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**BEFORE THE ARIZONA NAVIGABLE STREAM  
ADJUDICATION COMMISSION**

In re Determination of Navigability of the Verde River

No. 04-009-NAV  
  
**SALT RIVER PROJECT'S  
OPENING POST-HEARING  
MEMORANDUM**

The Salt River Project Agricultural Improvement and Power District and Salt River Valley Water Users' Association (collectively, "SRP") submit their opening post-hearing memorandum regarding this Commission's determination of whether the Verde River was "navigable" when Arizona became a state on February 14, 1912. A table of contents appears on the following page. Section III of this memorandum summarizes the evidence presented to the Commission at and before its hearings held on March 29, 2005 (in Prescott); November 16 and 17, 2005 (in Phoenix); and January 18, 2006 (in Phoenix). Section IV presents SRP's legal arguments.

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1 **I. INTRODUCTION**

2 The Verde River, flowing through portions of Arizona's most rugged terrain, has been  
3 well documented historically. Based on this history, it is clear that the river is not, was not in  
4 1912, and never has been used as a "highway for commerce." The evidence in the record  
5 before this Commission shows that the river is not and was not at statehood susceptible to  
6 being used as a "highway for commerce." The evidence submitted prior to and at the  
7 Commission's hearings supports a finding of "non-navigability," and no credible evidence  
8 was presented to support a finding that the river is now or ever was "navigable." SRP  
9 requests that the Commission find the Verde River "non-navigable."

10 **II. THIS COMMISSION'S TASK**

11 This Commission has exclusive jurisdiction to determine which, if any, Arizona  
12 watercourses were "navigable" on February 14, 1912. See A.R.S. § 37-1123(G). The  
13 Commission's statutory obligation for determining navigability is relatively succinct:

14 If the preponderance of the evidence establishes that the watercourse was  
15 navigable, the commission shall issue its determination confirming that the  
16 watercourse was navigable. If the preponderance of the evidence fails to  
17 establish that the watercourse was navigable, the commission shall issue its  
determination confirming that the watercourse in question was nonnavigable.

18 A.R.S. § 37-1128(A). The statute defines "navigable" or "navigable watercourse" as:

19 A watercourse that was in existence on February 14, 1912, and at that time was  
20 used or was susceptible to being used, in its ordinary and natural condition, as a  
21 highway for commerce, over which trade and travel were or could have been  
conducted in the customary mode of trade and travel on water.

22 Id. § 37-1101(5).

23 The statutes provide that the proponents of navigability have the burden of proof. In  
24 order for the Commission to determine that a particular watercourse is "navigable," the  
25 proponents of navigability must establish that fact by the "preponderance of the evidence."  
26 See A.R.S. § 37-1128(A). If sufficient evidence is not presented to show navigability for a  
27 particular watercourse, the Commission must find the watercourse non-navigable. Under the

1 “preponderance of the evidence” standard, “a party who has the burden of proof must  
2 persuade you, by the evidence, that the claim is probably more true than not true.”  
3 Recommended Arizona Jury Instructions (Civil) Standard 9 (1997). “Preponderance of the  
4 evidence” requires “[e]vidence which is of greater weight or more convincing than the  
5 evidence which is offered in opposition to it; that is, evidence which as a whole shows that the  
6 fact sought to be proven is more probable than not.” Black’s Law Dictionary 1064 (5th ed.  
7 1979).<sup>1</sup>

### 8 **III. REVIEW OF THE EVIDENCE IN THE RECORD**

9 This Commission solicited and received voluminous evidence with respect to the  
10 navigability of the Verde River. The Commission held hearings in two different county  
11 seats.<sup>2</sup> The transcript of the January 2006 Phoenix hearing alone consists of 136 pages.<sup>3</sup> This  
12 memorandum discusses the historical, hydrologic, geomorphic, and other evidence in the  
13 record.

#### 14 **A. History of the Verde River**

15 None of the historical evidence introduced in this proceeding supports a finding of  
16 navigability. To the contrary, all of the credible evidence weighs in favor of non-navigability.

#### 17 **1. The prehistoric Verde River**

18 The report submitted by the SLD’s consultants,<sup>4</sup> and their hearing testimony, provide  
19 evidence regarding the condition of the Verde River in the period before settlement by non-  
20 natives. Prehistoric evidence in the Verde River Valley reveals that the river provided an  
21 accessible route to water, but the river was used primarily for canal irrigation. See Fuller,

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22 <sup>1</sup> See also generally Maricopa County Juvenile Action No. J-84984, 138 Ariz. 282, 283, 674 P.2d 836,  
23 837 (1983) (quoting Cole v. Town of Miami, 52 Ariz. 488, 497, 83 P.2d 997, 1001 (1938)) (“the  
24 ultimate test is, does the evidence convince the trier of fact that one theory of the case is more  
25 probable than the other”); Hewett v. Industrial Comm’n, 72 Ariz. 203, 209, 232 P.2d 850, 854 (1951).

26 <sup>2</sup> The November 16-17, 2005 hearing in Phoenix was continued and concluded on January 18, 2006.

27 <sup>3</sup> “Tr. at [page]” refers to the Reporter’s Transcript of the January 2006 hearing.

<sup>4</sup> Fuller, et al., Arizona Stream Navigability Study for the Verde River, Salt River Confluence to the  
Sullivan Lake (June 2003) (EI 31).

1 supra, at 2-14. Despite the proximity to the river, there was no documented evidence of any  
2 prehistoric boating. Id. As Mr. Fuller concluded at the January 18 hearing in Phoenix, “[w]e  
3 found no evidence in the archaeological record of any use of boats on the Verde River.” Tr. at  
4 10 (Fuller).

