

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE  
WATER IN THE GILA RIVER SYSTEM AND SOURCE

No. W1,W2,W3 & W4

MANDATORY FORM FOR OBJECTIONS TO  
The Hydrographic Survey Report for  
The San Pedro River Watershed

W1-11-002394

Please file a separate objection for each Watershed File Report, Zone 2 Well Report or Catalogued Well Report. Objections to information contained in Volume 1 of the HSR can be stated on one objection form. Objections must be written. Use of this form, or a computer facsimile, is required. Objections must be received on or before May 18, 1992.

This objection is directed to Watershed  
File Report or Zone 2 Well Report No. 113 - 04 DCD - 001  
(please insert no.)

or Catalogued Well No. \_\_\_\_\_  
(please insert no.)

FILED  
MAY 18 1992  
3:43  
D. W. ...  
CLERK OF SUPERIOR COURT  
MARICOPA COUNTY

OBJECTOR INFORMATION

Objector's Name: MAGMA COPPER COMPANY \* (MAJOR USER NO. 1267)  
7400 NORTH ORACLE ROAD, SUITE 200  
Objector's Address: TUCSON, ARIZONA 85704

Objector's Telephone No.: (602) 575-5600

Objector's Watershed File Report or Zone 2 Well Report No. (if the Objector's claimed water rights are within the San Pedro River Watershed):

113 - 04 - DCD - 001 \* (ATTORNEYS ON BACK)

Or Objector's Catalogued Well Number (if the Objector's claimed water rights appear only in Volume 8 of the HSR):

Or Objector's Statement of Claimant No. (if the Objector's claimed water rights are located outside the San Pedro River Watershed):

39 - \_\_\_\_\_

STATE OF ARIZONA

COUNTY OF MARICOPA

VERIFICATION (must be completed by objector)

I hereby make this Objection. I certify that, if required, a copy of the foregoing Objection was served upon the following Claimant(s) by mailing true and correct copies thereof on the 18th day of MAY, 1992, postage prepaid and addressed as follows:

Name: NOT APPLICABLE--

Address: OBJECTOR'S WFR

I declare under penalty of perjury that I am a claimant in this proceeding or the duly- authorized representative of a claimant; that I have read the contents of this Objection (both sides and any attachments) and know the contents thereof; and that the information contained in the Objection is true based on my own personal knowledge, except those portions of the Objection which are indicated as being known to me on information and belief and, as to those portions, I believe them to be true.

Jeffrey W. Crockett  
Signature of Objector or Objector's Representative

SUBSCRIBED AND SWORN to before me this 18 day of May, 1992.

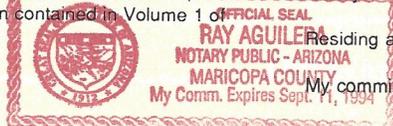
Ray Aguilera

Notary Public for the State of ARIZONA

Residing at Glendale, Az.

My commission expires Sept. 11, 1994

(The above section must be completed if you object to another claimant's Watershed File Report, Zone 2 Well Report, or Catalogued Well Report. It does not need to be completed if you file an objection to your own Watershed File Report, Zone 2 Well Report, Catalogued Well Report; or to information contained in Volume 1 of the Hydrographic Survey Report.)



Objections must be filed with the Clerk of the Superior Court in and for Maricopa County, Maricopa County Courthouse Annex, 3345 W. Durango Street, Phoenix, AZ 85009, on or before May 18, 1992.

## STATEMENT OF THE OBJECTION

The following are the main categories of the typical Watershed File Report (Zone 2 Well Reports and some Watershed File Reports lack certain categories). Please check the category(ies) to which you object, and state the reason for the objection on the back of this form.

- 1. I object to the description of **Land Ownership**
- 2. I object to the description of **Applicable Filings and Decrees**
- 3. I object to the description of **DWR's Analysis of Filings and Decrees**
- 4. I object to the description of **Diversions** for the claimed water right(s)
- 5. I object to the description of **Uses** for the claimed water right(s)
- 6. I object to the description of **Reservoirs** used for the claimed water right(s)
- 7. I object to the description of **Shared Uses & Diversions** for the claimed water right(s)
- 8. I object to the **PWR (Potential Water Right) Summary** of the claimed water right(s)
- 9. I object to the description of **Quantities of Use** for the claimed water right(s)
- 10. I object to the **Explanation** provided for the claimed water right(s)
- 11. Other Objections (please state volume, page and line number for each objection)

---

### REASON FOR OBJECTION

The reason for my objection is as follows (please number your objections to correspond to the boxes checked above; please attach supporting information and additional pages as necessary):

CATEGORY  
NUMBER

- 1, 2, 3 SEE ATTACHMENT.
- 4, 5, 6 \_\_\_\_\_
- 7, 8, 9 \_\_\_\_\_
- 10, 11 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
**\* ATTORNEYS FOR MAGMA COPPER COMPANY:**

\_\_\_\_\_  
**ROBERT B. HOFFMAN**

\_\_\_\_\_  
**CARLOS D. RONSTADT**

\_\_\_\_\_  
**JEFFREY W. CROCKETT**

\_\_\_\_\_  
**c/o SNELL & WILMER**

\_\_\_\_\_  
**ONE ARIZONA CENTER**

\_\_\_\_\_  
**PHOENIX, ARIZONA 85004-0001**

\_\_\_\_\_  
**PHONE: (602) 382-5600**

---

Prefatory Statement.

These objections are being filed by Magma Copper Company ("Magma").

Initially, Magma incorporates by reference its objections to Volumes I and IA of the San Pedro Hydrographic Survey Report, just as though each objection has been fully set forth herein. Specifically, and without limitation, Magma objects to the inclusion of groundwater rights within the scope of this Adjudication under the "brightline" theory set forth in Judge Goodfarb's order of September 9, 1988. Magma also objects on the basis that the withdrawal of groundwater from its wells does not significantly diminish the quantity of water available to satisfy downstream federal reserve rights.

