: Her boss is pushing for the BO to be done by August, but we probably won't have a proposal ready by August. There is a need to decide about a schedule for next year.

PARTICIPANT: How long does it take to do the work?

JOHN: It takes a weekend or weekends.

Also, weather patterns affect success and there is a question of what we are going to do with the animals that we catch?

BRUCE: The North and South Tac individuals?

JOHN: They don't hang together, there is a lot of mixing.

LAURA: Lets begin to get our thoughts down on paper; Lorena wants to know how this is going to work.

BRUCE: On North and South Tac for several weeks. What about money?

JOHN: Money is not a problem right now.

Bruce and I will be in communication and prepare a couple of pages describing the project. We envision doing the project where the animals are not moving that much and stand a better chance of coming to the attractant.

RON: A permit is needed.

WATER & PREDATOR CONTROL:

LAURA: The next topic?

JOHN: This is a new proposal that considers the affect of water on coyotes, because water may influence SPH as well as coyotes. We have asked our research branch to this. There is a hole in the literature regarding the affect of water on predators. We would like to do this, but we do not have the money.

Consider this for the future. The project does not have to be done on the refuge, but the refuge does have wide areas, which is an advantage, however, it is difficult to work in a wilderness area.

LAURA: Were we contacted about this some years ago? De Voss?

JOHN: The problem is whether or not this is a priority in AGFD?

BRUCE: Proposals for endangered species have been funded. John, we could try to fund that project.

VEGETATION PROJECT:

LAURA: the next topic is the vegetation project.

ROBERT: Working on a vegetation map; working with the arid lands group and hope to accomplish the objective of a federal agency and the university working together as well as prepare a vegetation map.

Data is just coming on line; trans.-boundary infra-red photos taken along a 100 mile buffer zone along the border from an elevation of 20,000ft using a 6-inch photo length.

JOHN: How much does drought influence the photo run?

ROBERT: We have not had a lot of experience with this technique-we just got the photos and have not had time to study them- they could have a big impact on present studies.

LAURA: Will you do a small pilot project?

ROBERT: We are going to look at the existing data and then bring in the infra-red photo data and then select a couple of sites and study SPH distribution.

LAURA: Dames & Moore has flight photos.

BRUCE: There may be some things you might find useful.

SOUTH TAC HABITAT MANIPULATION:

LAURA: Refer to the South Tac Habitat Manipulation. (ATTACHMENT)

...the idea would be to provide additional water on one acre of Sonoran pronghorn habitat to see what sort of vegetation and animal response we get.

The purpose is to find out if SPH can be enticed further away from dangerous areas.

What is Lorena going to let us do?

May be Bruce would connect with Bob; most of the year we can get the most out of these sites; use a water buffalo; looking at watering areas to provide more succulent plants to draw animals away from military sites.

RON: Can get down on weekends to lay hoses; experiment to see if the project works; then if it works then may be spray in April.

PARTICIPANT: Where is the plot?

JOHN: The experimental plot is 1-acre and down the sides of a road; 1-inch of water per acre will be applied.

May not need that much.

LAURA: If the project works, then we might try it on the refuge.

Possible replication on the refuge.

JOHN: Here is a map of targets on the military range and the association that SPH have with those targets. There is a definite positive association at HE Hill and other disturbed sites. Areas with heavy truck damage do not grow forbs and have no SPH.

LAURA: Do we want to look at vegetation on disturbed areas?

JOHN: We plan to get with Dames & Moore and overlay the data and get a good idea of what they are eating; we have diet data for summer periods only; what they eat depends upon how dry it is.

FUNDING:

LAURA: Let us discuss the use of the \$25k and the \$90K.

BRUCE: The funds must be spent in 5-years.

As long as the projects are ES related, there is no problem with the money.

LAURA: What are the details of billing?

BRUCE: What about vegetation mapping?

LAURA: Bring in Sue Ruttman to a meeting and discuss the vegetation map and SPH range with Sue.

BRUCE: What does the group think the priority is?

JOHN/LAURA: Low priority.

LAURA: If we do the vegetation map we will use all the money. Should we cut it in half and only do the east side?

