

1 SPARKS, TEHAN & RYLEY, P.C.  
ATTORNEYS  
2 7503 FIRST STREET  
SCOTTSDALE, ARIZONA 85251  
3 TELEPHONE 480-949-1339

4 Joe P. Sparks, Attorney I.D. No. 2383  
John H. Ryley, Attorney I.D. No. 2095  
5 Attorneys for San Carlos Apache

6 **BEFORE THE ARIZONA NAVIGABLE STREAM**

7 **ADJUDICATION COMMISSION**

8  
9 In re Determination of Navigability of the  
10 Gila River

) No. 03-007-NAV

) **RESPONSE MEMORANDUM OF THE SAN**  
) **CARLOS APACHE TRIBE TO**  
) **DETERMINE WHETHER THE GILA**  
) **RIVER WAS NAVIGABLE AT THE TIME**  
) **OF ARIZONA'S STATEHOOD**

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15 The San Carlos Apache Tribe ("Apache Tribe" or "Tribe"), submits its Response  
16 Memorandum to the Opening Memoranda of the proponents<sup>1</sup> of navigability following the  
17 hearing on November 16 and 7, 2005, and respectfully requests the Commission to determine that  
18 the Gila River is non-navigable.

19 **INTRODUCTION**

20 The proponents have raised much dust with their Opening Memoranda. Unfortunately, it  
21 emanates from the bed of the Gila River at the date of Arizona Statehood.

22 It is time to clear the air again. The power of Congress under the Commerce Clause,  
23 Article 1§ 8, paragraph 2 of the Constitution, requires a legal analysis. The condition of the Gila  
24 River for purposes of title under the equal footing doctrine requires a functional analysis. The  
25 Commerce Clause is expressly a Constitutional matter. Navigability for purpose of title under the  
26

27 <sup>1</sup>The "proponents" include the Arizona State Land Department, the Arizona Center for  
28 Law in the Public Interest, and Maricopa County. They confuse the Commerce Clause test and its  
criteria to determine navigability, with the separate equal footing doctrine test and its criteria to  
determine navigability. They are not identical as we explain below.

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1 equal footing doctrine is not. The difference between the two is clear, and should not be  
2 confused.

3 The power of Congress “[t]o regulate Commerce with foreign Nations...and with the  
4 Indian Tribes” is plenary. The power of Congress “to regulate Commerce...among the several  
5 States” may or may not be “plenary” depending upon the facts involved.<sup>2</sup> If Congress wants to  
6 spend enough money, and wants to preempt the field, it can dig a ditch large enough and long  
7 enough to create a waterway which is navigable for “commerce.”. If necessary, Congress may  
8 decide to connect “sea to shining sea”, as it did with the Suez and Panama Canals; or the Atlantic  
9 Ocean with Chicago and Detroit, as it did with the Saint Lawrence Seaway.

10 Originally, the issue was whether the power of Congress to regulate Commerce included  
11 “navigation.” Chief Justice Marshall for the United States Supreme Court said, “The word  
12 [commence] comprehends and has always been understood to comprehend, navigation within its  
13 meaning; and a power to regulate navigation is as expressly granted as if that term had been added  
14 to the word ‘commerce.’”<sup>3</sup>

15 Proponents **have incorrectly** relied upon cases such as *Economy Light* and *Appalachian*  
16 *Electric*<sup>4</sup> and their progeny.<sup>5</sup> These cases interpret the power of Congress and what is or may be  
17 made navigable under the Commerce Clause. They do not speak to the concept of navigability for  
18 title, which is simply a questions of the physical condition of the Gila River at the time of  
19 Statehood. The Gila was not functionally navigable for “commerce” in fact on that date. It was

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21 <sup>2</sup>Compare, *Champion v. Ames*, 188 U.S. 321 (1903); *Carter v. Carter Coal Co.*, 298 U.S.  
22 238 (1036); and *United States v. Lopez*, 514 U.S. 549; 115 S.Ct. 1624, 131 L.Ed. 2d 626; 1995  
U.S. Lexis 3039 (1995).

23 <sup>3</sup>*Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 193 (1824).

24 <sup>4</sup>*Economy Light & Power Company v. United States*, 256 U.S. 113 (1921) (“*Economy*  
25 *Light*”) and *United States Appalachian Electric Power & Co.*, 311 U.S. 377 (1940)  
26 (“*Appalachian Electric*”).

27 <sup>5</sup>See, for example, *Pudget Sound Power & Light Company v. Federal Energy Regulatory*  
28 *Commission*, 644 F.2d 785 (9<sup>th</sup> Cir. 1981), which are cases cited by Maricopa County in its  
Opening Memorandum at p. 5, for the proposition that navigability under the equal footing  
doctrine is determined based on the pre-development virgin condition of a river. In fact, *Pudget*  
*Sound* is simply another Commerce Clause case which applies the holdings in *Economy Light* and  
*Appalachian Power*. It does not involve navigability for title.

1 not navigable under the equal footing doctrine for purposes of title.

2       **A. The Federal Test to Determine the Navigability of the Gila River**  
3       **Under the Equal Footing Doctrine Requires That the Gila River**  
4       **Must Be Navigable on the Date of Arizona's Statehood**

5       The proponents of navigability of the Gila River concede, as they must, that by the time of  
6       statehood, the waters of the Gila River had been over-appropriated and diverted for irrigation  
7       purposes, and that the Gila River was therefore non-navigable at that time. They are wrong when  
8       they assert that if they can prove that the Gila River **was navigable** under pre-development virgin  
9       conditions, title to the underlying lands of the Gila River vested in the State of Arizona at the time  
10      of statehood, February 14, 1912.

