

McELROY, MEYER, WALKER & CONDON
ATTORNEYS AT LAW

SCOTT B. McELROY
ELIZABETH MEYER
ALICE E. WALKER
M. CATHERINE CONDON

GREGG DE BIE
JENNIFER H. WALKER

June 13, 2016

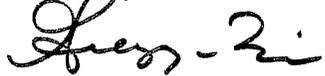
Apache County Clerk of the Superior Court
70 West Third South
St. Johns, Arizona 85936

Re: Navajo Nation's Notarized Statement of Objection to the Final Hopi HSR in the
Little Colorado River Adjudication, No. 6417

Dear Clerk of the Superior Court:

Pursuant to the instructions contained in the Objection Booklet, please find enclosed for filing in Case No. 6417, *In re General Adjudication of All Rights to Use Water in Little Colorado River System and Source*, an original copy of the Navajo Nation's notarized Statement of Objection to the Final Hydrographic Survey Report for the Hopi Indian Reservation. Also included are two additional copies of the Navajo Nation's Statement of Objection. Copies have also been delivered to counsel for the Hopi Tribe and the United States.

Sincerely,



Gregg De Bie

GDB/bdr

Enc: Navajo Nation's notarized Statement of Objection to the Final Hydrographic Survey Report for the Hopi Indian Reservation and (2) copies.

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

IN RE THE GENERAL ADJUDICATION)
OF ALL RIGHTS TO USE WATER IN THE) No. 6417
LITTLE COLORADO RIVER SYSTEM)
AND SOURCE) **OBJECTION TO THE FINAL**
) **HYDROGRAPHIC SURVEY REPORT**
) **FOR THE HOPI RESERVATION**
)

OBJECTOR

Name: Navajo Nation
Address: P.O. Drawer 2010
Window Rock, Arizona 86515
Telephone No.: (928) 871-7510
Statement of Claimant No.: 39-91442

STATEMENT OF OBJECTION

The water right attributes described in Chapter 5 of the Final Hopi Hydrographic Survey Report ("FHHSR") are listed below. The Navajo Nation objects to the proposed water right attributes for the factual and/or legal reasons stated below. A description of the evidence to support the objections is also provided.

I. NAVAJO NATION'S GENERAL STATEMENTS CONCERNING ITS OBJECTIONS

GS.1. The FHHSR prepared by the Arizona Department of Water Resources ("ADWR") does not address "legal matters," including the legal availability of water. See FHHSR at 5-3. Accordingly, the Navajo Nation does not address such legal matters herein, and it preserves all objections it may have regarding the legal availability of water and any other legal matter.

GS.2. The Navajo Nation's objections are made pursuant and limited to the format prescribed by statute. See ARIZ. REV. STAT. § 45-256(B). The decision of the Navajo Nation not to address matters in the FHHSR that by statute do not require an objection does not constitute concurrence in such provisions of the FHHSR. The Navajo Nation preserves all objections to such provisions.

GS.3. The Navajo Nation is not required to object to the Hopi Tribe's or United States' claims for the benefit of the Hopi Tribe referenced or included in the FHHSR but not adopted by ADWR. The decision of the Navajo Nation not to object to such analysis or statement does not constitute concurrence with such claims or with ADWR's conclusion, statements or other references to such claims.

II. NAVAJO NATION'S GENERAL OBJECTIONS

GO.1. The Navajo Nation objects to the proposed water rights attributes for past and present water uses on the Hopi Reservation, as summarized in Table 5-1 of the FHHSR. The FHHSR does not identify specific Places of Use, but rather all uses are aggregated within three broad areas of the Hopi Reservation: (1) District 6; (2) Hopi Partition Lands (“HPL”); and (3) Moenkopi Island. The FHHSR also fails to identify specific Water Sources, but instead generically describes the sources as “Groundwater and surface water.” Similarly, the FHHSR does not identify specific Points of Diversion, providing only that diversions occur “Throughout the Reservation.” This lack of specificity is a fundamental flaw in the FHHSR rendering it legally insufficient. As a result, the FHHSR does not provide an adequate basis to develop a decree that can be administered for the benefit of the Hopi Tribe and competing claimants.

GO.2. The FHHSR makes more than fifty references to the Preliminary Hopi Hydrographic Survey Report (“PHHSR”), but leaves the status of the PHHSR uncertain. The Navajo Nation objects that the FHHSR fails to meet the requirements of the statute and fails to address the recommended water right attributes in a thorough and comprehensive manner. The Navajo Nation objects that the legal relevance, if any, of the PHHSR references cannot be determined and therefore objects to all references to the PHHSR.

GO.3. The Navajo Nation objects that significant data included in the PHHSR was omitted from the FHHSR with the result that the FHHSR contains a series of unsupported conclusions and recommendations that are legally insufficient and cannot be used in the manner contemplated in the statutes.

GO.4. The Navajo Nation objects to all statements, conclusions, and recommendations in the FHHSR addressing water rights claims for future uses.

III. NAVAJO NATION'S OBJECTIONS BY TYPE OF USE

A. DOMESTIC, COMMERCIAL, MUNICIPAL AND INDUSTRIAL USES.

OBJECTION DCMI.1. Type of Use:

The Navajo Nation objects that Table 5-1, *Proposed Water Right Attributes for Past and Present Water Uses on the Hopi Indian Reservation*, of the FHHSR does not include Domestic, Commercial, Municipal and Industrial ("DCMI") uses. An estimate of past and present DCMI uses was included in the PHHSR. See PHHSR Table 9-1, *Summary of ADWR's Evaluation of Past and Present Tribal Water Use on the Hopi Indian Reservation*. Past and present Hopi uses must be identified to quantify the water rights of the Hopi Tribe and to enable the administration of those rights in priority under the resulting decree.

ADDITIONAL COMMENTS, INFORMATION, OR DOCUMENTATION

The failure of the FHHSR to propose attributes for past and present DCMI uses renders further objections to such rights unnecessary. The Navajo Nation provides comments concerning DCMI uses in Section IV.A, *infra*.

B. AGRICULTURAL (IRRIGATION) USES.

OBJECTION Ag.3. Water Sources:

Ag.3.a. The Navajo Nation objects that the FHHSR does not identify the water sources for specific past and present Agricultural (Irrigation) uses. The FHHSR indicates the streams and washes that flow through the Navajo and Hopi Reservations. FHHSR Figure 2.6, *Historic Perennial Stream Reaches and Recent Stream Flow Regimes in the Vicinity of the Hopi Indian Reservation*. The streams and washes described in Chapter 2 of the FHHSR are distinct and have different characteristics. The streams are resources shared by the tribes, in some cases meeting the needs and demands of both tribes. The inability to identify a specific water source as providing for a specific Agricultural (Irrigation) water use makes this attribute impossible to evaluate. In the absence of such information, any resulting decree could not be administered. Accordingly, the FHHSR does not meet the minimum statutory requirements. See ARIZ. REV. STAT. § 45-256(A)-(B); GENERAL OBJECTION GO.1.

Ag.3.b. The Navajo Nation objects that the FHHSR included tributaries or groundwater aquifers that are not water sources for Agricultural (Irrigation) uses within the large geographic areas delineated as Places of Use in the FHHSR, *i.e.*, District 6, the HPL, and Moenkopi Island. For example, Moenkopi Wash does not flow through District 6. Consequently, none of the Agricultural (Irrigation) uses claimed for District 6 are served from Moenkopi Wash.

Ag.3.c. The Navajo Nation objects that the FHHSR does not evaluate the *availability* of water for Agricultural (Irrigation) uses from specific water sources, despite assertions to the contrary. *See* FHHSR at 5-3 (“ADWR evaluated the availability of surface water and groundwater for the Reservation”). The surface waters and aquifers are shared resources that in many cases meet the demands of both tribes. Although the FHHSR includes descriptive water resources information in Chapter 2, it did not assess the *availability* of water for any particular use. Water use has been severely limited by supply (availability). *See* Objection Ag.3.d. Water use has also been limited by water quality and other water characteristics.

Ag.3.d. The Navajo Nation objects that within a particular stream or wash, the FHHSR does not analyse how various claimed Hopi Agricultural (Irrigation) uses impact or impair the available water supply for use by other claimants, or how uses by other claimants impact or impair past and present Hopi Agricultural (Irrigation) uses. Data was available to ADWR to refine the analysis in the FHHSR. The U.S. SOC estimates the diversions and depletions from each of the major washes. United States (2015) Table 2.¹ In addition, the PHHSR included an estimate of the annual water supply for each stream. PHHSR Table 7-3, *Estimated Stream Inflows and Outflows on the Hopi Indian Reservation*.

Ag.3.e. The Navajo Nation objects to the inclusion of groundwater as a water source for past and present Agricultural (Irrigation) uses by the Hopi Tribe. Neither the US nor the Hopi SOC includes groundwater as a water source for past or present Agricultural (Irrigation) uses. Not one of the reported 242 wells in the U.S. SOC is described as being used for irrigation purposes. United States (2015) Appendix 4, *Hopi Reservation Water Use Claim for Existing Wells*. The Hopi SOC states that “[p]ast irrigation was limited to using mainly springs and washes flowing on the Reservation.” Hopi Tribe (2015) at 31.

