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BEFORE THE ARIZONA NAVIGABLE STREAM ADJUDICATION COMMISSION

In re Determination of Navigability of the Lower Salt River	Case No. 03-005-NAV Opening Post-Hearing Memorandum

Defenders of Wildlife, Donald Steuter, Jerry Van Gasse, and Jim Vaaler (collectively, "Defenders") hereby submit their post-hearing opening memorandum in accordance with R12-17-108.01 regarding the navigability of the Lower Salt River between Granite Reef Dam and the confluence with the Gila River in Maricopa County. For the reasons set forth herein, Defenders requests that the Arizona Navigable Stream Adjudication Commission ("ANSAC") find that the Lower Salt River was navigable when Arizona entered the Union on February 14, 1912.

I. Arizona's Navigability Laws and the Public Trust Doctrine.

In order to render a decision regarding the navigability of any of Arizona's watercourses, it is necessary to understand the historical context of streambed legislation and regulation in Arizona. The issue of bedland ownership and administration (as it relates to land other than the land beneath the Colorado River) first came to the forefront in Arizona during the mid-1980s. At

that time, the State of Arizona Attorney General's Office, invoking the public trust doctrine, asserted title to lands underlying the Verde River in an attempt to protect the land from use by a sand and gravel company. *Arizona State Land Dept. v. O'Toole*, 154 Ariz. 43, 739 P.2d 1360 (Ariz. App. 1987). The Arizona Legislature disagreed with the Attorney General's action and responded to the state's assertion of title by enacting House Bill ("HB") 2017 which relinquished the state's interest in all lands underlying Arizona's rivers and streams, except the Colorado River. *See Arizona Center for Law in the Public Interest v. Hassell*, 172 Ariz. 356, 837 P. 2d 158 (App. 1991)(*"Hassell"*). Defenders of Wildlife, and others, brought an action challenging HB 2017 on various grounds, including a claim that the relinquishment of the public trust assets violated Article IX §7 of the Arizona Constitution (gift clause). *Id.*

In 1991, the Arizona Court of Appeals ruled in favor of the plaintiffs and against the State of Arizona. *Hassell*, 172 Ariz. 356, 837 P.2d 158. The *Hassell* Court first addressed the issue of the public trust doctrine and found that under that doctrine, all of the state's navigable waterways are held in trust by the state for the benefit of the people and that the state's control of those waters is forever subject to that trust. 172 Ariz. at 366, 837 P. 2d at 168. The Court in *Hassell* based its decision, in part, on a United States Supreme Court case, *Illinois Cent. R.R. .v. Illinois,* stating, "[f]rom *Illinois Central*, we derive the proposition that the state's responsibility to administer its watercourse lands for the public benefit is an inabrogable attribute of statehood itself. . . [W]e also derive the core proposition that the state must administer its interest in lands subject to the public trust consistently with trust purposes." *Hassell*, 172 Ariz. at 366, 827 P. 2d at 168, *citing Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 453, 13 S.Ct. 110, 36 L. Ed. 1018 (1892). In developing Arizona's public trust jurisprudence, the *Hassell* court also relied upon the

Arizona Constitution's separation of powers provision and gift clause. *Hassell*, 172 Ariz. at 366-369; 827 P. 2d at 168-171, *citing* Ariz. Const. Art. III and IX § 7.

In discussing the state's responsibilities under the public trust doctrine, the Court in *Hassell* found that public trust resources are not like other state resources and "any public trust dispensation must also satisfy the state's special obligation to maintain the trust for the use and enjoyment of present and future generations." *Hassell,* 172 Ariz. at 368, 837 P. 2d at 170. In determining whether a dispensation meets the state's obligation to maintain the trust, the court must consider "the degree of the effect of the project on public trust uses, navigation, fishing, recreation, and commerce." *Id.*

> With respect to HB 2017, the *Hassell* court found that it failed to provide, [A] mechanism for the particularized assessment of (1) the validity of the equal footing claims that it [the state] relinquishes; (2) the continuing value of land subject to such claims for purposes consistent with the public trust; (3) equitable and reasonable consideration for claims that may be relinquished without impairing the public trust; and (4) conditions that may be necessary to any transfer to assure that public trust interests remain protected.

Hassell, 172 Ariz. at 371, 837 P.2d at 173. These factors are now known as the "particularized assessment requirements" and it is the duty of the State, as trustee, to undertake this particularized assessment analysis prior to any dispensation of trust resources.

In response to the *Hassell* decision, the Legislature established the ANSAC. Ariz. Rev. Stat. Ann. §§ 37-1121-1131 (1993), *See also, Defenders of Wildlife v. Hull*, 199 Ariz. 411, 416, 18 P.3d 722, 727 (2001)("*Defenders I*"). The ANSAC was charged with the duty to collect information, in conjunction with the State Land Department, regarding the navigability of Arizona's rivers and streams. In 1994, when it appeared that ANSAC might conclude that some of Arizona's rivers were navigable at the time of statehood (and thus subject to the public trust), the Legislature made significant changes to the authority of ANSAC, essentially ensuring that

ANSAC would find major rivers nonnavigable. 1994 Ariz. Sess. Laws, Ch. 277, §§ 1-14, eff. April 25, 1994. The Legislature later enacted SB 1126 which declared many of Arizona's watercourses, including the Lower Salt, Hassayampa and Verde, nonnavigable. 1998 Ariz. Sess. Laws, Ch. 43, § 2.