Magma also reserves the right to supplement or amend these objections. Many of the issues upon which these objections are based will be subject to rulings of the Arizona Supreme Court entered in the pending interlocutory appeal of issues 2 through 6. (Objection code numbers 1130, 1132, 1133, 1134, 1135, 1136). Magma further reserves the right to object to each and every watershed file report, zone 2, well report or catalogued well report based upon subsequent rulings of the Arizona Supreme Court as may be entered in these interlocutory appeals.

0588F

A. Magma objects to WFR No. 113-04-DCD-001-W01 (Vol. 5, Table-Page 2-127 of the San Pedro HSR) for the following reasons:

1. DWR has incorrectly identified W01 as "groundwater: zone 1". There is no interconnection between W01 and the San Pedro River. (500, 510, 520, 521, 530, 531, 1120, 1121, 1130, 1132)

2. Magma objects to DWR's implication that Magma's groundwater right is quantified according to annual use. The right to withdraw groundwater is appurtenant to real property and, in the San Pedro Watershed, governed by the doctrine of reasonable use. (1010)

3. Magma's groundwater wells in the San Pedro River Watershed have been registered in accordance with Arizona State law. To the extent that such registration information is available, including applicable pre-filings and decrees, it should be reported by DWR. (200, 210, 230, 400, 410)

4. Magma objects to the inclusion of groundwater described in this WFR in this Adjudication for the reason that such groundwater use is beyond this Court's subject matter jurisdiction in that it is neither appropriable surface water nor water subject to claims based on federal law. (500, 510, 520, 521, 530, 531, 561, 562, 1120, 1121, 1130, 1132, 1134))

5. This WFR states that W01 is unnamed. This well is named "Well 16." (620)

B. Magma objects to WFR No. 113-04-DCD-001-DM001 (Vol. 5, Table-Page 2-127 of the San Pedro HSR) for the following reasons:

1. Magma objects to this well being characterized as a Zone 1 well because there is no interconnection between this well and the San Pedro River. (500, 510, 520, 521, 530, 531, 1120, 1121, 1130, 1132)
2. Magma objects to Vol. 2, Pages 8-113 which states the apparent date of first use for DM001 is "undetermined." The statements of claimant numbered 39-003163, 39-005227, and 39-005234, cover this domestic well and are dated with priority dates of 1898, 1898, and 1887, respectively. DM001 should have a priority date of 1887. (200, 210, 230, 400, 410, 900, 910, 920)
3. Magma objects to DWR's implication that Magma's groundwater right is quantified according to annual use. The right to withdraw groundwater is appurtenant to real property and, in the San Pedro Watershed, governed by the doctrine of reasonable use. (1010)
4. Magma's groundwater wells in the San Pedro River Watershed have been registered in accordance with Arizona State law. To the extent that such registration information is available, it should be used as an applicable pre-filing or decree. (200, 210, 220, 400, 410)
5. Magma objects to the inclusion of groundwater described in this WFR in this Adjudication for the reason that such groundwater use is beyond this Court's subject matter jurisdiction in that it is neither appropriable surface water nor water subject to claims based on federal law. (See code numbers referenced in paragraph 1.)

C. Magma objects to WFR No. 113-04-DCD-001-IR001 in Vol. 5, Table-page 2-127 for the following reasons:

1. Magma objects to DWR's determination that this WFR is a Zone 1 use because there is no interconnection between sources of groundwater associated with IR001 and the San Pedro River. (500, 510, 520, 521, 530, 1120, 1121, 1130)

2. Magma objects to this WFR because of DWR's characterization of pre-filing no. 10-1105582.1100 which states that no mining water uses were found at the claimed location. DWR as the technical advisor to the court lacks the legal authority to make such a determination. (230, 410, 810)

3. Magma objects to DWR's implication that Magma's groundwater right is quantified according to annual use. The right to withdraw groundwater is appurtenant to real property and, in the San Pedro Watershed, governed by the doctrine of reasonable use. (1010)

D. Magma objects to WFR No. 113-04-DCD-001 in Vol. 5, Table-page 2-127 for the following reasons:

1. Magma believes there are two additional wells that should be added to this WFR. Well no. 47 is located in the NW1/4 of the SW1/4 of the NE1/4 of Section 29, Township 8 South, Range 17 East. Well no. 20 is located in the SW1/4 of the NW1/4 of the SE1/4 of Section 20, Township 8 South, Range 17 East. (210, 220)

2. Magma objects to DWR's implication that Magma's groundwater right is quantified according to annual use. The right to withdraw groundwater is appurtenant to real property and, in the San Pedro Watershed, governed by the doctrine of reasonable use. (1010)

3. Magma's groundwater wells in the San Pedro River Watershed have been registered in accordance with Arizona State law. To the extent that such registration information is available, it should be used as an applicable pre-filing or decree. (200, 210, 230, 400, 410)

4. Magma objects to the inclusion of groundwater described in this WFR in this Adjudication for the reason that such groundwater use is beyond this Court's subject matter jurisdiction in that it is neither appropriable surface water nor water subject to claims based on federal law. (500, 510, 520, 521, 530, 531, 1120, 1121, 1130, 1132)

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO  
USE WATER IN THE GILA RIVER SYSTEM AND SOURCE

No. W1, W2, W3 & W4  
W111002394

MANDATORY FORM FOR OBJECTIONS TO  
The Hydrographic Survey Report for  
The San Pedro River Watershed

Please use a separate objection for each Watershed File Report, Zone 2 Well Report or Catalogued Well Report. Objections to information contained in Volume 1 of the HSR can be stated on one objection form. Objections must be written. Use of this form, or a computer facsimile, is required. Objections must be received on or before May 18, 1992.

This objection is directed to Watershed  
File Report or Zone 2 Well Report No.