11      The navigability of a river, or its susceptibility to navigation, must be determined at the  
12      time that a state is admitted to the Union under the federal equal footing doctrine. *See United*  
13      *States v. Holt State Bank*, 270 U.S. 49 (1926); *United States v. Utah*, 283 U.S. 64, 75 (1931);<sup>6</sup>  
14      *State of Oregon v. Riverfront Protection Association*, 672 F.2d 792, 795 (9<sup>th</sup> Cir. 1982); *Land*  
15      *Department v. O'Toole*, 154 Ariz. 43, 44, 739 P.2d 1360, 1361 (1987) ("The federal Equal  
16      Footing Doctrine grants each state property rights to the riverbeds of all its waterways which were  
17      navigable on the date of statehood."); *Arizona Center for Law in the Public Interest v. Hassell*,  
18      172 Ariz. 356, 363, 837 P.2d 158, 165 (App. 1991); and *Defenders of Wildlife v. Hull*, 199 Ariz.  
19      411, 426, 18 P.3d 722, 737 (App. 2001).

20      While some of the criteria under the federal *Daniel Ball* test decided under the Commerce  
21      Clause,<sup>7</sup> are intertwined with "equal footing" criteria for "navigability for title" cases, not all of

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22      <sup>6</sup>The Supreme Court in *United States v. Utah*, 283 U.S. 64, 75 (1931), clearly held that  
23      under the equal footing doctrine, a river must be navigable in fact, or susceptible to use as a  
24      highway for commerce, on the date that a state is admitted to the Union: "In accordance with the  
25      constitutional principle of the equality of the States, the title to the beds of rivers within Utah  
26      passed to that State when it was admitted to the Union, **if the rivers were then navigable; and,**  
27      **if they were not then navigable, the title to the river beds remained in the United States.**"  
28      [Emphasis added]. Also, see *State of Alaska v. Ahtna, Inc.*, 891 F.2d 1401, 1404 (9<sup>th</sup> Cir. 1989),  
29      "...the river must be navigable at the time of statehood..." [Emphasis added].

30      <sup>7</sup>The Commerce Clause, Article I, Section 8 of the U.S. Constitution, provides in part that  
31      Congress shall have the power "To regulate Commerce with foreign Nations, and among the  
32      several States, and with the Indian tribes." The holdings of the Supreme Court in *The Daniel*  
33      *Ball*, 77 U.S. 557 (1870) ("*Daniel Ball*"); *The Montello*, 87 U.S. 430 (1874); and *United States v.*  
34      *Rio Grande Dam and Irrigation Company*, 174 U.S. 690 (1899), were based on the constitutional  
35      power of Congress to regulate "Commerce among several states" under the Commerce Clause.

1 the criteria are identical. Navigability of a river under the equal footing doctrine must be  
2 determined based on its functional condition at the time that a state was admitted to the Union.  
3 There is no time restriction, however, which applies under the Commerce Clause to determine  
4 navigability.

5 This means that the navigability of the Gila River under the equal footing doctrine must be  
6 determined based on its condition at the time of statehood--- not on its alleged condition 52 years  
7 prior to statehood (1860), under pre-development or virgin condition, as argued by the  
8 proponents.

9 As noted above, *Economy Light* and *Appalachian Electric*, are cited by the proponents of  
10 the navigability of the Gila River (and other rivers in Arizona) for the proposition that under the  
11 equal footing doctrine, the navigability of the Gila River must be determined under pre-statehood  
12 pre-development virgin conditions prior to Arizona's statehood.

13 The U.S. Supreme Court held in *Economy Light*, that Congress has plenary constitutional  
14 power under the Commerce Clause to make a river which has become non-navigable because of  
15 man-made changes, "navigable" again for purposes of serving interstate commerce.<sup>8</sup> In *Economy*  
16 *Light*, the United States filed an action against Economy Light to enjoin it from constructing a  
17 dam across the Desplaines River in Illinois, alleging that Congress had not approved construction  
18 of the dam, and that the dam had also not been approved by the Chief of Engineers and the  
19 Secretary of War of the United States, as required under certain federal statutes. The defense  
20 argued that the Desplaines River was no longer navigable because of man-made changes to the  
21 river, and therefore, was not subject to regulation under certain federal statutes, including Section

22  
23  
24 Interstate Commerce" is often used to mean the same thing. These terms are not always identical.  
25 The debate concerning the power retained by states to regulate "Interstate Commerce" remains  
26 unresolved, even when it may have an impact on other states. *See Cooley v. Board of Wardens*,  
27 53 U.S. (12 How. ) 299, 319-20 (1851); *see also* note 2, *supra*. All of the U.S. Supreme Court  
"navigability for title" cases were decided thereafter, but adopted the *Daniel Ball* federal criteria  
in general to determine navigability under the equal footing doctrine, except that navigability  
under the equal footing doctrine must be determined at the time of statehood, as reviewed herein.

