

ORIGINAL



0000090443

Sheila Stoeller

From: Mark Holmes [mholmes@chinoaz.net]
Sent: Monday, November 17, 2008 1:11 PM
To: Mayes-WebEmail
Cc: Sheila Stoeller; Jerry Stricklin; Cecilia Watts; rgrittman@chinoaz.net
Subject: RE: Appaloosa Meadows Water Company in Chino Valley
Attachments: Letter from Chino Valley re Appaloosa Water Company.pdf; ADWR Nov 2008 Final Ins Rpt cover ltr.pdf; JUNE 2008 ADEQ VIOLATION NOTICES.pdf; Dev Plan JC Ranch.pdf

Greetings,

It was very nice meeting last week, and I think our discussions were very productive. I appreciate your proactive stance and guidance on these issues.

I hope you had a great lunch with your Mom.

Attached is a letter from the Town with concerns regarding the Appaloosa Meadows Water Company and its current activities, a violation notice from ADEQ, and an ADWR report of compliance issues, and the current development plans for the water company. From the Town's perspective we would like this information added to any current or future hearings regarding this water company in that these compliance activities can be addressed as stipulations regarding any rate or other hearing requested either by the Appaloosa Meadows Water Company or by the ACC. We appreciate your time and efforts in listening and reviewing the items the Town is concerned with especially as this water company owner and developer try to expand this water company into a massive commercial development when so many issue pertain to health, safety, and wellness still are outstanding, (See attached JC Ranch development Plan).

Please let me know if you require any additional information or data. We would like to participate in the public hearing and notify those residents within the Appaloosa Service area when this public hearing will take place.

Cheers,

Mark

Mark Holmes
 Water Resource Director
 Town of Chino Valley
 1020 W. Palomino Road
 PO Box 406
 Chino Valley, AZ 86323
 928-636-7140 ext. 128

Arizona Commission

DOCKETED

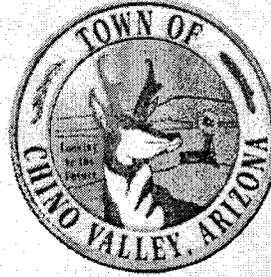
NOV 17 2008

DOCKETED BY

RECEIVED
 2008 NOV 17 P 14:08
 ARIZONA COMMISSION
 DOCKET CONTROL

THIS COMMUNICATION IS INTENDED ONLY FOR THE INDIVIDUAL OR ENTITY TO WHOM IT IS DIRECTED. IT MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, OR OTHERWISE EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. DISSEMINATION, DISTRIBUTION, OR COPYING OF THIS COMMUNICATION BY ANYONE OTHER THAN THE INTENDED RECIPIENT, OR A DULY DESIGNATED EMPLOYEE OR AGENT OF SUCH RECIPIENT, IS PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AT (928) 636-7140, OR VIA E-MAIL AND DELETE THIS MESSAGE AND ALL ATTACHMENTS THERETO.

Town Of Chino Valley
Water Resources Department
1020 West Palomino Road
P.O. Box 406
Chino Valley, AZ 86323
Tel (928) 636-7140
Fax (928) 636-7141



Water Resources Department

November 17, 2008

Ms. Kristin Mayes
Arizona Corporation Commission Commissioner
1200 W. Washington
Phoenix, AZ 85007

RE: Appaloosa Meadows Water Company

Dear Ms. Mayes,

I would like to offer this letter as a summary of the issues that the Town of Chino Valley has encountered with the Appaloosa Meadows Water Company. In October 2007, the Town issued a right of way permit for the installation of an 8" waterline across Town right-of-way at Road 4 North at Harrison Drive. The waterline was designed by a local professional engineer by the name of Mark Evans, P.E. and was designed to serve existing and future large scale commercial development upon property owned by the water company, Joe Cordovano. However, several issues have created significant concerns to local residents and the Town that include:

- 1) The waterline was constructed without an "Authorization To Construct" (ATC) permit being issued by ADEQ. See attached ADEQ Notice of Violations
- 2) The waterline was not built according to State, ADEQ or local engineering standards
- 3) The waterline was not pressure tested, nor was the line tested for contaminants and bacteria, and does not have a backflow prevention device in place for required safety
- 4) Was a CC&N expansion approved by the ACC?
- 5) What is the status of the required new central arsenic treatment system associated with the Appaloosa Meadows Water Company?
- 6) The Arizona Department of Water Resources very recently issued a violation report indicating several water related violations upon the property currently being served by this illegal water main extension.

Please see attached report regarding the details of this report and the nature of the violations.

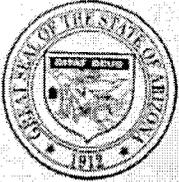
From the Town's perspective, we would like to see all of these issues corrected by the Appaloosa Water Company to resolve the immediate health, safety and welfare issues for the public drinking water supply before any rate increases are granted to the water company.

If you have any questions please feel free to contact me at (928) 636-7140.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Holmes", with a long horizontal flourish extending to the right.

Mark Holmes
Water Resource Director



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street Phoenix, Arizona 85007
(602) 771-2300 www.azdeq.gov



Stephen A. Owens
Director

CERTIFIED MAIL
Return Receipt Requested

Case ID #: 97301

May 27, 2008

Appaloosa Water Company
Attention: Joseph Cordovano
PO Box 3150
Chino Valley, AZ 86323-2708

Subject: Opportunity to Correct Deficiencies
Appaloosa Meadows Subdivision, Place ID 5575
T16N R2W S10

Dear Cordovano:

The Arizona Department of Environmental Quality (ADEQ) has reason to believe that Appaloosa Water Company as the owner/operator of Appaloosa Meadows Subdivision may be in violation of Arizona's environmental requirements. The purpose of this letter is to allow you an opportunity to correct these deficiencies without enforcement by ADEQ. ADEQ discovered the alleged deficiencies below during a file review completed on May 27, 2008.

1. **A.A.C. R18-5-505(B)**

Failure to obtain an Approval to Construct from ADEQ prior to modifying an existing public water system.

According to an email received from Town of Chino Valley on May 13, 2008, and review of facility files at ADEQ, the Appaloosa Water Company failed to obtain an Approval to Construct (ATC) prior to beginning construction of a water line extension.

2. **A.A.C. R18-5-507(A)**

Failure to obtain an Approval of Construction from ADEQ prior to operation of an extension to an existing public water system.

According to an email received from Town of Chino Valley on May 13, 2008, and review of facility files at ADEQ, the Appaloosa Water Company failed to obtain an Approval of Construction (AOC) before operation of a newly constructed water line.

To establish compliance:

1. Within 15 calendar days of receipt of this letter, please submit a complete application for approval to construct and approval of construction including as built plans, pressure test data, disinfection test data, a design report including construction specifications, and a site plan to: ADEQ - NRO

Northern Regional Office
1801 West Route 66 Suite 117 Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street Suite 433 Tucson, AZ 85701
(520) 628-6733

Attn: H. Kent Haugerud, P.E.
1801 W. Route 66, Suite 117
Flagstaff, AZ 86001

2. Within 15 calendar days of receipt of this letter, please submit a written response describing the corrective actions that have been taken to resolve the alleged violations, along with appropriate documentation. Appropriate documentation includes: invoices, photographs, logs, laboratory analyses, sealed engineering plans, technical drawings, permits, and any other document(s) necessary to establish that the deficiencies have been resolved.

Please review the above and submit a written response to:

Arizona Department of Environmental Quality, Attention: Howard K. (Kent) Haugerud P.E., NRO Field Services, 1801 W. Route 66, Suite 117, Flagstaff, AZ 86001 MC: R2000F

ADEQ may verify compliance by on-site inspection or other appropriate means. Within 30 days of receipt of your response to this letter, ADEQ will notify you whether the facility is in substantial compliance.

Although ADEQ has the authority to issue appealable administrative orders compelling compliance, this letter has no such force or effect. Your point of contact for resolution of these deficiencies will be Howard K. (Kent) Haugerud P.E. who can be reached at (928) 773-2711. Please contact him/her if you have any questions about this letter or need additional guidance.

Sincerely,



Matthew L. Capalby, Manager
Northern Regional Office



Howard K. (Kent) Haugerud P.E.
NRO Field Services



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens
Director

May 27, 2008

Inspection ID: 121500

Appaloosa Water Company
Attn: Mr. Joe Cordovano
P.O. Box 3150
Chino Valley, AZ 86323

RE: Appaloosa Water Company, Water system 13-208, Place ID 5575

Dear water system owner/operator:

Please find enclosed a copy of a file review inspection report for the above referenced facility. The inspection was performed on May 27, 2008 in accordance with Arizona Administrative Code R18-4-101, et sequi, R18-5-101, et sequi, and Arizona Revised Statutes 49-101, et sequi. The report may include a summary of inspection, checklist and inspection rights form, or other information regarding the facility.