113-04-DCD-001

or Catalogued Well No.

OBJECTOR INFORMATION

Objector's Name: City of Phoenix  
Objector's Address: Suite 800  
251 W. Washington St.  
Phoenix, AZ 85003

Objector's Telephone: (602)-262-6761

Objector's Watershed File Report or Zone 2 Well Report No. (if the Objector's claimed water rights are within the San Pedro River Watershed): N/A

Or Objector's Catalogued Well Number (if the Objector's claimed water rights appear only in Volume 8 or the HSR): N/A

Or Objector's Statement of Claimant No. (if the Objector's claimed water rights are located outside the San Pedro River Watershed):

39-07-7927; 39-05-50153 through 39-05-50155; 39-L8-37666 through 39-L8-37691

92MAY 18 PM 1:56

FILED

JUDITH ALLEN, CLERK  
BY R. Carballo, DEPT.

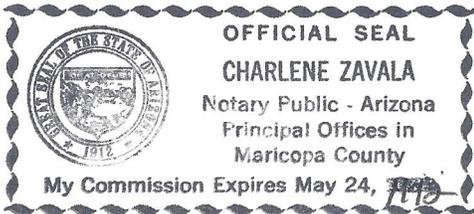
STATE OF ARIZONA  
COUNTY OF MARICOPA

VERIFICATION

I hereby make this Objection. I certify that, if required, a copy of the foregoing Objection was served upon the claimant(s) by mailing true and correct copies thereof on the 18th day of May, 1992, postage prepaid and addressed as follows: MAGMA COPPER COMPANY

P.O. BOX M

SAN MANUEL AZ 85631



Objections must be filed with the Clerk of the Superior Court in and for Maricopa County, Maricopa County Courthouse Annex, 3345 W. Durango Street, Phoenix, AZ 85009, on or before May 18, 1992.

I declare under penalty of perjury that I am a claimant in this proceeding or the duly-authorized representative of a claimant; that I have read the contents of this Objection (both sides and any attachments) and know the contents thereof; that the information contained in the Objection is true based on my own personal knowledge, except those portions of the Objection which are indicated as being known to me on information and belief and as to those portions, I believe them to be true.

*M. James Callahan*

Signature of Objector or Objector's Representative

SUBSCRIBED AND SWORN to before me this 18th day of May, 1992

*Charlene Zavala*

Notary Public for the State of Arizona  
Residing at: Phoenix, Maricopa County, Arizona  
My commission expires: MAY 24, 1992

2

## STATEMENT OF THE OBJECTION

The following are the main categories of the typical Watershed File Report (Zone 2 Well Reports and some Watershed File Reports lack certain categories). Please check the category(ies) to which you object and state the reason for the objection on the back of this form.

1. I object to the description of **Land Ownership**
2. I object to the description of **Applicable Filings and Decrees**
- X 3. I object to the description of **DWR's Analysis of Filings and Decrees**
4. I object to the description of **Diversions** for the claimed water right(s)
5. I object to the description of **Uses** for the claimed water right(s)
6. I object to the description of **Reservoirs** used for the claimed water right(s)
7. I object to the description of **Shared Uses & Diversion** for the claimed water right(s)
- X 8. I object to the **PWR (Potential Water Right) Summary** of the claimed water right(s)
9. I object to the description of **Quantities of Use** for the claimed water right(s)
10. I object to the **Explanation** provided for the claimed water right(s)
- X 11. Other Objections (please state volume, page and line number for each objection)

---

### REASON FOR OBJECTION

The reason for my objection is as follows (please number your objections to correspond to the boxes checked above; please attach supporting information and additional pages as necessary):

Category

Numbers

3

8

11

**Attachment to Watershed File Report: 113-04-DCD-001**

PHOENIX OBJECTS TO CATEGORIES 3 AND 8 FOR THE REASON THAT: DWR DID NOT EVALUATE CONFLICTING DATES FOR IR001, BUT AUTOMATICALLY ASSIGNED THE EARLIEST DATE FOUND IN ANY OF THE FILINGS FOR IR001. (910)(920)  
PHOENIX OBJECTS TO CATEGORY 11 FOR THE REASON THAT: A SIMILAR OBJECTION IS MADE BY PHOENIX TO VOLUME 1, PAGES 547-551 (145)  
THE WATERSHED FILE REPORT RELATES TO MAGMA COPPER COMPANY (MAJOR USER CODE 1267).

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE  
WATER IN THE GILA RIVER SYSTEM AND SOURCE

No. W1, W2, W3 & W4  
Contested Case No. W1-11-002394

MANDATORY FORM FOR OBJECTIONS TO  
The Hydrographic Survey Report for the  
San Pedro River Watershed

Please file a separate objection for each Watershed File Report, Zone 2 Well Report or Catalogued Well Report. Objections to information contained in Volume 1 of the HSR can be stated on one objection form. Objections must be written. Use of this form, or a computer facsimile, is required. Objections must be received on or before May 18, 1992.

This objection is directed to Watershed  
File Report or Zone 2 Well Report No.

113-04-DCD -001  
(please insert no.)

or Catalogued Well No.

(please insert no.)

OBJECTOR INFORMATION

Objector's Name:

Salt River Project

Objector's Address:

Post Office Box 52025

Phoenix, Arizona 85072-2025

Objector's Telephone No:

(602) 236-2210

Objector's Watershed File Report or Zone 2 Well Report No. (If the Objector's claimed water rights are within the San Pedro River Watershed):

Or Objector's Catalogued Well Number (if the Objector's claimed water rights appear only in Volume 8 of the HSR):

Or Objector's Statement of Claimant No. (if the Objector's claimed water rights are located outside the San Pedro Watershed):

39-07 01040, 01041, 01206, 01207, 01998

39-05 50053, 50054, 50055

39-L8 35212, 35213

STATE OF Arizona

COUNTY OF Maricopa

VERIFICATION (must be completed by objector)

I hereby make this Objection. I certify that, if required, copy of the foregoing Objection was served upon the following Claimant(s) by mailing true and correct copies thereof on the 14th day of May, 1992, postage prepaid and addressed as follows:

Name: MAGMA COPPER COMPANY

Address: P.O. BOX M

SAN MANUEL, AZ 85631

I declare under penalty of perjury that I am a claimant in this proceeding or the duly-authorized representative of a claimant; that I have read the contents of this Objection (both sides and any attachments) and know the contents thereof; and that the information contained in the Objection is true based on by own personal knowledge, except those portions of the Objection which are indicated as being known to me on information and belief and, as to those portions, I believe them to be true.