5 Additionally, the evidence shows that native inhabitants did not use the river for  
6 navigation during recorded history. Although tribes (such as the Northeastern and  
7 Southeastern Yavapai, Pima, and Apache) occupied the Verde River Valley, water was used  
8 for simple ditch irrigation. See Fuller, supra, at 3-1. No evidence submitted to the  
9 Commission by the SLD’s consultants or any other witness or exhibit indicated any use of  
10 boats on the river (commercial or otherwise) or any flotation of logs (regular or irregular) by  
11 these early inhabitants.

## 12 **2. Early non-Indian exploration of the area**

13 Likewise, there is no evidence that any explorers in the Verde River Valley ever used  
14 the river as a means of transportation or commerce. In the 1500s, Spanish explorers are  
15 known to have traveled in central Arizona in search of mines. Fuller, supra, at 3-8. No  
16 evidence was presented to show that these explorers ever used boats on the river.

17 Beginning in 1826, American trappers, such as James Ohio Pattie and Ewing Young,  
18 trapped in the vicinity. Id.; Tr. at 11 (Fuller). Young trapped along the Verde River, from its  
19 confluence with the Salt River to its headwaters, but there is no evidence in the record that  
20 Young’s party ever traveled by water on the Verde River itself. See Fuller, supra, at 3-2  
21 (noting that, in 1829, Young’s trapping party “traveled along the Verde River”). Later in the  
22 nineteenth century, military expeditions conducted surveys of railroad routes in the area. Id. at  
23 3-9. However, there is no recorded history of boat travel by these military parties. Id.

24 Following the discovery of gold in Arizona, permanent settlement was established in  
25 central Arizona. Id. Early settlers commented on the Verde River, revealing its variable  
26 nature and indicating that it was impeded by beaver dams and had extensive marshes in the  
27

1 floodplains. *Id.* at 3-13 to 3-14. One resident recalled that, in February of 1875, the Verde  
2 River abruptly changed from a calm stream to a dangerous flooding watercourse:

3           This was the flood time of year. I had seen the Verde suddenly come raging  
4 down, tearing away everything before it—great trees and even rocks tossed  
5 about like so much straw. On one trip, while crossing a peaceful little  
6 stream, a wall of water and debris came out of nowhere and swept away  
7 most of our packtrain in the twinkling of an eye, and then in a few minutes  
8 subsided to a trickling stream.

9 *Id.* at 3-13 (quoting Corbusier 1968:269). Another resident, who moved to the Verde River  
10 Valley in 1879, wrote, “[t]he land was like a sponge and when it rained the water was  
11 absorbed into the ground immediately, so very little ran into the river channel and the small  
12 amount that did run into the river bed, stood in pools which became stagnant and polluted  
13 with malaria germs . . . .” *Id.* at 3-13 to -14 (quoting Verde Valley Pioneers Association 1954:  
14 150).

15           These early residents along the Verde River used water from the river for farming,  
16 mining, and hydroelectric power. *Id.* at 3-15 to -17. Farmers in the middle Verde River  
17 Valley constructed irrigation ditches. *Id.* at 3-15. Ranchers and farmers raised products and  
18 crops that were transported overland to the military forts. *Id.* Yet, despite substantial usage of  
19 the waters of the Verde River, there is no evidence that the river itself was used for the  
20 transportation of any goods or people. Indeed, the SLD’s consultants reported that early  
21 transportation in the Verde River Valley was primarily limited to horseback, mule trains,  
22 wagons, and railroad. *Id.* at 3-19.

### 23           **3.     Federal land surveys and patents**

24           Another group of individuals who were present along the Verde River at a relatively  
25 early date were the federal land surveyors who were responsible for conducting the  
26 rectangular survey in the new territory. Dr. Douglas Littlefield testified at the January 2006  
27 hearing regarding surveys on the Verde River from its uppermost reaches near Paulden, AZ  
downstream to the confluence with the Salt River. Each of these surveyors was under specific



1 instructions to distinguish between navigable and non-navigable streams. See Littlefield,  
2 Assessment of the Verde River's Navigability Prior to and on the Date of Arizona's  
3 Statehood, February 14, 1912 11-13, 37-45 (July 7, 2005) (EI 32); Tr. at 68-69 (Littlefield).  
4 None of these Government representatives ever indicated that the Verde River was navigable.  
5 See Littlefield, supra, at 73 (“[W]hile those surveys were done at varying times of the year, in  
6 different years, and by at least eight individuals, all of the descriptions and plats from this  
7 work consistently portrayed the Verde River as being a non-navigable stream.”).

8 Similarly, the federal and state land patents issued along the river are persuasive  
9 evidence of non-navigability. The Federal Government granted over one hundred separate  
10 patents that touched or overlay the Verde River to private individuals. Id. at 110; Tr. at 71  
11 (Littlefield). In not one case did any of those patents (or the supporting patent files) indicate  
12 that acreage was being withheld because the river was navigable. See Littlefield, supra, at  
13 110; Tr. at 71 (Littlefield). Dr. Littlefield, summarizing his conclusions based upon hundreds  
14 of hours of historical research from a wide variety of sources (including survey records, land  
15 patents, other government documents, and newspapers), stated: “From this wealth of  
16 information, covering a huge array of documentary sources only one conclusion can be  
17 reached: The Verde River was not navigable or susceptible of navigation on or before  
18 February 14, 1912.” Littlefield, supra, at 176.

#### 19 **4. Attempts to boat the river prior to statehood**

20 Additional evidence in support of a finding of **non-navigability** comes from the  
21 accounts of the Verde River in the decades prior to statehood, including the early accounts of  
22 attempts by an ambitious few to actually float boats on the river. The evidence shows a sparse  
23 record of a few individuals who actually did attempt to navigate the river between 1873 and  
24 1903. The SLD's report discusses at least eight accounts of attempts to boat the river before  
25 statehood. Those attempts are addressed in detail in Appendix A attached hereto. This  
26 scattered collection of boating expeditions on the river does not provide evidence that the  
27 Verde River is “navigable” as defined in A.R.S. § 37-1101(5). To the contrary, these eight

1 accounts not only are insufficient to satisfy the navigability proponents' burden of proof under  
2 A.R.S. § 37-1128(A), they are persuasive evidence that the river was **non-navigable**, for  
3 several reasons.