If there are any questions please contact Kent Haugerud, P.E. at the referenced address, or at 928-773-2711.

Sincerely,

Robert E. "Buck" Olberding
Field Services Manager
Northern Regional Office
Arizona Department of Environmental Quality

REO:hkh

Copy: Town of Chino Valley, Attn: Mark Holmes, Water Resources, P.O. Box 406, 1020 West Palomino Road, Chino Valley, AZ 86323

Northern Regional Office
1801 W. Route 66 • Suite 117
Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433
Tucson, AZ 85701

Printed on recycled paper

(520) 628-6733

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Northern Regional Office
1801 West Route 66, Suite 117, Flagstaff, Arizona 86001

INSPECTION SUMMARY

Facility: Appaloosa Water Company	System # 13-208
File Inspected By: H. Kent Haugerud, P.E.	Date: May 27, 2008
Accompanied By: NA	County: Yavapai
Recommendations By: H. Kent Haugerud, P.E.	Report Date: May 27, 2008
Number of Plants: 0	Wells: 2
Population: 400	Service Connections: 193

INSPECTION SUMMARY

The survey of the above referenced facility included:

- An inspection of physical facilities
- Interview with personnel
- A review of ADEQ monitoring and reporting databases
- A review of the NRO file
- A review of files at the facility

The following determinations were based upon the above:

1. A water line has been constructed without proper ADEQ approvals. Verification of water line construction was received via email from the Town of Chino Valley on May 13, 2008.
Major deficiency

Within 30 days:

1. Bring to our attention any determinations that you believe are in error.
2. Major deficiencies are subject to a Notice of Violation ("NOV") whereas minor deficiencies are subject to a Notice of Opportunity to Correct ("NOC") & recommendations may be implemented for improved system operation. NOC's may be escalated to NOV's were it is judged to be appropriate, such as, but not limited to , situations where repeated violations have occurred or it is deemed necessary for public health.

ARIZONA DEPARTMENT OF WATER RESOURCES

Prescott Active Management Area
2200 E. Hillsdale Road • Prescott, Arizona 86301
Telephone (928) 778-7202 • Fax (928) 776-4507



Janet Napolitano
Governor

Herbert R. Guenther
Director



November 7, 2008

Josal Enterprises, Inc.
ATTN: Joe Cordovana, President
7012 N. 18th Street
Phoenix, Arizona 85020

RE: Site Inspection Report for Inspection Conducted on October 9, 2008

Mr. Cordovana:

The enclosed documents were inadvertently omitted from the Site Inspection Report mailed to you on this date.

If you have any questions, or require further assistance, please contact me at (928) 778-7202.

Sincerely,

A handwritten signature in cursive script that reads "Gerry L. Wildeman".

Gerry L. Wildeman
Area Director

cc: Andrew Craddock, Compliance
Scott Deeny

w/enclosure



Printed on recycled paper. Each ton of recycled paper saves 7,000 gallons of water.

Well Registration No. 55-624834 Application/Right No. 58-102352.0001 Permit/License No. _____
Regulated Person: Joe Cordovana Address: 7012 N. 18th Street, Phoenix, AZ 85020
Phone: _____

ARIZONA DEPARTMENT OF WATER RESOURCES
500 North Third Street, Phoenix, Arizona 85004
NOTIFICATION OF INSPECTION AND DUE PROCESS RIGHTS

In compliance with A.R.S. § 41-1009, this document is being provided to you by the Arizona Department of Water Resources (ADWR) to inform you of your rights concerning this inspection of the following described property:

Yavapai County Parcels 306-05-030M, 306-05-030P + 306-05-030N

on the following date(s): October 9, 2008

ADWR must present this document for your signature, or the signature of an authorized representative, indicating that you have been informed of your rights concerning this inspection and have read both sides of this document. If you decline to sign, or signature is unavailable, ADWR must note that fact on this document and the inspection will proceed.

1. **ADWR Inspector.** This inspection is being conducted by an inspector for ADWR who must present photo identification upon entry of the inspected property, and whose name and phone number are indicated below. The ADWR inspector will be available to answer questions regarding this inspection.

Name: Jack McCormack Phone: 928 778-7207

2. **Purpose of Inspection.** This inspection is being conducted by an ADWR inspector either for the purpose of issuing a permit/license, or determining compliance with permit/license requirements.

3. **Legal Authority.** This inspection is being conducted under the following legal authority: _____
ARS 45-633 and 45-135

4. **Fees.** The following inspection fees apply and will be billed separately: None

5. **Ombudsmen.** Questions regarding due process rights described in paragraph 10 on the reverse should be directed to one of the following Ombudsmen:

Name (ADWR): Fred Breedlove Phone: 602 771-8426

Name (Arizona): Patrick M. Shanahan Phone: 602 277-7292

(continued on reverse)

Signature. This signature below is made by either the regulated person or the regulated person's authorized representative who has been informed of inspection and due process rights relating to this inspection and who has read both sides of this Notification.

Name (please print): JOE CORDOVANA

Signature: Joe Cordovana Title: PRES

Signature Declined. The regulated person or the regulated person's authorized representative indicated below was present during the inspection but declined to sign this Notification.

Name: _____ Title: _____

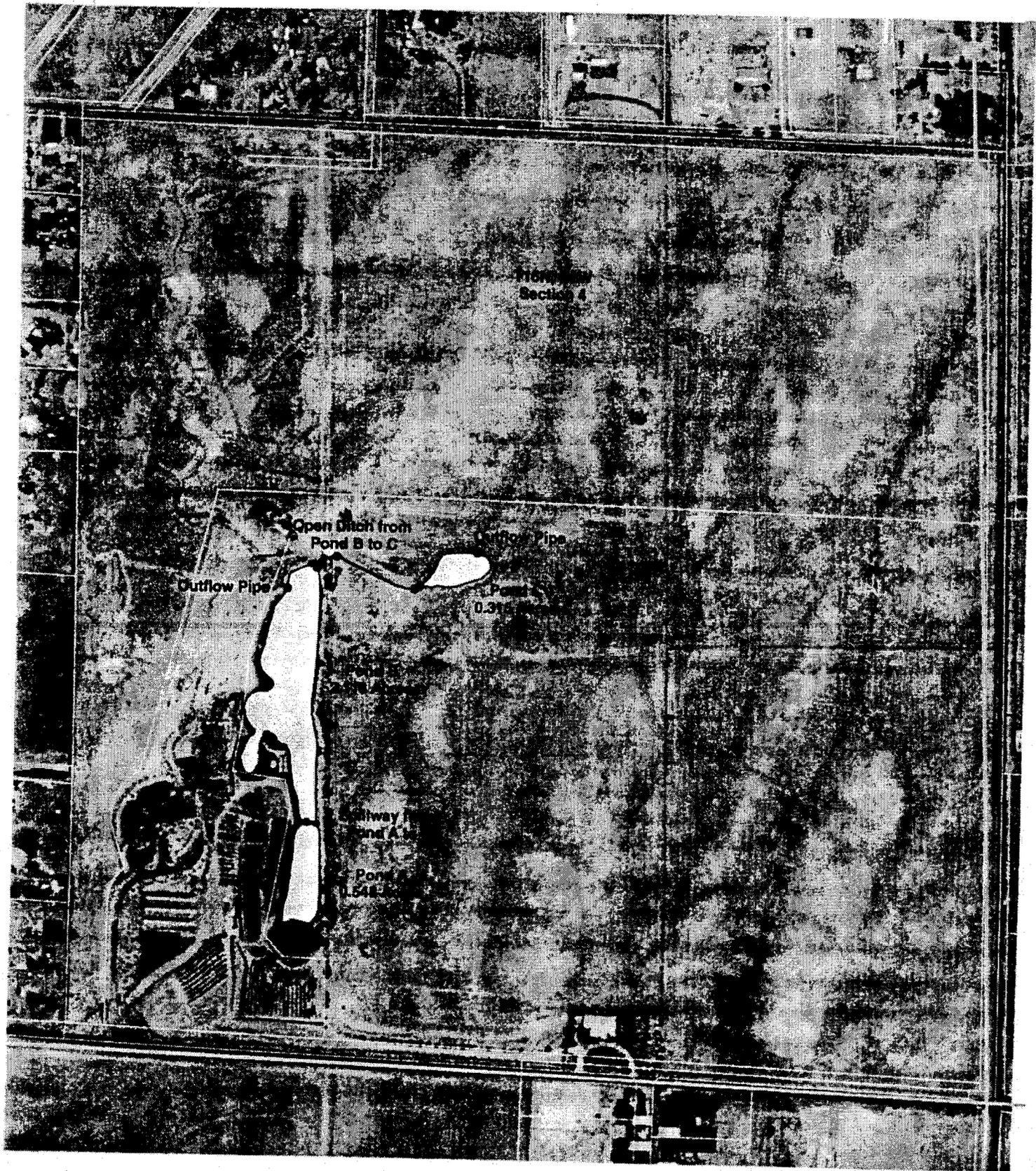
Signature Unavailable. Neither the regulated person nor the regulated person's authorized representative was present during this inspection. The ADWR inspector contacted or attempted to contact the regulated person by the following method:

ARIZONA DEPARTMENT OF WATER RESOURCES

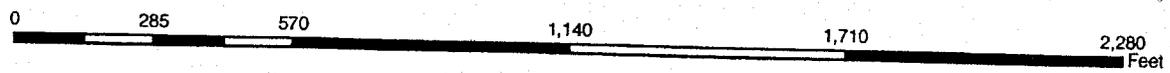
Agency Inspector: Jack McCormack Date: 10-9-08
(SIGNATURE)

Photo identification presented.

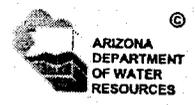
Copy provided prior to inspection to: Joe Cordovana Time: 10:25 AM



- Points 10/9/2008
- Lines 10/9/2008
- ▭ Parcels 7/2008
- ▭ Sections
- ▭ Polys 10/9/2008



Site Inspection Data From 10/9/2008



ARIZONA DEPARTMENT OF WATER RESOURCES

Prescott Active Management Area
2200 E. Hillsdale Road, • Prescott, Arizona 86301
Telephone (928) 778-7202 • Fax (928) 776-4507



Site Inspection Report



Janet Napolitano
Governor

Herbert R. Guenther
Director

Joe Cordovana
Josal Enterprises, Inc.
7012 N. 18th Street
Phoenix, AZ 85020

Date and Time of Inspection: October 9, 2008 @ 10:25 AM

Inspection Conducted by: Gerry Wildeman, Jack McCormack, Andrew Craddock, Bill Musielak, and Bill Werner

Person present at the time of inspection: Joe Cordovana

On October 9, 2008, the Arizona Department of Water Resources (Department) conducted a site inspection on Yavapai County parcels 306-05-030M, N & P, all located in Section 4, Township 16 North and Range 2 West and owned by Josal Enterprises, Inc. Mr. Joe Cordovana is the president of Josal Enterprises, Inc. This inspection was authorized by A.R.S. § 45-135. Mr. Cordovana was present during the site inspection and signed the Notification of Inspection and Due Process Rights Form.

This site inspection was conducted to:

1. Calculate the surface area of lakes on the property filled with groundwater;
2. Determine whether the lakes are connected; and
3. Identify whether there were signs of an active commercial fish operation.

During the site inspection it was determined that there are now three lakes and the three lakes are connected. The lakes were identified as Lake #1, Lake #2 and Lake #3, moving from south to north. Lake #1 can spill into Lake #2 that has a turnout gate that can be opened to drain some volume of water into Lake #3. However, the outlet structure is situated in such a manner that only a limited volume of water can spill from Lake #2 to Lake #3. From Lake #2, water flows into an open ditch and gravity feeds to Lake #3.

During the site inspection, Lake #1 was dry and measured 23,958 square feet of surface area. Lake #2 was nearly full and measured 92,347.2 square feet. Lake #3 had a small volume of water and measured 13,939.2 square feet in surface area.

During the site inspection, Mr. Cordovana opened the turnout gate from Lake #2 and demonstrated how the water flows to Lake #3. Mr. Cordovana stated that he raises catfish, bass and bluegill. Mr. Cordovana threw bread into Lake #2 and several catfish surfaced to feed. Mr. Cordovana stated that he wants three lakes so he can separate the fish by species because of bass predation on the bluegill. There is an additional turnout gate in Lake #2 that can divert water to another area of property.

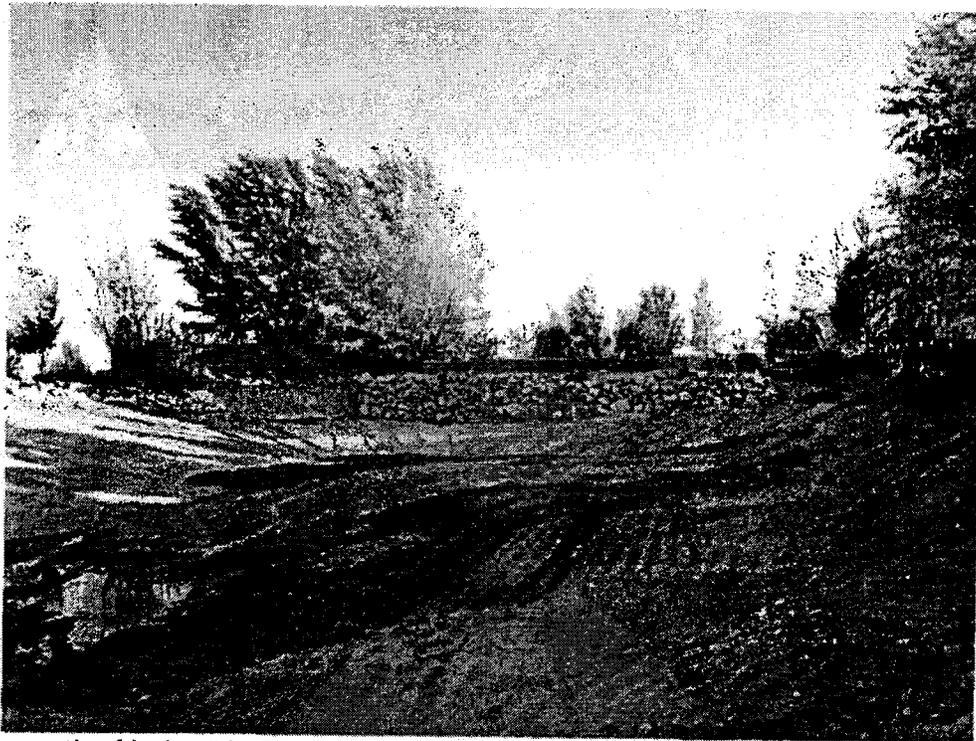
Deficiencies Identified During Site Inspection:

1. Lake #1, Lake #2, and Lake #3 are connected and the combined surface area is 130,244.4 square feet.
2. It did not appear to the Department that the lakes met industry standards for a commercial fishery operation for the following reasons:
 - a. The uneven shorelines of Lake #1 and Lake #2 are not conducive to efficient harvesting of fish.
 - b. Based on Mr. Cordovana's statement regarding the depth of Lake #2 combined with the vertical placement of the outlet, Department staff have identified that this lake design is not conducive to efficient harvesting of fish because lake levels cannot be significantly decreased by discharges through the outlet.
 - c. The extensive vegetation surrounding Lake #2 is not conducive to efficient harvesting of fish.
 - d. Department staff did not see any visible evidence of common aquaculture facility equipment, such as harvesting equipment (nets, boats, seines) or feeding equipment (automatic feeders, feed).
 - e. The facility is not licensed as a commercial aquaculture facility with the State of Arizona.
3. The lakes are in violation of A.R.S. §45-132 based on the definition of "body of water" in A.R.S. §45-131(1) for the following reasons:
 - a. Because the lakes do not meet industry standards for a commercial aquaculture facility, the primary purposes for the lakes are landscape, scenic and recreational based on the site inspection.
 - b. The combined surface area of the lakes is 130,244.4 square feet which is greater than 12,320 square feet.
 - c. The lakes are filled and re-filled with groundwater.

The following pictures were taken of the three lakes.



