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 LITTLE COLORADO RIVER SYSTEM AND SOURCE	CV 6417-203 ORDER DENYING MOTIONS FOR PARTIAL SUMMARY JUDGMENT

CONTESTED CASE NAME: *In re Hopi Reservation HSR*

HSR INVOLVED: *Hopi Reservation*

DESCRIPTIVE SUMMARY: Flagstaff's Motion for Partial Summary Judgment on DCMI Claims is denied in part and granted in part. The LCR Coalition's Motion for Partial Summary Judgment Regarding the Hopi Tribe's and United States' Claim to Water for Generation of Electrical Power on the Hopi Reservation for Use Outside the Hopi Reservation, Motion for Partial Summary Judgment Concerning the Feasibility Standard under Gila V, and Motion for Partial Summary Judgment regarding the Hopi Tribe's Claims to Water for Agricultural and Ceremonial and Subsistence Gardening are denied. The parties' proposed forms of final decree shall be filed by **July 20, 2020**.

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Under the general rule, summary judgment is appropriate if the moving party shows that there is no genuine dispute as to any material fact. Ariz. R. Civ. P. 56(a). In determining whether there is a genuine issue of material fact, the court must "view the facts and reasonable inferences therefrom in the light most favorable to the party opposing the motion." *Andrews v. Blake,* 205 Ariz. 236, 240 ¶13, 69 P.3d 7, 11 (2003). "In opposing a motion for summary judgment, a party does not have to present its entire case. That is the purpose of a full trial. Rather, the party must only present sufficient facts to show a genuine factual dispute which a [fact-finder] might reasonably believe." *Mohave Elec. Co-op, Inc. v. Byers,* 189 Ariz. 292, 303-04, 942 P.2d 451, 462-63 (App.1997)

In addition to the general rules governing motions for summary judgment, the determinations that the issues presented are factual issues about which there are no material disputes should take into consideration that this case will adjudicate federal reserved water rights for an Indian reservation. The Arizona Supreme Court has repeatedly emphasized that the adjudication requires a fact-intensive inquiry. This admonition implicitly imposes a high barrier to resolving factual issues in a summary judgment proceeding thereby side stepping the "difficult, time-consuming process" that the Court anticipated the parties and the finder of fact must undertake. *In re Gen. Adjudication of All Rights to Use Water in Gila River Sys. & Source*, 201 Ariz. 307, 320, ¶ 50, 35 P.3d 68, 81 (2001)(*"Gila V"*); *In re Gen. Adjudication of All Rights to Use Water in Gila River Sys. & Source,* 195 Ariz. 411, at 420, 989 P.2d 739 at 748, ¶ 31 (1992).

I. City of Flagstaff's Motion for Partial Summary Judgment on DCMI Claims

Domestic, commercial, municipal, and industrial ("DCMI") use includes residential water uses both inside and outside of the home, commercial operations such as restaurants and hotels, and the municipal water used for schools and government offices. The United States and the Hopi Tribe claim federal reserved water rights for DCMI use calculated by multiplying a projected future, stable population figure by a daily rate of water usage. The City of Flagstaff contests the daily rates of water usage employed by the United States and the Hopi Tribe and seeks an order rejecting their rates of 150 and 160 gallons per capita per day ("gpcd"), respectively. It also seeks an order denying a claim for 749 acre-feet of water per year for tourism separate from a DCMI calculation. The Hopi Tribe did not contest this portion of the motion. Finally, it moves for a decision that no federal reserved water rights to groundwater will be granted for DCMI use.

A. Quantification

The need to separately quantify federal reserved water rights for DCMI usage arises from the Arizona Supreme Court's decision that the practicably irrigable acreage (PIA) standard approved in *Arizona v. California*, 373 U.S. 546 (1963) is not the exclusive method to quantify federal reserved water rights on an Indian reservation. *Gila V,* 201 Ariz. at 318, ¶37, 35 P.3d at 79. In *Gila V*, the Court directed the tribes to demonstrate their water requirements by such evidence as they may chose so long as they create a record of actual and feasible proposed uses necessary to create a permanent homeland. It also imposed a limit on the amount of a federal reserved water right that can be granted for an Indian reservation. As the City of Flagstaff correctly identified in its Motion, the limit, which applies to a general adjudication of those rights, is the minimal amount needed to satisfy present and

future needs of the reservation as a livable homeland. *Id.* at 316, ¶28, 35 P.3d at 77. The Court re-emphasized that ruling later in the decision, holding that "[t]he court's function is to determine the amount of water necessary to effectuate this purpose, tailored to the reservation's minimal need." *Id.* at 320, ¶48, 35 P.3d at 81. The *Gila V* limit is not two alternative or mutually exclusive rules: (1) the minimal amount needed by the Hopi Tribe to survive; or (2) the amount needed to provide for livable homeland. The Court established one limit determined by a single rule with two elements.