4 First, two of the eight accounts relate to supposed reports of log flotation. One story  
5 (Account No. 1) reveals that no logs were actually floated down the Verde River. See  
6 Appendix A, infra. The fact that Hayden failed to float logs down the Verde in 1873 does not  
7 represent a historic boating incident; instead, it strongly supports the river's lack of  
8 susceptibility to navigation at that time. The other tale of log flotation (Account No. 6) is  
9 based entirely on one person's recollection of seeing a newspaper article about floating logs or  
10 timber down the Verde River. Id. However, that article has never been found, and there is no  
11 other corroborating source. Moreover, even if this event did occur in 1890 or 1891, there is  
12 no evidence to indicate that it did not occur during the 1891 flood event. Id.

13 Second, the accounts of attempted boating on the river do not prove that the river was  
14 used or susceptible to being used as a "highway for commerce." Two of the historic accounts  
15 (Account Nos. 2 and 4) relate to reports of soldiers using boats to **cross** the river. Id. These  
16 two accounts indicate, however, that the boats or rafts were only used during times of high  
17 stream flow. Id. These boats were not used to travel upstream or downstream the Verde  
18 River. Id. Two other stories of boating on the Verde River relate to recreational trips. One  
19 account (Account No. 8) reveals that two men went duck hunting while traveling in a steel  
20 boat in early 1903. Id. This single trip occurred during a time of year when higher stream  
21 flows are typical on the Verde River. Id. In the one other story of a recreational trip (Account  
22 No. 5) on the Verde and Salt Rivers, one of the participants died when his shotgun discharged.  
23 Id.

24 Third, one account of attempted boating consists entirely of anecdotal evidence from a  
25 local newspaper article. This story of purported boating (Account No. 3) is contained in an  
26 article in the Arizona Gazette proclaiming that the Salt River is navigable so that the State  
27

1 would be entitled to receive money from federal rivers and harbors appropriations. Id. There  
2 is no other contemporaneous evidence in the record reporting on this trip on the Verde River.

3 Although there have been isolated attempts to boat on the Verde River, the  
4 overwhelming weight of the evidence suggests that the river was not and is not navigable.  
5 The SLD's consultants concluded that: "Historical accounts of boating on the Verde River do  
6 exist, though the vast majority of transportation in the region [was] by horses, mule trains,  
7 wagons, and railroad." Fuller, supra, at 3-22. A handful of intermittent boating accounts over  
8 the course of thirty years before statehood does not make it more likely than not that the Verde  
9 River was navigable or susceptible to navigation on February 14, 1912.

## 10 **B. Hydrology and Geomorphology of the Verde River**

11 The other evidence presented to the Commission is similarly insufficient to constitute a  
12 "preponderance of the evidence" in favor of navigability.

### 13 **1. Hydrologic evidence**

14 The hydrologic information submitted to the Commission does not support a finding of  
15 navigability. The United States Geological Survey ("USGS") has operated six gauges on the  
16 Verde River, but only two were operational before statehood. Fuller, supra, at 7-5. According  
17 to the SLD's consultants, the average monthly streamflow rate in February 1912 was 300  
18 cubic feet per second ("cfs") at the McDowell gauge. Id. at 7-6 (Table 7-3). Two days after  
19 statehood, the reading at that gauge was 269 cfs. Id. The other pre-statehood gauge was  
20 established in February 1911, near Camp Verde. Id. Although only limited measurements  
21 were taken, the SLD's consultants estimate that the average streamflow in February 1912 was  
22 approximately 200 cfs. Id.

23 The SLD's consultants stated that flow discharge in February 1912 was below long-  
24 term average rates. Id. Their report presents long-term average discharge rates for the two  
25 pre-statehood gauges. Id. The report estimates that the average discharge rate was 781 cfs  
26 annually at the McDowell gauge and 470 cfs at the gauge near Camp Verde. Id. (Table 7-3).

1 Their estimates of the average discharge rates for February were 2,121 cfs at the McDowell  
2 gauge and 1,100 cfs at the gauge near Camp Verde. Id.

3 More streamflow data is available for the gauges established after statehood. Again,  
4 the SLD's report primarily relies upon the average annual flow data collected at each of the  
5 six USGS gauges. As indicated in the report, "[f]loods with high peaks tend to skew the  
6 average." Id. at 7-9. Their average annual flow rates for the Verde River range from 42 to  
7 781 cfs. Id. at Table 7-5. The fifty percent flow rate ranges from 25 to 968 cfs. Id. Even at  
8 the McDowell gauge, where the average annual flow rate is highest, the SLD's consultants  
9 stated that the average depth of the river was less than three feet. Id. at 7-20 (Table 7-13).

10 The information submitted by the SLD's consultants on average annual flow rates on  
11 the Verde River does not support a finding of navigability. A document compiled and  
12 submitted by SRP, Information Regarding Navigability of Selected U.S. Watercourses (April  
13 2003) (EI 22) ("Watercourse Information"), contains information on every federal or state  
14 court decision SRP could locate in which the "navigability" of a river was actually  
15 determined. Appendix B attached hereto summarizes the annual mean (average) flow  
16 information, compiled by the United States Geological Survey, for each of the twenty-one  
17 watercourses discussed in that document.