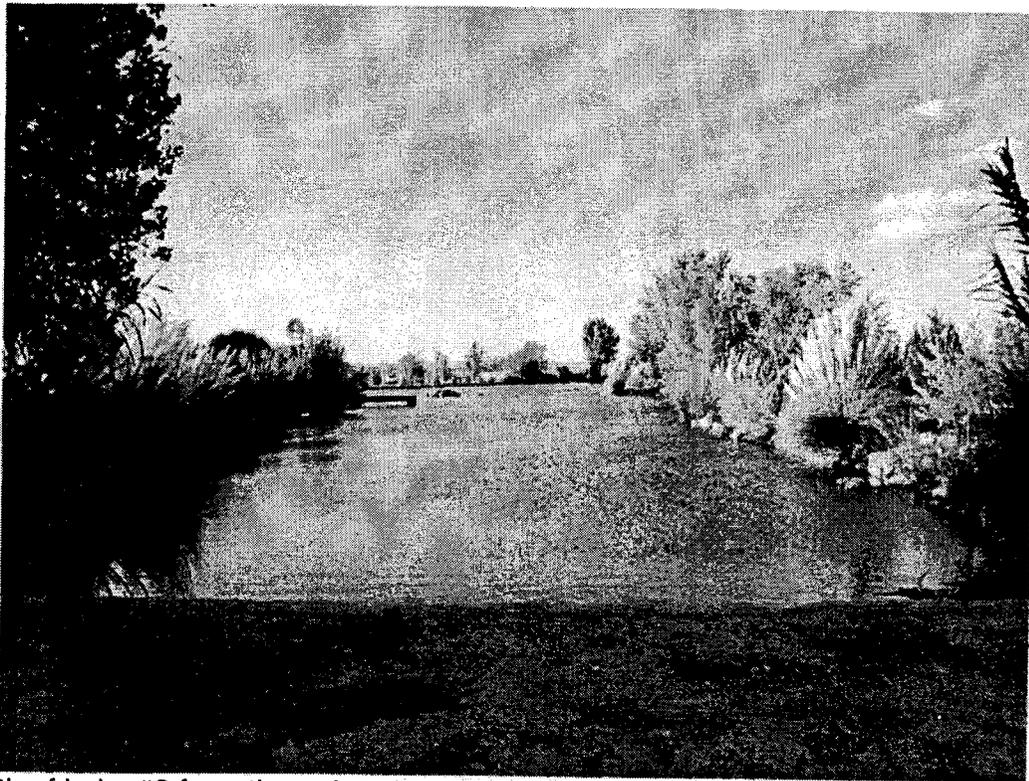
View north of Lake #1 from the southern edge of the lake.



View south of Lake #1. The main inlet is in the back left of the lake.



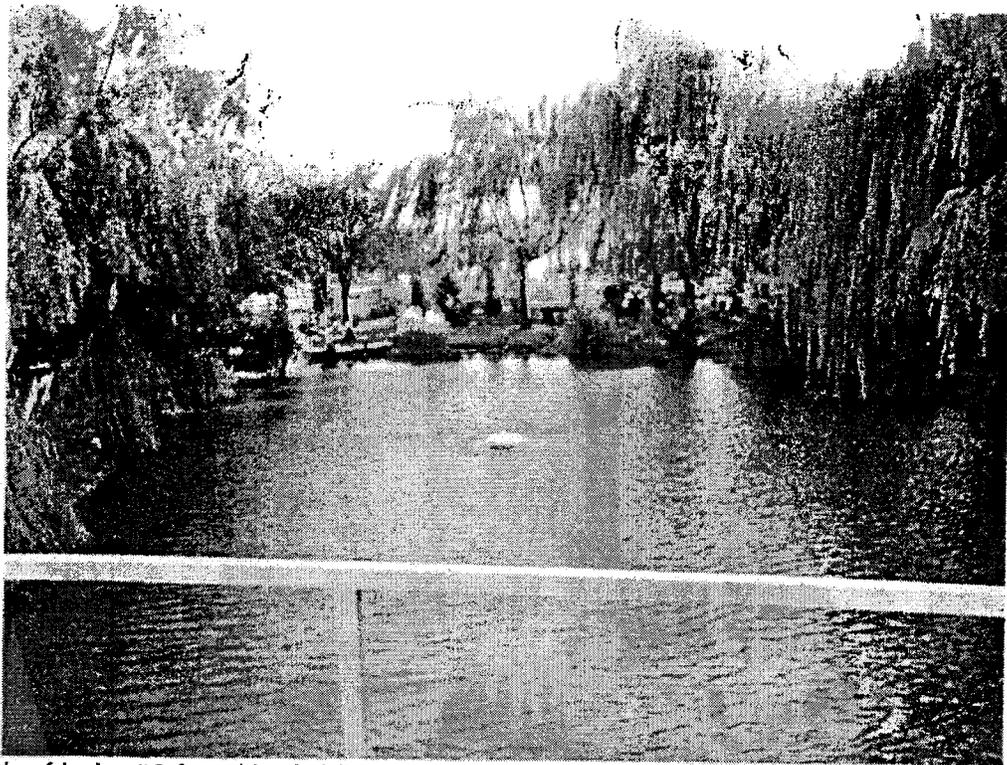
View south of Lake #1 from the northern edge of the lake.



View north of Lake #2 from the point where Lake #1 can spill into Lake #2.



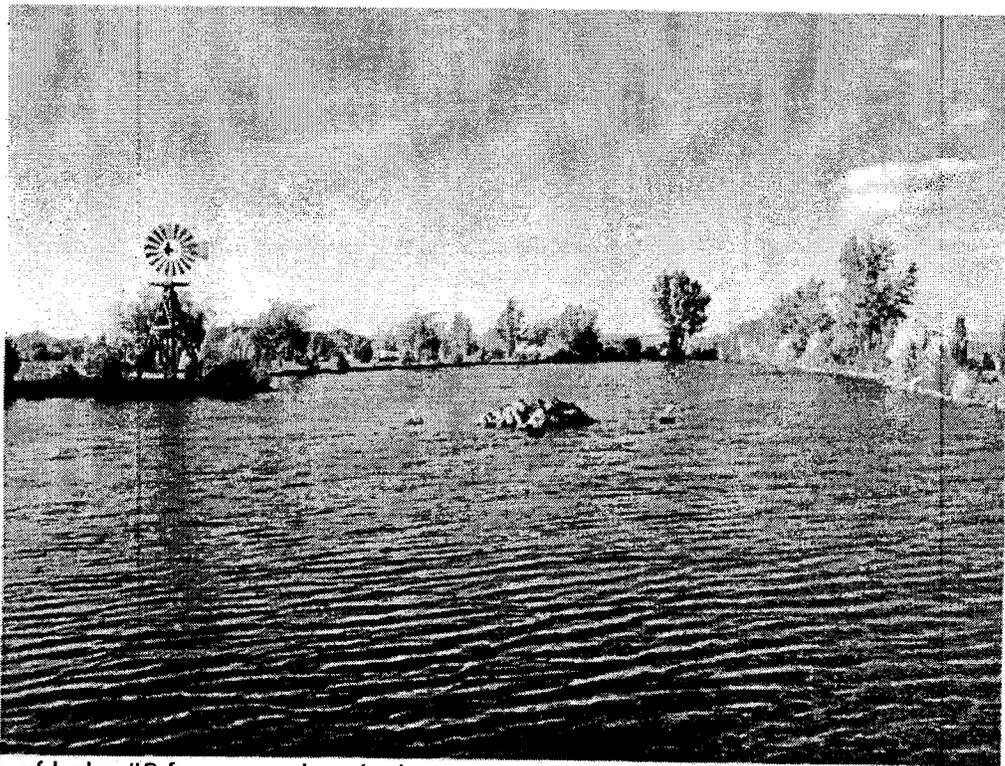
View north of Lake #2 from the bridge.



View south of Lake #2 from the bridge.