BRUCE: The money must be obligated this year.

JOHN: The Park Service also has money- 150K to do a pilot study so let us not waste money.

LAURA: Do a pilot study because then the money is obligated and OK for 5-years.

BRUCE: May not be able to invoice little-by-little.

PARTICIPANT: Need to obligate the money.

LAURA: Bruce, can you check out whether or not we can do piece meal billing or must it be one-big-bill?

JOHN: If we collar, its this next fiscal year I'm worried about.

RON: I will fund the effort on the tactical range.

LARRY: We have good procedures for dealing with temporary help.

RON: We can modify the direction and scope of a funded project. The best sources of temporaries and the best abilities to react and do a study quickly, are contractors. Its hard for us to do the same.

BRUCE: The 90K is Legacy money and must be spent for conservation projects.

RON: Our money is compliance moneys and must be tied to the proper wording.
RON: Baiting and drop netting is OK and we can use compliance money toward the capture effort and the experiment with cans. This effort has to be started this year and can be completed later at an indefinite date.

INFRA-RED SURVEYS:

LAURA: Infra-red survey method- anything new?

BRUCE: Have not done anything since last summer; the money has been spent and there is no more for a pilot study.

JOHN: Do something in the fall?

BRUCE: If we plan carefully, we can proceed with a infra-red survey in the fall.

MORE ON GROUND TOPICS:

LAURA: Back to on the ground stuff.

BRUCE: There is a schedule problem and we canceled a mission today.

PARTICIPANT: Can radios be used?

BRUCE: You are welcome to come out, but radios would-be a problem. If others would like to monitor once a week, we could let them use hand held radios. Initially, we would provide escorts until they know the area. The towers are up, but they are uncomfortable because they move alot- we need to look at them.

LAURA: Let us know when we can get out on them.

JOHN: We want to get up on them and see if they have been placed in the right locations.

PARTICIPANT: Need to hire someone for long term monitoring.

ROLE OF THE CORE WORKING GROUP:

BRUCE: This group has a real opportunity to communicate and have input instead of just being told what to do. We need to decide what is the best work to do.

JOHN: The use of fixed-wing planes might work better than helicopters.

LAURA: The water development proposal has gone to Lorena; John says that time- wise it won't happen this summer.

TO DO LIST:

LAURA: The To-Do-List.

- CHECK ON PROPOSAL FOR COLLARING
- COYOTE ECOLOGY
- EVALUATE DATA FROM DAMES AND MOORE AND DATA FOR ACTUAL LOCATIONS OF TARGETS- SAW SPH AT THAT TARGET ON A CERTAIN DATE; FINNISH IN A MONTH; ANALYSIS OF ATTRACTION OR AVOIDANCE OF A FEATURE OUT THERE; DECIDE WHAT IS MOST IMPORTANT FOR MANAGEMENT PURPOSES
- GROUND MANIPULATION-BRUCE
- HOW WORK WITH THE 90K- BRUCE
- INFRA-RED FLIGHTS AND FIXED- WING ON TAC-JOHN & BRUCE
- NRPP MONEY IS THERE AND IS ALREADY DIVIDED INTO PROJECTS SUCH AS JOSE JUAN CHARCO & REMOTE CAMERAS- ANOTHER PACK OF MONEY; NEED TO DECIDE ABOUT
- ROBERT: SOMETHING BRAND NEW- REMOTE SENSING SATELLITE TECH., METER BY METER RESOLUTION; I WANT TO EXPLORE THAT TECHNOLOGY AND BRING IT TO THE GROUP.

ATTACHMENTS: SOUTH TAC HABITAT MANIPULATION TWO LOCATION MAPS SHOWING SOUTH TAC HABITAT MANIPULATION

SUBMITTED BY
DAVID KIDD
CPNWR VOLUNTEER

South TAC Habitat Manipulation

Laura

Call me if you have
any question.