28 <sup>8</sup>The Commerce Clause gives the federal government a "dominant servitude" over  
navigable waters, even if states have taken title to lands underlying such navigable waters under  
the equal footing doctrine. *See United States v. Cherokee Nation of Oklahoma*, 480 U.S. 700  
(1987).

1 9 of the Rivers and Harbors Act of 1899 (30 Stat. 1151),<sup>9</sup> which required the consent of Congress  
2 to construct a dam across a navigable river.

3 The Supreme Court reviewed the historical evidence of the navigability of the Desplaines  
4 River, which established that it was clearly navigable from its early fur-trading days in about  
5 1675, to approximately 1825. Illinois became a state in 1811.<sup>10</sup> After approximately 1825,  
6 because of man-made changes to the Desplaines River, including dams, artificial obstructions,  
7 drainages and artificial diversions, the Desplaines River was no longer navigable.

8 The Supreme Court held in *Economy Light* that despite the fact that the Desplaines River  
9 had not been navigable for more than a century, that did not affect the power of Congress under  
10 the Commerce Clause to authorize or prohibit construction of the dam, because the Desplaines  
11 River had been navigable under pre-development virgin conditions before such man-made  
12 changes:

13 We concur in the opinion of the Circuit Court of Appeals that a river  
14 having actual navigable capacity in its natural state and capable of  
15 carrying commerce among the States, **is within the power of  
16 Congress to preserve for purposes of future transportation even  
17 though it be not at present used for such commerce, and be  
18 incapable of such use according to present methods, either by reason  
19 of changed conditions or because of artificial obstructions. [256 U.S.  
20 at 123]. [Emphasis added].**

21 The Supreme Court in *Economy Light* further held:

22 [I]mprovements in the methods of water transportation or increased  
23 cost in other methods of transportation may restore the usefulness of  
24 this stream; **since it is a natural interstate waterway, it is within  
25 the power of Congress to improve it at the public expense;** and it is  
26 not difficult to believe that many other streams are in like condition  
27 and require only the exertion of federal control to make them again  
28 important avenues of commerce among the States. [256 U.S. at 124].  
[Emphasis added].

Thus, it is clear in *Economy Light*, that the Supreme Court's holding that the navigability

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25 <sup>9</sup>Section 9 of the Rivers and Harbor Act of 1899, was modified by the Federal Water  
26 Power Act of 1920, wherein Congress created the Federal Power Commission, and granted it  
27 authority to license the construction of dams across navigable rivers under certain conditions. 41  
28 Stat. 1063. This Act was amended by 49 Stat. 838 (1935), which became known as the Federal  
Power Act. *Appalachian Power* was decided under the Federal Power Act.

<sup>10</sup>The U.S. Supreme Court in *Economy Light* never discussed the date of Illinois'  
statehood, since the date of Illinois' statehood was completely immaterial and irrelevant to the  
power of Congress under the Commerce Clause.

1 of the Desplaines River was not based upon the condition of the river, but rather was based on the  
2 plenary power of Congress to exercise its constitutional authority under the Commerce Clause to  
3 restore the navigability of the Desplaines River which was once “a natural interstate waterway” at  
4 anytime for purposes of interstate commerce.

5 In *Appalachian Electric*, the U.S. Supreme Court went even further, holding that a river  
6 which has never been navigable under pre-development virgin conditions, may become  
7 “navigable” for purposes of the Commerce Clause, where man-made changes had **made** such  
8 river navigable.

9 The Supreme Court’s holding, similar to *Economy Light*’s holding, was also based upon  
10 the Commerce Clause, not the equal footing doctrine. The United States filed an action against  
11 Appalachian Electric in 1935 to enjoin it from constructing a dam across the New River in  
12 Virginia under the Federal Power Act, alleging that the New River was navigable, and that the  
13 dam would affect interstate commerce.

14 The Court held that since a certain reach of the New River, which was always non-  
15 navigable, could be made navigable through man-made improvements, that reach was therefore  
16 navigable under the Commerce Clause, and therefore, the proposed hydroelectric dam was subject  
17 to regulation under the Federal Power Act:

18 **To appraise the evidence of navigability on the natural condition**  
19 **only of the waterway is erroneous. Its availability for navigation**  
20 **must also be considered. “Natural and ordinary condition” refers**  
**to volume of water, the gradients, and the regularity of the flow.<sup>11</sup>**

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21 <sup>11</sup>The proponents of navigability of the Gila River argue that the term “natural and  
22 ordinary condition” means the Gila River’s condition under pre-development virgin conditions.  
23 *Appalachian Electric* defined the term “natural and ordinary condition,” however, as referring  
24 only to the “volume of water, gradients, and the regularity of the flow.” *Id.*, at p. 407. Under the  
25 first Commerce Clause case, *The Daniel Ball*, 77 U.S. 557, 563 (1870), the Supreme Court used  
26 the term “ordinary condition,” as part of the federal criteria to determine navigability under the  
27 Commerce Clause. Proponents of navigability cite *The Montello*, 87 U.S. 430, 441 (1874), where  
28 the Supreme Court used the term “natural state” of a river, as referring to the condition of the Fox  
River before man-made changes improved its navigability. *The Montello*, however, is a  
Commerce Clause case. In *Oklahoma v. Texas*, 258 U.S. 574, 586 (1922), an equal footing case,  
the court uses the term “natural and ordinary condition” for the first time, however, the court cites  
*Economy Light*, 256 U.S. 113 (1921), as authority for this terminology. The Supreme Court has  
never held under the equal footing doctrine, however, that the term “natural and ordinary  
condition” of a river, means the condition of a river under pre-development virgin conditions.  
That would be contrary to the holdings of the Supreme Court under the equal footing doctrine that  
the navigability of a river must be determined at the time of statehood. Under *Economy Light* and  
*Appalachian Electric*, however, it is true that a river is navigable, if it was navigable at anytime

1 A waterway, otherwise suitable for navigation, is not barred from that  
2 classification merely because artificial aids must make the highway  
3 suitable for use before commercial navigation may be undertaken.  
4 [311 U.S. at 407]. [Emphasis added].