18 Four of the twenty-one watercourses listed in Appendix B have been found  
19 "navigable," in whole or in part, by a state or federal court. Of those four "navigable"  
20 watercourses, the lowest annual average flow is 2,277 cfs—for the Great Miami River in  
21 Ohio, which was found navigable in part and non-navigable in part. See Appendix B. The  
22 other three "navigable" watercourses had average annual flow rates of 7,316 cfs (the Colorado  
23 River in Utah), 6,930 cfs (the Green River in Utah), and 4,066 cfs (the McKenzie River in  
24 Oregon). Id. Seven rivers that courts have specifically determined to be non-navigable (the  
25 Arkansas River in Oklahoma, the Chattahoochee River in Georgia, the Little River in  
26 Arkansas, the Neosho River in Kansas, the Red River on the border between Oklahoma and  
27 Texas, the Rio Grande in New Mexico, and the Wolf River in Tennessee) have average annual

1 flow rates higher than those estimated for the Verde River. See Appendix B; see also  
2 Watercourse Information, supra.

3 It thus appears that no watercourse having a flow rate or other characteristics equal to  
4 or less than that estimated for the Verde River has ever been deemed navigable by any state or  
5 federal court.

## 6 **2. Geomorphic evidence**

7 The geomorphic evidence in the record also refutes, rather than supports, a finding of  
8 navigability. Geomorphologist Dr. Stanley Schumm presented a written report regarding the  
9 geomorphology of the Verde River. See Schumm, Geomorphic Character of the Verde River  
10 (December 2004) (EI 30) (“Schumm”). In his report, Dr. Schumm stated that substantial  
11 portions of the Verde River have a braided channel along with bedrock controls and geologic  
12 structures. Id. at 2. Dr. Schumm noted that the channel of the Verde River changed  
13 historically, with channel erosion and channel widening largely as a result of floods in the  
14 early twentieth century. Id. at 8. Historically, the lower Verde River was described as deep  
15 and slowly flowing, but today that stretch “is a cobble- and gravel-bedded channel that flows  
16 over shallow or exposed bedrock.” Id. Moreover, the width of the channel and river gradient  
17 of the Verde River is highly variable throughout its course due to bedrock and tributary  
18 influences. Id. at 2, 14. Dr. Schumm concluded that “the numerous rapids and bedrock  
19 impact on the river prevent navigation, but even more important are the very steep gradients  
20 ranging from 12 to 25 ft/mile” that would make navigation “impossible.” Id.

21 Dr. Schumm’s conclusions regarding the variable nature and extremely steep slope of  
22 the Verde River is consistent with the geomorphic information presented by the SLD’s  
23 consultants. See Tr. at 18-19, 26-27 (Pearthree) (“I hammered home the point the Verde is a  
24 variable floodplain, valley morphology changes a lot up and down the river.”); Fuller, supra,  
25 at 5-26 (noting that the width of the flood channels varies substantially). Although the SLD’s  
26 consultants concluded that the Verde River can be characterized primarily as having a pool-  
27 and-riffle sequence, this indicates that the river carries coarse bedload sediment. Fuller, supra,

1 at 5-6; Tr. at 20 (Pearthree) (“Typically rapids would be another term for that narrower,  
2 steeper, coarse bed load river.”). As noted in the SLD’s report: “The bed forms of the low-  
3 flow channels are characterized by a repeating sequences of pools (deeper water areas) and  
4 riffles or rapids (shallow water areas typically dominated by cobbles and small boulders).”  
5 Fuller, supra, at 5-6. Rapids, cobbles, and small boulders would serve as natural impediments  
6 to any attempts at navigation of the Verde River.

7 Simple logic suggests that a river characterized by repeating patterns of deeper water  
8 and shallow rapids is not susceptible to navigation. Although it might be possible to float a  
9 boat in the “deeper water areas” (except in times of low flows), it would not be possible to  
10 maintain navigation in the “shallow water areas typically dominated by cobbles and small  
11 boulders.” See id. Therefore, it would be impossible to sustain navigation for any meaningful  
12 stretch of the river, so as to allow the river to be used as “a corridor or conduit within which  
13 the exchange of goods, commodities or property or the transportation of persons may be  
14 conducted.” See A.R.S. § 37-1101(3).

15 This “pool-and-riffle” pattern also explains why a few accounts exist of persons using  
16 boats to cross the river, even though virtually no accounts exist of persons using boats to  
17 travel along the river. Especially in periods of high flows, the “pools” likely would contain  
18 sufficient water to allow a boat to cross the river. By the same token, the “riffles” and rapids  
19 would, except in periods of extremely high water, make travel along the length of the river  
20 impossible.

#### 21 **IV. ARGUMENT**

22 “[I]t is not . . . every small creek in which a fishing skiff or gunning canoe can be made  
23 to float at high water which is deemed navigable.” The Montello, 87 U.S. 430, 442 (1874).

24 “[T]he vital and essential point is whether the natural navigation of the river is such that it  
25 affords a channel for useful commerce.” Id. at 443. The Commission must review all of the  
26 evidence and determine whether the Verde River was “navigable” on February 14, 1912.

27 When it reviews the evidence submitted, and considers the totality of that evidence, SRP

1 submits that the Commission should and will find that the evidence supports a finding that the  
2 Verde River was never used or susceptible to being used as a “highway for commerce.”

3  
4 **A. Based upon the Evidence in the Record, the Verde River is Not “Navigable”  
as Defined in A.R.S. § 37-1101(5).**

5 In its 2001 decision in Defenders of Wildlife v. Hull, the Arizona Court of Appeals  
6 stated that “all evidence should be examined during navigability determinations and no  
7 relevant facts should be excluded.” 199 Ariz. 411, 425, 18 P.3d 722, 736 (App. 2001).<sup>5</sup> “[A]  
8 river is navigable in law when it is navigable in fact.” Muckleshoot Indian Tribe v. FERC,  
9 993 F.2d 1428, 1431 (9th Cir. 1993). Thus, the Commission must consider all of the evidence  
10 in the record before it. When the Commission reviews the evidence, it must determine that  
11 the Verde River never has been used or susceptible to being used as a “highway for  
12 commerce,” regardless of how the Commission interprets the particular legal details of the test  
13 for “navigability.”<sup>6</sup>