As we discussed, the idea would be to provide additional water on one acre of Sonoran pronghorn habitat to see what sort of vegetation and animal response we get. The location suggested by Bob Barry is a previously burned area on South TAC about one and one half miles north of the refuge boundary (see attached map). A well used by EOD is located west of range one within 13 miles of the test area (see attached map). The biggest question is, can water trucks traverse the road down to the proposed test area?

Well Information

Depth = 550 feet

Depth to Water = 300 feet

Gallons per minute production = 250 (15000 gallons per hour)

Amount of water to be applied

One acre inch of water = 27,167 gallons

Test Area

If the water truck can spray water 30 feet off to the side
30 feet X 1452 feet (0.28 mile) = one acre

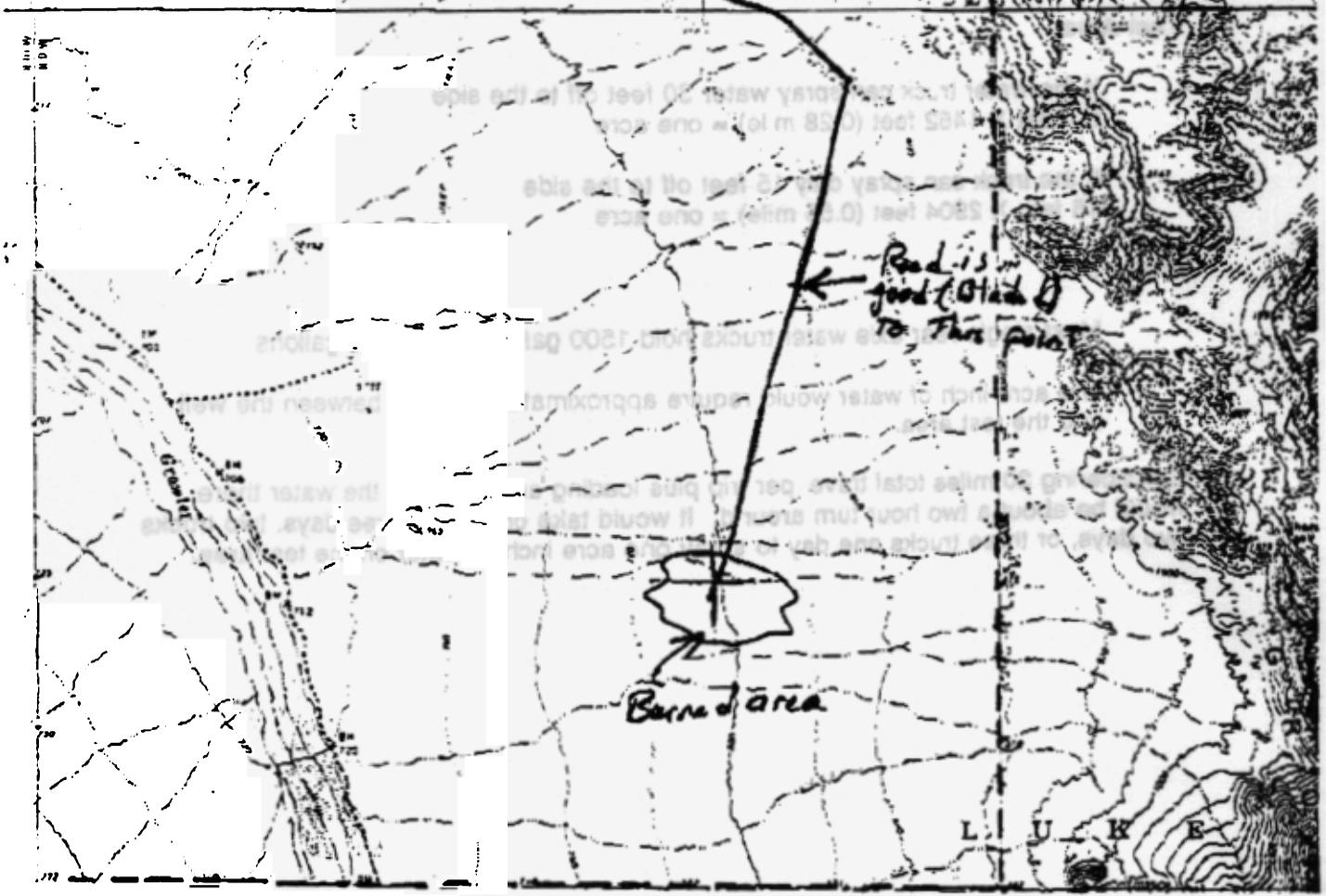
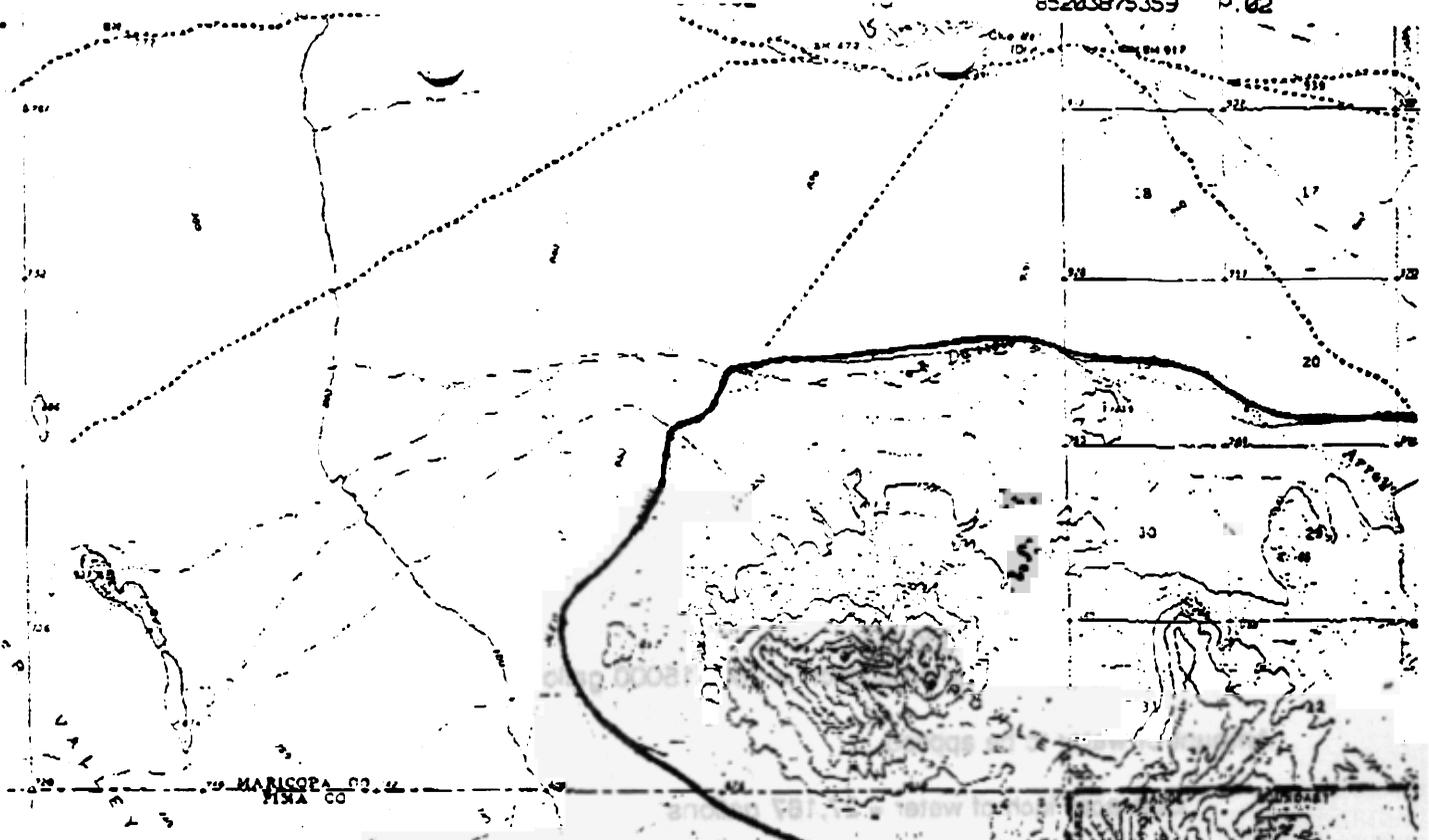
If the truck can spray only 15 feet off to the side
15 feet X 2904 feet (0.55 mile) = one acre

Water truck

Most single rear axle water trucks hold 1500 gallons + or - 500 gallons

one acre inch of water would require approximately 18 trips between the well and the test area.

