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BEFORE THE ARIZONA NAVIGABLE STREAM ADJUDICATION COMMISSION

In re Determination of Navigability of

No. 03-002-NAV

SALT RIVER PROJECT'S MEMORANDUM REGARDING WHETHER SANTA CRUZ RIVER WAS NAVIGABLE IN ITS "ORDINARY AND NATURAL CONDITION"

Pursuant to the Commission's order at its meeting held on June 29, 2012, the Salt River Project Agricultural Improvement and Power District and Salt River Valley Water Users' Association (collectively, "SRP") submit their memorandum regarding whether the Santa Cruz River ("Santa Cruz") was navigable in its "ordinary and natural condition." See State v. Arizona Navigable Stream Adjudication Comm'n, 224 Ariz. 230, 229 P.3d 242 (App. 2010) ("State v. ANSAC"). The Santa Cruz was not navigable in its "ordinary and natural condition," or in any other condition.

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The Proponents of Navigability Bear the Burden of Proving that the Santa Cruz I. is Navigable.

In prior decisions, the Arizona courts have held the proponents of navigability bear the burden of proving that a river is navigable. See Arizona Ctr. for Law in the Public Interest v.

Hassell, 172 Ariz. 356, 363 n.10, 837 P.2d 158, 165 n.10 (App. 1991); Land Dep't v. O'Toole, 154 Ariz. 43, 46 n.2, 739 P.2d 1360, 1363 n.2 (App. 1987); Defenders of Wildlife v. Hull, 199 Ariz. 411, 420, 18 P.2d 722, 731 (App. 2001). The Arizona statutes further support this allocation of the burden. In order for the Commission to determine that a particular watercourse is "navigable," the proponents of navigability must establish that fact by a "preponderance of the evidence." See A.R.S. § 37-1128(A). If sufficient evidence is not presented to show navigability for a particular watercourse, the Commission must find the watercourse non-navigable. Id.

II. The Court of Appeals' Decision Likely Requires the Commission to Consider the Santa Cruz in Its "Ordinary and Natural Condition."

At least for purposes of the present phase of this proceeding, the Arizona Court of Appeals' decision in *State v. ANSAC* likely is controlling law that the Commission must follow. 224 Ariz. at 230, 229 P.3d at 242. Relying in large part upon the dictionary definition of "natural," the court found that the Lower Salt River must be considered as if it were "untouched by civilization." *Id.* at 241, 229 P.3d at 253. The court stated: "[W]e conclude that ANSAC was required to determine what the River would have looked like on February 14, 1912, in is ordinary (i.e., usual, absent major flooding or drought) and natural (i.e., without man-made dams, canals, or other diversions) condition." *Id.* Although the court correctly determined that ANSAC (in its September 2005 final report) had taken into consideration the impact of Roosevelt Dam on the character of the Lower Salt, *id.* at 240, 229 P.3d at 253, the court found insufficient evidence in the report to conclude that the Commission also had considered the impact of other man-made dams and diversions. *Id.*

In addressing what constituted the "ordinary and natural condition" of the Lower Salt, the Court of Appeals first started with the time "before the Hohokam people arrived many

¹ The Arizona Supreme Court has not yet addressed the "ordinary and natural" issue. The Court denied discretionary review of the Court of Appeals' decision in *State v. ANSAC*, and the case was remanded to the superior court and then to the Commission for further proceedings. 224 Ariz. at 245, 229 P.3d at 257.

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centuries ago and developed canals and other diversions that actively diverted the River."

State v. ANSAC, 224 Ariz. at 242, 229 P.3d at 254. Recognizing that "little if any historical data exists from that period" and that the Lower Salt "largely returned to its natural state" after the Hohokam disappeared, the court found that "the River could be considered to be in its natural condition after many of the Hohokam's diversions had ceased to affect the River, but before the commencement of modern-era settlement and farming in the Salt River Valley.

..." Id.

Although the Court of Appeals determined that "evidence from that early period should be considered by ANSAC as the best evidence of the River's natural condition," 224 Ariz. at 242, 229 P.3d at 254, the court also recognized that evidence from later (or earlier) periods could have probative value. *Id.* at 243, 229 P.3d at 255. ANSAC has authority to consider such evidence and to give it the appropriate weight. *Id.* The court rejected arguments by the proponents of navigability that any evidence dated after the commencement of man-made diversions should be thrown out and disregarded. "Even if evidence of the River's condition after man-made diversions is not dispositive, it may nonetheless be informative and relevant." *Id.*

III. Evidence in the Record

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² See SFC Engineering Company, Arizona Stream Navigability Study for the Santa Cruz River: Gila River Confluence to the Headwaters (November 1996) ("SFC").