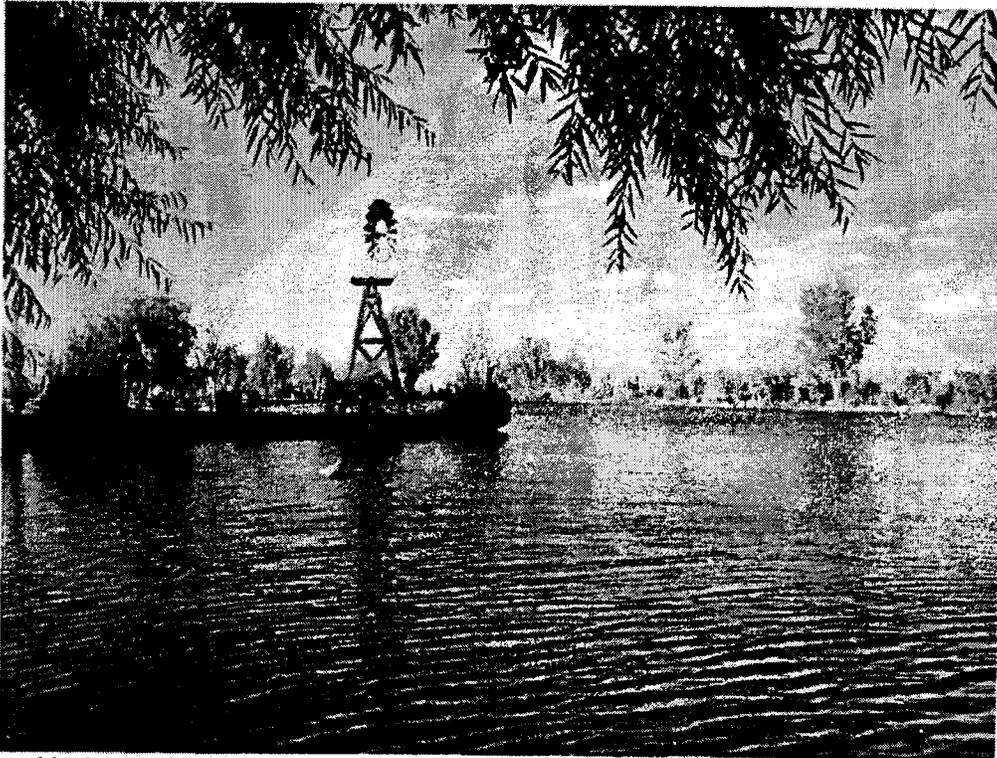
View south of Lake #2 from the western bank. View of spillway in background from Lake #2 to Lake #1.



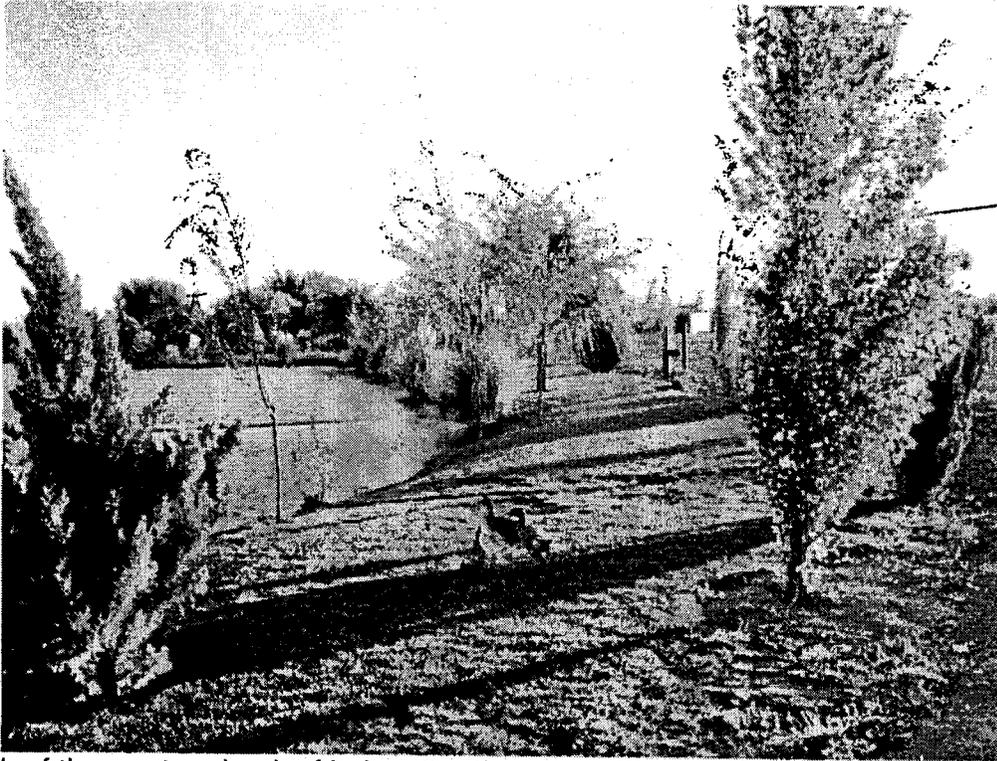
View north of Lake #2 from wooden dock.



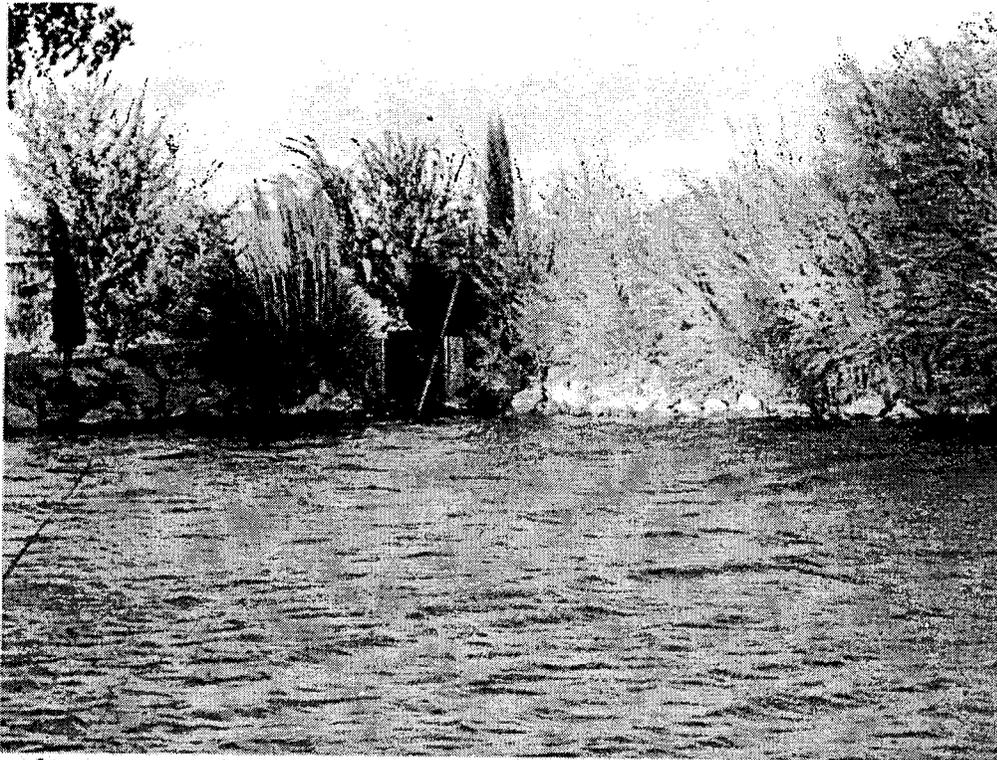
View south of Lake #2 from western bank.



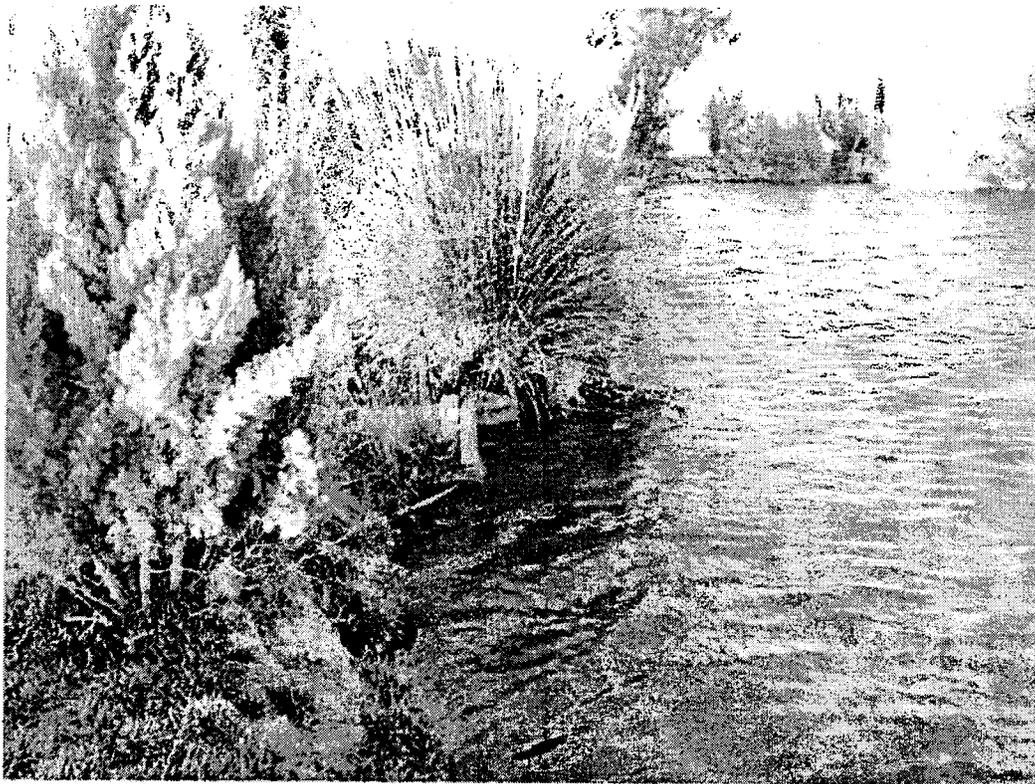
View north of Lake #2 from western bank.