The City of Flagstaff argues that it is entitled to summary judgment because there is no material factual dispute that the usage rates claimed by the United States and the Hopi Tribe exceed the minimal need standard. It criticizes the opinions offered by the United States' and Hopi Tribe's experts on multiple grounds including reliance on average use in surrounding communities, failure to consider minimal DCMI use required on the Hopi Reservation, adoption of a "parity" standard, and the absence of conservation measures. It cites to the City of Flagstaff's DCMI rate achieved in 2018 of 96 gpcd as evidence that a 160 and 150 gpdc does not incorporate good management practices to avoid wasteful uses of water.

The United States expert, Mr. Paul Hamai, stated that he considered the conditions on the Hopi Reservation. For example, he considered water use practices as a factor influencing water demand and adjusted the gpcd rate downward based on his assessment that the Hopis viewed water used to irrigated landscaping maintained for aesthetic purposes as wasteful. *United States' Response to City of Flagstaff's Separate Statement of Facts in Support of its Motion for Partial Summary Judgment on DCMI Claims* ¶ 13 (filed March 9, 2020) ("United States' Response"). The United States also points to Mr. Hamai's consideration of water quality, climate, elevation, economic

development and water conservation on the Hopi Reservation. *United States' Response* ¶¶ 14, 50-51, 80. The Hopi Tribe references Dr. Hanemann's testimony that wastewater treatment facilities are typically not reasonable for small communities. *Hopi Tribe's Response to City of Flagstaff's Separate Statement of Facts in Support of its Motion for Partial Summary Judgment on DCMI Claims* ¶ 5 (filed March 9, 2020). The testimony of the Claimants' experts create material issues of fact exist that preclude the entry of the requested summary judgment.

B. Groundwater

Federal reserved water rights attach to appurtenant groundwater only upon a demonstration that other sources of water are insufficient. *Gila III,* 195 Ariz. at 420, 989 P.2d at 748. Based on a recent federal case, the United States challenges and the Hopi Tribe reserves the right to challenge the *Gila III* decision. In *Agua Caliente Band of Cahuilla Indians v Coachella Valley Water District*, 849 F.3d 1262 (9th Cir. 2017), the court addressed the specific question of whether the federal reserved water rights extended to appurtenant groundwater. The reasoning on which the court concluded that groundwater could be subject to federal reserved water rights is consistent with the decision in *Gila III:*

> Further many locations throughout the western United States rely on groundwater as their only viable water source. … More importantly, such reliance exists here, as surface water in the Coachella Valley is minimal or entirely lacking for most of the year. Thus, survival is conditioned on access to water – and a reservation without an adequate source of surface water must be able to access groundwater.

849 F.3d at1271.

The City of Flagstaff argues based on the controlling precedent in this case, *Gila III,* that the United States and the Hopi Tribe are not entitled to federal reserved water rights to groundwater for all claimed DCMI usage because they failed to carry their burden to demonstrate that surface and other waters are insufficient. The United States and Navajo Nation counter that the Hopi Tribe depends on groundwater for its drinking water. In the first phase of the trial, the United States' expert testified that the majority of the water for DCMI uses came from groundwater. *United States' Response to the City of Flagstaff's Separate Statement of Facts in Support of Its Motion for Partial Summary Judgment on DCMI Claims,* ¶ 106 (filed March 9, 2020). The Hopi Tribe asserts that surface water sources are not dependable and cites to Dr. Blandford's statement that the primary source of surface water on the Hopi Reservation is wash water from seasonal rainstorms that is irregular, unpredictable, and susceptible to climate change. *Hopi Tribe's Separate Statement of Facts in Support of Its Response to the City of Flagstaff's Motion for Partial Summary Judgment on DCMI Claims,* ¶2 (filed March 9, 2020). In addition, as argued by the Navajo Nation, the fact that groundwater is actually utilized by the Hopi Tribe for at least a portion of its DCMI use creates a factual dispute about the availability of other water sources for this purpose. *See Navajo Nation's Separate Statement of Facts in Support of Its Response to the City of Flagstaff's Motion for Partial Summary Judgment on DCMI Claims,* ¶ 81 (filed March 9, 2020). Summary judgment cannot be granted where there are material issues of fact concerning the availability of surface water for the DCMI use.