A. <u>History of the Santa Cruz</u>

None of the historical evidence supports a finding of navigability. To the contrary, all of the evidence weighs in favor of non-navigability.

1. The Santa Cruz during prehistoric times

Archaeological evidence demonstrates occupation near the Santa Cruz in the period before settlement by non-natives. The area has been occupied since 9500 B.C., over 11,000 years ago. See SFC, supra, § 2, at 10. Native populations who settled along the Santa Cruz during prehistoric times used the water for crop irrigation and caught fish in the river. Id. Executive Summary, at 3. During the Hohokam prehistoric stages, water from the Santa Cruz was used for agriculture, through floodwater farming of maize. Id. § 2, at 12. No evidence exists in the record, however, to show that the Hohokam or O'odham people used boats on the Santa Cruz for transportation or trade. Id. Executive Summary, at 11; see also id. § 1, at 12. Although the archeological research indicates there was trade along the Santa Cruz, "no evidence was found to suggest that the early inhabitants of the valley used boats on the river." Id. Executive Summary, at 3.

Native populations lived along the upper, middle, and lower Santa Cruz. See SFC, supra, § 2, at 29. The Santa Cruz was used for agricultural purposes, but "no archaeological evidence of navigation along the Santa Cruz River has been found." Id. at 30. Further, studies of environmental reconstruction showing likely river conditions during prehistoric times indicate that over thousands of years the Santa Cruz underwent periods of channel downcutting and filling. Id. § 2, at 25. Despite substantial human presence in the Santa Cruz River Valley and along the river for thousands of years, no evidence exists that any of those communities ever used or even tried to use the Santa Cruz as a "highway for commerce."

2. Early exploration and settlement of the Santa Cruz River Valley

In the eighteenth and nineteenth centuries, Spanish missionaries and American travelers, settlers, miners, and farmers flocked to the Santa Cruz River Valley and traveled

³ Leonard C. Halpenny and Philip C. Halpenny, Review of the Hydrogeology of the Santa Cruz Basin in the Vicinity of the Santa Cruz-Pima County Line, at 3-1 (1997) [Evidence Item ("EI") No. 7] ("Halpenny").

along the river, but no evidence exists that any of these individuals ever used the Santa Cruz as a means of transportation or commerce.

Dating back to 1701, Spanish missionary Father Eusebio Francisco Kino first built a mission on the Santa Cruz. See SFC, supra, § 2, at 18. Other missionaries followed, and also established missions in the Santa Cruz River Valley. Id. § 3, at 23. There is evidence of expeditions along the river by the missionaries, but no suggestion that the Santa Cruz itself was ever traveled via boat. Id. at 24.

With the settlement of missions came the planting of new crops and a continued reliance on the Santa Cruz as a source for agricultural subsistence. See SFC, supra, at 24. For example, the missions "relied on irrigation from Santa Cruz River surface water flowing through irrigation canals." Id. Thus, the Santa Cruz continued to serve a central role for agriculture, but no evidence shows that it was ever used for travel or trade.

During the time of settlement by Spanish missionaries, the Santa Cruz reportedly had perennial reaches from its headwaters to Tubac. *See* SFC, *supra*, at 28. The river then disappeared and reappeared up through Tucson, and finally went underground north of Tucson at the county line to its confluence with the Gila River. *Id.* One observer of the Santa Cruz in 1804 commented: "Only in the rainy season does it enjoy a steady flow. During the rest of the year it sinks into the sand in many places." Thus, even at this early time period in history, when the Santa Cruz was clearly in its "ordinary and natural condition," the river was not continuous nor was it used as a "highway for commerce."

3. The Territorial period

The Santa Cruz was used as a travel route for those crossing through Arizona on the way to strike it rich in California's gold rush, but travel was alongside the river, rather than on it. See SFC, supra, § 3, at 30. Travelers heading north from Tucson made their way along the Santa Cruz, though the area was referred to as the "Ninety Mile Desert." Id. at 12. Many

travelers recorded the lack of water in their journals and travelogues, as noted in this narrative: "An Indian came into camp last night and reported 'no water until we get to the Gila' and as proof drank until he made himself sick" *Id.* at 32.