Out of the approximately 26,000 agricultural acres described in the Hopi SOC and the 13,000 acres described in U.S. SOC, the United States identified only seventeen acres as “Well Irrigation.” United States (2015) Table 1 at 19. However, the location of this well irrigation is not identified in any of the SOC figures, or in the FHHSR. Similarly, the PHHSR did not document any past and present Agricultural (Irrigation) uses from groundwater. Groundwater should not be included as a source for past and present Agricultural (Irrigation) water use in the FHHSR.

OBJECTION Ag.4. Points of Diversion:

Ag.4.a. The Navajo Nation objects that the FHHSR does not identify specific Points of Diversion for past and present Agricultural (Irrigation) uses, noting only that the Points of Diversion are “Throughout the Reservation. Use of the designation “Throughout the Reservation” is not sufficient to allow for the development of an administrable decree. The streams and washes at issue are shared resources and an

¹ All citations, where not otherwise indicated, are to the References in the FHHSR.

accurate point of diversion is necessary to describe a meaningful attribute. The inability to identify a specific water use for a specific Point of Diversion makes this attribute impossible to evaluate, and would make any resulting decree impossible to administer. See GENERAL OBJECTION G.1.

Ag.4.b. The Navajo Nation objects that the FHHSR does not provide an adequate analysis of the relationship among the point sources, the specific quantity of Agricultural (Irrigation) use, and the aggregated totals in the FHHSR at Table 5-1. The FHHSR states:

The Hopi Third Amended SOC does not identify any points of diversion *per se*, but instead references locations of point sources listed and depicted in certain appendices of the United States Third Amended SOC. The United States Amended SOC also does not identify any points of diversion *per se*, but instead references locations of point sources listed in certain appendices of the its claim.

FHHSR at 5-4. The U.S. SOC lists 242 wells, none of which have irrigation uses. United States (2015) Appendix 4. The U.S. SOC lists 379 springs, 89 of which have claimed irrigation uses, and 1001 impoundments, 10 of which have claimed irrigation uses. *Id.* Appendix 5.

The FHHSR also states:

The places of use claimed by the Hopi and the United States include District 6, Hopi Partitioned Land, and Moenkopi Island. ADWR's proposed water right attributes are presented separately for each place of use where appropriate. For example, the quantity of water use for Agricultural (Irrigation) was divided among the three places of use based on where each field is located.

FHHSR at 5-4.

The FHHSR's failure to evaluate a specific Point of Diversion as associated with a specific use renders any recommendation meaningless for purposes of developing an administrable decree.

Ag.4.c. The Navajo Nation objects that no Points of Diversion were included for areas classified as "Modern Farming" in the FHHSR. Modern Farming should be subject to the same scrutiny as modern farming elsewhere in Arizona and described in the FHHSR by Places of Use, Points of Diversion, Quantity of Water Use, and Flow, so that the proposed rights may be administered through a decree.

Ag.4.d. The Navajo Nation objects that "Traditional Farming," as that term is used in the FHHSR, is never defined, is presumed to have attributes similar to Modern Farming, and has been aggregated into Agricultural (Irrigation) use in Table 5-1.

Traditional Farming is a different agricultural practice than Modern Farming, so it should be specifically defined and categorized separately. “Traditional Farming,” as used in the FHHSR, is not an irrigation practice as defined by ADWR in the rest of Arizona. Traditional Farming is an *in situ* practice. While a senior *in situ* right may be entitled to protection from impairment, an *in situ* right holder legally and practically cannot place a call on junior rights. ADWR describes Traditional Farming practice as follows:

The majority of fields in production on the Reservation are watered via dryland farming techniques (Moon, 2004). Also referred to as “Ak-chin,” this type of farming is directly dependent upon the rainfall as a source of irrigation. However, Hopi farmers also refer to dryland fields as those which “receive water from a combination of precipitation and surface run-off directed to crops by earthen berms, check dams, and other constructed features.

ADWR (20081) at 1-2; *accord* PHHSR at 8-4 (“Table 8-2 summarizes traditional farming practices used by the Hopi to grow crops. Floodwaters have been diverted onto the floodplains and terraces of large washes, fields have been placed at the mouth of small washes (ak-chin farming), and check dams have been constructed along small washes (trinchera fields). Springs have also been developed to water terrace gardens at and near the Hopi villages and sand dunes on the sides and tops of mesas have been dryland farmed.”).

OBJECTION Ag.5. Places of Use:

Ag.5.a. The Navajo Nation objects that the FHHSR does not identify specific Places of Use for any past and present Agricultural (Irrigation) uses. The FHHSR provides only that the Places of Use are within one of the three geographic areas within the Reservation, *i.e.*, District 6, the HPL, and Moenkopi Island. FHHSR Table 5-1. The FHHSR notes that “the quantity of water use for Agricultural (Irrigation) was divided among the three places of use based on where each field is located.” *Id.* at 5-4. In neither the SOC’s nor in the FHHSR is there a description of the relationship among the hundreds of identified point sources, the location of the past and present Agricultural (Irrigation) uses, and any conveyance system that may be used. The 1985 Hopi SOC included location information and points of diversion for the irrigation fields. *Statement of Claims of the Hopi Tribe* Table 1, *Current and Recent District Surface Water Irrigation Claim on the Hopi Reservation*, and Map C (Nov. 29, 1985) (“1985 Hopi SOC”). The inability to connect an Agricultural (Irrigation) use to a specific Place of Use makes this attribute impossible to evaluate and any resulting decree would be impossible to administer. Accordingly, the FHHSR does not meet the minimum statutory requirements. *See* ARIZ. REV. STAT. § 45-256(A)-(B); GENERAL OBJECTION GO.1.

Ag.5.b. The Navajo Nation objects that the FHHSR does not include adequately-scaled graphical representations depicting the locations of fields which are claimed to be used for past and present Agricultural (Irrigation) uses. Nor is there a figure delineating those fields that are classified as “Traditional Farming” and those that are classified as

“Modern Farming.” Without such documentation it is impossible to determine if a claimed use is valid.

Ag.5.c. The Navajo Nation objects to the methodology used in the FHHSR to verify the claimed acreage. The methodology presented in the FHHSR appears to be based on the PHHSR, *see* PHHSR Appendix G-1, *Verification of Claimed Agricultural Lands on the Hopi Indian Reservation*, and supplemental ADWR 2015 GIS verification. *See* FHHSR at 4-12. The Navajo Nation objects that for the field verification process, ADWR sought “evidence of agricultural activity,” which is not the same as evidence of Agricultural (Irrigation) use depicted in Table 5-1 of the FHHSR that would warrant a recommendation for inclusion as a past and present Agricultural (Irrigation) use.

Ag.5.d. The Navajo Nation objects that polygons of claimed agricultural land with “Partial Evidence” of Agricultural (Irrigation) use appear to have been incorporated in their entirety into the FHHSR acreage totals. *See* FHHSR at 4-13. The Partial Evidence category includes polygons with “part of a field showing evidence of agriculture.” PHHSR Appendix G-1, *Verification of Claimed Agricultural Land on the Hopi Indian Reservation*. In such circumstances, inclusion of the entire polygon is not justified.

Ag.5.e. The Navajo Nation objects that there is no documentation in the FHHSR indicating which fields are classified as “Traditional Farming” and which fields are classified as “Modern Farming.” The FHHSR presents only aggregated acreage totals. The FHHSR estimated water requirements for Agricultural (Irrigation) uses are based on the distinction between “Modern Farming,” with an estimated water duty of 4.33 AFA, and “Traditional Farming,” with an estimated water duty of 0.93 AFA. FHHSR at 5-5. The FHHSR finds that in Moenkopi Island there are 342 acres of Modern Farming and 293 acres of Traditional Farming, in District 6 there are 82 acres of Modern Farming and 6,211 acres of Traditional Farming, and on the HPL there is no Modern Farming and 2,625 acres of Traditional Farming. FHHSR at 5-5. There is no way to conclusively verify which polygons were included or excluded in each category.

Ag.5.f. The Navajo Nation objects that there is no correlation between the Agricultural (Irrigation) use categories used by the U.S. (Perennial, Spring, Seasonal, Range Pasture, Native and Well) and the categories used in the FHHSR (Traditional Farming and Modern Farming). The claimed water duties are significantly different, and the nature of the water right and use is different. Identification of past and present Agricultural (Irrigation) uses that divert water from springs is particularly important as such uses may require protection from interference by adjacent wells.

Ag.5.g. The Navajo Nation objects that the allotted irrigated lands are combined with the Hopi Reservation acreage totals in Table 5-1 of the FHHSR. The FHHSR does not establish that all of the lands recommended as subject to past and present Agricultural (Irrigation) uses are in fact located on the Hopi Reservation. *See* PHHSR Figure 8-3, Appendix B, *Claimed Agricultural Lands and Irrigation Types ADWR Verification Results, Moenkopi Quad*; Hopi SOC Appendix 1, Figure b-1.

OBJECTION Ag.7. Quantity of Water Use:

Ag.7.a. The Navajo Nation objects to the water duty used in the FHHSR for “Modern Farming” because such duty is applied generically to all such farming on the Hopi Reservation. Without further information and analysis, it is impossible to determine whether that duty is appropriately applied to all past and present modern farming on the Hopi Reservation. Although the Navajo Nation’s comments regarding the description of agricultural water consumptive use in the PHHSR were acknowledged in the FHHSR, they were not fully addressed.