Motion II. Motion for Partial Summary Judgment re Hopi Claims to Water for Agricultural, Ceremonial and Gardening

Among the claims made by the Hopi Tribe in its Sixth Amended Statement of Claimant is a claim for 91,282 acre-feet of water per year for irrigation. Sixth Amended Statement of Claimant 29 (January 18, 2019). The LCR moves for summary judgment to deny the Hopi Tribe's claim for federal reserved water rights for irrigation use in excess of that amount used for past and present irrigation. It also seeks a ruling to deny the Hopi Tribe's alternative claim for 10,117 acre-feet of groundwater per year to irrigate gardens that may be maintained by approximately 25% to 36% of the future population. *The Hopi Tribe's Response to the LCR Coalition's Motion for Partial Summary Judgment re Hopi Claims to Water for Agricultural, Ceremonial and Gardening* 5 (filed March 9, 2020); *The Hopi Tribe's Statement of Facts in Support of Its Response to the LCR Coalition's Motion for Partial Summary Judgment re Hopi Claims to Water for Agricultural, Ceremonial and Gardening* ¶ 14 (filed March 9, 2020) ("Hopi SOF").

The LCR Coalition argues that the claims should be denied as a matter of undisputed fact because the Hopi Tribe has failed to demonstrate that future irrigation is both practically and economically feasible. In its Response, the Hopi Tribe states that it has shown that future irrigation is practical and economically feasible and, presumably in the alternative, it argues that the test proposed by the LCR Coalition does not apply. The United States joins in the second argument with respect to the Hopi Tribe's alternative claim for 10,117 acre-feet of groundwater per year to irrigate future gardens located around the villages.

The Hopi Tribe describes the amount of water it claims for future irrigation use in multiple ways. The Hopi Tribe claims that it requires all water in the springs and washes on the Hopi Reservation for irrigation use. It represents that its expert determined that the average annual flow in the Northern Washes is 47,845 acre-feet. Hopi SOF ¶11. It also cites to same expert for the proposition that "the average amount of water diverted from surface flows for 33,808 acres on the Hopi Reservation would be 16,916 AFY and the maximum amount diverted would be 26,687 AFY." *Id*.

The Hopi Tribe also quantifies irrigation use at 91,282 acre-feet of water per year. It states that the amount of water needed for irrigation use can be calculated by multiplying the amount of required acreage, 33,808 acres, by a water duty. The referenced water duties are 4.33 and 0.93 calculated by Arizona Department of Water Resources or 2.7[1] and 3.6 acre-feet calculated by the Hopi Tribe's expert. Finally, the Hopi Tribe claims that if all of the surface water is not sufficient to irrigate 33,808 acres (presumably in the same year), then it claims a right to pump 10,117 acre-feet per year from the aquifers to irrigate new garden plots that would located around the villages and fill storage ponds.

There material issues in dispute about whether it is economically practical and reasonably feasible for the Hopi to irrigate 33,808 acres of land. The Hopi Tribes claims that its farmers are highly skilled in terms of field placement and water management thereby eliminating the need for any major infrastructure project for the future traditional agricultural needs of the Hopi Tribe. The expert, at least on the record presented so far, appears to indicate that sufficient water can be diverted

[1] 33,808 acres of land x 2.7 acre-feet of water per year = 91,281.6 acre-feet of water per year.

without additional infrastructure. The Hopi Tribe argues that the historical evidence that cultivation has occurred on the 33,808 acres is *prima facie* evidence of the feasibility of future agricultural use and disputes the need for the well field proposed by the LCR Coalition. Thus, a question of fact exists as to whether it is economical and practical to irrigate 33, 808 acres of land each year with available surface water.