14  
15 **1. The Verde River has never actually been used as a “highway for  
commerce.”**

16  
17  
18 <sup>5</sup> It is important to note the procedural posture of the Court of Appeals’ decision in Hull. That court  
19 **did not** decide whether any particular watercourse was navigable. See 199 Ariz. at 430, 18 P.3d 741  
20 (Thompson, J., concurring in part, dissenting in part). Rather, the court was faced with deciding the  
21 constitutionality of the 1994 statute, which contained a variety of presumptions and evidentiary  
22 exclusions. The court considered each of the provisions of the 1994 statute as though it was an all-or-  
23 nothing proposition. For example, the Court stated: “[W]e conclude that a mandatory finding of non-  
24 navigability for watercourses that flow in direct response to precipitation, **although such a fact may  
be probative**, is contradictory to the *Daniel Ball* test.” Id. at 422, 18 P.3d at 733 (emphasis added).  
25 The court determined that the provisions of Section 37-1128 in effect under the 1994 statute created a  
26 “one strike and you’re out” test. The court found that these individual restrictions did not comply  
27 with the federal standard. The court recognized, however, that the Commission could and should  
consider most (if not all) of the factors contained in those statutes as part of the totality of the  
evidence in determining navigability. See id. at 425, 18 P.3d at 736. The Legislature simply could  
not require that each watercourse satisfy **all** of the factors in order to be navigable.

<sup>6</sup> SRP submitted a brief relating to the definition of “commerce” in the context of navigability-for-title  
determinations, which it herein incorporates by reference. See Salt River Project’s Brief Regarding  
Commerce (February 27, 2006).

1 A watercourse can meet the test for “navigability” under the Arizona statute and the  
2 case law if it satisfies either of two elements: (1) If it was actually used as a “highway for  
3 commerce,” or (2) if it was “susceptible to being used” as a “highway for commerce.” See  
4 A.R.S. § 37-1101(5).

5 It is beyond reasonable dispute that the Verde River has never been actually used as a  
6 “highway for commerce.” No evidence exists of any prehistoric boating or flotation of logs  
7 on the river. See Section III(A), supra. Likewise, no evidence exists that the early explorers  
8 or soldiers in the area near the river, who traveled through the area on several occasions, ever  
9 used the river—for “commerce” or otherwise. See id.; see also Lykes Bros., Inc. v. Corps of  
10 Eng’rs, 821 F. Supp. 1457, 1459 (M.D. Fla. 1993), aff’d 64 F.3d 630 (11th Cir. 1995) (court  
11 found that had river been navigable, it would seem obvious that military and settlers would  
12 have used the river to transport men and supplies rather than carrying them overland). The  
13 evidence of the isolated accounts of boating on the Verde River between 1873 and 1903,  
14 discussed in detail in Appendix A, does not establish that the river was used for any type of  
15 regular (or even periodic) trade or transportation during the period immediately before and at  
16 statehood. See Section III(A), supra.

17  
18 **2. The Verde River has never been “susceptible to being used” as a**  
**“highway for commerce.”**

19 Because the river was never actually used as a “highway for commerce,” the only way  
20 it can be considered navigable is if it was “susceptible” to such use. No evidence exists in the  
21 record to show that the river, in any condition at any time, was capable of acting as “a corridor  
22 or conduit within which the exchange of goods, commodities or property or the transportation  
23 of persons may be conducted.” A.R.S § 37-1101(3) (defining “highway for commerce”).

24  
25 **a. If the Verde River had been “susceptible” to navigation, people**  
**would have navigated it.**

26 Although the river existed in close proximity to much of the exploration and settlement  
27 in early Arizona, it was never used for any type of regular trade or transportation. In order for



1 the Commission to determine that the river was “susceptible to being used . . . as a highway  
2 for commerce,” it must find that the prehistoric inhabitants, the early explorers, the Yavapai,  
3 Pima, and Apache, and thousands of citizens who resided along the river and in the general  
4 area prior to statehood simply failed to comprehend the potential usefulness of the river as an  
5 avenue for navigation. No evidence exists to support such a finding. See also, e.g., Webb v.  
6 Board of Comm’rs of Neosho County, 257 P. 966 (Kan. 1927) (although evidence existed of  
7 log driving, ferry use, and light boats, some by motor power for transfer of passengers for  
8 pleasure and to limited extent for hire, the court nevertheless held that the river was not  
9 navigable because: (1) boats could not move any substantial distance up or down the river at  
10 ordinary times without being pushed or helped over riffles; and (2) the river had never been  
11 used for the transportation of products of the area along the river).

12         It might be theoretically possible that, on one or more occasions in particular years, it  
13 would have been feasible for a person to boat or float logs down some portion of the river.  
14 Occasional use in exceptional times does not, however, support a finding of navigability.<sup>7</sup>  
15 “The mere fact that a river will occasionally float logs, poles, and rafts downstream in times of

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16  
17 <sup>7</sup> Miami Valley Conservancy Dist. v. Alexander, 692 F.2d 447, 451 (6th Cir. 1982) (“limited,”  
18 “sporadic,” “minimal,” and “uniformly unsuccessful” evidence of boat use on creek does not establish  
19 navigability, without specific evidence of successful commercial navigation); see also United States v.  
20 Oregon, 295 U.S. 1, 23 (1935) (evidence of sporadic and ineffective use of boats was not enough to  
21 find water course navigable); North Dakota v. United States, 770 F. Supp. 506, 509-10 (D.N.D.  
22 1991), aff’d, 972 F.2d 235 (8th Cir. 1992) (unique, isolated tie drive in time of high water was not  
23 enough to establish river navigability); see also United States v. Harrell, 926 F.2d 1036, 1040 (11th  
24 Cir. 1991); Harrison v. Fite, 148 F. 781, 784 (8th Cir. 1906) (“A theoretical or potential navigability,  
25 or one that is temporary, precarious, and unprofitable, is not sufficient. While the navigable quality of  
26 a water course need not be continuous, yet it should continue long enough to be useful and valuable in  
27 transportation. . . . Mere depth of water, without profitable utility, will not render a water course  
navigable in the legal sense . . . nor will the fact that it is sufficient for pleasure boating or to enable  
hunters or fishermen to float their skiffs or canoes.”); In re River Queen, 275 F. Supp. 403, 407 (W.D.  
Ark. 1967) (when determining navigability, court “inquiry should be made as to the number of  
persons the stream would accommodate and the nature and extent of the kinds of vessels it would  
carry. The mere fact that the stream might at times carry single logs or canoes or the average row boat  
used by fishermen is not sufficient to establish the navigability of the stream. It must serve a useful  
purpose in opening a commercial route for the people living along its banks”) (citing 56 Am. Jur.,  
Waters §§ 180-181).