Ag.7.b. The Navajo Nation objects to combining the irrigated polygons into an aggregate claimed acreage value in the FHHSR for each the three geographic areas of the Reservation, *i.e.*, District 6, the HPL, and Moenkopi Island. The FHHSR determined the location of the claimed acreages only to the extent necessary so that the total proposed water right attribute of 10,325 AFA could be presented separately for three places of use. FHHSR, Table 5-1. The FHHSR does not identify the acreage by Points of Diversion or Places of Use for particular washes. The water use associated with Traditional Farming, despite being an *in situ* use, is aggregated with Modern Farming in the FHHSR. The two types of uses have different legal and practical characteristics and must be separately identified.

Ag.7.c. The Navajo Nation objects to the reliance of the FHHSR on annual data that exceeds the historic trend. The FHHSR concludes, “The maximum total acreage that is believed to have been irrigated in any one period is 9,553 acres in the 1954-1955 timeframe, as claimed by both the Hopi and the United States in their 2009 Second Amended SOCs.” FHHSR at 4-13. The FHHSR found that the claimed figure corresponded with numbers presented in a report prepared by Fred Andersen (2008). *Id.* However, the high figure presented by Andersen of 9,330 acres represents a significant outlier that totaled over 1,000 acres more than any other year on record. The FHHSR recommends that the water right attribute for agricultural uses be based on the unusually high acreage figure cited in Andersen. *Id.* at 5-4 to -5. The FHHSR fails to support the use of that quantity in light of these circumstances.

ADDITIONAL COMMENTS, INFORMATION, OR DOCUMENTATION

As allowed, the Navajo Nation submits additional comments regarding Agricultural (Irrigation) uses in Section IV.B, *infra*.

C. EVAPORATION FROM IRRIGATION STORAGE.

OBJECTION Evap.5. Places of Use – Moenkopi Island:

The Navajo Nation objects that all of the estimated evaporation from irrigation storage identified in the FHHSR that is from Pasture Canyon Reservoir is assumed to be allocated as Hopi water right. A portion of the water used by the Navajo Nation’s Kerley Valley Irrigation Project also originates in Pasture Canyon. A portion of the evaporation

for Pasture Canyon Reservoir should be allocated to the Navajo irrigated lands on the Upper Kerley Valley Project.

OBJECTION Evap.7. Quantity of Water Use:

The Navajo Nation objects that the evaporation from Pasture Canyon Reservoir may be double counted (with riparian use).

D. LIVESTOCK AND WATER STORAGE FOR STOCK (STOCKPONDS).

OBJECTION Stock.3. Water Sources:

Stock.3.a. The Navajo Nation objects that the FHHSR does not identify the water sources for Livestock and Water Storage for Stock (Stockpond) uses (“Stock uses”). The inability to identify a specific water source as providing for a specific water use makes this attribute impossible to evaluate, and would make any resulting decree impossible to administer. The Navajo Nation objects that as a result the FHHSR does not meet the minimum statutory requirements. *See* ARIZ. REV. STAT. § 45-256(A)-(B); GENERAL OBJECTION GO.1.

Stock.3.b. The Navajo Nation objects that the FHHSR does not evaluate the *availability* of groundwater for Stock uses from specific water sources. OBJECTION Ag.3.c. is incorporated herein by reference, substituting references to “Agricultural use” with “Stock use.”

OBJECTION Stock.4. Points of Diversion:

The Navajo Nation incorporates OBJECTION Ag.4.a herein by reference, substituting “Stock use” for “Agricultural use.”

OBJECTION Stock.5. Places of Use:

OBJECTION Ag.5.a is incorporated herein by reference, substituting “Stock use” for “Agricultural use.” *See* GENERAL OBJECTION GO.1.

OBJECTION Stock.7. Quantity of Water Use:

Stock.7.a. The Navajo Nation objects that for each of the three geographic areas, District 6, the HPL, and Moenkopi Island, the FHHSR estimates the total number of impoundments and the aggregated volumes (assuming a single fill per year). The use attribute for each pond should not be aggregated. If they are disaggregated, they may be found to be a de minimus use. *See* ARIZ. REV. STAT. § 45-258(A); *Memorandum Decision, Findings of Fact, and Conclusions of Law for Group 1 Cases Involving Stockponds, Stockwatering, and Wildlife Uses* at 7-38, No. 6417-033-9005 (Apr. 20, 1994).

Stock.7.b. The Nation objects that the total figure for Stock use in the FHHSR is not adequately supported and cannot be validated. With the appropriate analysis, such uses may be subject to treatment as de minimus and not subject to transfer or priority administration. See ARIZ. REV. STAT. § 45-258(A); *Memorandum Decision, Findings of Fact, and Conclusions of Law for Group 1 Cases Involving Stockponds, Stockwatering, and Wildlife Uses* at 7-38, No. 6417-033-9005 (Apr. 20, 1994).

E. MINING USE.

OBJECTION Mining.3. Water Sources:

Mining.3.a. OBJECTION Stock.3.a is incorporated herein by reference, substituting “Mining use” for “Stock use.” See GENERAL OBJECTION GO.1.

Mining.3.b. OBJECTION Ag.3.c is incorporated herein by reference, substituting “Mining use” for “Agricultural use.”

OBJECTION Mining.4. Points of Diversion:

OBJECTION Ag.4.a is incorporated herein by reference, substituting “Mining use” for “Agricultural use.” See GENERAL OBJECTION GO.1.

OBJECTION Mining.5. Places of Use:

The Navajo Nation objects that the FHHSR does not identify any specific places of use for Mining uses, stating only that they are within the HPL. The inability to identify specific uses as associated with specific Places of Use makes this attribute impossible to evaluate and administer.

OBJECTION Mining.7. Quantity of Water Use:

The Navajo Nation objects to the Quantity of Water Use proposed in the FHHSR. The Hopi Tribe claims 1,255 acre-feet per year for present Mining uses for the Peabody Coal Company’s mine at Black Mesa. The FHHSR proposes this attribute for Hopi Mining use. The current Water Source for the Mining use is the N-Aquifer, a resource shared by the Navajo Nation and Hopi Tribe. The supply points for this water are wells primarily located on Navajo Reservation land. The allocation of water between the two tribes is an unresolved legal issue beyond the scope of the FHHSR.

IV. ADDITIONAL COMMENTS, INFORMATION OR DOCUMENTATION

A. DOMESTIC, COMMERCIAL, MUNICIPAL AND INDUSTRIAL USES.

COMMENT DCMI.3. Water Sources:

DCMI.3.a. The FHHSR does not identify specific water sources for DCMI uses. The inability to connect a specific water source to a specific DCMI water use makes this attribute impossible to evaluate, and would make a resulting decree impossible to administer. As a result, the FHHSR does not meet the minimum statutory requirements. *See* ARIZ. REV. STAT. § 45-256(A)-(B); GENERAL OBJECTION GO.1.

DCMI.3.b. The FHHSR lists six separate aquifers underlying portions of the Hopi Reservation: (1) Alluvial; (2) Bidahochi; (3) Toreva; (4) Dakota; (5) Navajo; and (6) Coconino. *See* FHHSR at 2-1 & Figure 2.2, *Lateral Extent of Aquifers Beneath the Hopi Indian Reservation*. These aquifers also underlie portions of the Navajo Reservation and are shared by the tribes. The PHHSR identified water sources (aquifers) for most of the wells identified on the Hopi Reservation, but this information was excluded from the FHHSR. *See* PHHSR Figure 7-15, *Wells Identified by ADWR on the Hopi Indian Reservation*. The aquifers described in Chapter 2 of the FHHSR are distinct units with very different characteristics, and not all units extend beneath or are “available” throughout the Hopi Reservation.

DCMI.3.c. The FHHSR did not evaluate the “availability” of groundwater for DCMI uses from specific water sources, despite assertions to the contrary. *See* FHHSR at 5-3 (“ADWR evaluated the availability of surface water and groundwater for the Reservation”).

DCMI.3.d. The aquifers are a shared resource meeting the demands of both tribes. Although the FHHSR includes a description of water resources in Chapter 2, it did not assess the *availability* of water for any particular use. Water use may be limited by demand and by supply (availability). Water use also may be limited by water quality and other aquifer characteristics. Within a single water source, ADWR made no analysis of how various claimed Hopi DCMI uses impact or impair uses of other claimants, or how the uses of other claimants impact or impair Hopi DCMI uses.

COMMENT DCMI.3.1. Water Sources:

DCMI.3.1.a. The FHHSR describes various aquifers that do not underlie certain portions of the Hopi Reservation as water sources for DCMI uses within the Hopi Reservation. For example, the Bidahochi does not extend beneath District 6 or Moenkopi Island, and only lies beneath a small portion of the HPL; the Toreva does not extend beneath Moenkopi Island, and only reaches the extreme northern part of the HPL; and the Dakota does not extend beneath Moenkopi Island. Consequently, depending on where Hopi DCMI uses occur, such uses can only be from certain aquifers.