Historic findings also indicate mining sites in the area from the 1850s through the early 1900s. See SFC, supra, § 2, at 22; id. § 3, at 36. Ranches, farms and homesteads began to emerge along the Santa Cruz during the same time, as well. Id. § 2, at 23. Agriculture continued to flourish and was boosted by the advent of groundwater pumping in 1890. Id. § 3, at 34-35. The Santa Cruz was not always even a reliable water source, as illustrated in one description about a group of Mormons in 1851 who were given land for farming, but lost the land and crops because "… the spring and summer came without rain; the river dried up; their fields could not be irrigated"

During the late nineteenth century, the towns around the Santa Cruz developed into important population centers. In 1878, an opportunistic developer purchased land in Calabasas and sought to attract settlers. *See* SFC, *supra*, § 3, at 36. The developer, Col. Charles Sykes, created a pamphlet portraying the banks of the Santa Cruz as populated and busy, and also included a fleet of steamboats in his depiction. *Id.* The SLD's consultant stated in its report, however, that this portrayal by Sykes was "pure fiction." *Id.* Executive Summary, at 5. The pamphlet that Sykes created "was soon found to be a ridiculous exaggeration." *Id.* § 3, at 36. Sykes' land claim also was "found to be invalid by the Court of Private Land Claims." *Id.*

Near Tucson, two man-made lakes were created in the late 1800s by damming the Santa Cruz River for grain and ore mills. See SFC, supra, § 3, at 39. In the 1860s, Silver Lake was formed by damming the river in downtown Tucson. Id. The second lake, Warner's Lake, was created in the 1880s, by building a dam "far enough north to catch the water seeping from the cienegas around the base of Sentinel Hill" because "all of the water from the

⁴ SFC, *supra*, at 35 (quoting Bartlett, J. R., Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua, Connected With the United States and Mexican Boundary Commission, During the Years 1850, '51, '52, and '53 (1965)).

Santa Cruz was impounded and diverted" for Silver Lake already. *Id.* The lakes became a source of recreation for Tucson. *Id.* On Silver Lake, there are repots of a paddleboat, rowboats, and sailboats. *Id.* at 62. There is evidence at least one flat-bottomed boat operated on Warner's Lake that also went "up the river." *Id.* at 39. No further evidence exists to substantiate how often (if ever) the flat-bottomed boat operated on the river or how far from the lakes it ventured, however.

The two lakes were short-lived because of the flood and drought cycles in the late 1880s that oftentimes washed out the dams. *See* SFC, *supra*, at 43. Although the dams were rebuilt frequently, the 1890 flood permanently ruined the dams, and they were never reconstructed. *Id.* The evidence of these man-made lakes that exists in the record does not support a finding of navigability of the river itself, especially when one is required to view the river in its "ordinary and natural condition." State v. ANSAC, 224 Ariz. at 241, 229 P.3d at 253. In fact, it shows that the only way to float a boat on water from the Santa Cruz was to dam it and store water in a man-made (unnatural) creation.

The Santa Cruz area attracted settlers and travelers. The river was once called "a well established route from the south and the east into present-day Arizona as far as Tucson, providing water, forage, and food for the traveler." *See* SFC, *supra*, § 6, at 1. That route was used on foot, on horseback, or by wagon. Despite increased population in communities and travelers along the Santa Cruz, no evidence exists that the river itself ever was a "highway for commerce."

4. Boating attempts on the Santa Cruz

There are some isolated accounts of attempted boating, other than in the two lakes created by dams, on the Santa Cruz. Almost all of the attempts were thwarted due to the inability of the river to support navigation and Mother Nature herself. *See* SFC, *supra*. Each of these boating events further proves that the Santa Cruz is and was non-navigable.

One description of a supposed occurrence of boating was recorded by John Spring, a traveler during the Territorial Period. See SFC, supra, § 3, at 32. As the story goes, Spring

stayed at a place on the upper Santa Cruz called "La Canoa," where a Mexican settler had purportedly built a canoe and used it cross the river during the summer when flooding was too high to cross the road. *Id.* There is no other record confirming this anecdotal tale, and no indication exists that the settler ever tried to go upriver or downriver in the canoe. *Id.* at 1.