The second issue presents questions of fact and a nuanced question of law and fact. The Hopi Tribe claims the right to pump more than 10,000 acre-feet of water each year if there is insufficient surface water to cultivate the 33,808 acres of land. In the prior proceeding, the 33,808 acres were not differentiated between those that required irrigation and those that could be cultivated with rain as the only source of water. Material issues of fact include whether the Hopi Tribe's definition of surface water necessary to cultivate the 33,808 acres of land in a single year includes precipitation and also whether there is insufficient surface water available in the washes and springs thereby giving rise to the secondary claim. A factual question exists given the standard of minimal use to maintain a livable homeland, whether the lack of water to farm all 33,808 acres gives rise to the entire claim for 10,117 acre-feet of water for the new gardens or whether more of a sliding scale exists between the agricultural fields and the gardens. For example, does a ten percent reduction in the number of agricultural fields equate to a need for ten percent of the newly planned gardens? An additional question of fact is, given the suggested location of the gardens surrounding the vicinity of the villages, whether water for gardens in whole or in part are included in the claimed rate of 150 to 160 gpdc DCMI water usage.

The question of law and fact raised by the United States and the Hopi Tribe is whether water for traditional religious and cultural practices are subject to an economic feasibility test. The LCR Coalition argues that the proposals to develop and irrigate new acreage should be "scrutinized to ensure that they are practical and economical." *Gila V* at 319, ¶ 46, 35 P.3d 80. The Hopi Tribe, joined by the United States, claims that the farming of the plots should not be regarded as traditional agriculture because the farming constitute religious and cultural practices. The United States argues that the crops grown on the smaller plots are different than crops grown for sale in the agricultural markets and therefore a practical and economic standard does not apply. According to the Hopi Tribe's expert the purpose for developing the new acreage is so that "land can still be farmed to produce the crops required by the Hopi ceremonies and rituals even in severe dry conditions". Hopi SOF ¶ 17. The Hopi Tribe analogizes the gallons of water used in a Christian baptismal with the claimed 3.3 billion gallons of groundwater to be pumped each year to irrigate the new acreage.

In *Gila V,* the Court directed that religious and cultural practices must be considered in quantifying federal reserved water rights:

> A tribe's history will likely be significant. Deference should be given to practices requiring water use that are embedded in Native American traditions. Some rituals date back hundreds of years, and tribes should be granted water rights necessary to continue such practices into the future. An Indian reservation could not be a true homeland otherwise.
>
> In addition to history, the court should consider tribal culture when quantifying federally reserved water rights. … Water uses that have particular cultural significance should be respected, where possible. The length of time a practice has been engaged in, its nature (e.g. religious or otherwise), and its importance in a tribe's daily affairs may all be relevant.

Id. at 318-319, ¶¶42-43, 35 P.3d at 79-80.

The determination of the appropriate test to be applied to water for the new gardens requires a thorough understanding of all of the facts relevant to the proposed use claimed in the absence of sufficient water for the traditionally irrigated acreage. For example, does the magnitude of the claimed use indicate that the gardens will satisfy a multitude of purposes, i.e., religious, cultural, and agricultural. Summary judgment motions are not the appropriate vehicle upon which to make such a nuanced determination.

Motions III and IV. Motions for Partial Summary Judgment re Feasibility Standard under *Gila V* and Claim to Water for Electrical Generating Plant on the Hopi Reservation

The LCR Coalition moves for a summary judgment determination that the United States and the Hopi Tribe have failed to provide evidence establishing the feasibility of proposed power plants, chemical manufacturing facilities, and a livestock value chain operation that includes growing alfalfa. The amount of water necessary to support these future projects is in excess of 33,000 acre-feet of water annually. Although the LCR Coalition tangentially raises a number of other issues in its pleadings, this decision will focus on the arguments that directly relate to the relief requested.