DCMI.3.1.b. The FHHSR describes various aquifers underlying the Hopi Reservation as water sources for DCMI uses that have no documented DCMI use. For example, there is no documentation in the Hopi Tribe or U.S. SOC of past and present DCMI uses from the Coconino Aquifer underlying District 6 and the HPL, and no documentation of past and present DCMI uses for the Dakota Aquifer underlying Moenkopi Island. *See* Hopi (2015); United States (2015). And, no Hopi public water systems in District 6 or the HPL withdraw water from the Bidahochi, Toreva, or Coconino Aquifers. *See* Macy and Unema (2014). Further, no Hopi public water systems in Moenkopi Island withdraw water from the Bidahochi, Toreva, or Dakota Aquifers. *See id.*

DCMI.3.1.c. The FHHSR should exclude surface water as a potential source for past and present DCMI uses in District 6, the HPL, and Moenkopi Island because surface water is not included as a water source for DCMI uses in the two SOCs. In the U.S. SOC, the United States defines DCMI water sources as “[a]vailable aquifers, including the N and C Aquifers as well as other minor aquifers.” United States (2015) Appendix 2, *Summary of Water Rights Attributes*. In the Hopi SOC, the Hopi Tribe defines DCMI water sources as “springs, groundwater wells in the N-Aquifer and other aquifers.” Hopi (2015) at 29. The FHHSR does not document any surface water DCMI uses in District 6, the HPL, or Moenkopi Island, so surface water should not be included as a source for DCMI water in those areas.

COMMENT DCMI.4. Points of Diversion:

DCMI.4.a. The FHHSR does not identify a specific Point of Diversion for any DCMI use, noting only that the Points of Diversion are “Throughout the Reservation.” Use of the designation “Throughout the Reservation” is legally insufficient and does not provide the basis for the development of an administrable decree. The aquifers are a shared resource between the Tribes and an accurate point of diversion is necessary as a meaningful attribute of any decree. The inability to identify a specific water use for a specific Point of Diversion makes this attribute impossible to evaluate, and will make any resulting decree impossible to administer. *See* GENERAL OBJECTION GO.1.

DCMI.4.b. The FHHSR recites that neither the U.S. SOC nor the Hopi SOC identify any Points of Diversion “per se,” but rather that the SOC’s reference locations of point sources. FHHSR at 5-4. The SOCs reference tables that contain hundreds of point sources with listed locations. United States (2015) Appendices 4-5; Hopi (2015) Appendix 2. But in neither of the SOCs nor in the FHHSR is there any identification of any of the hundreds of point sources as related to the specific quantity of DCMI use at any particular location used to develop the aggregated DCMI total in the FHHSR at 4-5. The inability to identify specific Points of Diversion as related to specific uses makes this attribute impossible to evaluate.

COMMENT DCMI.5. Places of Use:

The FHHSR does not identify specific Places of Use for any DCMI use except to state

they are within District 6, the HPL, or Moenkopi Island. The inability to identify specific Points of Diversion for specific Places of Use makes this attribute impossible to evaluate. See GENERAL OBJECTION GO.1.

COMMENT DCMI.7. Quantity of Water Use:

DCMI.7.a. The FHHSR does not propose an attribute for any quantity of past and present DCMI use in District 6. For this reason, the FHHSR fails to meet the statutory requirements. See ARIZ. REV. STAT. § 45-256(A)-(B). In contrast, the PHHSR included a quantification of past and present tribal water use. See PHHSR Table 9-1, *Summary of ADWR's Evaluation of Past and Present Tribal Water Use on the Hopi Indian Reservation*.

DCMI.7.b. The FHHSR's estimate that the Reservation-wide current DCMI use is 1,591 AFA is unsupported. FHHSR at 4-5. This estimate is more than three times greater than the value of public water system pumping reported in the USGS monitoring reports that are cited in the FHHSR. See Macy and Unema (2014). The USGS reports specifically include the public water systems in District 6. This value is also almost three times greater than the value reported in the PHHSR. PHHSR Table 9-1.

DCMI.7.c. The FHHSR does not propose a Quantity of Water Use attribute for any well, even where pumping data exists such as for large groundwater uses. The U.S. and Hopi SOC's both state that a specific pumping quantity is not claimed from individual existing wells because, "as is the case throughout much the Little Colorado River basin, metering data or other evidence concerning the quantities of past or present diversions from specific wells is often unavailable." United States (2015) at 12; Hopi Tribe (2014) at 29. Although data for some wells may be unavailable, on the Hopi Indian Reservation and throughout the state, the large wells that withdraw the greatest amounts of water are metered. The Hopi public water systems are metered and monitored. Pumping from numerous smaller wells can be estimated based on their source aquifer, depth to water, power supply (e.g., windmills), or type of use (e.g., livestock use).

DCMI.7.d. The FHHSR over-estimates the past and present DCMI use. FHHSR at 4-2. In its comments to the PHHSR, the Navajo Nation recommended that ADWR more carefully characterize the population being served by each public water system and the water source. Such data exists and was included in the 1985 SOC's. See, e.g., 1985 Hopi SOC Table 5, *Municipal/Domestic Claims*. However, ADWR did not follow this recommendation in the FHHSR. Instead, by simply assigning a per capita water use rate to the estimated population, ADWR significantly over-estimates the past and present Hopi DCMI water uses.

DCMI.7.e. The FHHSR does not make use of public water system production data when it was available to determine the past and present DCMI use in District 6. The FHHSR correctly notes that one method for determining DCMI water use is by directly measuring water deliveries from the various providers. FHHSR at 4-2. However, the FHHSR states that not all water providers are regulated or required to report water use on

the Hopi Reservation. *Id.* This statement is incorrect. Public water systems in the study area are regulated and they are monitored. Proceeding on this incorrect premise, the FHHSR estimate of present and DCMI water use is based on an assumed usage per person, not actual use data. The FHHSR assumes a current claimed DCMI usage of 150 gpcd and an estimated 2015 population of 8,838, for a total usage of 1,591 AFA. FHHSR at 4-5.

DCMI.7.f. The FHHSR does not include any documentation substantiating the 160 gpcd value as the actual use in District 6. *See* FHHSR at 4-5.

DCMI.7.g. The FHHSR estimate of the Hopi population in 2015 is not supported. The FHHSR estimate is based on an unsubstantiated population growth projection from 2010 to 2015. The U.S. SOC reported 7,376 people in 2010 and projected a population of 8,835 people (based on an average annual growth rate of 1.9 percent) in 2015, for a total growth of twenty percent over the five-year period. Such population growth is inconsistent with the reported growth for the Hopi Tribe from 2000 to 2010, which totalled only 3.4 percent over a ten-year period. *See* N. Ariz. Univ. et al., *Demographic Analysis of the Hopi Tribe Using 2010 Census and 2010 American Community Survey Estimates* at 6 (undated).

DCMI.7.h. The FHHSR also did not utilize data from the USGS monitoring program covering the Hopi Reservation that tabulates the withdrawals from the Navajo Aquifer on an annual basis. *See* Macy and Unema (2014). The annual monitoring reports include data that are an effective basis for estimating actual total DCMI usage by the Hopi Tribe within the USGS study area. Based on the USGS monitoring reports from 2001 to 2011, the maximum annual withdrawal for Hopi water systems (which occurred in 2007) was 427 AFA (or less than 45 gallons per capita per day). This reported volume of water describes the water use by public water systems in District 6, the HPL, and Moenkopi Island. The water production for each system and each area can be separately tabulated. This reported water use also includes water used at the Hopi hotel in Moenkopi.

DCMI.7.i. In Table 2.1, *Well Withdrawals from the N Aquifer Since 1965*, the FHHSR combined the Navajo and Hopi N Aquifer withdrawals although they are tabulated separately for each tribe in the original USGS monitoring reports. *See* Macy and Unema (2014). Combining these values makes it more difficult to establish the discrete Hopi past and present water use.

DCMI.7.j. The FHHSR cites questionable information. In Table 4.1, *Annual GPCD Rates for Community Water Systems in the Little Colorado River Plateau Basin in Navajo County*, ADWR lists per capita water use data for a few selected communities in Navajo County, but not for Coconino County. It is not clear what relevance these values have on the analysis of the Hopi per capita water use rates. Without greater context on how this information was used to estimate the past and present Hopi DCMI claim, this citation is meaningless, and possibly misleading.

DCMI.7.k. The FHHSR relies on questionable data to estimate water use. The

FHHSR reports that the per capita water usage for the City of Flagstaff was estimated to be 120 gpcd in 2005 and 132 gpcd in 2002. FHHSR at 4-2 (citing PHHSR). These per capita values are from a 2006 Reclamation report on the North Central Arizona Water Supply Project. BOR (2006). However, the reported Flagstaff per capita water uses are not useful for estimating the Hopi Tribe's past and present DCMI uses.

DCMI.7.1. Inclusion in the FHHSR of estimates of future DCMI use is inappropriate and inconsistent with the orders of the adjudication court. *See* FHHSR at 4-5 (“ADWR calculated that the future DCMI use for the Reservation *would be* 7,757 AFA (9,348 AFA – 1,591 AFA)”). *See* GENERAL OBJECTION GO.4.

B. AGRICULTURAL (IRRIGATION) USES.

COMMENT Ag.7. Quantity of Water Use:

The FHHSR states that an appropriate water right attribute for lands irrigated on the Hopi Reservation must recognize the difference between Modern and Traditional Farming practices that still occur on the Hopi Reservation. FHHSR at 5-5. The FHHSR calculated water duties for Modern acres and Traditional acres as 4.33 and 0.93 acre-feet per acre, respectively. *Id.* The Navajo Nation's comments regarding water duties in the PHHSR were not fully addressed. For instance, this value may not adequately include the impact from removing the riparian vegetation that existed where these fields are located. The Navajo Nation does not object to a water duty for Traditional Farming uses so long as such uses are determined to be *in situ*, cannot be transferred, and cannot place a call on junior uses. In addition, the lands historically irrigated from a specific spring would be limited to the water supply available from that specific spring source, whatever that quantity may have been historically. The administration of the use may include protections to prevent further uses from diverting from that spring.