Considering 30 miles total travel per trip plus loading and spraying the water there would be about a two hour turn around. It would take one truck three days, two trucks two days, or three trucks one day to spray one acre inch of water on the test area.



Rad. is good (Glad D)
to this point

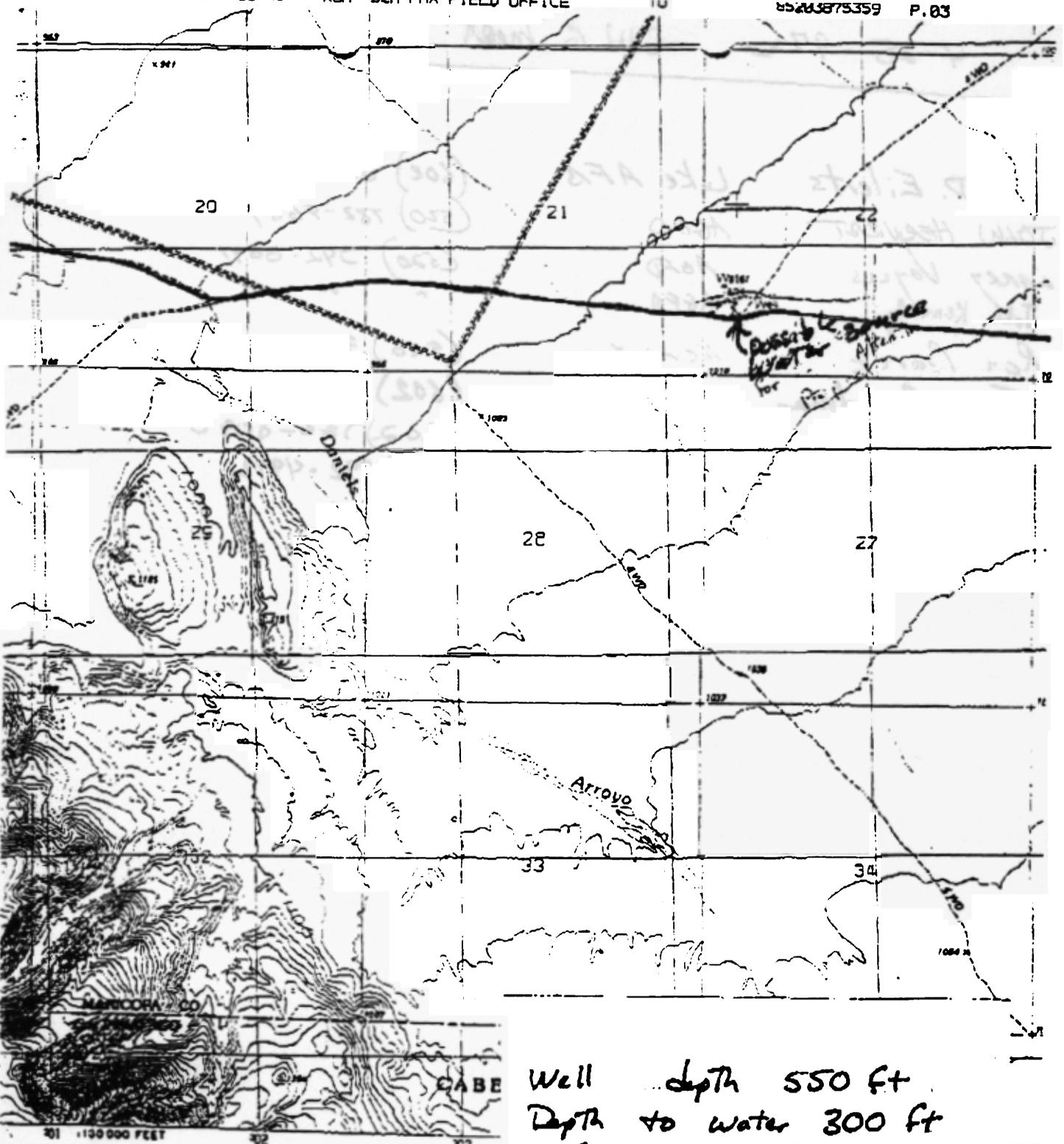
Barricade

Granite

L U K E

MARICOPA CO
YUMA CO

1:25,000



Well depth 550 ft
 Depth to water 300 ft
 GPM = 250

PREPARED BY THE UNITED STATES GEOLOGICAL SURVEY
 FROM AERIAL PHOTOGRAPHS TAKEN 1961
 CHECKED 1961
 REVISION FROM AERIAL PHOTOGRAPHS TAKEN 1963
 CHECKED 1964
 MAP EDITED 1966
 CONTROL POINTS TRANSVERSE MERCATOR
 METER UNIVERSAL TRANSVERSE MERCATOR ZONE 12
 30-FOOT STATE GRID TICKS ARIZONA CENTRAL ZONE
 MAGNETIC DECLINATION 13° WEST
 NORTH NORTH DECLINATION 10° EAST



4-25-97

CWG Meet @ Carlsbad

| | | |
|------------------|-------------|----------------|
| Bruce D. Eilerts | Luke AFB | (602) 856-3823 |
| JOHN HERBERT | AGFD | (520) 782-9684 |
| LARRY VOYLES | AGFD | (520) 342-0091 |
| John Kennedy | AGFD | " " " |
| Ron Pearce | AGFD | (520) 341-3401 |
| Tim Goodman | BLM Phoenix | (602) 780-8090 |
| Gene Dahlem | BLM PHX | (602) 780-8090 |
| Robert E. Brew | UFA | (520) 792-4972 |



United States Department of the Interior

CABEZA PRIETA NATIONAL WILDLIFE REFUGE

1611 N. Second Avenue
Ajo, Arizona 85321-1634

Core Working Group meeting notes 5-22-97 at Cabeza

(Please refer to past notes for reference)

we started working on the effects of the watering on STAC:

Hervert said things have changed in the last 2 weeks; now assoc. w/
chain fruit cholla

may 9 last time sph seen NTAC hehill

Cabeza can provide water

this watering would be on the southern most part of the STAC

project explained to Terry Hansen

Hervert showed a overlay with target with sph locations