Once again, Defenders of Wildlife, and others, successfully challenged the constitutionality of this enactment. In *Defenders I*, the Court found SB 1126 invalid under the U.S. and Arizona Constitutions. The Court further found that the Legislature had failed to comply with the "particularized assessment" requirements described in *Hassell*. Consequently, the Court of Appeals held that the attempted relinquishment was unconstitutional. In 2001, the Arizona Legislature enacted Senate Bill ("SB") 1275, amending A.R.S. §§ 37-1101-1156.[1] The ANSAC's role as an adjudicatory body was reinstated and, after great delay, the ANSAC began holding hearings. In early April, 2003, the ANSAC held the navigability hearing for the Lower Salt River.

The Applicable Navigability Standard In Arizona.

In accordance with applicable state law, the ANSAC's duty to determine navigability is defined as follows:

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

[1] In June, 2002, a lawsuit was filed by Defenders of Wildlife, and others, alleging the unconstitutionality of SB 1275 among other complaints. This lawsuit is currently pending before the Arizona Court of Appeals, but it may impact the ANSAC's hearing process. Any decision made by the ANSAC under an unconstitutional statute will be declared invalid and void.

A.R.S. § 37-1128 (A). The term "navigable," is also specifically defined by Arizona law, and interpreted by both Arizona law and federal law. According to Arizona law, a watercourse is navigable if

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

A.R.S. § 37-1101 (5). As noted by the Arizona Court of Appeals in *Defenders I*, 199 Ariz. At 419, 18 P.3d at 730, and by the ANSAC, Arizona law essentially adopted the federal standard of navigability which was first defined by the U.S. Supreme Court in *The Daniel Ball*, 77 U.S. (10 Wall.) 557, 563, 19 L.Ed. 999 (1870). Transcript of Lower Salt River Hearing, April 7-8, 2003 in Phoenix, Arizona ("Transcript") at 276. The question of navigability is a federal question, and must be determined based upon either state laws that mirror the federal definition or federal law itself.[2] *Utah v. United States*, 403 U.S. 9, 10, 91 S. Ct. 1775, 29 L. Ed. 2d 279 (1971), *Alaska v. United States*, 754 F.2d 851, 853 (9th Cir. 1985), *Defenders I*, 199 Ariz. at 419, 18 P.3d at 730. The precedent established in *The Daniel Ball* defined a navigable watercourse as follows:

> Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.

Id. While Arizona law is almost a verbatim adoption of *The Daniel Ball* test, one small change was made which comports with the federal intent behind the equal footing doctrine. A.R.S. §

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[2] This raises the obvious question regarding whether the ANSAC even has the authority to make a determination regarding the navigability of a watercourse for title purposes under the equal footing doctrine. However, so long as the ANSAC follows federal law standards and precedents, then the ANSAC's decision may be lawful. *See, e.g., Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 478, 108 S. Ct. 791, 98 L.Ed. 2d 877 (1988). *Brewer Oil Co. v. United States*, 260 U.S.77, 89, 43 S. Ct. 60, 67 L.Ed. 140 (1922).

1101 (5) (the watercourse should be evaluated in its "ordinary and natural" condition, not just "ordinary" condition), *see also, Defenders I,* 199 Ariz. at 418, *People ex rel Baker v. Mack*, 19 Cal. App.3d 1040, 1050 (1971) ("the federal test of navigation does not preclude a more liberal state test"), *Southern Idaho F & G Ass'n v. Picabo Livestock, Inc.*, 528 P.2d 1295, 1298 (1974) ("the federal test of navigability involving as it does property title questions, does not preclude a less restrictive state test of navigability"). For this reason, it is imperative that the ANSAC ensure that any authority it relies upon is based upon a definition of navigability that mirrors Arizona's definition.[3]

Generally speaking, the federal test for navigability for title (under the Equal Footing Doctrine) is a liberal one. First and foremost, the definition of navigability does not require that the watercourse actually have been used has a highway for commerce, but rather, be susceptible to such a use. "The question of ... susceptibility in the ordinary condition of the rivers, rather than of the mere manner or extent of actual use, is the crucial test ... The extent of existing commerce is not the test." *United States v. Utah*, 283 U.S. at 82, 51 S. Ct. 438, 75 L. Ed. 844 (1931), *see also, Alaska v. Ahtna*, 891 F.2d 1401, 1404-1405 (9th Cir. 1989). In addition, a river may be deemed navigable despite occasional impediments such as sand or gravel bars, and despite the fact that it is only navigable a few months out of the year. *See e.g., State of Oregon v.*

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[3] The Salt River Valley Water Users' Association and Salt River Project Agricultural Improvement and Power District (collectively, "Salt River Project" or "SRP") submitted Evidence Item No. ("EIN") 025 in advance of the hearing on the Lower Salt River, entitled "Information Regarding Navigability of Selected U.S. Watercourses." This "information" has no relevance to the navigability of the Lower Salt River because it is merely a compilation of information regarding navigability determinations of waters in other states. Although case law is provided, it is difficult to determine whether the state in question properly adhered to the federal standard for navigability, or that the standards used in making those determinations for navigability-for-title cases followed the precise standard adopted by the State of Arizona. For this reason, the information contained in EIN 025 is both irrelevant and misleading. The *only* applicable legal precedent for the ANSAC in determining the navigability of the Lower Salt River are cases that mirror the Arizona definition.