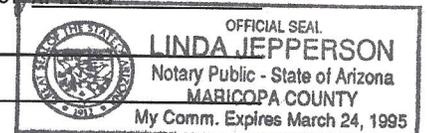
Signature of Objector or Objector's Representative

SUBSCRIBED AND SWORN to before me this 1st day of May, 1992.

Notary Public for the State of Arizona

Residing at Maricopa County

My commission expires \_\_\_\_\_



Objections must be filed with the Clerk of the Superior Court in and for Maricopa County, Maricopa County Courthouse Annex, 3345 W. Durango Street, Phoenix Az 85009, on or before May 18, 1992.

FILED  
MAY 14 1992  
JUDITH ALLEN, CLERK  
BY: S. Boykin  
DEPT. OF WATER

6

ATTACHMENT 1

WFR CATEGORY 8 - PWR SUMMARY

The Salt River Project objects to the absence of an apparent date of first use for this Potential Water Right (PWR). Previous filings, where available, are the evidentiary foundation for the date of priority associated with any appropriative right. This PWR has been matched to a notice of appropriation and a Water Rights Registration Act (WRRRA) filing. However, the WRRRA filing claims a different priority date than that evidenced by the notice. The apparent date of first use assigned to this PWR should be the date evidenced by the notice, unless sufficient historical evidence indicates a contrary date.

The Watershed File Report fails to articulate sufficient historical evidence to refute the priority date evidenced by the notice of appropriation matched to this PWR. In the absence of such evidence, the apparent date of first use assigned to this PWR should be the date evidenced by the notice (0910). This objection applies to: DM001.

\* \* \* \*

The Salt River Project objects to the apparent date of first use assigned to this Potential Water Right (PWR). Previous filings, particularly "old right" filings supported by notices of appropriation, are the evidentiary foundation for the date of priority associated with a water right. Where an "old right" filing and a Water Rights Registration Act filing have been matched to the same PWR but suggest different dates of priority, the date evidenced by the "old right" filing should form the basis for the apparent date of first use, unless sufficient historical evidence indicates a contrary date.

The Watershed File Report fails to articulate sufficient historical evidence to refute the priority date evidenced by the "old right" filing matched to this PWR. In the absence of such evidence, the apparent date of first use assigned to this PWR should be the date evidenced by the "old right" filing (0920). This objection applies to: IR001.

WFR CATEGORY 9 - QUANTITIES OF USE

The Salt River Project objects to the quantities of use assigned to this Potential Water Right (PWR). The maximum observed and regional methods used by DWR for determining quantities of use for certain agricultural irrigation PWRs are inconsistent with the Arizona doctrine of prior appropriation; these methods are also technically inaccurate. The maximum potential method used by DWR for determining quantities of use is consistent with Arizona law; however, several technical corrections are necessary. For an additional discussion of the problems associated with DWR's methods of quantification for this type of PWR, see the Salt River Project's Volume 1 objections to these methods, a copy of which is attached to this objection and incorporated herein by reference (1020). This objection applies to: IR001.

\* \* \* \*

The Salt River Project objects to the failure of DWR to assign a quantity of use to this Potential Water Right (PWR). All water rights subject to the court's jurisdiction must be quantified in accordance with A.R.S. § 45-257(B). This PWR is no exception (1010). This objection applies to: DM001.

\* \* \* \*

The Salt River Project objects to the failure of DWR to calculate a diversion rate for this Potential Water Right (PWR). All PWRs assigned a point or points of diversion should be assigned a separate diversion rate for each point of diversion. Diversion rates should be calculated at the point of diversion and should include conveyance losses (1010). This objection applies to: DM001 and IR001.

**EXCERPT FROM  
SALT RIVER PROJECT OBJECTIONS TO  
VOLUME 1 OF THE SAN PEDRO RIVER HSR**

**IRRIGATION QUANTITY ESTIMATES**

**(page numbers refer to Volume 1)**

**INTRODUCTION**

The Salt River Project objects to DWR's estimation methods and results for irrigation water quantities for the following reasons:

First, the Salt River Project objects to DWR's estimation of water duty under both the "maximum observed" and "regional" methods. In the absence of decreed rights, which must be accepted by the court in the absence of abandonment, Arizona law requires that the extent of an appropriative right be measured according to the quantity of water that the appropriator diverted for beneficial use since the time of the appropriation. A.R.S. § 45-141(B) ("Beneficial use shall be the basis, measure and limit to the use of water"). Neither the "maximum observed" or "regional" quantification methods employed by DWR properly estimate maximum actual historical beneficial use as required by law.

The Salt River Project supports DWR's estimation of water duty using the "maximum potential" method since, in the absence of sufficient historical records, this method properly estimates maximum actual historical beneficial use.

Second, DWR's method to compute maximum observed water duty does not accurately estimate maximum actual historical beneficial use since it incorporates inaccurate crop irrigation requirements, deficit irrigation, five years or less of crop history, or overly high efficiency estimates.