1 high water does not make the river navigable.” United States v. Crow, Pope & Land, 340 F.  
2 Supp. 25, 32 (N.D. Ga. 1972) (citing United States v. Rio Grande Dam & Irr. Co., 174 U.S.  
3 690 (1898)). “The waterway must be susceptible for use as a channel of useful commerce and  
4 not merely capable of exceptional transportation during periods of high water.” Id. (citing  
5 Brewer-Elliott Oil & Gas Co. v. United States, 260 U.S. 77 (1922)).<sup>8</sup>

6 No government agency, including federal land surveyors, ever indicated that the Verde  
7 River was navigable. See Section III(A), *supra*; see also United States v. Oregon, 295 U.S. at  
8 23 (courts should consider government’s treatment of watercourse as non-navigable in their  
9 analysis of navigability); see also Washington Water Power Co. v. Federal Energy Regulatory  
10 Comm’n, 775 F.2d 305, 332 (D.C. Cir. 1985) (government’s, including Army Corps of  
11 Engineers’, description and treatment of river is relevant to determination of river  
12 navigability). Likewise, no federal or state land patent indicated that the Verde River was  
13 navigable. See *id.*; see also Lykes Bros., 821 F. Supp. at 1460 (court found actions by State  
14 show that, for many years, it considered river non-navigable, e.g., land bordering river had  
15 been deeded to private ownership and owners paid taxes); Koch v. Department of Interior, 47  
16 F.3d 1015, 1019 (10th Cir. 1995) (because Federal Government did not express intent to  
17 retain island in non-navigable river, title to island passed to patent holder).

18  
19 ***b. Modern boating does not support a finding that the Verde River was***  
***ever “susceptible” to navigation.***

20 Because insufficient evidence exists to show that the Verde River was actually used as  
21 a “highway for commerce,” any party seeking to argue that the river was navigable at  
22 statehood will need to show by a preponderance of the evidence that the Verde River was  
23 “susceptible” to such use. No evidence sufficient to meet that standard was presented to this  
24

25 <sup>8</sup> See also United States v. Harrell, 926 F.2d at 1036 (“susceptibility of use as a highway for  
26 commerce should not be confined to ‘exceptional conditions or short periods of temporary high  
27 water’”) (quoting United States v. Utah, 283 U.S. 64, 87 (1931)); Lykes Bros., 821 F. Supp. at 1463  
27 (“Evidence of navigation during periods of flooding or abnormally high water is not sufficient to  
support a finding of navigability.”) (citations omitted).

1 Commission. The Commission received written evidence and testimony regarding modern  
2 recreational boating on the Verde River. This evidence does not support a finding that the  
3 river was “susceptible” to navigation. Indeed, the evidence points to the opposite conclusion,  
4 for several reasons.

5 First, the evidence of modern recreational boating trips presented to the Commission  
6 reveals that numerous natural impediments serve as Mother Nature’s obstacle to navigation on  
7 the Verde River. One of Arizona’s premier white water boaters, Mr. Jim Slingluff, detailed  
8 some of the boating trips he has taken on the Verde River. See Tr. at 101-131 (Slingluff). His  
9 stories indicated that, at various points along its course, the river has natural impediments that  
10 would have prevented navigation at statehood and continue to do so. His slides depicted  
11 canoes and other modern craft hung up on boulders, trapped in rocky areas, and overturned  
12 after encountering falls or rapids. Id. at 106-113; see Slingluff, Power Point Presentation  
13 Slides 21, 27, and 35 (boulders), 8, 19, and 38 (rapids), 40 (canoe pinned in boulder) (January  
14 18, 2006) (EI 34).<sup>9</sup>

15 Mr. Slingluff indicated that there are at least 130 rapids along the river. See Tr. at 125  
16 (Slingluff). Although he stated that there is no “death count” for the Verde River, Mr.  
17 Slingluff readily acknowledged that many stretches of the river are hazardous—even with  
18 modern equipment and his substantial expertise. See id. at 112-113 (Slingluff) (“There have  
19 been just very few injuries on the Verde where the person was injured in the water where they  
20 had to be choppered out . . .”).<sup>10</sup> Even Mr. Slingluff himself testified that, despite his  
21 significant experience in white-water rafting on many rivers across the country, there were  
22 two times where he “was at immediate risk of dying” while boating on the Verde River due to  
23 high velocity falls. Id. at 112.

24  
25 \_\_\_\_\_  
<sup>9</sup> Color copies of these slides are attached hereto in Appendix C.

26 <sup>10</sup> SRP submits that the lack of a measurable “death count” on a particular river would be a dubious  
27 standard for determining whether such watercourse ever served or could have served as a “highway  
for commerce.”