The Navajo Nation notes that the FHHSR refers to Appendix 8 of the U.S. SOC as “a series of maps.” FHHSR at Page 4-11. In Appendix C-10 that includes the U.S. SOC, Appendix 8 is not a series of maps, but a single plate that shows a very limited amount of historic irrigation data. The only maps available to evaluate the FHHSR were the maps in Appendix B of the PHHSR. Consequently, the Navajo Nation provides additional comments on the Appendix B maps.

The following comments are included to demonstrate the problems associated with the FHHSR's intermittent reliance on and citation to the PHHSR. Many of the issues identified in comments on the PHHSR have not been resolved. To the extent that the FHHSR relies on the PHHSR, errors and inconsistencies in the PHHSR render the conclusions in the FHHSR not susceptible to verification and recommendations in the FHHSR unsupported. Issues such as these underscore the basis for the Navajo Nation's GENERAL OBJECTIONS GO.2 and GO.3.

In Appendix B of the PHHSR the *Rocky Ridge SW Quad* is shown in the wrong location on the location map.

In Appendix B of the PHHSR the *Rocky Ridge SE Quad* is shown in the wrong location on the location map.

In Appendix B of the PHHSR in the *Little Black Spot Mountain Quad* a polygon with Complete Evidence of agricultural activity is shown in the wrong location.

In Appendix B of the PHSR in the *Hotevilla Quad* there is a polygon that was categorized by the U.S. as “Precipitation Farming” which was not included in the U.S. SOC aggregate totals. However, this polygon was described in Appendix B of the PHHSR as having Partial Evidence of agricultural activity, and may have been included in the FHHSR aggregated totals. There is no way to verify if this polygon was included or excluded. It is not clear if the ADWR Partial Evidence was of “precipitation farming” or of “agricultural activity.” The polygon was included in the Hopi SOC as additional ADWR verified HIA. *Id.* Figure C4.

In Appendix B of the PHHSR in the *Polacca Quad* there is a polygon that was categorized by the U.S. as “Range Pasture.” However, this polygon was described in Appendix B of the PHHSR as having no evidence of agricultural activity, and is presumably not included in the FHHSR aggregated totals. (There is no way to conclusively verify if this polygon was included or excluded.) The polygon was included in the Hopi SOC as Federal HIA. *Id.* Figure E5.

In Appendix B of the PHHSR in the *Sun Altar Quad* there is a polygon that was not included by the U.S. as an irrigated field, and presumably was not included in the U.S. SOC aggregate acreage totals. However, this polygon was described in Appendix B of the PHHSR as having partial evidence of agricultural activity. (There is no way to conclusively verify if this polygon was included or excluded.) The polygon was included in the Hopi SOC as additional ADWR verified HIA. *Id.* Figure E4.

In Appendix B of the PHHSR the *Burro Springs Quad* is incorrectly labeled as the *Garces Mesas NE Quad*. In Appendix B of the PHHSR the *Garces Mesas NE Quad* is incorrectly labeled as the *Burro Springs Quad*.

In Appendix B of the PHSR in the *Garces Mesas SE Quad* there is a polygon that was categorized by the U.S. as “Range Pasture.” This polygon was described in Appendix B of the PHHSR as having Partial Evidence of agricultural activity, and is presumably reflected in the ADWR aggregated totals. (There is no way to conclusively verify if this polygon was included or excluded.) It is not clear if the ADWR Partial Evidence was of “Range Pasture” or of “agricultural activity.” The polygon was included in the Hopi SOC as additional ADWR Verified HIA. *Id.* Figure E5.

C. PRIORITY DATES.

Although the FHHSR purports to defer to the adjudication court regarding the priority date for the Hopi Tribe’s various claimed past and present uses, *see* FHHSR at 5-

2 & Table 5-1, its analysis of those claims wrongly assumes that the Hopi claims are sufficiently senior to all other claimants to entitle the Hopi Tribe to all of the physically available water supply within the Hopi Reservation to the extent that supply is needed to meet the claimed uses. That assumption holds whether the discussion involves District 6, the HPL, or Moenkopi Island. In all cases, a more detailed factual analysis is required if the appropriate legal standards are to be applied to the Hopi Tribe's claims for past and present uses and an administrable decree is to be developed.

While the adjudication court determined that the Hopi Tribe has a "time immemorial" priority date for uses within District 6, *see Minute Entry* at 2 (Jan. 25, 2016), the Court did not address the critical question of which of the Hopi Tribe's uses are entitled to such a priority. The Navajo Nation asserts that only those uses that have continued since pre-historical times are entitled to such a priority, and that any such rights are limited by the historical quantities, places of use, and types of use, among other things. *See Statement of Issues of the Navajo Nation* at 8-9 (July 7, 2008). The Special Master, however, determined that questions regarding the nature and extent of the Hopi Tribe's time immemorial rights were premature and should not be addressed as part of the *In re Hopi Priority* contested case. *Case Initiation Order and Designation of Issues for Briefing* at 2, *In re Hopi Priority*, No. 6417-201 (Sept. 8, 2008). Thus, important legal questions concerning the nature and extent of the Hopi Tribe's time immemorial water rights have not been addressed. In addition, under the Court's rulings, the Hopi Tribe's claims for past and present uses on the HPL and Moenkopi Island share a similar priority date with the Navajo Nation.² The FHHSR should also have addressed access to the various water sources in light of the Court's prior ruling that the Hopi Tribe may not cross Navajo land to access water supplies that are not appurtenant to the Hopi Reservation. *See Minute Entry* at 2 (Mar. 2, 2009). Accordingly, it is not appropriate for the FHHSR to assume that all of the physically available water supply is legally available to satisfy the Hopi Tribe's claims.

As a result, the FHHSR should have included a far more detailed analysis of the attributes associated with the claims for past and present uses by the Hopi Tribe. The following discussion describes the historical circumstances supporting a more detailed analysis of past and present uses by the Hopi Tribe, and explains why such analysis is needed to determine the existence, scope, and quantity of any time immemorial water rights held by the Hopi Tribe.

² The Navajo Nation does not accept the Court's determination that water rights reserved for the benefit of the Hopi Tribe for Moenkopi Island have a priority date of 1934. However, final determination of the issues surrounding the Court's holding in that regard will have to await further judicial review. For purposes of these proceedings, the important point is that the Court's ruling does not provide a basis for the Hopi Tribe to assert a right senior to the Navajo Nation for uses on those lands.

1. A Time Immemorial Priority Date Only Applies to the Hopi Tribe's Historic Uses.

Only water uses that pre-date the creation of an Indian reservation can have a time immemorial priority. *State ex rel. Greely v. Confederated Salish & Kootenai Tribes of Flathead Reservation*, 712 P.2d 754, 764 (Mont. 1985); COHEN'S HANDBOOK OF FEDERAL INDIAN LAW § 19.03[3] at 1216 (2012 ed.) ("Cohen's Handbook"). Thus, future uses cannot hold a time immemorial priority, and Indian tribes "may hold both time immemorial and creation-date priorities for different water rights." Cohen's Handbook § 19.03[3] at 1216; *accord Confederated Salish & Kootenai Tribes*, 712 P.2d at 764 ("More than one priority date may apply to water rights reserved by the same tribe."); *see, e.g., United States v. Adair* ("Adair I"), 478 F. Supp. 336 (D. Or. 1979) (applying time immemorial priority date to hunting and fishing rights and 1864 priority date to irrigation rights), *aff'd United States v. Adair* ("Adair II"), 723 F.2d 1394 (9th Cir. 1983).

Further, "if agriculture was an aboriginal practice and the reservation was established in part to ensure the continuation of that activity, the agricultural water right is measured not by PIA, but by past use." Cohen's Handbook § 19.03[5] at 1224; *Gila River Pima-Maricopa Indian Cmty. v. United States*, 29 Indian Cl. Comm'n 144, 151 (1972) ("Plaintiff's aboriginal title entitled it to use of the land in its traditional Indian fashion The amount of water plaintiff was entitled to divert in any given year was no less than the amount necessary to irrigate the lands which it actually had under cultivation."). This contrasts with circumstances where the federal government intended to convert Indians into farmers and irrigation is a new use, in which case there are no time immemorial irrigation water rights, only creation-date water rights, and "PIA is the common standard." Cohen's Handbook § 19.03[5] at 1224.

Even if an Indian tribe irrigated historically, however, it is not necessarily entitled to a time immemorial priority for all of its irrigation water rights. In *Gila River Pima-Maricopa Indian Cmty. v. United States*, for example, even though Indian Claims Commission ("ICC") determined that the tribe had aboriginal water rights in the amount necessary to maintain its traditional irrigation practices, 29 Indian Cl. Comm'n at 151, the ICC said the tribe had creation-date rights under *Winters* in the amount necessary "to satisfy its ultimate needs" in the future. *Id.* at 158 (future needs measured by PIA standard). Thus, water rights associated with Modern Farming by the Hopi Tribe would not be entitled to a time immemorial priority, but water rights supporting traditional farming may be entitled to such a priority if properly established.

These principles apply with particular force here. While the Hopi Tribe may have used water since time immemorial on its District 6 lands, the Hopi did not control the lands or waters of the LCR basin. Thus, the circumstances confronting the Hopi Tribe are much different than those described in *Winters v. United States*:

The Indians had command of the lands and the waters,—command of all their beneficial use, whether kept for hunting, 'and grazing roving herds of

stock,' or turned to agriculture and the arts of civilization. Did they give up all this? Did they reduce the area of their occupation and give up the waters which made it valuable or adequate?