Third, although DWR has developed new terminology in reporting regional water duties, DWR still uses the Arizona Groundwater Code method of "areas of similar farming conditions" (ASFC), now termed "regional farming conditions" (RFC). The RFC method assigns a weighted average consumptive use requirement to the water duty equation based upon the types of crops recently grown by appropriators in a designated area. Historical information or records evincing an individual claimant's actual cropping patterns and the quantities of water actually used to cultivate such crops since the time of appropriation are not considered. In fact, the Court noted that "[average efficient use] is not directly related to what is the property's water right[s] . . ." (Entitlement Order at 6). Under the prior appropriation doctrine, an appropriator who has grown alfalfa on his property historically is entitled to a water duty that will support alfalfa, regardless of the crops that he or his neighbors are currently growing. Under DWR's "averaging" approach, an appropriator in this situation would be assigned an apparent entitlement inadequate to meet crop needs.

Additionally, under the RFC concept, the efficiency of various irrigation methods is averaged among appropriators, thus further exacerbating the inadequate water duty for the appropriator who does not have a system with above-average efficiency.

Fourth, there are a number of technical errors in DWR's calculation of crop consumptive use including the use of a five year crop history, adjusted weather data, relative humidity, growing season, effective precipitation, crop coefficients, alfalfa stand establishment, deficit irrigation, and efficiency estimates.

#### **Five Year Crop History**

**pp. 146-151, C-18, C-19, C-68 through C-78**

The Salt River Project objects to DWR's use of its five year investigation period for computing acreages irrigated for maximum observed quantification and for computing crop irrigation water requirements for both maximum observed and regional quantifications. Indeed, it appears that DWR has relied heavily on a single year (1990) of crop survey data. The information developed from a single year, or five year period, cannot be used to properly estimate actual historical beneficial use since low consumptive use crops or no crop may be present during the period. Thus, historical cropping practices or completion of a crop rotation are not reflected.

#### **Adjusted Weather Data**

**pp. C-6 through C-19**

The Salt River Project objects to DWR's adjustment of weather station temperatures from recorded values and relative humidities from estimated values. The temperature and relative humidity adjustment procedure is intended for prediction of crop water requirements for large, new irrigation developments where the current observations are from a nearby non-irrigated area. Because of the "clothesline" configuration of San Pedro irrigated areas in relation to the extremely arid surrounding environment, it is extremely doubtful there is any moderating effect due to surrounding irrigated land or to the San Pedro River.

#### **Relative Humidity**

**pp. C-9, C-17, C-25, C-29, C-34, C-92**

The Salt River Project objects to DWR's failure to specify whether it used minimum relative humidity as specified in Food and Agricultural Organization (FAO) Paper 24. Minimum relative humidity is not reported by Sellers and Hill. Furthermore, their 6 p.m. (1800 hours) data must be adjusted downward to reflect lower humidity in mid-afternoon. The proper publication date for Arizona Climate, 1931-1972, by Sellers and Hill, is 1974.

#### **Growing Season**

**pp. C-20, C-24**

The Salt River Project objects to DWR's use of field observations during one or just a few years to estimate the length of growing season for perennial crops. A few field observations of irrigation dates do not define the water use period because water use occurs both before and after irrigation and because growing seasons vary from year to year. Growing seasons can best be determined for perennial crops by a relationship between plant growth and mean temperature or mean date of low temperatures over an extended period of record.

### **Effective Precipitation**

**pp. C-38, C-40 through C-49**

The Salt River Project objects to DWR's method of estimating non-growing season effective precipitation. The procedure used neglects runoff, uses soil constant values that are highly variable and not well quantified, and is unclear about assumptions of initial soil moisture conditions for each month. Published methods can be used to estimate non-growing season effective precipitation for the winter months, the relevant period for most crops. Furthermore, the Salt River Project objects to DWR's use of a 50 percent probability of precipitation, which results in an inadequate supply in one-half of the years. A 50 percent probability indicates that average effective precipitation is subtracted from crop consumptive use when DWR calculates the irrigation requirement. This means that in years of below-average precipitation, irrigation users would be unable to replace the lack of precipitation with additional irrigation water. The amount of precipitation that is available 80 percent of the time for field crops and 90 percent of the time for orchards and vegetables is appropriate.

### **Crop Coefficients**

**p. C-33**

The Salt River Project objects to DWR's use of 0.8 as the kc for Winter Pasture. Winter Pasture is a cool-season grass mixture that has a higher crop coefficient than a warm-season grass. SRP also objects to DWR's use of the mean of kc1 and kc3 as a value for kc2, instead of interpolation. Both FAO-24 and University of California Leaflet 21427 specify interpolation.

### **Alfalfa Stand Establishment**

**p. C-37**

The Salt River Project objects to DWR's failure to include water for alfalfa stand establishment as an "Other Need."

### **Deficit Irrigation**

**pp. C-4, C-5, C-54 through C-68**

The Salt River Project objects to DWR's use of deficit irrigation values for the maximum observed quantification for water right entitlements. As noted above, maximum actual historical beneficial use is the proper measure of a water right entitlement, not current practice.

### **Efficiency Estimates**

**pp. 138-140, C-51 through C-54**

The Salt River Project objects to DWR's omission of the effect of a rotation delivery system on On-Farm Irrigation Efficiency. A rotation delivery system reduces On-Farm Irrigation Efficiency below that which can be achieved if irrigation water is available on demand.

The Salt River Project also objects to DWR's use of average estimated values of irrigation efficiency for regional quantification. The use of average efficiencies understates entitlements for one-half of all irrigated acres on this basis alone.

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE  
WATER IN THE GILA RIVER SYSTEM AND SOURCE

MANDATORY FORM FOR OBJECTIONS TO  
The Hydrographic Survey Report for  
The San Pedro River Watershed

No. W111002394

Please file a separate objection for each Watershed File Report, Zone 2 Well Report or Catalogued Well Report. Objections to information contained in Volume 1 of the HSR can be stated on one objection form. Objections must be written. Use of this form, or a computer facsimile, is required. Objections must be received on or before May 18, 1992.

