



SALT RIVER PROJECT
P.O. Box 52025
Phoenix, AZ 85072-2025

June 30, 2009

Arizona Department of Water Resources
Adjudications Section
3550 North Central Avenue, 4th floor
Phoenix, Arizona 85012

RE: Comments of SRP on the Preliminary Hydrographic Survey Report for the Hopi Indian Reservation

To Whom it Concerns,

Attached please find the document titled, SRP Comments to the Preliminary Hydrographic Survey Report for the Hopi Indian Reservation. We hope that these comments provide useful information and suggestions to the Department in preparation of the final Hydrographic Survey Report.

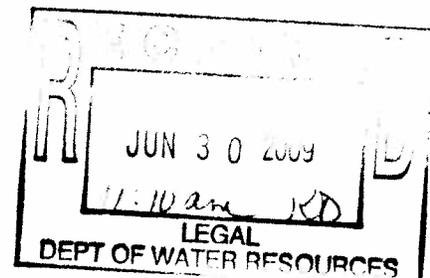
Thank you for your consideration of our comments.

Very truly yours,

A handwritten signature in black ink that reads "David C. Roberts". The signature is fluid and cursive.

Dave Roberts, Manager
SRP Water Rights and Contracts
PAB110
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Attachment



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**SALT RIVER PROJECT COMMENTS
ON THE
PRELIMINARY HYDROGRAPHIC SURVEY REPORT FOR THE
HOPI INDIAN RESERVATION**

June 30, 2009

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**SALT RIVER PROJECT COMMENTS
ON THE
PRELIMINARY HYDROGRAPHIC SURVEY REPORT FOR THE
HOPI INDIAN RESERVATION**

JUNE 30, 2009

The Salt River Project Agricultural Improvement and Power District, referred to herein as the Salt River Project or SRP, submits the following comments on the Preliminary Hydrographic Survey Report for the Hopi Indian Reservation (HSR) published by the Arizona Department of Water Resources (Department) on December 31, 2008. SRP's interest in this preliminary HSR and subsequent proceedings are primarily due to the potential precedents for HSRs on other federal and Indian Reservations, which may have a direct impact on SRP water rights. Following receipt of comments and any changes in the preliminary HSR, the Department will publish a final HSR, which will trigger the formal objection process. The intent of SRP's comments is to suggest changes that are needed before final publication. These changes are intended to enhance understanding of the HSR, minimize objections, and reduce the need to introduce evidence at subsequent hearings, thereby expediting the resolution of these claims.

In general, SRP concurs with the Department's approach for all procedures that are not specifically addressed below. However, SRP reserves the right to comment on or object to additional items if further review results in the identification of other problems or concerns.

I. Comments on Overall Scope of the HSR.

A. Overall Content and Support

The preliminary HSR is a significant improvement over past HSRs. The Department compiled a large amount of useful information, which is well-documented and well-cited.

1. Issue

The preliminary HSR heavily relies on internal and consultant reports; the reports are referenced throughout.

2. Recommendation

Internal and consultant reports should be readily available for review when the draft is published and throughout the comment period. These could all be posted on the Department's website. Likewise, the reports should be readily available when the final HSR is published, including any revisions or additional reports that were developed after publication of the draft HSR.

II. Comments on Specific Sections of the HSR

A. Riparian Evapotranspiration

1. Issue

Although acknowledging that claims were not made for water use by riparian vegetation, the Department conducted an analysis of this naturally occurring consumption of water (Section 8.8). It is not clear how estimates of riparian evapotranspiration are relevant to the adjudication of these or other water rights.

2. Recommendation

Unless the Department establishes the relevance of the riparian evapotranspiration estimates to the adjudication of Hopi or other water rights, SRP recommends that the evaluation of riparian evapotranspiration be removed from the final HSR.

B. Net Irrigation Demand For Rain-fed Crops

1. Issue

The Department includes 7,921 acre-feet per annum (AFA) for cropped acreage under “Traditional Hopi Farming” as part of its recommended quantity of 19,896 AFA for water use on the Reservation (Sections 9.1.1 and 9.3.2, and Table 9-1). This quantity includes estimated crop consumptive use for areas that are “dryland farmed” (Section 9.1.1 and Table 8-2; Appendix F, Section 1.2). Dryland agriculture is not entitled to a water right.

2. Recommendation

Crop consumptive use estimates for dryland acreage without a diversion from a water source should not be included in the quantity of use recommended for a water right.

C. Evaporation Estimates

1. Issues

The Department uses estimates of gross evaporation to report historical demands and recommended water right attributes for evaporation from recreation and multi-purpose lakes and reservoirs (Sections 8.5.2 and 9.2.5).

The period of record used for evaporation estimates is not clear (pp. 4-4 and 8-25; ADWR 2008f).