Riverfront Protective Ass'n, 672 F.2d 792, 795 (9th Cir. 1982). Actual use for boating, whether commercial or recreational, can demonstrate susceptibility as a "highway for commerce." *See, e.g., Utah v. United States*, 403 U.S. at 11. Although state ownership turns on navigability at the time of statehood, evidence of current boating, recreational or otherwise, by small watercrafts such as canoes, is probative of navigability and susceptibility to navigability at statehood. *See, e.g., North Dakota v. Andrus*, 671 F.2d 271, 277-278 (8th Cir. 1982), *rev'd on other grounds* (statute of limitations), *Block v. North Dakota*, 461 U.S. 273, 103 S. Ct. 1811, 75 L. Ed. 2d 840 (1983), *see also, State of Alaska v. United States*, 662 F. Supp. 455, 465 (D. Alaska 1986), *aff'd by Alaska v. Ahtna*, 891 F.2d 1401 (9th Cir. 1989) (a river may be deemed navigable if it is susceptible to transporting goods or people by any conveyance, not merely those in use at the time of statehood). As will be discussed in greater detail below, there is no question that the flows of the Lower Salt River have decreased over time. *See* Transcript at 20, 153, 222-223; EIN ("Evidence Item Number") 030 at iv, 7-6. So, if boating is possible on current flows, it follows that such navigation was possible at statehood.

Furthermore, the remoteness of a river or lack of actual use at statehood as a "highway for commerce" does not defeat a finding of navigability because the definition includes not only watercourses that were certainly used as a highway for commerce, but also those watercourses that are susceptible to such use, even if they were never used for that purpose. *See, e.g., United States v. Utah*, 283 U.S. at 83, 51 S. Ct. 438, 75 L. Ed. 844. In addition, navigation can take many forms. For example, floating logs down a river is a recognized form of navigation for purposes of the Equal Footing Doctrine. *Oregon*, 672 F.2d at 795. The "'ordinary modes of trade and travel' element of the Daniel Ball test are not fixed and need not be construed with reference only to the 'ordinary modes of trade and travel' in existence at the time of statehood."

Defenders I, 199 Ariz. at 423, 18 P.3d at 734, *see also, State of Alaska v. United States*, 662 F. Supp. 455, 463 (D. Alaska 1987) (cited with approval in *Defenders I* for this proposition).

The broad jurisdictional construction of "navigability" is well-illustrated in the case of *North Dakota v. Andrus*, 671 F.2d 271 (8th Cir. 1982), *rev'd on other gnds, Block v. North Dakota*, 461 U.S. 273 (1983). In that case, the court found the Little Missouri River navigable at statehood based on: a) isolated cases of historic use by small crafts such as canoes; b) an observation from the Lewis and Clark expedition on the river's width and depth; c) some brief and unsuccessful efforts to float logs downstream; and d) current use annually by hundreds of recreational canoeists. 671 F.2d at 277-278. In another case, a finding of navigability was upheld based on evidence that a river was used for log drives for as little as three months per year even though suffering frequent log jams, flooding and low flows. *Oregon*, 672 F.2d at 295-296.

In summary, the key elements of the definition of navigability in navigability-for-title cases are (1) the watercourse must be evaluated in its natural and ordinary condition free of dams and diversions; (2) the evidence need only show that the watercourse was susceptible for use as a highway for commerce; and (3) the standard applied must be consistent with federal and Arizona law. If the appropriate definition is applied in the present case, it leads to the inescapable conclusion that the Lower Salt River was, at statehood, susceptible for use, in its ordinary and natural condition, as a highway for commerce, over which trade and travel could have been conducted. In a word, navigable.

II. The Evidence in the Record Demonstrates that the Lower Salt River was navigable at Statehood.

The Lower Salt River is, and has been, the lifeblood of the Phoenix Metropolitan Area, for more than 1000 years. *See, e.g.*, EIN 030 at iii, 2-1, EIN 036 at 29. The River is the primary

source of water for over 3.2 million[4] residents of Maricopa County and the waters of the Lower Salt have been used for hundreds of years for agriculture, drinking and travel. The river has not only sustained the economy of Central Arizona, it has allowed the area to grow. See Transcript at 186, 217 (Testimony of Douglas Littlefield and David Roberts, respectively), EIN 037. Today, metropolitan Phoenix is one of the fastest growing cities in the nation, having grown over 44% in the past ten years. Experts do not expect the growth to slow down at all in the near future.[5] The evidence presented to the ANSAC during and in advance of the Lower Salt River hearings demonstrates that the Lower Salt River was navigable in 1912 and is still navigable today in many stretches.

A. The Lower Salt River Was, At A Minimum, In Its Ordinary And Natural Condition, Susceptible To Being Used As A Highway For Commerce.

1. Legal Definition of "Natural and Ordinary" Condition.

Notably, Arizona's definition of navigability differs in one very important aspect from the federal standard. Arizona's standard requires the ANSAC to evaluate the "ordinary and natural" condition of the watercourse, not merely the "ordinary" condition described in *The Daniel Ball* Test. See A.R.S. § 37-1101(5), *Defenders I*, 199 Ariz. at 426, 18 P.3d at 737. Although the terms "ordinary and natural condition" are not specifically defined by Arizona law, they are not difficult to define. In cases of statutory interpretation, "we begin with the text of the statute. This is so because the best and most reliable index of a statute's meaning is the plain text of the statute." *State v. Christian*, 2003 Ariz. LEXIS 57 at 6 (Ariz. 2003). "When the plain text of a statute is clear and unambiguous there is no need to resort to other methods of statutory interpretation to determine the legislature's intent because its intent is readily discernable from the face of the statute." *Hayes v. Cont'l Ins. Co.*, 178 Ariz. 264, 268, 872 P.2d 668, 672 (Ariz.