1           Second, most modern recreational boating does not take place along the entire course  
2 of the river, nor does it occur year round. As Mr. John Colby of the Cimarron River Company  
3 testified, his company's guided boating trips have been conducted from Childs to the  
4 Horseshoe Reservoir and from the Bartlett Reservoir to the confluence with the Salt River.  
5 See Tr. at 55-56 (Colby). The multi-day trips are only conducted once or twice per year, and  
6 only in certain seasons. Id. at 57. Two authors, Mr. Jim Byrkit and Mr. Bob Munson, who  
7 have written extensively on the history of the Verde River stated that the river is not  
8 navigable, even though they were aware of recreational boating on the river. Fuller, supra, at  
9 4-2. Mr. Byrkit noted that such boating is normally possible only in February and March, and  
10 that in other months "the Verde River cannot be run because it dries up or because it is  
11 dangerous, and that a lot of people have died in the Verde River because they enter the river  
12 during flooding." Id.<sup>11</sup>

13           Third, the evidence before the Commission of modern recreational boating is limited to  
14 the ability of modern craft to float the river. However, Arizona statutes direct the Commission  
15 to determine whether, as of statehood, a watercourse was a "highway for commerce, over  
16 which trade and travel were or could have been conducted in the **customary mode of trade**  
17 **and travel on water.**" A.R.S. § 37-1101(5) (emphasis added). In writing on boating in  
18 shallow creeks and rivers generally, Mr. Slingluff has noted that such watercourses "are  
19 boatable in many different canoes, but aluminum, canvas, and wood boats are easily damaged  
20 and difficult to repair." Slingluff, "Shallow Streams: Liquid Paths Into Wilderness," The  
21 Southwestern Sportsman National Magazine, Winter 1990-1991, at 16 (EI 34). The record  
22 indicates that canvas, metal, and wood boats were some of the types available at and before  
23 statehood. See Fuller, supra, at 3-20 to 3-21.

24  
25  
26  
27 <sup>11</sup> This evidence directly contradicts Mr. Slingluff's testimony on the lack of a "death count" on the Verde River, even if that were a proper standard to be used for determining navigability.

1 Mr. Slingluff writes further that, “[p]lastic canoes are durable, slide easily over rocks,  
2 slip quietly through the water, and do not conduct heat or cold.” Id. In another publication,  
3 Mr. Slingluff queries:

4 If the canoe is going to carry you and your gear most of the way, why mind  
5 dragging the canoe over short expanses of wet rock now and then? How  
6 shallow can you go? My canoe draws 3 inches of water when loaded with  
7 260 pounds of paddler and gear. Add another 100 pounds and it takes 4  
8 inches.

9 Slingluff, “Stream Canoeing In Arizona,” Arizona Hunter and Angler, April 1991, at 22 (EI  
10 35). Plastic canoes and other synthetic materials are products of modern technology. No  
11 evidence exists in the records to show that such boats were available modes of travel at the  
12 time of statehood.

13 The evidence of modern recreational boating does not demonstrate that the Verde River  
14 was susceptible to use as a “highway for commerce.” The recreational nature of this boating  
15 does not meet the federal test for navigability. See generally George v. Beavark, Inc., 402  
16 F.2d 977 (8th Cir. 1968) (under admiralty jurisdiction, river was non-navigable where only  
17 use was for float fishing because “[s]uch pastime, however, standing alone is too fragile a  
18 basis to support a holding of legal navigability, absent any evidence of a channel of useful  
19 purpose to trade or commerce.”); Hanigan v. New York, 629 N.Y.S.2d 509, 512 (N.Y. App.  
20 Div. 1995) (evidence of boating on lake was “for purely recreational purposes” and was  
21 “insufficient to demonstrate that the pond has any capacity or suitability for commercial  
22 transportation.”).

23 The characteristics that may make the river “fun” for recreational outings do not make  
24 the river navigable. To the contrary, those characteristics (such as steep slopes, numerous  
25 large rapids, boulders, and other obstructions) that make modern-day boating “fun” are the  
26 same characteristics that tend to make the same river **less** susceptible to being used as a  
27 “highway for commerce.” As one federal district court noted:

1 While pleasure boating can sometimes indicate a river's susceptibility for  
2 commercial use, the type of craft and persons presently using, and enjoying, the  
3 river demonstrates that the river's main appeal lies in the frequent excitement  
4 one encounters in "running the rapids", observing the "white water", and  
5 having short interims of "good water" upon which to relax. It would be an  
affront to the public's intelligence to classify the river *presently* suitable for any  
kind of commercial navigation.

6 Crow, Pope & Land Enterprises, 340 F. Supp. at 34 (internal citations omitted). If one were to  
7 construct a simulated watercourse for maximum enjoying for kayaking, for example, that  
8 watercourse would be much different from one constructed to serve as "a corridor or conduit  
9 within which the exchange of goods, commodities or property or the transportation of persons  
10 may be conducted." See A.R.S. § 37-1101(3).

11 A river is not navigable simply because there is some evidence that modern boats are  
12 able to float on it. See, e.g., United States v. Oregon, 295 U.S. 1, 22-23 (1935) ("At most the  
13 evidence shows such an occasional use of boats, sporadic and ineffective, as has been  
14 observed on lakes, streams, or ponds large enough to float a boat, but which nevertheless were  
15 held to lack navigable capacity."); United States v. Rio Grande Dam & Irr. Co., 174 U.S. 690,  
16 698 (1898) (the "mere fact that logs, poles and rafts are floated down a stream occasionally  
17 and in times of high water does not make it a navigable river."). The evidence of modern  
18 recreational boating in this record does not demonstrate that the Verde River was susceptible  
19 to being used as a "highway for commerce" as of statehood.

20 **V. SUMMARY AND REQUESTED ACTION**

21 The evidence in the record does not support a finding that the Verde River is, was at  
22 statehood, or ever has been used or susceptible to being used as a "highway for commerce."  
23 The Commission should find the river "non-navigable."

24 ...

25 ...

26 ...

27 ...