5 It is of critical importance here, to recognize that the Court in *Appalachian Electric* clearly  
6 distinguished criteria for “navigability for title” determinations under the equal footing doctrine,  
7 from navigability determinations made under the Commerce Clause:

8 **Although navigability to fix ownership of the river bed or**  
9 **riparian rights is determined as the cases just cited in the notes**  
10 **show, as of the formation of the Union in the original states or the**  
11 **admission to statehood of those formed later, navigability, for the**  
12 **purpose of the regulation of commerce, may later arise. An**  
13 **analogy is found in admiralty jurisdiction, which may be extended**  
14 **over places formerly nonnavigable. \*\*\*\* In determining the**  
15 **navigable character of the New River it is proper to consider the**  
16 **feasibility of interstate use after reasonable improvements which**  
17 **might be made. [311 U.S. at 408-409]. [Emphasis added].**

18 The Court emphasized in *Appalachian Electric* that the power of Congress under the  
19 Commerce Clause is plenary in scope, and supercedes vested property rights asserted under state  
20 law:

21 The respondent is a riparian owner with a valid state license to use the  
22 natural resources of the state for its enterprise. Consequently it has as  
23 complete a right to the use of the riparian lands, the water and the  
24 river as can be obtained under state law. **The state and respondent,**  
25 **alike, however, hold the waters and the lands under them subject**  
26 **to the power of Congress to control the waters for the purpose of**  
27 **Congress. \*\*\*\* The Federal Government has domination over the**  
28 **water power inherent in the flowing stream. It is liable to no one for**  
**its use or non-use. The flow of a navigable stream is in no sense**  
**private property; “that the running water in a great navigable stream is**  
**capable of private ownership is inconceivable.” Exclusion of**  
**riparian owners from its benefits without compensation is entirely**  
**within the Government’s discretion. [311 U.S. 423-424].**

29 In *State of Oregon v. Riverfront Protection Association*, 672 F.2d 792, 795 (9<sup>th</sup> Cir. 1982),  
30 the Ninth Circuit Court of Appeals also held that the federal criteria to determine **navigability for**  
31 **title under the equal footing doctrine differ from the criteria to determine navigability under**  
32 **the Commerce Clause**, because navigability under the equal footing doctrine must be determined  
33 at the time of statehood:

34 \_\_\_\_\_  
35 under pre-development virgin conditions, or could be made navigable. *See Economy Light &*  
36 *Power Company v. United States*, 256 U.S. 113, 124 (1921). The proponents of the navigability  
37 of the Gila River fail to distinguish between the Commerce Clause cases, and the equal footing  
38 doctrine cases of the Supreme Court.

1                   **Navigability for title to riverbeds differs in three important**  
2                   **respects from navigability for federal regulatory jurisdiction over**  
3                   **power plants under the Commerce Clause. The former must exist**  
4                   **at the time the State is admitted into the Union. Also, it must exist**  
5                   **in the river's ordinary condition, see *United States v. Utah*, 283**  
6                   **U.S. 64, 75-76, 51 S. Ct. 438, 440-41, 75 L. Ed. 844 (1931); it cannot**  
7                   **occur as a result of reasonable improvements. This is not the case**  
8                   **in federal power plant licensing. See *United States v. Appalachian***  
9                   ***Electric Power Co.*, 311 U.S. 377, 61 S. Ct. 291, 85 L. Ed. 243**  
10                   **(1940). [Emphasis added].**

11                   The federal criteria to determine navigability under the equal footing doctrine differ in  
12 three respects from the Commerce Clause criteria. Navigability must be determined (1) at the  
13 time of statehood; (2) based on a river's ordinary condition as it exists at that time; and (3) not as  
14 a result of improvements.

15                   In *Kaiser Aetna v. United States*, 444 U.S. 164, 175 (1979), the Supreme Court broadly  
16 described the plenary power of Congress to regulate navigable waters under the Commerce  
17 Clause, as liberally held in *Appalachian Electric*:

18                   *Appalachian Power Co.* indicates that congressional authority over  
19 the waters of this Nation does not depend on a stream's  
20 "navigability." \*\*\*\* **The cases that discuss Congress' paramount**  
21 **authority to regulate waters used in interstate commerce are**  
22 **consequently best understood when viewed in terms of more**  
23 **traditional Commerce Clause analysis than by reference to**  
24 **whether the stream in fact is capable of supporting navigation or**  
25 **may be characterized as "navigable waters of the United States."**  
26 [Emphasis added].

27                   The determination of navigability under the equal footing doctrine, however, is not  
28 governed by the plenary power of Congress under the Commerce Clause to regulate interstate  
commerce. The equal footing doctrine is not based on the Commerce Clause of the Constitution.