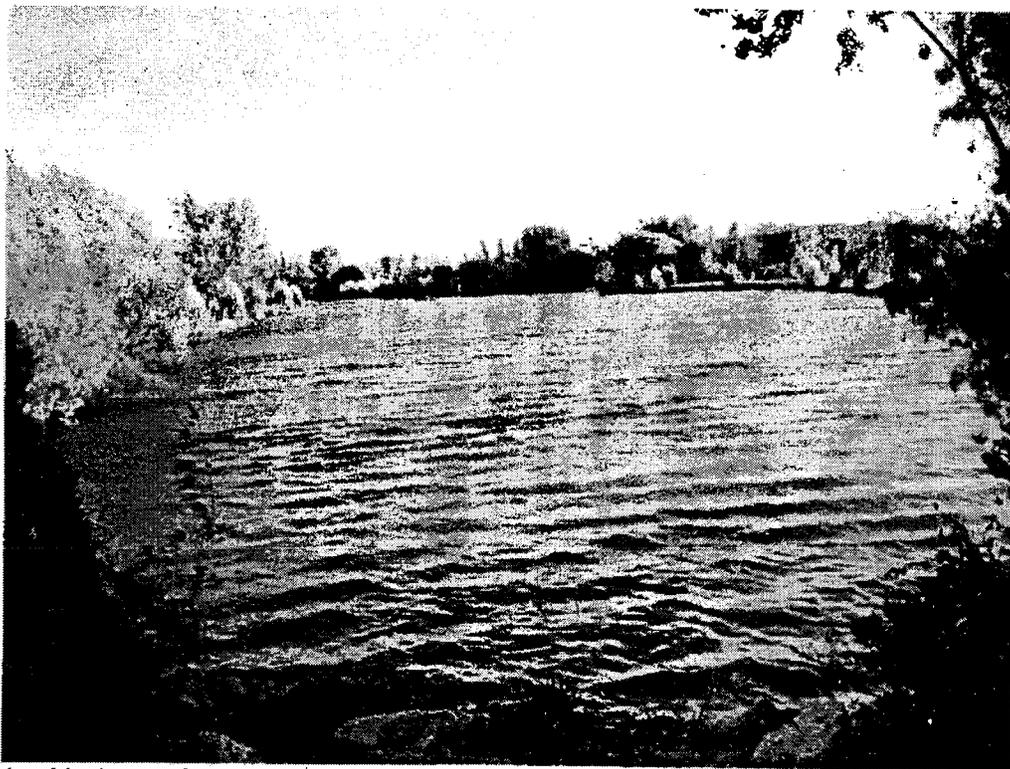
View south of the western bank of Lake #2. Pipe on surface of pond feeds water to a red fire emergency valve in the center of the picture.



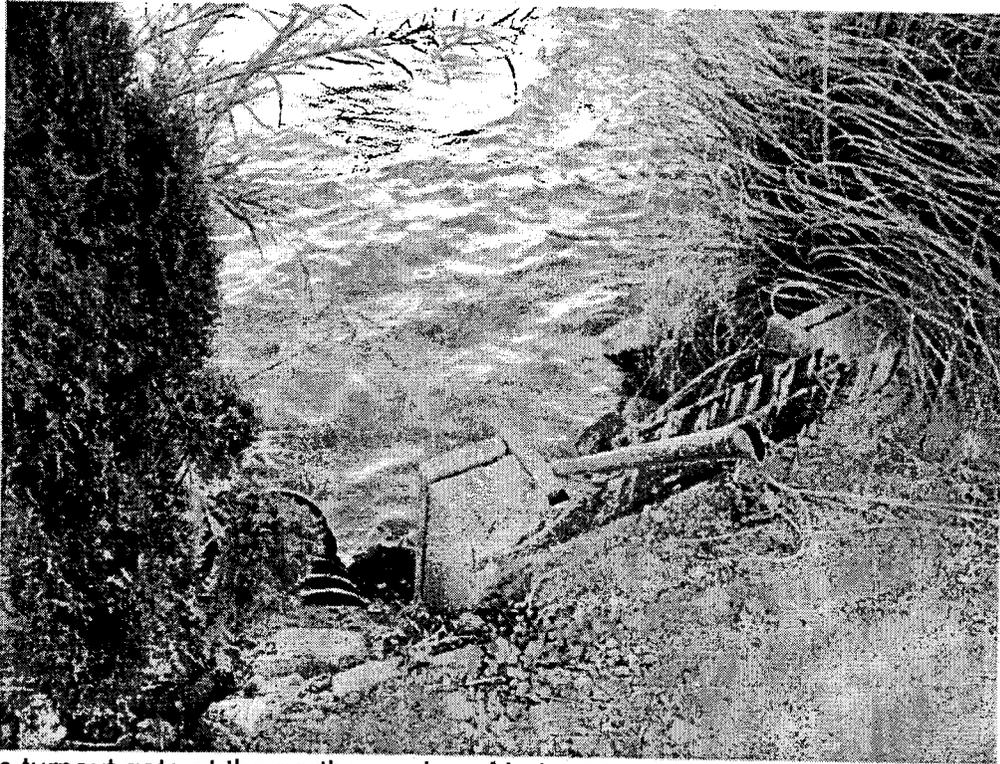
View north of turnout gate located on the northeast corner of Lake #2 that releases water to Lake #3.



View north of second turnout gate located in the northwest corner of Lake #2. This turnout gate could release water to an open field.



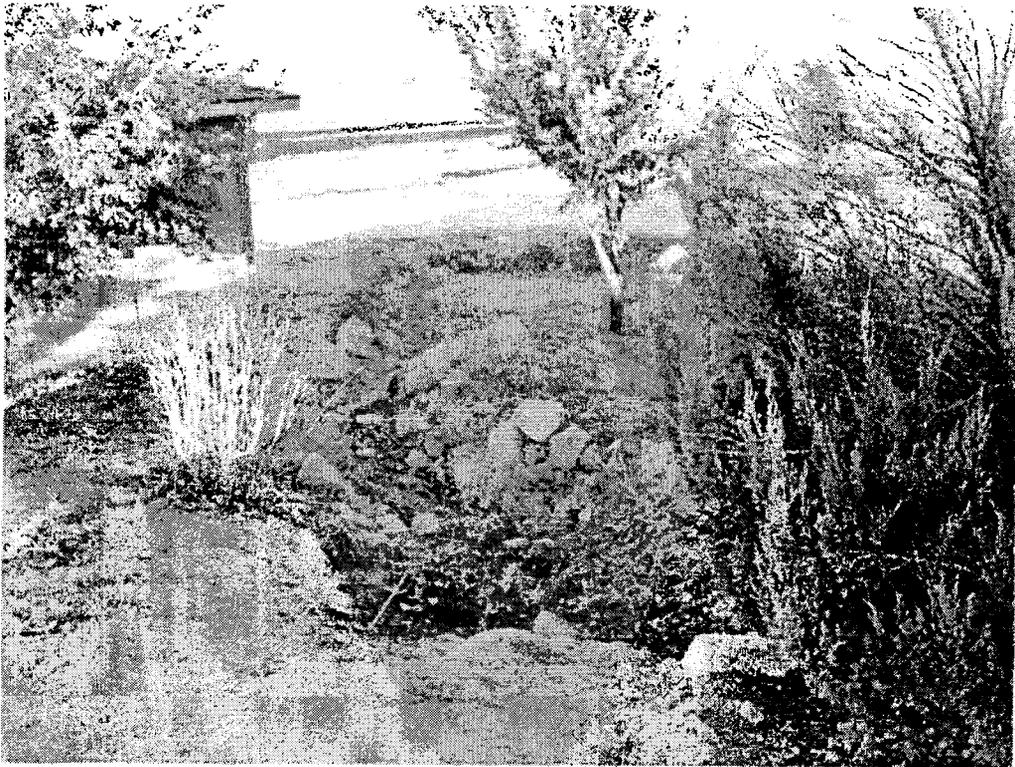
View south of Lake #2 from the northern edge of the lake.



View of the turnout gate at the northern edge of Lake #2 that releases water to Lake #3.