1 DATED this 21st day of March, 2006.

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

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# Appendix A

## APPENDIX A

### INFORMATION ON EIGHT ACCOUNTS OF ATTEMPTS, SUCCESSFUL OR OTHERWISE, TO BOAT OR TO TRANSPORT GOODS DOWN THE VERDE RIVER BETWEEN 1873 AND 1903

1. **June 1873**: Charles Hayden attempted to float logs down the Salt River and to establish a lumber mill in Tempe, but could not get the logs through the canyons upstream. Later, Hayden came to the Verde River seeking to attempt the same feat, but his effort to float logs there also failed. Fuller, supra, at 3-20. There is no evidence that logs ever were floated down the Verde River during this occasion.
2. **1878**: Fort Verde personnel and civilians reportedly kept boats to reach the other side of the river during periods of high flow. The only documented evidence of keeping such boats indicates that the river was crossed, not that boats were used to travel on the river upstream or downstream. Fuller, supra, at 8-3; see also Tr. at 13 (Fuller).
3. **February 1883**: A local newspaper article stated that the “Salt River is a navigable stream and should be included in the river and harbor appropriation.” That same article reported that North Willcox and Dr. G.E. Andrews, U.S.A., purportedly floated a canvas skiff from McDowell to Barnum’s pier on the Salt River Valley Canal. It is reported that the trip took eighteen hours. Fuller, supra, at 3-20. This trip, however, took place during a time of typically higher stream flow on the Verde River. See id. at 7-3 (“The highest average monthly runoff occurs between January and April, in response to snowmelt.”).
4. **1887**: An 1887 photograph depicts two men on a U.S. Army collapsible boat. Apparently, the boat was “used to take couriers across the Verde during period of high water.” Fuller, supra, at 3-20; Tr. at 13 (Fuller). No evidence exists that this boat was ever intended or used to do anything other than to cross the river during floods or other periods of abnormally high water.

5. **December 1888**: A newspaper article reports that two men from Fort McDowell tried to float a canoe on the Verde and Salt Rivers to Phoenix. Apparently, the story is an obituary for Major E.J. Spaulding, who was killed when he accidentally shot himself while lifting the boat over the Mesa dam on the Salt River. The men were in a canoe and “shooting as they came” down the river. See Fuller, supra, at 3-20 to 3-21.

6. **1890 or 1891**: A modern-day historian thinks he remembers seeing a newspaper article from 1890 or 1891, indicating that logs or sawn timber from Fort McDowell were floated down the Verde River to be used in constructing head gates for the Consolidated Canal. No such article has ever been found. Fuller, supra, at 3-21. Even if this recollection were correct and documented, nothing exists in the record to show that this event did not occur during the major flood in 1891 (greater than 150,000 cfs in February 1891). See Fuller, supra, at 7-21 (Table 15).

7. **June 1899**: Boats were reportedly used to haul rock near building the Perkinsville Dam. Fuller, supra, at 8-3. No additional evidence of this purported event exists in the record.

8. **1903**: Dr. Ralph Palmer and Joe Crain reportedly boated sixteen miles along the Verde River after having the boat pulled up the river five miles by a horse. Fuller, supra, at 3-21. The pair went duck hunting. This trip took place during a time of typically higher stream flows on the Verde River. See id. at 7-3 (“The highest average monthly runoff occurs between January and April, in response to snowmelt.”).

# Appendix B

**APPENDIX B**  
**COMPARISON OF ANNUAL MEAN FLOW RATE FOR VARIOUS STREAMS**  
**(cubic-feet per second)**

<b>River</b>	<b>Navigable?</b>	<b>Cfs</b>	<b>Data Source</b>
Verde River at Paulden (AZ)	To be determined	42	Fuller Report, at 7-10 (Table 7-6)
Verde River at Clarkdale (AZ)	To be determined	192	Fuller Report, at 7-10 (Table 7-6)
Verde River at Camp Verde (AZ)	To be determined	439	Fuller Report, at 7-10 (Table 7-6)
Verde River at Tangle Creek (AZ)	To be determined	559	Fuller Report, at 7-10 (Table 7-6)
Verde River at McDowell (AZ)	To be determined	781	Fuller Report, at 7-10 (Table 7-6)
Arkansas River (OK)	No	7,561	USGS data at Tulsa, OK (1926-1999)
Cedar River (WA)	No	164	USGS data near Cedar Falls, WA (1946-2000)
Chattahoochee River (GA)	No	2,031	USGS data at Buford Dam, GA (1943-2000)
Colorado River (UT)	Yes	7,316	USGS data near Cisco, UT (1914-2000)
Fisheating Creek (FL)	No	252	USGS data at Palmdale, FL (1932-2000)
Great Miami River (OH)	In part	2,277	USGS data at Dayton, OH (1914-1999)
Green River (UT)	Yes	6,930	USGS data at Green River, UT (1895-2000)
Little River (AR)	No	2,892	USGS data at Rivervale, AR (1948-1976)
Little Missouri River (ND)	No	555	USGS data near Watford City, ND (1935-1999)
McKenzie River (OR)	Yes	4,066	USGS data near Vida, OR (1925-2000)
Neosho River (KS)	No	2,764	USGS data near Parsons, KS (1922-2000)
Red River (OK/TX)	No	9,363	USGS data at Arthur City, TX (1906-1999)
Rio Grande (NM)	No	1,513	USGS data at Otowi Bridge, NM (1896-2000)
Sinnemahoning Creek (PA)	No	399	USGS data at Sinnemahoning, PA (1954-2000)
White River (AR)	No	563	USGS data at Fayetteville, AR (1964-1993)
Wolf River (TN)	No	1,107	USGS data at Germantown, TN (1970-2000)

Source: For all rivers other than Verde, see Information Regarding Navigability of Selected U.S. Watercourses (April 2003) (EI 22).

# Appendix C

# Singluff Exhibit 4



# Slinguff Exhibit 8





# Singluff Exhibiti 19



# Singluff Exhibit 21



# Singluff Exhibit 27



# Singluff Exhibit 35



# Singer's Expansion to



# Summer Exhibition