[4] http://www.de.state.az.us/links/economic/webpage/popweb/02-00popsize.pdf
[5] http://www.gpec.org/InfoCenter/

1994), *see also, Azmora v. Reinstein*, 185 Ariz. 272, 275, 915 P.2d 1227, 1230 (Ariz. 1996). The term "ordinary" is defined as "the usual or normal condition or course of events." American Heritage Dictionary of the English Language, 4th Ed., © 2000 Houghton Mifflin Co. The term "natural" is defined as, "fixed or determined by nature ... not artificial, foreign, assumed, put on, or acquired; as, ... the natural motion of a gravitating body; natural strength or disposition; the natural heat of the body; natural color." Webster's Revised Unabridged Dictionary © 1998, MICRA Inc., Plainfield, NJ. Therefore, the most obvious meaning of a watercourse in its "ordinary and natural condition" would be one free of man-made obstructions or influences, the condition of the watercourse before it was impacted by development, dams, canals, and other diversions.

Defenders I provides further guidance in support of the plain meaning of the term "ordinary and natural." In finding that certain presumptions and limitations in the 1994 Act were unconstitutional, *Defenders I* addressed the presumption that if a dam or other obstruction existed on the watercourse, it was presumed to be nonnavigable. *Defenders I*, 199 Ariz. at 424, 18 P.3d at 735. Quoting from the U.S. Supreme Court, the Arizona Court of Appeals noted, "[t]he fact, however, that artificial obstructions exist capable of being abated by due exercise of the public authority, does not prevent the stream from being regarded as navigable in law, if, supposing them to be abated, it be navigable in fact in its natural state." *Id.*, *quoting, Economy Light & Power Co. v. U.S.*, 256 U.S. 113, 118, 41 S. Ct. 409, 65 L.Ed. 847 (1921). Therefore, the watercourse must be evaluated as though the existing dams and diversions did not exist, the "ordinary and natural" state of the watercourse. *See, e.g., United States v. Utah*, 283 U.S. at 75-79, 51 S.Ct. 438, 75 L.Ed. 844.

2. The Ordinary and Natural Condition Of The Lower Salt River.

In order to evaluate the natural and ordinary condition of the Lower Salt River, it is important to first understand the types of diversions that have occurred historically on the Lower Salt, and how those diversions affected stream flow in 1912 when Arizona entered the Union. It is believed that the Salt River Valley has been inhabited for the past 1,000 years primarily because the Salt River had a "reliable flow." EIN 030 at 2-1. In fact, the Salt River Valley contained one of the most extensive irrigation systems in prehistoric North American. *Id.* As the modern day population of the Valley increased, so too did the demand for water. Modern irritation ditches, canals, and other diversions took water from the mainstem of the Lower Salt River for various uses throughout the Valley. EIN 030 at Chp. 3, EIN 031 at 7. "By 1912, numerous irrigation diversions[6] upstream and within the Lower Salt River [study area] had significantly reduced flow rates, and even caused the river to cease flowing in some reaches during some years." EIN 030 at iv. As the record demonstrates, the Lower Salt River most closely resembled its ordinary and natural condition in the early to mid 1870s. Therefore, the ANSAC should closely evaluate data before 1870 in order to ensure that it complies with the Arizona definition of navigability.

a) Dams on the Lower Salt River.

By 1912, there were three major dams and at least 11 major canals affecting the natural flow of the Lower Salt River. By the early 1900s, there were over twenty canals operating in the Lower Salt and upstream. EIN 036 at 9, EIN 030 at 7-10, 7-11, EIN 036 at 2. The largest dam, and reservoir, was (and still is) Roosevelt Dam, completed in 1910. EIN 030 at 7-15. Granite

[6] Although this Memorandum focuses specifically on the impacts of the major dams and diversions along the Lower Salt River, and upstream, there were even more minor diversions and other man-made impacts to the water flow in the Lower Salt including groundwater pumping, and dams on the Verde River. EIN 030 at 7-15.

Reef Dam was completed in 1908; Granite Reef Dam essentially replaced the Arizona Dam located not far upstream. *Id.* Finally, Jointhead Dam was completed in the mid-1880s. Transcript at 225. Roosevelt Dam, the largest of the three dams on the Salt River is a water storage dam which began operation in 1908. EIN 036 at 18. By 1911, more than 500,000 acre-feet of water was in storage in the Roosevelt Dam reservoir, water that would have continued to flow to the Lower Salt had that dam not been constructed. EIN 036 at 25, Transcript at 78 (Testimony of Chris Anaradian) ("Following the construction of Roosevelt Dam, the Salt River downstream certainly encountered dryer periods of operation"). Although EIN 031 submitted by retained "expert" Jack August described the Lower Salt River, as opined by Carl Hayden, as non-navigable, Dr. August clarified this conclusion during the hearing when he stated that, "[Carl Hayden] viewed the Salt River as nonnavigable. It was due to, I think, construction of the Granite Reef Dam in 1908, the completion of Roosevelt Dam in 1911." Transcript at 122.[7] Notably, Dr. August made no attempt to quantify flows of the Lower Salt prior to the dams and diversions, nor did he make any attempt to understand the quantity of water that was diverted from the River as a result of those dams and diversions. Transcript at 131. However, Dr. August clearly stated that the dams and diversions in place on the watercourse prior to statehood are responsible for the present-day dryness of the Lower Salt River in most reaches. Transcript at 122, 129, 130-131.

[7] Notably, as will be discussed later in this Memorandum, neither Jack August's assessment of the navigability of the Lower Salt River, nor any of the other purported experts' assessments were based upon the standard of navigability described in Arizona law and defined by federal law. Therefore, to the extent that any report submitted into evidence for this hearing makes a conclusion regarding navigability of the Lower Salt at statehood, such conclusions *must* be disregarded by the ANSAC unless specifically based upon the appropriate standard of navigability. *See, e.g.,* Transcript at 131-132 (cross-examination of Jack August admitting he had not read *Defenders I* and neither his report or testimony was based upon the appropriate standard of navigability.)