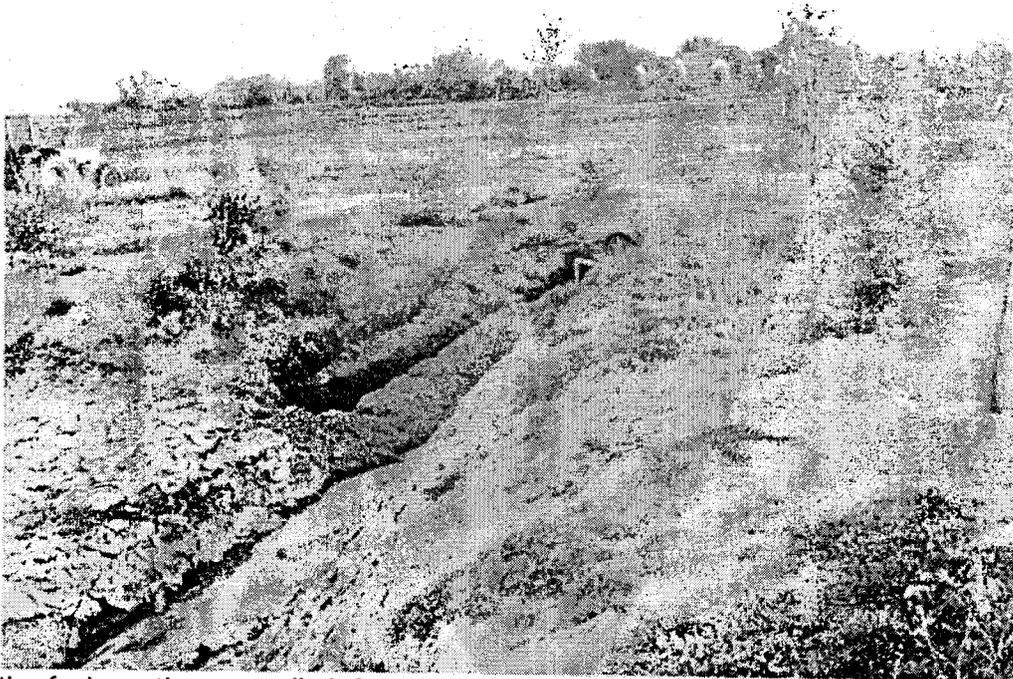
View south of turnout pipe which releases water from Lake #2 to Lake #3. The top of the turnout gate of Lake #2 is in the top center of the picture.



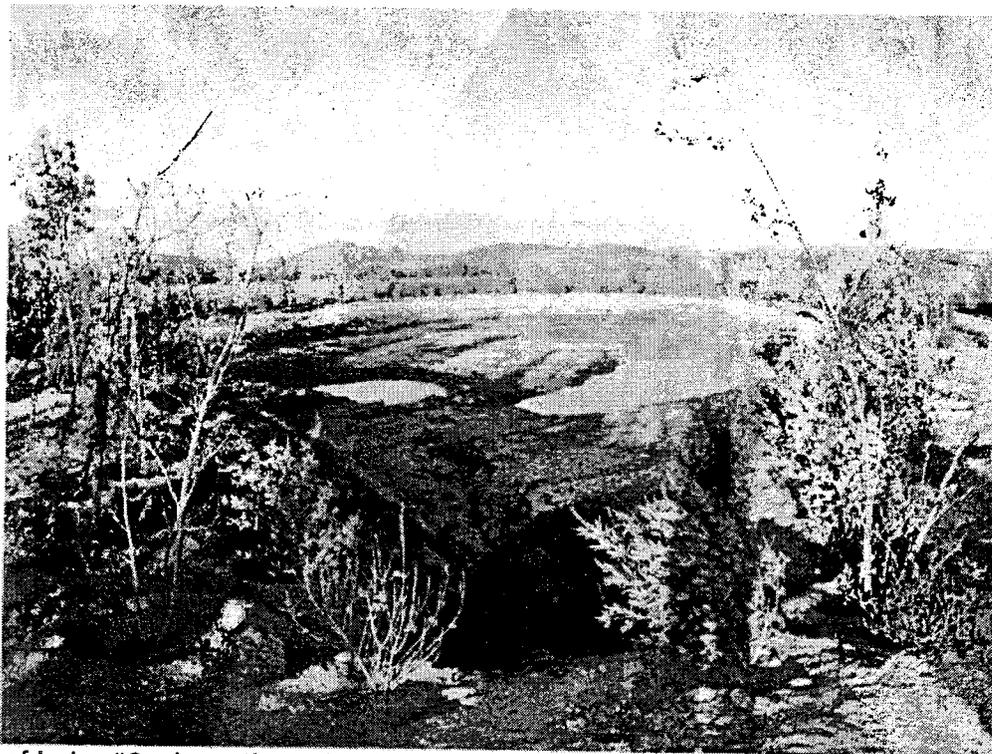
View north of where turnout pipe from Lake #2 releases water into an open ditch which leads to Lake #3. The brown building houses an exempt well.



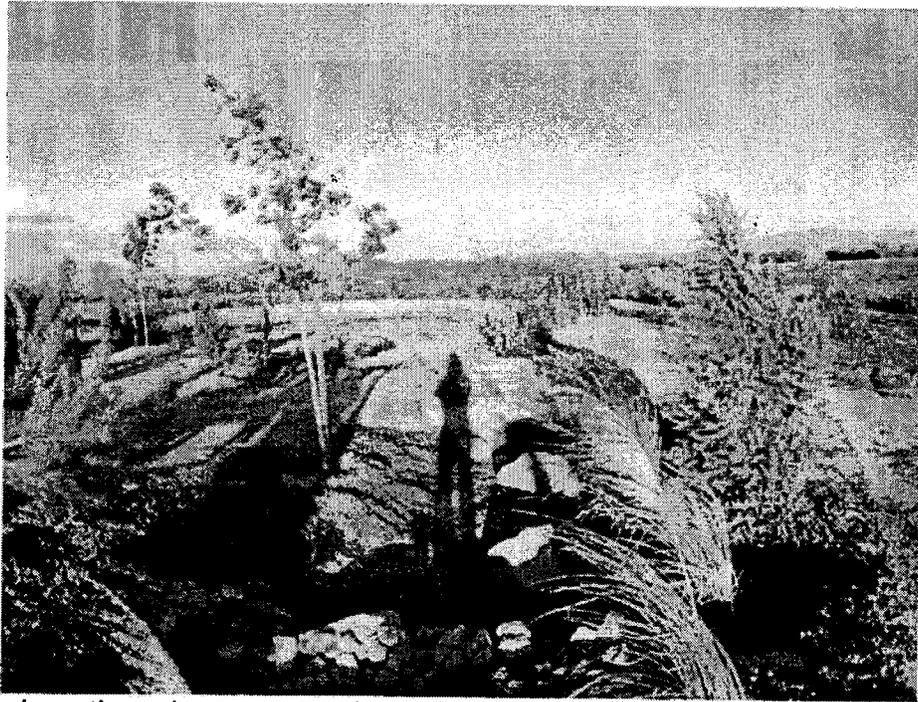
View east of open ditch which leads from Lake #2 to Lake #3.



View south of where the open ditch from Lake #2 goes into a culvert under a dirt road and then drains into Lake #3.



View east of Lake #3 where the culvert drains into the lake.



View east of where the culvert goes under a dirt road from the open ditch and then drains into Lake #3.



View east of Lake #3. There is an approximate 12 inch culvert spillway in the back left corner of the lake that is not visible in this picture. Water spills into an open field from this culvert.