92 MAY 13 AM 9:30  
FILED  
JUDITH ALLEN, CLERK  
DEP

This objection is directed to Watershed \_\_\_\_\_ or Catalogued Well No. \_\_\_\_\_  
File Report or Zone 2 Well Report No. 11304DCD 001  
(please insert no.) (please insert no.)

OBJECTOR INFORMATION

Objector's Name: Gila River Indian Community San Carlos Apache Tribe; Tonto Apache Tribe; Yavapai-Apache Indian Community, Camp Verde Reservation  
C/O Cox & Cox C/O Sparks & Siler, P.C.  
Objector's Address: Suite 300 Luhrs Tower, P.O. Box 4245 7503 First Street  
Phoenix, AZ 85030 Scottsdale, AZ 85251  
Objector's Telephone: (602) 254-7207 (602) 949-1988

Objector's Watershed File Report or Zone 2 Well Report No. (if the Objector's claimed water rights are within the San Pedro River Watershed):  
\_\_\_\_\_

Or Objector's Catalogued Well Number (if the Objector's claimed water rights appear only in Volume 8 of the HSR):  
\_\_\_\_\_

Or Objector's Statement of Claimant No. (if the Objector's claimed water rights are located outside the San Pedro River Watershed):  
39-11-05478 39-05-41142 39-07-12652 39-07-12676 39-05-50058 39-07-12169  
39-U8-60083 39-L8-36340 39-L8-37360 39-U8-63614 39-07-12675 39-05-50059

STATE OF ARIZONA

VERIFICATION (must be completed by objector)

COUNTY OF MARICOPA

I hereby make this Objection. I certify that, if required, a copy of the foregoing Objection was served upon the following Claimant(s) by mailing true and correct copies thereof on the 13 day of May, 1992, postage prepaid and addressed as follows:

Name: MAGMA COPPER COMPANY  
Address: P.O. BOX M  
SAN MANUEL AZ 85631

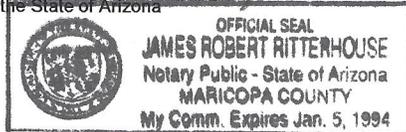
I declare under perjury that I am a claimant in this proceeding or the duly-authorized representative of a claimant; that I have read the contents of this Objection (both sides and any attachments) and know the contents thereof; and that the information contained in the Objection is true based on my own personal knowledge, except those portions of the Objection which are indicated as being known to me on information and belief and, as to those portions, I believe them to be true.

Alfred S. Cox Joe [Signature]

Signature of Objector or Objector's Representative

SUBSCRIBED AND SWORN to before me this 6 day of May 1992.

James R. Ritterhouse  
Notary Public for the State of Arizona



(The above section must be completed if you object to another claimant's Watershed File Report, Zone 2 Well Report, or Catalogued Well Report. It does not need to be completed if you file an objection to your own Watershed File Report, Zone 2 Well Report, Catalogued Well report; or to information contained in Volume 1 of the Hydrographic Survey Report.)

2  
4

# STATEMENT OF THE OBJECTION

The following are the main categories of the typical Watershed File Report (Zone 2 Well Reports and some Watershed File Reports lack certain categories). Please check the category(ies) to which you object, and state the reason for the objection on the back of this form.



- 1. I object to the description of **Land Ownership**
- X 2. I object to the description of **Applicable Filings and Decrees**
- 3. I object to the description of **DWR's Analysis of Filings and Decrees**
- X 4. I object to the description of **Diversions** for the claimed water right(s)
- 5. I object to the description of **Uses** for the claimed water right(s)
- 6. I object to the description of **Reservoirs** used for the claimed water right(s)
- 7. I object to the description of **Shared Uses & Diversions** for the claimed water right(s)
- 8. I object to the **PWR (Potential Water Right) Summary** of the claimed water right(s)
- X 9. I object to the description of **Quantities of Use** for the claimed water right(s)
- 10. I object to the **Explanation** provided for the unclaimed water right(s)
- 11. Other Objections (please state volume, page and line number for each objection)

## REASON FOR OBJECTION

The reason for my objection is as follows (please number your objections to correspond to the boxes checked above; please attached supporting information and additional pages as necessary. The following objection(s) are based upon information and belief:

CATEGORY  
NUMBER

- 4 The use of the water claimed depletes water for senior federal and Indian water rights (1150).
- 2 HSR does not show a well registration filing (420).
- 9 HSR does not show a claimed water use rate (1000).
- 2 Claim date from filing(s) and/or pre-filing(s) are inconsistent (478)(430).
- 2 Quantities from filing(s) and/or pre-filing(s) are inconsistent (478)(430).

---

---

---

---

---

---

OS-2-NA-81-10450  
LIVED  
WATER RESOURCES DIVISION  
WASHINGTON DEPARTMENT OF ECOLOGY

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE  
WATER IN THE GILA RIVER SYSTEM AND SOURCE

Contested Case File: W111002394  
Major User No. 1267

MANDATORY FORM FOR OBJECTIONS TO  
The Hydrographic Survey Report for  
The San Pedro River Watershed

Please file a separate objection for each Watershed File Report, Zone 2 Well Report or Catalogued Well Report. Objections to information contained in Volume 1 of the HSR can be stated on one objection form. Objections must be written. Use of this form, or a computer facsimile, is required. Objections must be received on or before May 18, 1992. Objections must be filed with the Clerk of the Superior Court in and for Maricopa County, Maricopa County Courthouse Annex, 3345 W. Durango Street, Phoenix, AZ 85009.

This objection is directed to Watershed  
File Report or Zone 2 Well Report No.

113-04-DCD-001  
(please insert no.)

or Catalogued Well No.  
(please insert no.)