why are sph there, probably because of disturbance
fawn survival is the most critical survival for sph survival
runways are used, shows sph locations there
Hansen was in agreement to put watering in the southern area of
STAC further away from he hill, so use on the hill would not
decreased

what are effects of watering:

select several locations and chose them as necessary
water once a week
there are summer annuals responding now

EFFECTS of watering = *

* driving out there may harrass animals - noise
depend on vehicles

18 trips with 1500 gal truck to water one inch of ground
if we drive out and there is sph there, we cancel the trip so not
to disturb them

if sph are on the bajadas, will they know and go to these areas?
we will be influencing habitat changes

* possibly increasing concentration of small mammals for the
forage, therefore more predators such as coyotes which might effect
sph

* possible contaminants uptake from plants aluminum, boron, so we
should sample the plants; aluminum is the major component of the
bombs, is this a problem being further away from the he hill,

should be far less than in the area of the hill

if the well out there could be used, this would decrease the noise use, Bruce will check out if someone can check the well

there is a holding tank to be checked out, 30,000 gal

AGFD has 3 agency water trucks, 1500 -1700 gal

* beneficial effects: Bruce will do

Hansen mentioned using a C-130 to drop water once a month, he will check a test drop to see the effect, maybe somewhere on ETAC so we could view.

maybe use drip lines to soak areas

**** so Bruce will check on well and holding tank, Hervert will check on available trucks

since there's been a buck hanging around the water well, we'll look at starting at this site.