2. Recommendations

The Department should use net evaporation, which is gross evaporation minus precipitation, to estimate evaporation losses from lakes and reservoirs.

The Department does not specify the period of record used to estimate evaporation. To calculate net evaporation as recommended above, the same period of record should be used for both gross evaporation and precipitation.

D. Pre-history and History

Hopi pre-history and history appear in *Chapter 3: Hopi Reservations Lands*, *Chapter 5: Culture*, and throughout the report in the chapter sub-sections labeled *Historic*. The two chapters and the sub-sections are reviewed separately below.

Chapter 3: Hopi Reservation Lands

Overall, **Chapter 3** provides a solid, general history of the Hopi Reservation lands. The account begins with the pre-reservation period which discusses pre-1540 evidence by charting the early record as documented during the Spanish, Mexican and early U.S. periods (1540 to 1882). Hopi population and settlement patterns were drawn from the early writings which were reiterated in later writings. The history of Hopi Reservation lands, beginning with the 1882 Executive Order, is well presented. The description of post-Executive Order history clearly describes the complexity of Hopi land evolutions through the many designations, enactments, court proceedings, and allotments. The author has provided information and data based on research findings and, for the most part, steered away from offering interpretation of the findings.

1. Issue

The quote, “one historian stated that ‘the cultural remains present a clear, uninterrupted, logical development culminating in the life... Hopi Mesas today.’” (Section 3.1.1, History to 1540, p. 3-2)

2. Recommendation

Remove conclusion drawn by “one historian” and replace with data/information the historian used to reach said conclusion.

3. Issue

The Hopi Tribe claims Pueblo water rights under the Treaty of Guadalupe Hidalgo (Section 9.3.2, p. 9-11). (The Treaty of Guadalupe Hidalgo is mentioned in Section 3.1.4, p. 3-5).

4. Recommendation

Given that there is a legal issue about whether the Hopi Tribe holds 1848 water rights under the Treaty of Guadalupe Hidalgo (Section 9.3.3, p. 9-14), it would be helpful

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for the Treaty citations to be included in the text (9 Stat. 922; Feb. 2, 1848) and for the Treaty itself to be appended to the HSR.

III. Specific Comments and Questions

* All citations in the HSR need to be checked for format consistency throughout the report. Some are listed below.

| Page | Section; Line | Comment |
|-------------|--|--|
| 2-20 | 2.8.1, line 5 | “Wash” should be capitalized. |
| 3-9 | <u>3.2.1 1st paragraph</u> | Citation should be on its on line (See example – p. 3-11). |
| 3-11 | | Citations for the two inset quotes and the endnote – treat as other citations with parentheses. |
| 3-17 | 1 st paragraph | Citation – 2006 Intergovernmental Compact appears twice in paragraph. 1 st time in does not provide location, 2 nd time it is not in parentheses. |
| 4-3 | <u>Precipitation</u> ; lines 3 and 5 | Insert “average” before “annual” |
| 4-4 | <u>Surface Water Evaporation</u> ; line 1 | Insert “average” before “annual” |
| 4-5 | 4.5.1; lines 11-13 | It is not correct to state that “Soils series consist of soil families with similar color, texture, structure and composition (NRCS, 2007b).” Soil families are a broader classification than soil series (ADWR 2008f, Section 2.1). Suggest rewording as follows: “Soils series consist of soils with similar color, texture, structure and composition (NRCS, 2007b).” |
| 5-2 | 1 st paragraph | Citation should follow the quote. (See example – p. 3-11). |
| 5-5 | 1 st paragraph | Reference to Mischa Titiev - Does this work appear in the bibliography? |
| 5-8 | 1 st & 2 nd paragraphs | Citations are missing page number(s). |
| 5-9 | 2 nd paragraph | Suggest moving paragraph farther down in the section to be adjacent to other paragraphs on domesticated animals. |
| | All Chapter 6, 7 | Citations are missing page number(s). |
| 8-4 | Last paragraph | Citation is missing page number(s). |
| 8-5 | 1 st & 2 nd paragraphs | Citations are missing page number(s). |
| 8-6 | 1 st & 2 nd paragraphs | Citations are missing page number(s). |
| 8-14 | 1 st & 3 rd paragraphs | Citations are missing page number(s). |
| 8-17 | 1 st paragraph | Citation missing. |
| 8-19 | 8.4.2 intro paragraph | Andersen citation – move parenthesis to before Andersen from before 2008 |
| 8-24 | 8.5.1 intro paragraph | Citation is missing page number(s). |

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| Page | Section; Line | Comment |
|-------------|----------------------|---|
| 8-27 | 8.7.1 | Documentation / report for this information is missing. |
| 8-28 | 8.8.1 | Citation is missing page number(s). |