JUDITH ALLEN, CLERK  
DEP  
MAY 12 AM 9:37  
FILED

OBJECTOR INFORMATION

Objector's Name:  
United States of America

Co-Objector's Name:  
Gila River Indian Community  
c/o Cox & Cox

Co-Objector's Name:  
San Carlos Apache Tribe; Tonto  
Apache Tribe; Yavapai-Apache Indian  
Community; Camp Verde Reservation  
c/o Sparks & Siler, P.C.

Objector's Address:  
601 Pennsylvania Ave.  
Washington, D.C. 20004

Co-Objector's Address:  
Suite 300 Luhrs Tower  
Phoenix, AZ 85003

Co-Objector's Address:  
7503 First Street  
Scottsdale, AZ 85251

Objector's Telephone No.:  
(202) 272-4059 / 272-6978

Co-Objector's Telephone No.:  
(602) 254-7207

Co-Objector's Telephone No.:  
(602) 949-1998

Objector's Watershed File Report or Zone 2 Well Report No. (if the Objector's claimed water rights are within the San Pedro River Watershed):

111-19-009

Or Objector's Catalogued Well Number (if the Objector's claimed water rights appear only in Volume 8 of the HSR):

Or Objector's Statement of Claimant No. (if the Objector's claimed water rights are located outside the San Pedro River Watershed):

39-11-05478    39-05-41142    39-07-12652    39-07-12676    39-05-50058    39-07-12169  
39-U8-60083    39-L8-36340    39-L8-37360    39-U8-63614    39-07-12675    39-05-50059

STATE OF ARIZONA  
COUNTY OF MARICOPA

I hereby make this Objection. I certify that, if required, a copy of the foregoing Objection was served upon the following Claimant(s) by mailing true and correct copies thereof on the 18<sup>th</sup> day of May, 1992, postage prepaid and addressed as follows:

Name: 113-04-DCD-001  
MAGMA COPPER COMPANY  
Address: P.O. BOX M  
SAN MANUEL AZ 85631

(The above section must be completed if you object to another claimant's Watershed File Report, Zone 2 Well Report, or Catalogued Well Report. It does not need to be completed if you file an objection to your own Watershed File Report, Zone 2 Well Report, Catalogued Well Report, or to information contained in Volume 1 of the Hydrographic Survey Report.)

VERIFICATION(must be completed by objector)

I declare under penalty of perjury that I am a claimant in this proceeding or the duly-authorized representative of a claimant; that I have read the contents of this Objection (both sides and any attachments) and know the contents thereof; and that the information contained in the Objection is true based on my own personal knowledge, except those portions of the Objection which are indicated as being known to me on information and belief and, as to those portions, I believe them to be true.

Gary B. Randall

Signature of Objector or Objector's Representative

Alfred S. Cox

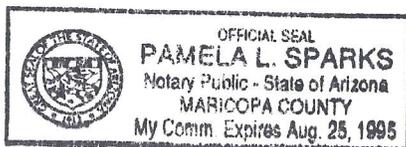
Signature of Co-Objector or Co-Objector's Representative

[Signature]

Signature of Co-Objector or Co-Objector's Representative

SUBSCRIBED AND SWORN to before me this 7 day of May, 1992.

Pamela L. Sparks



STATEMENT OF THE OBJECTION

The following are the main categories of the typical Watershed File Report (Zone 2 Well Reports and some Watershed File Reports lack certain categories). Please check the category(ies) to which you object, and state the reason for the objection on the back of this form.

- 1. I object to the description of Land Ownership.
- 2. I object to the description of Applicable Filings and Decrees.
- 3. I object to the description of DWR's Analysis of Filings and Decrees.
- 4. I object to the description of Diversions for the claimed water right(s).
- 5. I object to the description of Uses for the claimed water right(s).
- 6. I object to the description of Reservoirs used for the claimed water right(s).
- 7. I object to the description of Shared Uses & Diversions for the claimed water right(s).
- 8. I object to the PWR (Potential Water Right) Summary of the claimed water right(s).
- 9. I object to the description of Quantities of Use for the claimed water right(s).
- 10. I object to the Explanation provided for the claimed water right(s).
- 11. Other Objections (please state volume, page and line number for each objection).

REASON FOR OBJECTION

The reason for my objection is as follows (please number your objections to correspond to the boxes checked above; please attach supporting information and additional pages as necessary):

- 2. The claimant and/or ADWR fail(s) to associate this claim with a pre-adjudication water filing as required by Arizona statute. (SM 420) (W01)  
  
The amount claimed, as described by ADWR, exceeds a reasonable amount required for beneficial use. (SM 478)  
  
The use of water listed under this Watershed File Report is challenged because it interferes with downstream federal reserved rights and is contrary to state and federal law. (SM 560)  
  
One or more of the POD legal descriptions listed in the WFR is too general. (SM 623) (O 00000630000; 1011055821100)  
  
One or more of the filings or pre-filings as reported in this WFR is missing a place of use legal description. (SM 720) (1011032861100; 3900031610000; 3900031630000; 3900052340000)  
  
One or more of the POU legal descriptions listed in the WFR is too general. (SM 720) (O 00000630000; 1011055821100; 3900052270000; IR001)  
  
There is no quantity amount listed for a pre-filing and/or filing under this WFR. (SM 1000) (O 00000630000; 1011055821100; 3601023370000; 3900031630000; 3900052340000)
- 4. According to ADWR, the Point of Diversion (POD) identified as serving the Places of Use (POU) under this WFR is currently inactive. The claimant and/or ADWR need(s) to provide information regarding the POD that provides water to the POU's. (SM 500)
- 5. There is no documentation supporting the change in source of water for the claim associated with this Watershed File Report. (SM 550)
- 8. The claimant and/or ADWR fail(s) to associate this claim with a pre-adjudication water filing as required by Arizona statute. (SM 420) (W01)

The use of water listed under this Watershed File Report is challenged because it interferes with downstream federal reserved rights and is contrary to state and federal law. (SM 560)

The legal description for the point of diversion listed by ADWR is not fully supported by the applicable filings listed. (SM 623) (W01)