if we could start immediately, we could use Cabeza's water and use AGFD trucks

question: how quick we will see results: could see in a week
wire lettuce little on STAC

Hervert gave a map to Bruce for Lorena for watering site locations

Bruce will fax draft proposal to CWG by next Wed.

next topic:

test apple mash as bait
animals are not in predictable locations now so we agreed to cancel for now

testing the bait now wait until the fall to test the bait for more predictable locations

Hervert, Bruce and Bob do proposal for fall netting and baiting, will contact Lorena to get a "due" data

closure times for TAC ranges: March and April need to be closed and May for SouthTAC but cleanup can occur

most fawns are produced in March

Hansen suggested and bounced off CWG: for EOD cleanup

Sept through Nov NTAC and ETAC Dec thru Feb. EOD
STAC March nothing, start EOD in April based on feedback from CWG, need 30 days

EOD dragging bombs, walking areas, bulldozers, blow ordnance can be postponed.

60% fawns born in March,
CWG will have to inform AF on April, Hansen will check on the later the better for April.

IBO schedule for closures is already set up until about May 1998

Budget:

Cabeza has total of \$96,000 AF available now
Hervert's Heritage request for monitoring was denied, but he will reapply
Marine \$ is 38,000 for monitoring telemetry OK with that

we need to budget for FY98 and FY99
TAC range collaring project for FY98 request

AGFD hire one person dedicated monitoring sph on TAC ranges, in towers, veg work = \$50,000 Hervert fine truthing of devos veg map
Hervert is requesting to use ~ \$50,000 of military \$96,000 Cabeza has.

so CWG agreed to put a portion of \$96,000 from military towards a AGFD hire to work on TAC ranges

next topic

Park Service NRPP funding that we got for sph projects:

Veg map \$48,000 for FY97

remote monitoring all within ORPI \$10,000 acquire cameras/ ordered 4 cameras to start get cameras out within a month, checking with Hervert's shop; will buy videos next year; will get up to 6 cameras in second 2 years cameras can go outside ORPI for sph needs

put cameras on fenceline

(all fence between Cabeza and ORPI has now been removed as of 18 months ago)

aerial survey \$20,000 will happen in Decmeber 1998; use some of this for test infrared survey pilot survey Hervert and Tibbitts will work together on obligating

last aerial survey cost about \$8,000, not all costs accounted for

\$7,000 for radio tracking will assist AGFD for collaring project for 10% of population collaring

pronghorn have been observed near Rasmussen tank two were seen

Dave Brown said to consider the Arizona Antelope Foundation for funding sources.

other topics

experimental water projects on Cabeza near Sierra Pinta mt. - since there is only one animal in the area Hervert will update proposal and get with Lorena

Hervert will contact Ogden to see if they can come and brief us

Phoenix Zoo doesn't want to commit to captive breeding until we get the results of the PVA which we've been waiting for Defenders to write up.

the veg map was discussed:

ORPI is investigating purchasing the Arid Lands AVHRR sensor which was part of the original veg proposal that the CWG has been trying to get funding for. We will have another meeting with ORPI's GIS person who can discuss the available technology and the CWG available on Wed May 28 at Cabeza at 1500.

Gene will check to see if BLM tech is not already doing the same thing

next topic:

Border Patrol study regarding flights and pronghorn, Hervert is providing general recommendations through AGFD Director's office to the INS study.

We gave an update on where we are with recovery efforts and how we think things are going to the Antelope Foundation.

north of the BMG east of hwy 85, a suggestion came up to make the hwy fence pronghorn passable remove bottom 2 wires make it 24 inches above the ground. The railroad will start operating again when Ajo mine opens again. Also, will this increase possible mortalities from the hwy 85.

Need to increase the area that sph can move around since they're nomadic.

sph have an "institutional memory" they would have to learn about new areas and then remember them

Antelope Foundation volunteered to help with fencing projects.

sph seen near the water near PD mine but not on the tailings or in the pit, they were on private land owned by PD

End of notes
taken by Laura Thompson-Olais
(sorry the notes are abbreviated...)