207 U.S. 564, 576 (1908). Since the Hopi Tribe did not exercise exclusive command and control over the land and water resources in the LCR basin, they are not entitled to enlarge any time immemorial water rights to include expanded future water uses. As explained below, the Hopi Tribe's lack of control is demonstrated by an examination of the history of the Navajo people who occupied lands in the LCR basin and relied on the available water resources for their survival.

In sum, the Hopi Tribe's time immemorial water rights coincide with its past uses, not with any claimed enlarged future uses. The Hopi Tribe ignores this rule, however, and seeks to secure a time immemorial priority date for all current and future water uses, not just historic uses. In order to allow the Court to address these outstanding legal issues, the FHHSR should have more fully analyzed the attributes associated with the Hopi Tribe's past and present use claims.

2. Summary of Navajo Occupancy in the LCR Basin and Expansion of the Navajo Reservation to Encompass the Area of Occupancy.

The Hopi are not the only aboriginal people to use and occupy the LCR drainage since time immemorial. The Navajo Nation and its ancestors used and occupied lands and waters within the LCR basin long prior to the formal expansion of the Navajo Reservation to the banks of the Colorado and the LCR through a series of executive orders issued between the 1870s and the early 1900s. The continuous Navajo presence within the LCR basin must be considered in order to address the factual issues related to the determination of the proper division of water resources between the tribes both of whom have reservations intended to serve as their permanent homelands.

The Hopi Tribe's seniority claim must be addressed in light of the presence of other aboriginal people who also used resources, including water, in the LCR basin. Archaeologists have recorded extensive evidence of Navajo and Western Apache occupation of the LCR basin dating back hundreds of years.³ The material culture prevalent in ancestral Navajo sites reveals close cultural ties between the Navajos and Puebloan cultures. According to anthropologist Klara Kelley, "Many scholars have recently concluded that Navajo material culture and technology manifest a distinctive synthesis resulting from a long history of cultural contact and change in the Southwest US, rather than an intensive 'borrowing' from Puebloans after the Pueblo Revolt, as scholars formerly thought."⁴

³ Klara Kelley, Ph.D., compiled a representative list of some of the pre-1800 sites attributable to Navajo ancestors in Appendix C of her 2009 report "Diné Presence in the Little Colorado River Watershed Pre-columbian Times to c AD 1800," Appendix C, 1.

⁴ Kelley, "Diné Presence in the Little Colorado River Watershed Pre-columbian Times to c AD 1800," 40.

The archaeological record, coupled with ethnographic and genetic evidence, has led scholars to conclude that the Navajo people of today are a unique culture that originated in the LCR basin and the surrounding region.⁵ Dr. Kelley explains that “several generations of ethnographers have recorded Navajo oral traditions that trace Navajo clans to various Puebloan groups and their pre-Columbian ancestors in the Little Colorado basin and beyond. These clans represent about 2/3 of the Navajo population in the Little Colorado basin.”⁶ Recent genetic studies, meanwhile, attest to the prevalence of Puebloan ancestry among Navajos in the LCR basin.⁷ These factors support Dr. Kelley’s conclusion that the ancestral Navajo population formed over an extended period of intermarriage and cultural exchange during which time it “absorbed other groups of people as constituent clans, along with cultural elements of these groups.”⁸

When Spaniards first entered the region, they encountered scattered Navajo and Western Apache settlements surrounding the Hopi mesas. Colonial-era records suggest a close relationship between the Western Apache and the Navajos before 1800 and refer to Puebloans as joining ancestral Navajo groups. This evidence, explains Dr. Kelley, points to the “presence, use, and occupancy of pre-Columbian and early post-Columbian ancestral Western Apaches and Puebloans in the Little Colorado basin going back to pre-Columbian times” as “part of the heritage that connects modern Navajos with the Little Colorado basin.”⁹

The in-common use of the LCR basin’s resources, including water, among the various aboriginal occupants continued through the nineteenth century. This joint use extended to the principal washes that intersect the lands encompassing the Hopi Tribe’s mesa-top villages, including the Moenkopi, Dinnebito, Oraibi, Jeddito, Wepo, and Polacca washes—all of which are tributary to the LCR. In addition, the Navajos’ use and occupation of the basin’s land and water resources stretched north, west, and south of the

⁵ Klara Kelley, PhD, “Diné Presence in the Little Colorado River Watershed Pre-columbian Times to c AD 1800,” 4, 9; Klara Kelley, PhD, “A Rebuttal to ‘The Historical Evolution of Navajo Occupancy Areas in the Southwest, with Particular Reference to Black Mesa and the Hopi Washes,’ by Peter M. Whitely, March 2009,” 2.

⁶ Kelley, “A Rebuttal to ‘The Historical Evolution of Navajo Occupancy Areas in the Southwest, with Particular Reference to Black Mesa and the Hopi Washes,’ by Peter M. Whitely, March 2009,” 2.

⁷ Kelley, “Diné Presence in the Little Colorado River Watershed Pre-columbian Times to c AD 1800,” 13.

⁸ Kelley, “Diné Presence in the Little Colorado River Watershed Pre-columbian Times to c AD 1800,” 7.

⁹ Kelley, “A Rebuttal to ‘The Historical Evolution of Navajo Occupancy Areas in the Southwest, with Particular Reference to Black Mesa and the Hopi Washes,’ by Peter M. Whitely, March 2009,” 2.

Hopi mesas, and their presence was recorded in numerous historical documents, including nineteenth-century Indian Office and military reports.¹⁰

Recognizing the presence of Navajo people in the LCR basin, the United States established the Navajo Indian Reservation as a permanent home “set apart for the use and occupation” of Navajo people.¹¹ Many Navajos continued to live west of the 1868 Reservation boundary, however, which led the government to expand the reservation to ensure that enough land and water was available for Indian use and protected from non-Indian encroachment to meet its intended purpose of providing a permanent Navajo homeland. For example, in the late 1870s, Navajo Agent John Pyle urged a proposed westward extension of the 1868 Navajo Reservation, explaining that the area lying roughly twenty miles west of the 1868 line housed not “a single resident other than Navajos.” He further pointed out that the Navajos had used these lands both prior to and following their imprisonment at Bosque Redondo in the mid-1860s.¹² On October 29, 1878, in accordance with Pyle’s recommendation, President Rutherford Hayes signed an executive order attaching a roughly 20-mile-by-70-mile strip of land to the west side of the Reservation that encompassed the extreme upper portions of the Dinnebito, Oraibi, and Polacca washes.¹³

Two years later, President Hayes expanded the Navajo Reservation again, adding a six-mile strip to the south that included the upper reaches of the Pueblo Colorado Wash, another tributary stream to the LCR.¹⁴ Navajo Agent W. F. M. Army had proposed such an extension as early as 1873, writing in that year’s annual report that the Navajos had

¹⁰ David Brugge, “Navajo Prehistory and History to 1850,” in *Handbook of North American Indians*, ed. William Sturtevant, vol. 10, Southwest, ed. Alfonso Ortiz (Washington, D.C.: Smithsonian Institution, 1983), 489–90 [hereinafter cited as *Handbook of North American Indians*, vol. 10]. For reference to an 1850 army report discussing Navajo occupation of lands near the Hopi mesas, see Leo Crane, Superintendent, Moqui Agency, to the CIA, March 12, 1918, File: 60400-1914-Moqui-308.2, Box 15, Moqui Agency, Central Classified Files [CCF] 1907–1939, Record Group 75: Records of the BIA [RG 75], National Archives and Records Administration, Washington, D.C. [NARA I].

¹¹ Treaty with the Navaho, June 1, 1868, in Charles Kappler, ed., *Indian Affairs: Laws and Treaties*; vol. 2 (Washington, D.C.: GPO, 1904), 1015–1020.

¹² John Pyle, Agent, Navajo Agency, to Commissioner of Indian Affairs [CIA], September 9, 1878, Letter P-843, Roll 574, New Mexico Superintendency, National Archives Microfilm Publication M234: *Letters Received by the Office of Indian Affairs, 1824–1881* [M234].

¹³ Executive Order, October 29, 1878, in Kappler, *Indian Affairs: Laws and Treaties*, vol. 1, 875–76.

¹⁴ Executive Order, January 6, 1880, in Kappler, *Indian Affairs: Laws and Treaties*, vol. 1, 876.

“raised corn, wheat, & c.,” on these lands “for several years.”¹⁵ In November 1879, Interior Department Inspector J. H. Hammond stated that “the whole of this country” lying south of the Navajo Reservation was “occupied by Indian flocks,” and that “for many years” Navajo “sheep & goats” had “grazed far beyond the limits of the Reservation during the whole of every winter: compelled to do so or starve.”¹⁶

According to anthropologist Robert Roessel, however, even with these two extensions the Reservation only encompassed about ten percent of the land that the Navajos had used and occupied prior to their removal to Bosque Redondo.¹⁷ Moreover, Inspector Hammond had anticipated that Navajo “flocks and cultivation” would “soon overflow the extended limits” of the 1880 Navajo Reservation boundaries, indicating that “the country on three sides, south, west, and east of the Reservation is filled by Indians and their flocks & has been for many years.”¹⁸

Recognizing this, Inspector C. H. Howard argued in July 1882 for “a new reservation” to be “set apart for the Arizona Navajos, extending 100 miles to the West of the present [Navajo] Reservation and contiguous thereto,” inclusive of the “seven villages of the Moqui Indians.” Howard estimated “8000 Navajos and 2000 Moquis” resided within this proposed reservation expansion.¹⁹ In his October 1882 report, Howard noted that “at least one half” of the Navajos were “located beyond the western boundary” of the 1880 Navajo Reservation, and that they had resided on these lands within the LCR basin since before their forcible removal to Bosque Redondo:

They have had their homes there for many years; some said ever since their return from Fort Sumner in 1868; others never went to Fort Sumner and had lived all their lives at a distance of one hundred miles or thereabouts west of the western boundary.²⁰

¹⁵ W. F. M. Arny, Agent, Navajo Agency, to Edward P. Smith, CIA, September 4, 1873, in *Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior for the Year 1873* [ARCIA 1873], 271.