                  The equal footing doctrine traces its history back to the law of England, and is based on  
common law and principles of state sovereignty,<sup>12</sup> not the Commerce Clause, or the U.S.  
Constitution.

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<sup>12</sup>The thirteen original states succeeded to the title of such submerged lands within their boundaries by treaty, as the sovereign successors to the English Crown, prior to the adoption of the U.S. Constitution. See *Martin v. Waddells' Lessee*, 41 U.S. 367 (1842). Because subsequently admitted States have entered the Union on an "equal footing" with the original thirteen states under express federal legislation, they too are usually found to hold title to land under navigable waters within their boundaries at the time of their entry into the Union. See *Pollard v. Hagan*, 44 U.S. 212 (1845).



1 For example, under the Property Clause of the Constitution,<sup>13</sup> Congress can defeat a  
2 prospective state's title to land underlying navigable waters at the time it is admitted to the Union,  
3 by a pre-statehood conveyance of such lands to a private party, or by a pre-statehood reservation  
4 of such lands for the United States, which expressly intends to defeat a state's prospective title  
5 under the equal footing doctrine. See *Utah Division of State Lands v. United States*, 482 U.S.  
6 193, 201 (1987).

7 The proponents also cite *Defenders of Wildlife v. Hull*, 199 Ariz. 411, 18 P.3d 722 (2001)  
8 ("*Defenders*"), as holding that a river is navigable under the equal footing doctrine, if it was  
9 navigable at anytime prior to statehood under pre-development virgin conditions. They are wrong.

10 In fact, in *Defenders*, 199 Ariz. at 418, 18 P.3d at 729 (2001), the court properly  
11 recognized that "A federal determination of 'navigability' may serve many different purposes, the  
12 three most typical being: to confer admiralty jurisdiction, to define Congress' reach under the  
13 commerce power, and to grant title under the equal footing doctrine."

14 The *Defenders* court therefore acknowledged that the federal test and criteria to determine  
15 navigability under the Commerce Clause, in contrast to equal footing doctrine, are different and  
16 must be carefully distinguished, depending upon the purpose for which the concept of navigability  
17 is being invoked:

18 Because of the variant circumstances in which navigability is raised,  
19 the cases interpreting navigability "cannot be 'simply lumped into one  
20 basket.'" \*\*\*\* **Indeed, when discussing navigability, any reliance  
21 on judicial precedent should be predicated on a careful appraisal  
22 of the purpose for which the concept of navigability is invoked.**  
23 \*\*\*\* For the present purpose, navigability is being used to determine  
24 the extent of land the State of Arizona received by virtue of the equal  
25 footing doctrine. [18 P.3d at 729].

26 The proponents cite that part of the *Defenders* decision which ruled that the statutory  
27 presumption of non-navigability under A.R.S. § 37-1128(D)(7) was unconstitutional. They argue  
28 that this ruling constitutes a holding by the Court that a river is navigable under the equal footing  
doctrine, if it was navigable at anytime prior to statehood under pre-development virgin  
conditions. They are wrong.

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<sup>13</sup>The Property Clause to the U.S. Constitution provides that "The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States...." U.S. Constitution, Art. IV, § 3, cl. 2.

1 A.R.S. § 37-1128(D)(7) provided that “Unless there is clear and convincing evidence that  
2 a watercourse was navigable,” it shall be presumed that it was non-navigable, if “there were  
3 bridges, fords, dikes, man-made water conveyance systems or other structures constructed in or  
4 across the watercourse that would have been inconsistent with or impediments to navigation.”  
5 *Defenders*, 199 Ariz. at 424.

6 The *Defenders* court held that this statutory presumption of non-navigability violated the  
7 preemption doctrine under the Supremacy Clause of the U.S. Constitution because such  
8 presumption was contrary to federal law. *Defenders*, 199 Ariz. at 426. The court specifically  
9 ruled that “the existence of man-made impediments to travel clearly does not create a  
10 presumption of non-navigability under the federal test which looks at the river’s conditions and  
11 does not require that travel be continuous or unimpeded.” 199 Ariz. at 424. The court’s ruling is  
12 correct since it has never been the federal law that there is a presumption of non-navigability,  
13 unless navigation is continuous and unimpeded.<sup>14</sup>

14 The proponents wrongly argue that *Defenders* stands for the proposition that a river can be  
15 determined to be navigable under the equal footing doctrine, if it was navigable at anytime prior  
16 to statehood under pre-development virgin conditions, even if it is no longer navigable at the time  
17 of statehood because of man-made changes. Indeed, this specific issue was certainly never  
18 presented to or decided by the *Defenders* court.<sup>15</sup>

19 In conclusion, the U.S. Supreme Court cases, such as, *The Montello*, *Economy Light*, and  
20 *Appalachian Electric*, go simply to the power of Congress under the Commerce Clause to  
21 regulate water used in interstate commerce. These cases do not apply under the equal footing  
22 doctrine, which requires that a river must be navigable for commerce based upon its ordinary  
23

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24 <sup>14</sup>See, e.g. *The Montello*, 87 U.S. 430 (1874) (holding that the Fox River was **navigable in**  
25 **fact because it was actually used as a highway for commerce to transport commercial goods**  
26 **on long, narrow boats, called Durham boats, even though a few portages were required, boats**  
27 **were propelled either by oars, poles, or animal power, and navigation was difficult).**

28 <sup>15</sup>While the *Defenders* court cited and quoted from *Economy Light*, 256 U.S. at 118, that  
artificial obstructions could be abated to make an interstate river navigable, that would only be  
true if the Commerce Clause was being applied, because *Economy Light* is a Commerce Clause  
case. See *Defenders* at p. 424. There is no constitutional authority, however, to ignore the  
condition of the Gila River at statehood under the equal footing doctrine. There can be no real  
dispute that the Gila River was not used then, nor has it been used before, as a waterway  
navigable for interstate commerce.