Granite Reef and Arizona Dams were slightly different from Roosevelt Dam in that they were (and Granite Reef Dam still is) "permanent diversion dams," the goal of which is to divert all flows from the Salt River to be used for drinking water, agriculture and irrigation, and other uses. EIN 036 at 18, Transcript at 123, 235-236 (Testimony of Jack August and David Roberts, respectively). Construction on the Arizona Dam began in 1883 and was the first step to completely destroy the characteristics of the Lower Salt making it susceptible to navigation. Transcript at 144, 227 (Testimony of Thomas Gookin and David Roberts, respectively). Granite Reef Dam was constructed downstream from the Arizona Dam, and intended to replace it not long after the Arizona Dam was completed. Transcript at 243. The Granite Reef Dam has an approximate capacity of 2,000 cubic feet per second ("cfs"). Transcript at 152. So long as the dam operated correctly, all flows in the Lower Salt River would be terminated at the dam by 1908. Transcript at 217, 219 (Testimony of David Roberts). Apparently due to the geology of the Lower Salt River, despite the Granite Reef Dam, water seeped from the groundwater table to the surface just upstream of where Jointhead Dam was constructed to divert those flows. Transcript at 144. Jointhead Dam, located downstream from Granite Reef Dam, was also a complete diversion dam and it was constructed and in operation by the mid-1880s. Transcript at 144, 225-226. By 1912, some engineers estimate that only 5% of the Lower Salt River's original flows remained in the River. Transcript at 153 and 181 (Testimony of Douglas Littlefield). Finally, while the main purpose of these dams was clearly to divert flows for growth and development of the Salt River Valley, dam construction also has significant impacts on the geomorphology of the riverbed, causing aggradation and degradation of the streambed itself, which can also cause hydrological changes in the river's course. See Transcript at 211 (Testimony of Stanley Schumm).

b) Canals and Other Diversions on the Lower Salt River.

In addition to dams, there were numerous canals and other types of diversions along the Lower Salt River which affected the flow rate and susceptibility to navigation. The main eleven irrigation canals are described in Table 7-8 of EIN 030 at 7-11. The first of these canals was constructed in 1867. There were also numerous smaller, private diversions, that contributed to the declining flows of the Lower Salt River. EIN 030 at 7-11. Except for some information in EIN 030, the Arizona State Land Department Report, there was no evidence presented in the record which sought to quantify the amount of water diverted, in total, from these eleven major canals. While the dams described above intended to divert all the flows from the Lower Salt, because of the hydrology of the river, water flowed underneath the bed and back up again to the surface throughout the Lower Salt, this water was captured by the remaining canals. EIN 030 at 7-13 to 7-18. In addition to the dams, the canals provided the specific fuel for growth and development through irrigation and agriculture for the Lower Salt valley. EIN 030 at 7-11. Without these canals, it is unlikely that the Phoenix Metropolitan Area would exist in its current form.

c) Flow Rates on the Lower Salt River.

Flow rates on the Lower Salt River vary significantly depending on what year they were measured and the season of measurement. The impact of dams and diversions became most pronounced after the early 1870s, so pre-1870 flow rates are most telling of the Lower Salt River's natural and ordinary condition. EIN 030 at 7-1, Transcript at 149, 224, *see, e.g., Oregon v. Riverfront Protection Ass'n*, 672 F.2d at 795 (parties stipulated to years that were representative of the conditions at statehood). However, to the extent that current or post-1870 flow rates indicate the Lower Salt was susceptible to navigation, even if seasonally or only in

certain stretches, we can extrapolate that such reaches were definitely susceptible to navigation at statehood since the water quantity has only decreased with time. Transcript at 14-15, 17, EIN 030 at 7-13 to 7-14. The pre-1870 flow rates are estimated to have been at least 1,000 cfs with minimum rates in the 260-300 cfs range.[8] EIN 030 at 7-26 to 7-27, Transcript at 16, 17-18. This flow rate is enough to satisfy the federal standard according to the Ninth Circuit which found a watercourse in Alaska navigable when it ranged from 200 cfs to 3,600 cfs depending on the season. *Alaska v. Ahtna*, 891 F.2d at 1402. In addition, testimony presented at the hearing provided by individuals hired by the Salt River Project, specifically stated that "abundant perennial flow" allowing for canoe-type boating, or more, would exist where a watercourse contained 1,000 cfs of water flow. Transcript at 202-203 (Testimony of Stanley Schumm).

Direct measurement from gauges existing at the time show that in 1889, the average annual minimum flow of the Lower Salt River at Arizona Dam was 2,656 cfs. EIN 030 at 7-7. Reconstructed flows indicate that the average annual flow for the Lower Salt River was about 1,690 cfs with some estimates as high as 1,876 cfs. EIN 030 at 7-7 to 7-8.[9] Even in 1912, estimated streamflow data from various sources indicates an annual flow of 1,176 cfs and an annual diversion rate of 1,040 cfs. EIN 030 at 7-12. Although the month of February, 1912 was particularly dry, the U.S. Reclamation Service/Salt River Project reported that 963 cfs was diverted from the Lower Salt River in February, 1912. EIN 030 at 7-13 to 7-14. Present day

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[8] The entirety of Chapter 7 of the State's Report is dedicated to the hydrology of the Lower Salt River and it summarizes direct measurement data, as well as reconstructed data and indirect data. For the purposes of this Memoranda, we are citing only part of the information contained in Chapter 7 although all of it supports the proposition that the Lower Salt River had an annual flow rate of at least 1,000 cfs which clearly places this river within the definitions of susceptibility to navigation as defined by the Ninth Circuit Court of Appeals. *See Alaska v. Ahtna*, 851 F.2d at 1402.