¹⁶ J. H. Hammond, Inspector, Department of the Interior, to the CIA, November 29, 1879, Executive Order File 1850–1892, Entry 107: General Records, RG 75, NARA I.

¹⁷ Robert A. Roessel, Jr., “Navajo History, 1850–1923,” in *Handbook of North American Indians*, vol. 10, 517–520.

¹⁸ J. H. Hammond, Inspector, Department of the Interior, to the CIA, November 29, 1879, Executive Order File 1850–1892, Entry 107: General Records, RG 75, NARA I.

¹⁹ C.H. Howard, U.S. Indian Inspector, to H.M. Teller, Secretary of the Interior, July 31, 1882, Letter 15060-1882, Box 92, Entry 91: Letters Received, 1881–1907 [LR 1881–1907], RG 75, NARA I.

²⁰ C.H. Howard, U.S. Indian Inspector, to H.M. Teller, Secretary of the Interior, October 25, 1882, in *Reports of Inspection of the Field Jurisdictions of the Office of Indian Affairs, 1873-1900*, National Archives Microfilm Publication M1070 [hereinafter cited as M1070], Roll 27, pp. 32-35, fr. 0338-0341.

An 1880 map prepared by Hopi Agent William R. Mateer provided a clear illustration of just how extensive and far-reaching Navajo settlement was in the LCR basin at the time. The map depicted numerous “Navajo Hogans” in close proximity to Hopi villages and scattered throughout the LCR basin, including on lands along the Moenkopi and Cottonwood washes.²¹ In his 1883 annual report, Navajo Agent D. M. Riordan confirmed that the Navajos continued to use and occupy lands extending well beyond the Reservation boundaries and “far into the adjoining lands,” including areas “to the west as far as the Little Colorado, as well as on the banks of the main Colorado.”²²

In December 1882, the United States created a reservation “for the use and occupancy of the Moqui [Hopi], and such other Indians as the Secretary of the Interior may see fit to settle thereon.” The rectangular-shaped parcel abutted the 1880 Navajo Reservation on the west and included lands that extended beyond the Hopi villages and encompassed extensive territory in the LCR basin that were already occupied by the Navajos, as indicated by the above-mentioned reports and maps.²³ Navajo people maintained their residency on these lands both before and after 1882, and the Navajo Nation’s interest in the 1882 Reservation was affirmed in *Healing v. Jones*, 201 F. Supp. 125 (D. Ariz. 1962), *aff’d* 373 U.S. 758 (1963).

In May 1884, President Chester A. Arthur issued an executive order adding approximately 2.3 million acres to the northwestern edge of the Navajo Reservation, which bordered the 1882 Reservation on the north and included the northerly reaches of the Moenkopi, Dinnebito, and Oraibi washes.²⁴

Four years later, in July 1888, Special Indian Agent H.S. Welton recommended that the federal government extend the Navajo Reservation boundaries as far as the Colorado and Little Colorado Rivers. The proposed southern border of this extension stretched eastward from that point on the Little Colorado River to the Arizona-New Mexico line.²⁵

A decade after Welton submitted his report, U.S. Indian Inspector James McLaughlin likewise argued in favor of extending the Navajo Reservation to the Little

²¹ William R. Mateer, “Moquis Pueblo Indian Agency – Arizona, and Map Showing Proposed Reservation,” Arizona, E. 285, 1880, RG 75, Cartographic Section, NARA II.

²² D. M. Riordan, Agent, Navajo Agency, to CIA, August 14, 1883, in ARCIA 1883, 121.

²³ Executive Order, December 16, 1882, in Kappler, *Indian Affairs: Laws and Treaties*, vol. 1, 805.

²⁴ Executive Order, May 17, 1884, in Kappler, *Indian Affairs: Laws and Treaties*, vol. 1, 876. For figures showing the acreage added in 1884, see Robert A. Roessel, Jr., “Navajo History, 1850–1923,” in *Handbook of North American Indians*, vol. 10, 520.

²⁵ H.S. Welton, U.S. Special Indian Agent, to the Commissioner of Indian Affairs, July 8, 1888, Letter No. 6043-1889 (Enclosure No. 3), Box 506, Entry 91, LR 1881-1907, Records of the BIA, RG 75, NARA I. Note that Welton's proposed extension would have included most of the lands within the Leupp Extension, as well as those included in President McKinley's January 1900 order.

Colorado River to form “a natural and well-defined boundary.” In making this recommendation, McLaughlin argued that “the present reservation of the Navajo and Moqui Indians is insufficient for the Navajo herds.” As a result, many Navajos continued to reside “off of the reservation, scattered over the country, between the western boundary line of the reservation and the Colorado River,” with “some Indians placing the number at 1,500 to 2,000, and others from 2,000 to 3,000.”²⁶

President William McKinley issued an executive order on January 8, 1900 that enlarged the boundaries of the Navajo Reservation to encompass lands extending west of the 1882 Reservation to the Colorado and Little Colorado Rivers, as proposed by Indian Agent Welton and Inspector McLaughlin. On November 14, 1901, President Theodore Roosevelt issued another executive order reserving a tract of land bordering the 1900 addition on the south and lying on both sides of the LCR, within an area later referred to as the “Western Navajo area.”²⁷

As with the lands reserved by President McKinley in 1900, the “Western Navajo area” had long been occupied and used by Navajos. In February 1901, for example, the Indian Rights Association informed the Indian Office that “fifty families” were living on “either bank of the Little Colorado River” and were “making quite an effort to improve their condition by taking advantage of the quite limited water supply for irrigation.”²⁸ Missionary W. R. Johnston similarly reported that “two hundred individuals, full-blood Navajos,” had been residing on these lands “before the Navajos were taken captive in 1863 by United States authorities, and since their release in 1868, they have maintained a continuous residence conformable to the habits of the Indians.” Tribal members living in this area also undertook efforts to irrigate lands along the LCR, building a mile-long “irrigating ditch or canal . . . without compensation, under very trying conditions.”²⁹

The 1900 executive order stated that the lands west of the 1882 Reservation would be “withdrawn from sale and settlement until further ordered,” and the 1901 executive order proclaimed that the United States would reserve the so-called “Western Navajo area” from public entry “until such time as the Indians residing thereon shall have been settled permanently” under the general allotment or homestead laws.³⁰ Although

²⁶ James McLaughlin, U.S. Indian Inspector, to the Secretary of the Interior, June 13, 1899, in Senate, *Enlargement of Navajo Indian Reservation, in Arizona*, 56th Cong., 1st sess., January 10, 1900, S. Doc. 68, serial 3850, 5–8.

²⁷ Executive Orders of January 8, 1900, and November 14, 1901, in *Executive Orders Relating to Indian Reservations from May 14, 1855, to July 1, 1912*, 18. For reference to the lands withdrawn by Roosevelt as the “Western Navajo area,” see Senate, *Navajo Indian Reservation*, 72d Cong., 1st sess., 1932, S. Doc. 64, serial 9506, 6, 13.

²⁸ [S. M. Brosius], Indian Rights Association, to the CIA, February 23, 1901, Letter 11079-1901, Box 1892, LR 1881–1907, RG 75, NARA I.

²⁹ W. R. Johnston, Director, Mission to the Navajo Indians, to the CIA, November 2, 1901, Letter 65815-1901 (Enclosure No. 6), LR 1881–1907, RG 75, NARA I.

³⁰ Executive Orders of January 8, 1900, and November 14, 1901, in *Executive Orders Relating to Indian Reservations from May 14, 1855, to July 1, 1912*, 18.

the federal government neither assigned a large number of allotments nor issued further orders defining the status of these lands set aside in 1900 and 1901, both tracts were consistently treated as part of the Navajo Reservation. Congress ultimately clarified their status as reservation lands through passage of the Act of June 14, 1934, 48 Stat. 960, which included both parcels within the reservation's permanent "exterior boundaries."³¹ The Act further stated that "all temporary withdrawals of public lands in Arizona heretofore made for Indian purposes by Executive order or otherwise within the boundaries defined by this Act, are hereby permanently withdrawn from all forms of entry or disposal for the benefit of the Navajo and such other Indians as may already be located thereon." *Id.*

Thus, by 1901, the Navajo Reservation had been extended along the west side of the 1882 Reservation and to the Colorado and Little Colorado Rivers. In 1907, President Roosevelt added another 1.2 million acres that abutted the southeast corner of the 1882 Reservation and encompassed lands along the Puerco River and the Pueblo Colorado Wash.³² Once again, these lands had been occupied by Navajos "for generations" prior to the promulgation of Roosevelt's November 1907 order. For example, Father Anselm Weber indicated that tribal members' "farms" were located "all along the Colorado Wash," while Commissioner of Indian Affairs Francis Leupp wrote that the Indians "have had for generations, their homes in the vicinity of the water-holes and springs, but are now being driven therefrom by white men who are appropriating these resources."³³

Following these extensions, the Navajo Reservation completely surrounded the 1882 Reservation on the north, west, and east, as well as along portions of the southern boundary. Nearly all of the reports recommending the various extensions of the Navajo Reservation indicated that Navajo tribal members had occupied these reserved areas both before and after the tribe's imprisonment at Bosque Redondo in the 1860s. In this way, the additions not only revealed federal officials' recognition of the Navajos' growing need to protect additional rangelands, but also reflected a response to an already established pattern of Navajo land use within the LCR basin.³⁴

³¹ For a discussion about the administrative treatment of the two parcels added by executive order in 1900 and 1901, see Hagerman Report, January 1, 1932, in Senate, *Navajo Indian Reservation*, 72d Cong., 1st sess., 1932, S. Doc. 64, serial 9506, 13–15.