1 condition at the time of statehood.

2 **B. The Evidence Fails to Prove That the Gila River Was Navigable**  
3 **Prior to Statehood, But Clearly Demonstrates That the Gila River**  
4 **Was Non-Navigable at the Time of Statehood**

5 **1. The Gila River Was Non-Navigable Prior to**  
6 **Statehood**

7 The proponents argue that since the Gila River could be navigated prior to statehood under  
8 pre-development virgin conditions, the Gila River is therefore navigable under the equal footing  
9 doctrine, even though they concede the fact that the Gila River was non-navigable at the time of  
10 statehood.<sup>16</sup> As noted above, their argument fails because under the equal footing doctrine the  
11 only test is whether the Gila River was navigable at the time of statehood.

12 Proponents primarily rely upon a mathematical model prepared by Hjalmar Hjalmarson,<sup>17</sup>  
13 an expert witness retained by Maricopa County.<sup>18</sup> His model attempts to replicate the Gila River  
14 in its pre-development virgin condition in 1860 from the confluence of the Salt River downstream  
15 to the mouth of the Gila River on the Colorado River.<sup>19</sup>

16 As the Apache Tribe explained in its Opening Memorandum on the Gila River at pp. 9-13,  
17 there are only a few reported anecdotal historical accounts of navigation on the Gila River from  
18 1846 to 1909. These few anecdotal accounts unequivocally demonstrate that there was not any  
19 successful **commercial** boating on the Gila River at anytime prior to Arizona's statehood. The

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20 <sup>16</sup>The ASLD and ACLPI also argue that the reach of the Gila River through the Gila Box  
21 National Riparian Conservation Area upstream from Safford was navigable at the time of  
22 statehood based upon modern-day boating which occurs in this reach. However, even this reach  
23 was non-navigable under ordinary conditions of the Gila River at the time of statehood.

24 <sup>17</sup>E-23, "Navigability Along the Natural Channel of the Gila River," by Hjalmar W.  
25 Hjalmarson, dated October 25, 2002.

26 <sup>18</sup>Maricopa County argues in its opening memorandum at p. 24, that "The only evidence  
27 presented about the Gila River in pre-settlement, pre-diversion condition was by Winn  
28 Hjalmarson." The Apache Tribe agrees with this statement, except that Mr. Hjalmarson's model  
did not account for the diversions of water from the Gila River by the Pima Maricopa Indians at  
that time for the irrigation of crops. Mr. Hjalmarson admitted that he did not know how much  
water was being diverted by the Pima Maricopa Indians at that time. TR17:264.

<sup>19</sup>The model does not attempt to predict the navigability of the Gila River as an  
international or interstate from the border of New Mexico downstream to its confluence with the  
Colorado River. The model only attempts to predict the flow of the Gila River from its  
confluence with the Salt River downstream to the Colorado River mouth of the Gila River, as  
admitted by Mr. Hjalmarson. TR17:287.

1 historical record does not support the reliability and accuracy of Mr. Hjalmarson's model.

2 The predictions made under Mr. Hjalmarson's model are, at this stage, unreliable and  
3 inaccurate,<sup>20</sup> because of the underlying assumptions he made and the data which he used where  
4 not verified or calibrated. TR17:293-295. Mr. Hjalmarson admitted that other scientists could  
5 not verify the test results of his model because the data that Mr. Hjalmarson used were not  
6 contained in his report. TR17:288. Mr. Hjalmarson also admitted that his model was never peer-  
7 reviewed or accepted by independent scientists within the scientific community. TR17:280.

8 Perhaps the single most significant flaw in Mr. Hjalmarson's model is his assumption that  
9 the Gila River was a single unbraided (smooth parabolic) channel in 1860. The evidence shows,  
10 however, that this assumption is incorrect. E-23 at pp. 9-10.<sup>21</sup>

11 The evidence shows that the Gila River under pre-development virgin conditions, was a  
12 multi-braided channel river because of periodic heavy flooding. Most of the experts who testified  
13 agreed.<sup>22</sup> Dr. Huckleberry also testified that because the Gila River is a desert river, it is unstable  
14 and becomes a braided river after heavy flooding. TR16:58-59. Dr. Schumm's report (E-6),<sup>23</sup> at  
15  
16  
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18 <sup>20</sup>The term "reliability" refers to whether a proffered scientific model has been peer-  
19 reviewed and accepted within the scientific community. This depends on whether such model can  
20 be independently verified and calibrated by other scientists, and whether the underlying data and  
21 assumptions regarding such model are accepted within the scientific community through peer  
22 review. The term "accuracy" refers to whether the data used for such model are accurate so that  
the model, if reliable, can predict an accurate result within acceptable margins of error. Mr.  
Hjalmarson's model is neither reliable nor accurate because it is not capable of verification,  
calibration, cannot be peer-reviewed, and because the factual assumptions and data underlying  
such model are erroneous. The model therefore is not mathematically capable of reliably or  
accurately predicting the flows and depth of the Gila River in 1860.