When the *Gila V* Court moved away from the determination of the purpose of an Indian reservation based on a judicial determination of historical intent and the PIA standard as the exclusive basis on which to award federal reserved water rights, it authorized tribes to demonstrate the water requirements for their reservations by the presentation of actual and proposed uses that are reasonably feasible. 201 Ariz. at 320, ¶49, 35 P.3d at 81. The Court contemplated that projects requiring the water rights would be currently in place or implemented in the future. It directed that proposed development projects must be "achievable from a practical standpoint – they must not be

pie-in-the-sky ideas that will likely never reach fruition," and "economically sound". *Id.* The essence of the LCR Coalition's motions with respect to the proposed projects is that the Hopi Tribe failed to produce expert cost benefit analysis that incorporates the negative aspects of the proposed commercial projects and failed to show that at least one of the projects is currently feasible.

As these issues were raised in summary judgment motions, the question is whether there are material facts in dispute about the feasibility of the projects and if so, then all of the issues surrounding the feasibility of the projects are better left to be decided based on all of the evidence submitted at trial.

The Hopi Tribe disputes the absence of expert analysis that supports the feasibility of the projects. It cites to deposition testimony in which its experts considered the financial and long-term economic feasibility of coal liquification/gasification plants and concluded that a smaller facility had a net margin of $426 million and the larger facility had a net margin of $1.421 billion. *The Hopi Tribe's Response to the LCR Coalition's Statement of Facts in Support of its Motion for Partial Summary Judgement Concerning the Feasibility Standard Under Gila V,* ¶7. Its expert also opined that it would be able to obtain private equity partners to invest in the Coal Liquification/Gasification Plant, which is indicative that the project could generate profits. *Id.* at ¶8. Similarly, Akana evaluated the concentrated solar power plant, its environmental impact, and the projected revenues and costs of two different size plants. *Id.* at ¶¶14-15. It concluded that the "financial indications and performance are positive. *Id.* at ¶16. Finally, with respect to the operations designed to increase the raising of cattle, the Hopi's expert opined that the development of a livestock value chain is feasible. *Id.* at ¶21.

The LCR Coalition contends that the United States' claim for 6,500 acre-feet of water per year for an 1800 MW Supercritical Pulverized Coal-Fired, Dry-Cooled Electrical Power Generation Plant should be denied because the United States' expert did not opine that the plant is currently feasible given current market conditions, the expert did not account for the environmental impact of a coal-fired plant in his cost estimates, and the expert's opinion amounts to inadmissible speculation. Dismissal of the claim on a summary judgment is not appropriate. The *Gila V* Court contemplated that a tribe could receive a water right based on a practical, economical proposed project. The fact that immediate market conditions do not support the proposed project is not automatically disqualifying. Here, the expert testified that the development of the plant may be feasible in the future. He discussed relevant market conditions needed for the project to be feasible that would be better weighed during the course of trial rather than in a motion for summary judgment. Moreover, the possibility of a resumption of a revenue stream from a coal-fired plant is not necessarily speculative in the context of a water adjudication. The Court directed that "[p]ast water use on a reservation should also be considered when quantifying at tribe's right. The historic use of water may indicate how a tribe has valued it." *Gila IV* at 319, ¶46, 35 P. 3d at 89. As demonstrated in the past and present phase of the trial, the Hopi Tribe has consented to the pumping of thousands of acre-feet of water with respect to the mining and transporting of coal. Coal mining has provided the major source of revenue for the tribe. Thus, this is the type of project which should be given full consideration.

IT IS ORDERED denying the Flagstaff's Motion for Partial Summary Judgment on DCMI Claims in part and granting it with respect to the Hopi Tribe's claims for 749 acre-feet of water per year for tourism. It is also ordered denying the United States Motion to Strike as moot.

IT IS FURTHER ORDERED denying the LCR Coalition's Motion for Partial Summary Judgment Regarding the Hopi Tribe's and United States' Claim to Water for Generation of Electrical Power on the Hopi Reservation for Use Outside the Hopi Reservation, Motion for Partial Summary Judgment Concerning the Feasibility Standard under *Gila V,* and Motion for Partial Summary Judgment regarding the Hopi Tribe's Claims to Water for Agricultural and Ceremonial and Subsistence Gardening.

IT IS FURTHER ORDERED that the parties' proposed forms of final decree shall be filed by **July 20, 2020.**

Susan Ward Harris
Special Master

On July 7, 2020, the original of the foregoing was mailed to the Clerk of the Apache County Superior Court for filing and distributing a copy to all persons listed on the Court approved mailing list for the Little Colorado River Adjudication Civil No. 6417-203.