The historical evidence shows that the Santa Cruz is not and was not "navigable." There is no evidence of travel in the river or using the river for commerce, such as transporting goods, or that the Santa Cruz was "susceptible" to navigation. *See* SFC, *supra*, § 3, at 63.

B. Climate, hydrology, and geomorphology

The other evidence presented to the Commission is similarly insufficient to constitute a preponderance of the evidence in favor of navigability. This evidence is, like the evidence relating to early historical events, particularly persuasive under the Court of Appeals' standard because it clearly relates to the "ordinary and natural condition" of the river. *See State v. ANSAC*, 224 Ariz. at 221, 229 P.3d at 253. The climate of the Santa Cruz Valley is typical of a desert climate, with violent summer thunderstorms and sporadic rain in the winter, rather than the type of weather that would produce a regularly flowing stream. The hydrologic data demonstrates that the Santa Cruz could not be relied upon for regular streamflow to support a "highway for commerce." The geomorphologic evidence indicates that the river had widening channels in its upper and lower reaches.

Precipitation falls in the Santa Cruz River Valley during the fierce summer monsoon rains and during erratic winter rains. See SFC, supra, § 4, at 5. In the upper reaches of the Santa Cruz, rainfall during the monsoon season is usually "greater than the total for the remaining eight months of the year." Id. at 6. The majority of the flooding on the Santa Cruz also occurs during these summer rains. Id. at 8. The thirty-year precipitation averages show that at no place along the Santa Cruz was the rainfall average greater than 22 inches. See Halpenny, supra, at 4-4.

The hydrologic character of the Santa Cruz precludes it from being susceptible to navigation. Data gathered from environmental reconstruction studies indicate, "prior to 1890, the Santa Cruz River was an intermittent stream with occasional marshlands or cienegas." SFC, supra, § 2, at 29. During the Territorial Period, one traveler observed the Santa Cruz north of Tubac, stating that "... strange as it may appear, notwithstanding all the rain that had fallen, the river, such is the uncertainty of the streams in this country, was quite dry." Halpenny, supra, at 3-3.

The upper Santa Cruz was intermittent, and the lower Santa Cruz was ephemeral. *See* SFC, *supra*, at 14. The lower Santa Cruz has never had perennial flow, except during a rare period of flooding from the upper reaches. *Id.* Executive Summary, at 7. The lower part flowed only in direct response to precipitation. *Id.*

The geomorphologic data further indicates that the Santa Cruz was not navigable, nor was it susceptible to navigation. In its upper reach, the Santa Cruz "has a well-defined, often entrenched, channel," but the lower reach can be described as an "ill-defined system of braided channels." SFC, *supra*, § 4, at 58. The geomorphologic descriptions of the river highlight characteristics not conducive to navigation.

IV. The Santa Cruz Was Not Navigable in Its "Ordinary and Natural Condition."

Upon reviewing the evidence and specifically considering the "ordinary and natural condition" of the Santa Cruz, the Commission should again find it non-navigable. "[A] river is navigable in law when it is navigable in fact." *Muckleshoot Indian Tribe v. FERC*, 993 F.2d 1428, 1431 (9th Cir. 1993). Thus, the Commission must consider all of the evidence in the record before it. When the Commission reviews the evidence submitted, and considers the totality of that evidence, it must again determine that the Santa Cruz never has been used as a "highway for commerce" and was not, in its "ordinary and natural condition" (or in any other condition), susceptible to being used as a highway for commerce.

A. The Santa Cruz has never been used as a "highway for commerce."

A watercourse can meet the test for "navigability" under the Arizona statute and the case law if it satisfies either of two elements: (1) If it was actually used as a "highway for commerce," or (2) if it, in its "ordinary and natural condition" at the time of statehood, was "susceptible to being used" as a "highway for commerce." See A.R.S. § 37-1101(5).5

There are no indications that the Santa Cruz was ever used as a "highway for commerce." Prehistoric research found evidence of human populations in the area for over 11,000 years, yet no evidence of boating on the Santa Cruz during the early history of inhabitation of the area. See Section III(A)(1), supra. Likewise, none of the historical research revealed that missionaries, farmers, or travelers in the Santa Cruz River Valley ever used the river for boating or for commerce. See Section III(A)(2), (3), supra.