23 <sup>21</sup>See Hjalmarson's expert witness report (E-23) dated October 25, 2002, at pp. 9-10,  
24 concedes that the channel morphology of the Gila River was unknown in 1860, and that he  
25 therefore assumed for purposes of developing his model that the Gila River in 1860 was a single  
unbraided channel.

26 <sup>22</sup>See, for example, ASLD Report, E-4, at p. VII-10 ("...a basic premise of this study is that  
27 the Gila River responds to secular climatic variability by radical changes in channel configuration,  
and that periods of increased, large flood frequency correlate with unstable, braided channel  
28 conditions."). Significantly, all experts who testified agreed that by the time of statehood, the  
Gila River was an unstable braided river because of man-made changes.

<sup>23</sup>"Geomorphic Character of the Lower Gila River," by Stanley A. Schumm, Ph.D., dated  
June 2004 (E-6).

1 p. 16, also concludes that the Gila River was a braided river.<sup>24</sup> Mr. Hjalmarson also conceded  
2 that heavy flooding would destabilize the Gila River which would then develop multiple  
3 channels. TR17:279. Significantly, Mr. Hjalmarson admitted that if the Gila River was not a  
4 single unbraided river in 1860, his model would be unreliable and inaccurate. TR17:266.

5 Mr. Hjalmarson's model therefore cannot reliably or accurately predict the flows or depth  
6 of the Gila River under pre-development virgin conditions, since the evidence does not establish  
7 that the Gila River was a single channel river in 1860.

8 Mr. Hjalmarson's model is also inaccurate because it did not account for water being  
9 diverted from the Gila River by the Pima Maricopa Indians in 1860, and could be inaccurate  
10 depending on the amount of such diversions. TR17:264.

11 Finally, all of the historical boating evidence, and other historical records and documents  
12 regarding the Gila River at the time period around 1860, seriously contradict the conclusion of  
13 Mr. Hjalmarson's model.<sup>25</sup> The absence of any reported commercial navigation at this period in  
14 time, much less, any kind of successful navigation, is indeed, evidence of the absence of such  
15 navigation.<sup>26</sup>

16 The proponents of the navigability of the Gila River have failed to prove by a  
17 preponderance of the evidence based upon Mr. Hjalmarson's model that the Gila River could be  
18 commercially navigated in 1860.

19 Mr. Hjalmarson's model, as designed, cannot be used to predict that the Gila River was

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21 <sup>24</sup>Dr. Schumm in his report (E-6), at p. 3, states that a braided river is defined by the  
22 American Geological Institute (1972) as a "stream that divides into or follows an interlacing or  
23 tangled network, or several, small branching and reuniting shallow channels separated from each  
24 other by branch islands or channel bars, resembling in plan the strands of a complex braid." Dr.  
Schumm states at p. 3 of his report, "Braided rivers have a high width-depth ratio and relatively  
steep gradient, as a result of high bed load and large floods, which produce a relatively unstable  
pattern and a relatively variable channel in time and location."

25 <sup>25</sup>There were only a handful of anecdotal historical accounts of boating on the Gila River,  
26 most of which were unsuccessful, like the Mormon battalion raft used to float provisions down  
the Gila River in 1846 which went aground.

27 <sup>26</sup>Mr. Hjalmarson admitted in his "Confidential Notes" (E-25) dated July 2001, at p. 1, that  
28 "My limited research on the history of navigability of the Gila River suggests it was not used on a  
regular basis for any kind of water transportation of bulk commodities such as furs or covered  
wagons or people." TR17:276. This sentence was deleted from Mr. Hjalmarson's final report  
dated October 25, 2002 (E-23). TR17:277.

1 navigable or “susceptible to navigation” at the time of statehood, and as Mr. Hjalmarson  
2 admitted, the Gila River was non-navigable at the time of statehood. TR17:327.

3 **2. Modern Day Boating in the Gila Box Reach Does**  
4 **Not Establish Navigability in This Reach at the**  
5 **Time of Statehood**

6 As argued in the Apache Tribe’s Opening Memorandum, the Gila River was clearly non-  
7 navigable at the time of Arizona’s statehood on February 14, 1912.<sup>27</sup> No evidence shows that the  
8 Gila River was navigable with respect to its reach through the San Carlos Apache Reservation at  
9 the time of statehood.<sup>28</sup>

10 Only ASLD and ACLPI argue in their opening memoranda that the Gila River is navigable  
11 in the reach where it runs through the Gila Box National Riparian Conservation Area upstream  
12 from Safford, based upon sparse evidence of some modern-day “limited” commercial recreational  
13 canoeing, rafting, or kayaking in this reach. *See* ASLD Study for the Upper Gila River, E-2, at  
14 pp. 6-5 and 6-6; and TR17:332-339.