[9] Notably, this data includes not just federal and state data, but also data from the Salt River Valley Water Users' Association which estimated the annual mean discharge from 1889-1953 to be approximately 1,773 cfs at Granite Reef Dam. EIN 030 at 7-7 to 7-10 (including Table 7-5).

flows may still be found in some reaches of the Lower Salt River, particularly during the late summer/early fall when monsoon rains bring more water into the river systems of Arizona. EIN 030 at 7-18, 7-23, Transcript at 134 (Testimony of Jack August describing seasonal flow variations). Several rafting companies offer seasonal guided trips of the Lower Salt River indicating that flow is enough to accommodate for that form of commerce in modern times. EIN 030 at 7-17, 7-25 *see also*, EIN 010 at 50 (Affidavit of George Marsik at 2), EIN 10 at 38 (Affidavit of Jerry Van Gasse), EIN 010 at 47 (Affidavit of James Slingluff), EIN 20 at 1, EIN 019. Additionally, the National Park Service has described the Salt River as, "one of the best whitewater streams in the U.S." EIN 09 (Department of the Interior Nationwide Rivers Inventory at 11).

Prior to modern development, including the dams and diversions discussed above, the Lower Salt River was a perennial stream with an average annual discharge of over 1,000 cfs. EIN 030 at 7-12. By statehood, however, the natural hydrology of the Lower Salt River was completely replaced by dams and diversions which appropriated all of the water in the Salt River for use on valley lands. EIN 036 at 29. Yet, the evidence overwhelmingly establishes that in its ordinary and natural condition, the Salt River was navigable at statehood, and would probably even be navigable today.

2. **The Lower Salt River Was, At A Minimum, Susceptible For Use As A Highway for Commerce.**

a) Legal Definition of "A Highway For Commerce."

A "highway for commerce," is defined under Arizona law as, "a corridor or conduit within which the exchange of goods, commodities or property or the transportation of persons may be conducted." A.R.S. § 37-1101 (3). However, the term "highway for commerce" does not specifically require that the purpose of the navigation be commercial, or to otherwise make

money. As noted by the Arizona Court of Appeals in *Defenders I*, "[t]he federal test has been interpreted to neither require both trade and travel together nor that the travel or trade be commercial." *Id.*, 199 Ariz. at 421, 18 P.3d at 732. In addition, susceptibility to use, and not necessarily actual use, as a highway for commerce is the fundamental element of this analysis. *Alaska v. Ahtna*, 891 F.2d at 1404-1405.

In *Utah v. United States*, the U.S. Supreme Court found a lake navigable when used for hauling of livestock across the water even though it was done by owners and not for any commercial purpose or to make money. *Id.*, 403 U.S. 9, 11, 91 S. Ct. 1775, 29 L.Ed. 2d 279 (1971). Certainly, as noted by *Defenders I*, there is no requirement that the trade or travel must have resulted in a "profitable commercial enterprise." *Id.*, 199 Ariz. at 422, 18 P.3d at 733. Furthermore, "evidence of the river's capacity for recreational use is in line with the traditional test of navigability, that is, whether a river has practical utility for trade or travel." *Adirondack League Club, Inc. v. Sierra Club*, 706 N.E.2d 1192, 1194 (N.Y. 1998) (cited with approval in *Defenders I*, 199 Ariz. at 423, 18 P.3d at 734). In addition, the Ninth Circuit Court of Appeals has held that guided fishing and sightseeing trips, although recreational in nature, could be considered commercial activity under the *Daniel Ball* test. *See, State of Alaska v. Ahtna, Inc.*, 891 F2d 1401, 1405 (9th Cir. 1989). While the Ninth Circuit has "liberally construed" the elements of the highway for commerce, "the central theme remains the movement of people or goods from point to point on the water." *Alaska v. United States*, 754 F.2d 851, 854 (9th Cir. 1985) (the lake at issue in *Alaska* was found nonnavigable mainly because the State waived all arguments regarding navigability except for one regarding floatplane use, which the Court did not find compelling).

b) In Arizona, The Lower Salt River Was, At A Minimum, Susceptible To Use As A Highway For Commerce.

Ample evidence exists in the record demonstrating that the Lower Salt River was, at a minimum, susceptible for use as a highway for commerce as defined under Arizona and federal law. There are numerous reported (and likely many more unreported) instances of boating in the Lower Salt River from prehistoric to modern times. EIN 030 at 3-17 to 3-28, 8-2 to 8-5, Appendix F, EIN 019, EIN 031 at 10, EIN 010 at 38, 47, and 50. At the time of statehood, boats were in use for "travel, ferries, recreation, mail delivery, flood rescues, and the transport of goods." EIN 030 at 3-17, 8-3. Travel on the watercourse was made with boats typical of the time, including flat-bottomed boats, skiffs, or canvas and wooden canoes. EIN 030 at 8-3, Transcript at 16-17 (Testimony of Jon Fuller). Similar types of boats are used today, including canoes, kayaks, and rafts. EIN 030 at 8-4, EIN 019, EIN 010 at 38 (Affidavit of Jerry Van Gasse), EIN 030 at Appendix F. Prior to statehood, "before irrigation diversions and closure of dams upstream depleted river flows, at least five ferries were in operation at various locations" in the Lower Salt River. EIN 030 at 3-17, 3-18 (including Table 3-2), 3-25 (including Table 3-3), 8-3, Transcript at 14 (Testimony of Jon Fuller). "During the early years of Phoenix settlement, these ferries were viewed as 'absolutely necessary' to maintain communication." EIN 030 at 3-25. The best known ferry service across the Lower Salt River was Hayden's Ferry, located in present day Tempe, which operated from 1874-1909. EIN 030 at 3-25, EIN 031 at 1, 10. Hayden's Ferry and other ferries ended their services in or before 1909 due in large part to diminishing river flows from upstream dams and diversions. EIN 031 at 10. There are numerous other accounts of use of the Lower Salt River around the time of statehood for boating, fishing, irrigation, and even flour mills. EIN 030 at Chp. 3. In present day, the Lower Salt River continues to be used for commercial and recreational rafting, canoeing, and kayaking. EIN 010