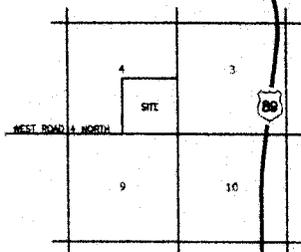
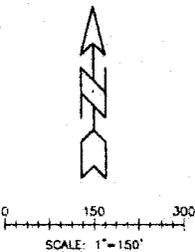
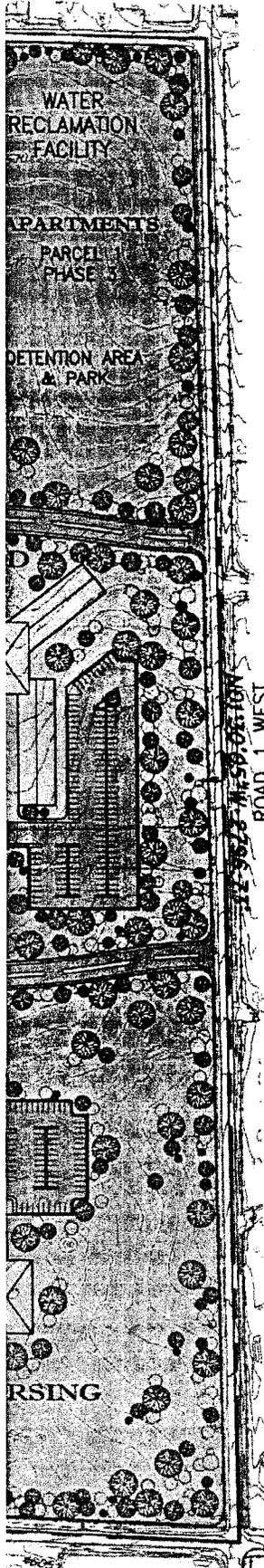
PLANNED AREA DEVELOPMENT

FOR

JC RANCH

A 55 YEAR+ COMMUNITY

S.E. CORNER SECTION 4, T. 16 N., R. 2 W., G & S R B & M, YAVAPAI COUNTY, ARIZONA



VICINITY MAP
NTS



TYPICAL ELEVATION
ASSISTED LIVING & APARTMENTS

PROJECT DATA

PROJECT: JC RANCH
 ADDRESS: N.W. CORNER WEST 4 NORTH & ROAD 1 WEST THE S.E. CORNER SECTION 4, T. 16 N., R. 2 W., G & S R B & M, YAVAPAI COUNTY, ARIZONA
 DEVELOPER: JC & SONS (JOSAL ENTERPRISES, INC.) 7012 N. 18TH STREET PHOENIX, AZ 85020 (602) 277-1999
 ENGINEER & PLANNER: DEVELOPMENT RESOURCES, LLC TERRY MOORE, P.E. 7012 N. 18TH STREET PHOENIX, AZ 85020 (602) 354-5219 FAX (602) 595-8662
 SCOPE: RESIDENTIAL (RENTAL DUPLEX) COMMERCIAL APARTMENTS ASSISTED LIVING
 ZONING: EXISTING AR-5 PROPOSED (PLANNED AREA DEVELOPMENT)

LAND USE CALCULATIONS

RESIDENTIAL (RENTAL DUPLEX)
 GROSS ACREAGE 53.09 ACRES
 135 DUPLEX UNITS (270 RENTAL UNITS)
 PARKING - 2 GARAGE/CARPORT/UNIT 1 VISITOR SPACE/UNIT NO ON STREET PARKING

APARTMENTS
 GROSS ACREAGE 48.59 ACRES
 MIXED 1 STOREY TO 2 1/2 STOREY
 48.59 @ 16 UNITS/ACRE = 769 UNITS
 PARKING - 1.5 SPACES/UNIT = 1154 SPACES

ASSISTED LIVING
 GROSS ACREAGE 23.27 ACRES
 140 - 1 BEDROOM UNITS
 PARKING - 240 COVERED SPACES - 80 UNCOVERED SPACES

SKILLED NURSING
 GROSS ACREAGE 23.27 ACRES
 200 BED FACILITY (PRIVATE ROOMS)
 PARKING - 44 COVERED SPACES - 100 UNCOVERED SPACES

COMMERCIAL
 GROSS ACREAGE 16.17 ACRES
 NURSERY & GREENHOUSE, PARKING - 50 SPACES
 PROFESSIONAL OFFICES, PARKING - 100 SPACES
 CLUBHOUSE & AMENITIES, PARKING - 100 SPACES
 CASITAS - OVERNIGHT RENTALS, 80 UNITS
 1 1/2 STOREY, 10 - 8 PLEXES
 PARKING - 120 SPACES

OTHER
 RESIDENCE (NOT A PART)
 GROSS ACREAGE 1.12 ACRES

LAND USE SUMMATION
 RESIDENTIAL 53.09 ACRES
 APARTMENTS 48.59 ACRES
 SKILLED NURSING 23.27 ACRES
 ASSISTED LIVING 23.27 ACRES
 COMMERCIAL 16.17 ACRES
 OTHER 5.60 ACRES
 170 ACRES ±

GROUND COVERAGE
 RESIDENTIAL 20%
 STREETS 10%
 APARTMENTS 15%
 ASSISTED LIVING 10%
 SKILLED NURSING 10%
 COMMERCIAL 10%
 128 ACRES ±

OPEN SPACE 25%
 TOTAL 170 ACRES ±

PRELIMINARY DRAINAGE STUDY

THE TOWN OF CHINO VALLEY UTILIZES THE YAVAPAI COUNTY DRAINAGE CRITERIA MANUAL, FOR DRAINAGE DESIGN GUIDELINES. THEREFORE, DETENTION/RETENTION SYSTEMS WILL BE REQUIRED TO BE IMPLEMENTED TO ENSURE THAT, AT A MINIMUM THE 2, 10 AND 100-YEAR PEAK DISCHARGES FROM THE DEVELOPMENT WILL NOT EXCEED THE PRE-DEVELOPMENT VALUES.

IN ORDER TO DETERMINE THE REQUIRED STORAGE VOLUMES FOR THE ABOVE MENTIONED STORM EVENTS CAN BE CALCULATED USING EQUATION 3.3 OF THE PIMA COUNTY DETENTION/RETENTION MANUAL (SEE SPECIFICS IN APPENDIX IN PRELIMINARY DRAINAGE STUDY)

2 YEAR STORM VOLUME REQUIRED
 $VR = 1/12(0.616 - 0.548)(1.01)(192)(43,560) = 47,867 \text{ C.F.}$

10 YEAR STORM VOLUME REQUIRED
 $VR = 1/12(0.616 - 0.548)(1.67)(192)(43,560) = 79,146 \text{ C.F.}$

100 YEAR STORM VOLUME REQUIRED
 $VR = 1/12(0.616 - 0.548)(2.83)(192)(43,560) = 134,123 \text{ C.F.}$

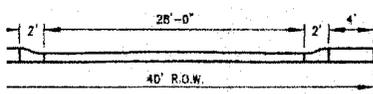
THEREFORE, THE PROJECT WILL BE REQUIRED TO PROVIDE A MINIMUM STORAGE VOLUME OF 134,123 C.F. OR 3.08 ACRES.

FOR PRELIMINARY DESIGN GUIDELINE WITH BASINS OF 42" DEEP (3.5 FEET) A MINIMUM OF 38,400 SQUARE FEET OF SURFACE AREA WILL BE REQUIRED. THIS WILL BE PROVIDED THROUGHOUT THE SITE IN BASINS IN THE PARK AREAS AND DETENTION AREA IN THE MIDDLE AND AT THE NORTH WEST CORNER OF THE SITE, AS SHOWN ON THE MASTER PLAN, FIGURE 4 FROM THE PRELIMINARY DRAINAGE STUDY, THESE AREAS AT THE PRESENT TIME PROVIDE PRIVATELY 5 ACRES OF SURFACE AREA OR 5 TIMES THE AMOUNT OF AREA REQUIRED.

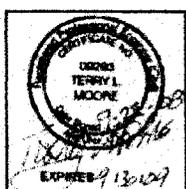
FROM THIS PRELIMINARY INVESTIGATION IT HAS BEEN DETERMINED THAT HYDROLOGIC AND HYDRAULIC CONCERNS CAN BE ADEQUATELY ADDRESSED WITH DEVELOPMENT OF THE SITE, TOGETHER WITH THE ABILITY TO PROVIDE ADEQUATE AREA TO MEET THE TOWN OF CHINO VALLEY AND YAVAPAI COUNTY DRAINAGE DESIGN CRITERIA.

NOTE: THE LOTS SHOWN ARE FOR DUPLEX RENTAL UNITS AND WILL NOT BE SOLD.

PARCEL 1 - APARTMENTS 48.59 ACRES
 PARCEL 2 - SKILLED NURSING 23.27 ACRES
 PARCEL 3 - ASSISTED LIVING 23.27 ACRES
 PARCEL 4 - RESIDENTIAL DUPLEX RENTALS 53.09 ACRES
 PARCEL 5 - COMMERCIAL 16.17 ACRES
 OTHER 5.60 ACRES
 170 ACRES ±



TYPICAL STREET SECTION
PRIVATE STREET
NTS



DEVELOPMENT RESOURCES, LLC

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 PH: (602) 354-5219 FAX: (602) 595-8662

UNSUBDIVIDED
 WEST ROAD 4 1/2 NORTH
 N89°04'55"W 2708'-00"

UNSUBDIVIDED
 S00°50'25"E 2737.61'