The only evidence in the SFC Report regarding boating of any kind on the Santa Cruz prior to statehood does not establish that the river was used for any regular trade or travel. Two accounts about boating on the Santa Cruz were based entirely on unsubstantiated stories. In 1878, steamboats were pictured on the river in a pamphlet that was immediately and widely recognized as a misrepresentation of the area by a developer. See Section III(A)(4), supra. The SLD's consultant dismissed the portrayal as an entirely fictional description. Id. Another story of boating was based wholly on an anecdotal tale about a Mexican settler who had a boat that he used to cross the river during flooding. Id. The tale was not supported by any other record in the report, and even the legend does not involve the man traveling up or down the river, just across it. Id.

Other evidence of boating on the Santa Cruz relates to two man-made lakes that were created by damming the river for industrial purposes. See Section III(A)(3), supra. The lakes were short-lived because the dams were washed out by a flood in 1890 and never rebuilt. See

⁵ "For state title purposes under the equal-footing doctrine, navigability is determined at the time of statehood . . . and based on the 'natural and ordinary condition' of the water." *PPL Montana LLC v. Montana*, 132 S. Ct. 1215, 1228 (2012).

id. This evidence of occasional boating on Warner and Silver Lakes does not adequately demonstrate the Santa Cruz was a "highway for commerce." Most of the evidence in the SFC Report focuses on Warner and Silver Lakes as recreational gathering places where nineteenth century residents swam and picnicked. *Id.* Sporadic evidence of boating on a lake is not enough to support a finding of navigability. *See United States v. Oregon*, 295 U.S. 1, 23 (1935) ("At most, the evidence shows such an occasional use of boats, sporadic and ineffective, as has been observed on lakes, streams, or ponds large enough to float a boat, but which nevertheless were held to lack navigable capacity."). Although there were some accounts of boating on these temporary, man-made lakes, that evidence does not show that the Santa Cruz itself was navigable in its "ordinary and natural condition."

B. The Santa Cruz was not, in its "ordinary and natural condition," susceptible to being used" as a "highway for commerce."

Because the evidence shows that the Santa Cruz was never actually used as a "highway for commerce," the only way it can be considered navigable is if it was "susceptible" to such use. No evidence exists in the record to show that the Santa Cruz, in its "ordinary and natural condition" or in any other condition, was capable of acting as "a corridor or conduit within which the exchange of goods, commodities or property or the transportation of persons may be conducted." A.R.S § 37-1101(3) (defining "highway for commerce").

No evidence exists in the record to satisfy that standard. Evidence from the Santa Cruz's long history demonstrates it was not "a corridor or conduit within which the exchange of goods, commodities, or property or the transportation of persons may be conducted."

A.R.S. § 37-1103(3) (definition of "highway for commerce").

Historical descriptions and stream data lead to the conclusion that the Santa Cruz was not susceptible to navigation. On its lower, middle and upper reaches, streamflow in the river fluctuates greatly. See Section III(B), supra. The river could hardly have been relied upon as a continuous source of travel or trade due to its variable nature, from its mostly perennial section near the headwaters to going underground and reappearing in its middle section in

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Pima County to finally going underground in the lower section in Pinal County. See SFC, supra, § 3, 4-6. For centuries, communities developed along the Santa Cruz, but none took advantage of it as a source for travel or trade. See Section III(B), supra. If the Santa Cruz were boatable, surely some individual would have capitalized on the nearby river.

The Santa Cruz's flow is not continuous on its reaches or reliable throughout the year. It is not, and never was, "susceptible" to navigation. Given the weight of the data and evidence, it does not support a finding that the Santa Cruz was "susceptible" to being used as a "highway for commerce," in its "ordinary and natural condition" or in any other condition.

V. Summary and Requested Action

The proponents of navigability bear the burden of proof. The evidence in the record does not support a finding that the Santa Cruz ever was actually used as a "highway for commerce." The record likewise does not support a finding that the Santa Cruz, in its "ordinary and natural condition" was susceptible to being used as a highway for commerce. The Commission should find the Santa Cruz "non-navigable."

DATED this 7th day of September, 2012.

SALMON, LEWIS & WELDON, P.L.C.

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