at 38, 47, and 50 (Affidavits). While it may be true that some of the early commercial enterprises such as log-moving attempts or the flour mills were not necessarily successful, success is not an element of the navigability-for-title test. *Defenders I*, 199 Ariz. at 422, 18 P.3d at 733, *see also*, Transcript at 30-31. The bottom line is that even if better transportation corridors existed, this does not negate the susceptibility of the Lower Salt River for use as such a corridor. Clearly the existence of a year-round ferry service and a consistent seasonal service is evidence not only that the Lower Salt was susceptible for use as a highway for commerce, but that it was in fact used that way. Furthermore, guided commercial river trips as well as private recreational boating trips continue to the present day. EIN 010 at 38, 47, 50 (Affidavits). In *Alaska v. Ahtna*, such evidence was sufficient for the Ninth Circuit to find the Gulkana River navigable. 891 F.2d at 1404-1405. In *Ahtna*, the watercourse was used in present day for guided fishing and sightseeing trips. *Id.* Historically, it was used by hunters and fishermen. *Id.* Although the primary use of the watercourse was recreational, the Ninth Circuit still found the watercourse navigable. *Id.* The same applies to the Lower Salt, aside from the use of its water, the primary navigation use today is recreational. Applying the *Ahtna* standards here would necessarily result in a finding that the Lower Salt was also navigable.

One element of the definition of a highway for commerce which is often overlooked, particularly by parties seeking a finding that a watercourse is nonnavigable, is that the watercourse may be navigable if it is a corridor or conduit for the exchange of goods or commodities. A.R.S. § 37-1101 (3). As described above, there can be no debate that the Lower Salt River was used as a corridor or conduit for the movement of the most precious of all goods: water. *See, e.g.*, EIN 030 at iii-iv, 3-15, 3-16, 7-6 to 7-12 (including Table 7-4), EIN 031 at 11-12, Transcript at 12, 14, 23, 28, 69 (Testimony of Jon Fuller), Transcript at 122, 123, 126

(Testimony of Jack August), Transcript at 146-150 (Testimony of Thomas Gookin), Transcript at 165, 186 (Testimony of Douglas Littlefield), Transcript at 217, 221, 224 (Testimony of David Roberts). This is an important factor for the ANSAC to consider, and one which weighs heavily in favor of a finding of navigability because water in the Lower Salt River has been used consistently in historic and modern time as a traded commodity.

In a case regarding the interstate transfer of groundwater resources, the U.S. Supreme Court clearly held that "water is an article of commerce." *Sporhase v. Nebraska*, 458 U.S. 941, 952-953, 102 S. Ct. 3456, 73 L. Ed. 2d 1254 (1982). The Court also noted that water can be differentiated from other resources because it is essential for human survival. *Id.* Furthermore, because water is predominately used for irrigation purposes, there is an interstate dimension to water because the results of irrigated agriculture may be transferred to other states for sale. *Id.*

As described in detail above, and in even more detail in much of the evidence submitted to the ASNAC, a primary and consistent use of the Lower Salt River was diversion of its waters for irrigation purposes. EIN 030 at iii-iv, 3-15, 3-16, 7-6 to 7-12 (including Table 7-4), EIN 031 at 11-12, Transcript at 12, 14, 23, 28, 69 (Testimony of Jon Fuller), Transcript at 122, 123, 126 (Testimony of Jack August), Transcript at 146-150 (Testimony of Thomas Gookin), Transcript at 165, 186 (Testimony of Douglas Littlefield), Transcript at 217, 221, 224 (Testimony of David Roberts). Water was exchanged with government agencies and private interests, as various diversion companies purchased water rights and built intricate canal systems. *Id.* Perhaps the largest such entity is the Salt River Project which is part-public and part-private, and clearly owes the past century of its economic and other success to the water of the Salt River; water that would have flowed to the Lower Salt River, had Roosevelt and other dams not been constructed. Therefore, in addition to being a corridor for the transportation of people and goods on boats, the

Lower Salt River was also a conduit for the transportation of the vital water resources necessary to sustain the growth and development in the Phoenix Metropolitan Area. What differentiates the Lower Salt from other watercourses is the consistent use of its water for commercial trade. As such, it falls within the definition of a highway for commerce.

While some information presented at the hearing described other "highways for commerce" in the Salt River Valley, including the Apache Trail and other roads and bridges, such information does not affect the question of the navigability of the Lower Salt River. See, e.g., Transcript at 124, 234 (Testimony of Jack August and David Roberts, respectively), EIN 031 at 12. There is nothing in either the Arizona definition or federal law which requires that the watercourse in question be the *only* avenue for transportation or commerce. *See, e.g., Alaska v. Ahtna*, 891 F.2d at 1404-1405. The appropriate legal definition merely requires that the watercourse be *susceptible* for such use. Clearly, not only was the Lower Salt River susceptible for use as a highway for commerce, it was actually used, and continues to be used, in that capacity.