15 The recent limited recreational boating tours which occasionally take place in the Gila Box  
16 Reach of the Gila River, start just below Guthrie, where the Old Safford Bridge to Clifton crosses  
17 the Gila River, and proceed downstream to Bonita Creek, approximately a 20-mile reach of the  
18 Gila River. TR17:336. Such recreational boating tours, however, do not occur during the  
19 “ordinary” or median flows of the Gila River, because the lowest limit for tours, according to Jon  
20 Colby of Cimmaron Adventures & River Company, is from 170 cfs to 180 cfs starting at the Old  
21 Safford Bridge. TR17:336. The median reported flow of the Gila River near Clifton in close  
22 proximity to where the tours start, is, however, only approximately 80 cfs. ASLD Study for the  
23 Upper Gila River, E-2, at p. 5-33. These tours therefore do not take place under “ordinary”  
24 conditions and did not exist at the date of statehood, as required under the federal test to

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25 <sup>27</sup>Apache Tribe’s Opening Memorandum, pp. 9-17.

26 <sup>28</sup>For example, *see* “ASLD’s Opening Memorandum” at p. 11, and p. 13, fn. 17, admitting  
27 that by the time of statehood, the Gila River at Safford, Arizona, and downstream from there, had  
28 been over-appropriated, and that irrigation diversions had reduced stream flow by “percentages  
approaching 100 percent downstream of Safford.” The San Carlos Apache Reservation is located  
downstream from Safford. The Gila River was therefore undeniably non-navigable within the  
San Carlos Apache Reservation at the time of statehood, as it still is today.

1 determine navigability under the equal footing doctrine.

2 ASLD and ACLPI have therefore failed to prove by a preponderance of the evidence that  
3 the Gila Box Reach of the Gila River was "susceptible" to sustained navigation for commerce at  
4 the time of statehood, under ordinary conditions, based on such limited modern-day recreational  
5 rafting.

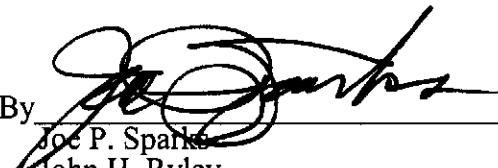
6 Mr. Colby also testified that there are no commercial recreational rafting trips conducted  
7 below Coolidge Dam in the vicinity of Winkleman to Riverside, but that there is some private  
8 non-commercial recreational rafting which takes place there. TR17:332. As reviewed in the  
9 Apache Tribe's memorandum filed concurrently, recent private non-commercial recreational  
10 rafting cannot establish navigability under the equal footing doctrine which requires a  
11 a sustained beneficial commercial use.

12 **C. Conclusion**

13 The Apache Tribe therefore requests the Commission to determine that the Gila  
14 River from the Arizona-New Mexico border to its confluence with the Colorado River was non-  
15 navigable at the time of Arizona's statehood under the equal footing doctrine. Certainly, the  
16 reach of the Gila River through the San Carlos Apache Reservation was non-navigable at the time  
17 of statehood.

18 DATED this 27th day of February, 2006.

19 **SPARKS, TEHAN & RYLEY, P.C.**

20  
21 By   
22 Joe P. Sparks  
John H. Ryley  
Attorneys for Plaintiffs

23 **ORIGINAL** plus six copies of the foregoing  
24 mailed by First Class Mail this 27th day of  
25 February, 2006, to:

26 Arizona Navigable Stream Adjudication Commission  
27 1700 W. Washington  
Suite 304  
Phoenix, AZ 85007

28 **COPY** of the foregoing mailed  
by First Class Mail this 27<sup>th</sup> day of February, 2006, to:

- 1 Laurie Hachtel, AAG  
For the Arizona State Land Department
- 2 1275 West Washington  
Phoenix, AZ 85007
- 3
- 4 Mark McGinnis  
Rebecca Goldberg  
For the Salt River Project
- 5 Salmon, Lewis & Weldon  
2850 E. Camelback Road  
Phoenix, AZ 85016
- 6
- 7 John Helm  
Sally Worthington
- 8 Helm & Kyle  
For Maricopa County
- 9 1619 E. Guadalupe, Suite One  
Tempe, AZ 85283
- 10
- 11 Bill Staudenmaier  
Mike Kafka  
For Phelps Dodge
- 12 Ryley, Carlock & Applewhite  
1 North Central Avenue, Suite 1200  
Phoenix, AZ 85004
- 13
- 14 Joy Herr-Cardillo  
Arizona Center for Law in the Public Interest
- 15 2205 E. Speedway Blvd.  
Tucson, AZ 85719
- 16
- 17 Sandy Bahr  
For Sierra Club  
202 E. McDowell Rd., Suite 277  
Phoenix, Arizona 85004
- 18
- 19 Julie M. Lemmon  
Flood Control District of Maricopa County
- 20 Julie M. Lemmon, Sole Proprietorship  
930 S. Mill Ave.  
Tempe, Arizona 85281
- 21
- 22 John T. Hestand  
Gila River Indian Community
- 23 5002 N. Maricopa Rd.  
Box 5090  
Chandler, Arizona 85226
- 24
- 25 Kristen L. Copeland  
For Buckeye Irrigation Company and  
Buckeye Water Conservation Drainage
- 26 Meyers, Hendricks & Bivens, PA  
3003 N. Central Ave., Suite 1200  
Phoenix, Arizona 85001
- 27
- 28 C. Bradley Woodford,  
For Paloma Irrigation and Drainage District



1 Moyes Storey  
1850 N. Central Ave., Suite 1100  
2 Phoenix, Arizona 85001

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