One or more of the POD legal descriptions listed in the WFR is too general. (SM 623) (O 00000630000; 1011055821100)

The legal description for the place of use of a potential water right listed by ADWR is not fully supported by applicable filings. (SM 720) (DM001000; IR001001)

One or more of the POU legal descriptions listed in the WFR is too general. (SM 720) (O 00000630000; 1011055821100; 3900052270000; IR001)

The regional volume of use is less than both the claimed and maximum observed volume of use. This indicates that the water is being used inefficiently. The claimant is not entitled to the water that will be wasted. (SM 1000)

9. The regional volume of use is less than both the claimed and maximum observed volume of use. This indicates that the water is being used inefficiently. The claimant is not entitled to the water that will be wasted. (SM 1000)

ADWR uses a methodology that overestimates crop water requirements. (SM 1020)

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

IN RE THE GENERAL ADJUDICATION OF ALL RIGHTS TO USE  
WATER IN THE GILA RIVER SYSTEM AND SOURCE

No. W1,W2,W3 & W4

MANDATORY FORM FOR OBJECTIONS TO  
The Hydrographic Survey Report for  
The San Pedro River Watershed

W1-11-002394

Please file a separate objection for each Watershed File Report, Zone 2 Well Report or Catalogued Well Report. Objections to information contained in Volume 1 of the HSR can be stated on one objection form. Objections must be written. Use of this form, or a computer facsimile, is required. Objections must be received on or before May 18, 1992.

This objection is directed to Watershed  
File Report or Zone 2 Well Report No.

113.04 - DCD - 001  
(please insert no.)

or Catalogued Well No.

(please insert no.)

92 MAY 11 PM 1:07  
FILED  
JUDITH ALLEN, CLERK  
BY  
J. [Signature]

OBJECTOR INFORMATION

Objector's Name: ASARCO Incorporated (1263)

Objector's Address: P.O. Box 8, Hayden, AZ 85235

Objector's Telephone No.: (602) 356-7811

The names, address and telephone number of Objector's attorneys are on the Attachment  
Objector's Watershed File Report or Zone 2 Well Report No. (if the Objector's claimed water rights are within the San Pedro River Watershed):

114 - 01 - XXXX - 005 et al.

ment  
hereto.

Or Objector's Catalogued Well Number (if the Objector's claimed water rights appear only in Volume 8 of the HSR):

Or Objector's Statement of Claimant No. (if the Objector's claimed water rights are located outside the San Pedro River Watershed):

39 - \_\_\_\_\_

STATE OF ARIZONA

COUNTY OF Maricopa

VERIFICATION (must be completed by objector)

I hereby make this Objection. I certify that, if required, a copy of the foregoing Objection was served upon the following Claimant(s) by mailing true and correct copies thereof on the 11th day of May, 1992 postage prepaid and addressed as follows:

Name: Magma Copper Company

Address: P.O. Box M

San Manuel, AZ 85631

(The above section must be completed if you object to another claimant's Watershed File Report, Zone 2 Well Report, or Catalogued Well Report. It does not need to be completed if you file an objection to your own Watershed File Report, Zone 2 Well Report, Catalogued Well Report; or to information contained in Volume 1 of the Hydrographic Survey Report.)

I declare under penalty of perjury that I am a claimant in this proceeding or the duly- authorized representative of a claimant; that I have read the contents of this Objection (both sides and any attachments) and know the contents thereof; and that the information contained in the Objection is true based on my own personal knowledge, except those portions of the Objection which are indicated as being known to me on information and belief and, as to those portions, I believe them to be true.

[Signature]  
Signature of Objector or Objector's Representative  
Authorized Attorney

SUBSCRIBED AND SWORN to before me this 11th day of May, 1992.

[Signature]

Notary Public for the State of Arizona

Residing at Phoenix, Maricopa County

My commission expires July 17, 1994

Objections must be filed with the Clerk of the Superior Court in and for Maricopa County, Maricopa County Courthouse Annex, 3345 W. Durango Street, Phoenix, AZ 85009, on or before May 18, 1992.



Attachment to Objection re Magma Copper Company, WFR #  
113-04-DCD-001

4, 8

& 11. ASARCO objects to the inclusion of groundwater in this Adjudication because groundwater is neither appropriable under Arizona law (Uniform Objection Code Nos. 500, 510, 1120 and 1132), nor is it subject to claims based on federal law (Uniform Objection Code Nos. 561, 562, 1120 and 1134). In addition, this objection is intended to preserve these issues until such time as each is resolved by the Arizona Supreme Court. (Uniform Objection Code No. 1130) While this objection pertains to a specific Watershed File Report ("WFR"), ASARCO is objecting to each WFR that classifies a well as a "Zone 1 Well" or otherwise employs the "50% - 90 day standard" to create a presumption of a well's diversion of appropriable surface water. With respect to this particular WFR, ASARCO presently believes that the subject well(s) is/are taking nonappropriable groundwater not subject to the Gila Adjudication. However, should it be determined that the well(s) is/are taking appropriable surface water, ASARCO objects to such use where such taking is a diversion of surface water without an appropriative right under state law and/or is interfering with the water rights of ASARCO. (Uniform Objection Code Nos. 600, 610 and 1150) ASARCO is also filing this objection to obtain notice and an opportunity to be heard on all issues in the event that claims to the groundwater referenced in claimant's WFR are adjudicated.

11. Water uses reported in this Watershed File Report relate to Magma Copper Company (Major User Code 1267).

Attorneys for Objector:     Burton M. Apker, Id. No. 001258  
                                  Gerrie Apker Kurtz, Id. No. 005637  
                                  APKER, APKER, HAGGARD & KURTZ, P.C.  
                                  2111 E. Highland, Suite 230  
                                  P.O. Box 10280  
                                  Phoenix, Arizona 85064-0280  
                                  (602) 381-0085