III. The Evidence Demonstrates The Lower Salt River Was Navigable At Statehood By A Preponderance Of The Evidence.

The preponderance of the evidence submitted regarding the navigability of the Lower Salt River demonstrates that the Lower Salt River was navigable as defined under Arizona and federal law in its natural and ordinary condition at statehood. "A preponderance of the evidence" standard is generally employed in civil cases and is the lowest evidentiary standard, and therefore, requires the least proof. *See, e.g., Sarwark Motor Sales Inc. v. Husband*, 5 Ariz. App. 304, 311 (Ariz. App. 1967), *see also, Addington v. Texas*, 441 U.S. 418, 423, 99 S. Ct. 1804, 60 L. Ed. 2d. 323 (1979). A preponderance of the evidence is generally defined as the greater weight of evidence, or fifty one percent in favor of the party with the burden of proof. *See*

Modern Federal Jury Instructions – Civil, Chapter 73, Section 73.01 (2003). However, it is important to note that the preponderance of the evidence standard refers not to the quantity of evidence proffered in favor of one view, but rather, "the quality and persuasiveness of the evidence." *Id.*

In evaluating the relative weight to be given to the information submitted at and before the hearing, it is important that the ANSAC be able to distinguish between the types of information submitted as "evidence" regarding the navigability of the Lower Salt River. Some of the evidence submitted includes data and information which is pertinent to the ANSAC's determination. However, much of the "evidence" is conclusory, asserting that the Lower Salt River was not navigable at statehood. *See, e.g.*, EIN 008, EIN 016, EIN 025, EIN 031, EIN 017, EIN 027, EIN 033, EIN 034, EIN 037. Yet, none of these conclusory documents are based on the applicable legal standard for determining navigability in Arizona. In fact, all of these documents utilize definitions of navigability which are more stringent than the Arizona and federal definitions. In some instances, the authors of the documents admitted that they did not rely on Arizona or federal law, but rather on their own personal definition of navigability. See Transcript at 130-131 (Testimony of Jack August), Transcript at 151-155 (Testimony of Thomas Gookin), Transcript at 177-181 (Testimony of Douglas Littlefield). For this reason, the conclusions drawn in these documents are of absolutely no relevance to the ANSAC's determination. To the extent these documents contain pertinent and useful information regarding the history or hydrology of the Lower Salt River, such information may be helpful to the ANSAC, but the conclusions of these documents cannot be relied upon by the ANSAC in making its determination. Furthermore, while some of these documents describe hydrological data and information regarding the Lower Salt, none of the documents make any attempt to

quantify the amount of water diverted from the Lower Salt in 1912, or any year, for that matter. *Id.* In addition, none of these documents make any attempt to evaluate the watercourse in its natural and ordinary condition, prior to the major dams and diversions. *Id.* As a result, such documents are, at best informative, but certainly not relevant to the legal determination to be made by the ANSAC.[10] Again, while the data and other information contained in that report may be of use to the ANSAC, any conclusions are not only irrelevant, but misleading because they are based entirely on Douglas Littlefield's definition of navigability, which is not the applicable definition in Arizona. Transcript at 177-181. Finally, many of the documents submitted, as well as testimony presented at the hearing itself, include information regarding land ownership and title information. *See, e.g.,* EIN 034 at 1-2, EIN 027, EIN 028 (all documents having to do with the Rio Salado Project, land information, deeds, and other similar information), EIN 037. This information is not relevant to the question of the navigability of the Lower Salt River.[11] This includes information submitted by Indian Tribes claiming ownership of portions of the Salt Riverbed. Transcript at 142 (Testimony of Thomas Gookin). Such information would be relevant at the next stage of the ANSAC process, should the Lower Salt River be found navigable. As a result, we request that the ANSAC disregard all such information.

In the present case, there is ample relevant, persuasive evidence demonstrating that the Lower Salt River meets the Arizona and federal standards of navigability. In summary, the

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[10] For example, EIN 016, a report authored by Douglas R. Littlefield, describes in detail the "efforts" taken to locate all "relevant" sources. Yet none of those efforts revealed the most important sources – the Arizona and federal standards for defining navigability. Notably, Defenders' counsel objected to the inclusion of this information at the hearing, but the Commission failed to take any action on the objection, or limit, in any way, such irrelevant information from becoming part of the record. Transcript at 95, 103. EIN at 016, Transcript at 177-181 (Testimony of Douglas Littlefield).

[11] Again, Defenders' counsel objected to the inclusion of this information at the hearing, but the Commission failed to take any action on the objection, or limit, in any way, such irrelevant information from becoming part of the record. Transcript at 95, 103.

evidence demonstrating navigability includes information regarding boating and commercial ferry operations on the Lower Salt, use of the water as a conduit for travel and trade (of water and other goods), and flow rates necessary to support trade and travel on the watercourse (thereby demonstrating susceptibility). Moreover, all the information presented which "concludes" that the Lower Salt was not navigable (mainly offered by retained "expert" testimony and reports) is not based upon the appropriate standard of navigability. As a result, the evidence submitted clearly establishes by a preponderance of the evidence that the Lower Salt River was used or was susceptible for use its natural and ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water. We therefore urge the ANSAC to find that the Lower Salt River was navigable at statehood.

Respectfully Submitted this 6th day of June, 2003.

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