³² Executive Order, November 9, 1907; and Executive Order, January 28, 1908; both in Kappler, *Indian Affairs: Laws and Treaties*, vol. 3, 669–670.

³³ Anselm Weber to W. H. Harrison, Superintendent, Navajo Agency, September 5, 1907; and F. E. Leupp, CIA, to the Secretary of the Interior, November 6, 1907; both in File: 77666-1907-Navajo-307.4, Box 90, Navajo Agency, CCF 1907–1939, RG 75, NARA I.

³⁴ Roessel, "Navajo History, 1850–1923," in *Handbook of North American Indians*, vol. 10, 520; Executive Order, January 8, 1900, in Kappler, *Indian Affairs: Laws and Treaties*, vol. 1, 877; Executive Order, November 14, 1901, in Kappler, *Indian Affairs: Laws and Treaties*, vol. 1, 877; Executive Order, November 9, 1907; and Executive Order, January 28, 1908; both in Kappler, *Indian Affairs: Laws and Treaties*, vol. 3, 669–70. Note that President Roosevelt's original order contained a clerical error that extended

Despite this clear historical record of Navajo people relying on water and other resources within the LCR basin for their survival, the FHHSR fails to account for Navajo reliance on those resources. In Chapter 4, for example, ADWR provides a “Description and Analysis of Claimed Water Uses” and includes discussions of both “Traditional” and “Modern” Hopi farming. It describes the Hopi Tribe’s “Modern Farming” as having first occurred with the arrival of Mormon settlers by 1875 in the Moenkopi area. However, Navajo occupancy is absent from this discussion, despite the fact that Navajos, such as a man named Bilindal chinni who farmed the site of present-day Tuba City and “resided in a stone house near his cornfields,” was actively farming land in the Moenkopi area when the Mormons arrived.³⁵

An affidavit from a Navajo man named Atsidí, as well as other records, also show the Navajos as having been well-established in the Moenkopi area prior to Mormon settlement. When Mormon settlers built a dam on Moenkopi Wash, below Navajo dams, the local Navajos and Mormons reportedly reached an agreement that allowed the Navajos to maintain a first right to the water before allowing water to continue down to supply the Mormons.³⁶ An 1898 investigation into the allotment and farming of the Moenkopi area also found that Navajos had farmed and irrigated Moenkopi Wash at the time of Mormon arrival and had “built a dozen dams to catch the flood waters from the wash and springs in the area.” Navajos called the area surrounding Moenkopi “Tó Naneesdizí,” meaning “Place of Water Rivulets.”³⁷

In December 1882, shortly after President Chester A. Arthur issued the executive order establishing the 1882 Reservation, Indian Inspector C. H. Howard argued for expanding the new reservation to include the lands occupied by the Navajos and Hopis in Moenkopi and Moenave. He forwarded correspondence between Navajo leader Ganado Mucho and John W. Powell, in which Mucho had asked that the Navajo Reservation be expanded to include additional Navajo-occupied lands along the LCR.³⁸

the reservation lines too far east into New Mexico. To correct this, he issued the January 1908 order. This correction did not impact the lands in the Little Colorado basin.

³⁵ Corey Smallcanyon, “Contested Space: Mormons, Navajos, and Hopis in the Colonization of Moenkopi,” (MA Thesis, Brigham Young University, 2010), 23, 91. Among the records Smallcanyon cited are affidavits from Bilindal chinni and others dating from 1898 that describe Navajo occupancy and agricultural pursuits in the vicinity of Moenkopi prior to, and during, Mormon settlement in the area. Copies of the affidavits, as well as several other records Smallcanyon relies on to address Navajo activities in the Moenkopi area are held in the John S. Boyden Collection in the L. Tom Perry Special Collections at the Harold B. Lee Library, Brigham Young University, Provo, UT.

³⁶ Smallcanyon, “Contested Space: Mormons, Navajos, and Hopis in the Colonization of Moenkopi,” 91–92.

³⁷ Smallcanyon, “Contested Space: Mormons, Navajos, and Hopis in the Colonization of Moenkopi,” (MA Thesis, Brigham Young University, 2010), 23, 169.

³⁸ Smallcanyon, “Contested Space: Mormons, Navajos, and Hopis in the Colonization of Moenkopi,” 112.

In 1892, Special Allotting Agent John Mayhugh issued allotments to Hopis in the vicinity of Moenkopi Wash.³⁹ By May 1893, Mayhugh had also allotted twenty-seven parcels to Navajos holding lands along Moenkopi Wash and at Moenave, as well as areas further west and south of Tuba City along the LCR. Mayhugh reported that both Hopis and Navajos complained about Mormon settlers who “had driven them off from their lands which they were cultivating.” He reported that “industrious” Navajos in the area had “built several dams and made ditches to convey water to Reservoirs for irrigating their growing crops.”⁴⁰

In summary, in order to ensure an appropriate division of the LCR water resources among the competing claimants, the adjudication court must consider the Navajo Nation’s presence in the LCR basin from pre-Columbian times to the present-day, which is thoroughly documented and long-recognized by the United States. To properly address the Hopi Tribe claims for time immemorial water rights, the historical and present water uses by the Hopi Tribe must be addressed in far more detail than is accomplished in the FHHSR. That detail is required if the Court is to develop a decree that recognizes and describes the Hopi Tribe’s rights in a manner that both protects those rights and provides for the use of water not subject to those rights by others.

3. Summary.

The FHHSR properly states that priority dates are a legal matter beyond the scope of the FHHSR. Nevertheless, the FHHSR treats Hopi past and present water use as exclusive of all other water uses in the LCR basin. It fails to acknowledge that other aboriginal peoples long-inhabited the LCR basin and used the land and resources in common with the Hopi Tribe, thereby foreclosing any Hopi claim of expanded time immemorial water rights for future uses. Navajos are documented as having occupied and used the area’s resources long prior to the establishment of the 1882 Reservation, prior to the Spanish introducing livestock among the Hopi, and prior to the Hopi adopting modern farming practices.

In order to assist the adjudication court with determining the past and present water rights held by the Hopi Tribe that may be entitled to a time immemorial priority, including the attributes associated with any such rights, the FHHSR should have more fully analyzed the attributes associated with the Hopi claims for past and present uses. Such an analysis would have included historical quantities, historical places of use, water sources, and types of uses, among other things. The FHHSR did not do that.

³⁹ John Mayhugh Special Allotting Agent, to T.J. Morgan, CIA, August 4, 1892, Letter 29121-1892, Box 149, Special Case 147: Moqui Allotments, Special Cases 1821–1907, Entry 102, RG 75, NARA I.

⁴⁰ John Mayhugh, Special Allotting Agent, to D. M. Browning, Commissioner of Indian Affairs, July 12, 1893, Letter 26753-1893, Box 149, Special Case 147: Moqui Allotments, Special Cases 1821–1907, Entry 102, RG 75, NARA I.

VERIFICATION

STATE OF New Mexico

County of Bernalillo

I declare under penalty of perjury that I am a claimant or the duly authorized representative of a claimant. I have read the Statement of Objection and verify, swear, and affirm that the information contained is true based on my personal knowledge, or is believed to be true based on information and belief.

Signature of Objector or Representative

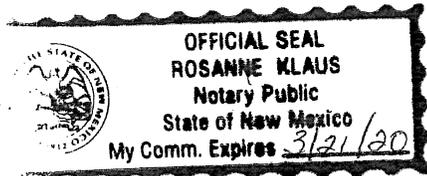
Ray Bernalillo
Name

P.O. Box 678, Fort Defiance, AZ 86504
Address

SUBSCRIBED AND SWORN to before me this 8 day of June, 2016.

Rosanne Klaus
Notary Public for the State of New Mexico
My Commission Expires March 21, 2020

SEAL



CERTIFICATE OF SERVICE

On this 13th day of June, 2016, I hereby certify that the original Objection and two copies were filed with:

Clerk of the Superior Court
Apache County
70 West Third South
St. Johns, AZ 85936

On this 13th day of June, 2016, I further certify that a true and correct copy of this Objection was sent by first class mail to:

Joseph P. Mentor, Jr. Bill Aloe
Mentor Law Group, PLLC
315 Fifth Avenue South, Suite 1000
Seattle, Washington 98104
Counsel for the Hopi Tribe

Vanessa Boyd Willard
Indian Recourses Section, ENRD
United States Department of Justice
Denver Field Office
999 18th South Terrace, Suite 370
Denver, Colorado 80202
Counsel for the United States



Bonnie Ray