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**BEFORE THE ARIZONA NAVIGABLE STREAM
ADJUDICATION COMMISSION**

)	Case No. 04-009-NAV
In re Determination of Navigability of)	Proposed Findings of Fact and
the Verde River)	Conclusions of Law regarding the
)	Navigability of the Verde River
_____)	

Defenders of Wildlife, Donald Steuter, Jerry Van Gasse, and Jim Vaaler
(collectively, “Defenders”) hereby submit their Proposed Findings of Fact and
Conclusions of Law.

I. Findings of Facts.

A. The Verde River Watershed.

1. The Verde River flows generally east and south through Yavapai and Maricopa Counties in north-central Arizona, before joining the Salt River several miles upstream of Granite Reef Dam east of Phoenix. EIN 31 (“ASLD Report”) at 7-3.

2. The river, which drains a total of 6,188 square miles at the Salt River confluence, has its headwaters at the confluence of Williamson Wash and Big Chino Wash at Sullivan Lake in northern Yavapai County. *Id.*

3. The watershed ranges in elevation from about 12,633 feet at Humphrey’s Peak to about 1,335 feet at the mouth of the river. *Id.* The Verde River watershed is bounded by the Mogollon Rim and San Francisco Peaks to the north, the Juniper, Bradshaw, and New River Mountains to the west, and the Mazatzal Mountains to the east. *Id.*

4. The primary source area for runoff in the Verde River is the Mogollon Rim where precipitation infiltrates permeable bedrock units and becomes ground water. *Id.*

5. Perennial flow in the Verde River begins at the confluence with Granite Creek, and is sustained by springs and perennial tributaries. Major perennial tributaries include Granite Creek, Sycamore Creek, Oak Creek, Beaver Creek, West Clear Creek, Fossil Creek, and the East Verde River. *Id.*

6. These tributaries generally drain the area north and east of the Verde River away from the Mogollon Rim. Other major tributaries include intermittent or ephemeral streams with large drainage areas such as Williamson Wash, Big Chino Wash and Partridge Creek. *Id.*

7. For purposes of determining navigability of the Verde River, the State Land Department has divided the river into six segments. Transcript (“Tr.”) 12/15/14, p. 47:9-10:

Segment	Description	Source
0	Sullivan Lake to Forest Road 638 <ul style="list-style-type: none"> • Segment 0-A Sullivan Lake to Granite Creek Ephemeral/Intermittent with rapids • Segment 0-B Granite Creek to Forest Road 638 Perennial, pool & riffle, shallow flow with no rapids 	EIN X035 “Fuller PPT,” slides 40-42

1	Forest Road 638 to Sycamore Canyon Perennial, pool & riffle, bedrock canyon	<i>Id.</i> at slides 46-47
2	Sycamore Canyon to Beasley Flat (Verde Valley) Perennial, pool & riffle, alluvial valley	<i>Id.</i> at slides 53-54
3	Beasley Flat to Childs	<i>Id.</i> at slides 59-60
4	Childs to Needle Rock	<i>Id.</i> at slides 65-66
5	Needle Rock to Salt River	<i>Id.</i> at slides 71-72

8. The segment designations were based upon differences in geology, channel characteristics, and changes in the river's hydrology. Tr. 12/15/14 at p. 47:18-48:9.

9. Vegetation in the Verde River watershed ranges from pine-oak woodlands on the Mogollon Rim and upper elevation areas, to Sonoran Desert Scrub along the lower Verde River. Significant portions of the watershed upstream of Sullivan Lake are grassland transitioning to chaparral and juniper-pinyon woodland at higher elevations. Along the river itself, deciduous riparian woodland and emergent marshland communities are found although the extent of marsh land in the central Verde River was drastically reduced during the period preceding and surrounding statehood. ASLD Report at 7-4.

B. Human Impacts on the Verde River.

10. Humans began having a significant impact on the Verde River beginning in around 1860s when mining and farming began in the Verde Valley and Jerome area. Tr. 12/15/14 p. 123:14-20.

11. Water was diverted using large irrigation ditches beginning in the 1860s, primarily in Segment 2. See Fuller PPT, Slide 84. See also ASLD Report at Table 7-16

12. By the time of statehood, there were many human impacts such that the base flow was altered. Tr. 12/18/14 p. 982:20 – 25.

13. A large part of the alteration occurred in the watershed, upstream of the Verde River itself. *Id.*

14. Irrigated acreage and cattle ranching in the watershed depleted major tributaries to the river, and thus, the river itself. EIN X036, Hjalmarson PPT 12/18/2014 (“Hjalmarson PPT”), slides 48-49.

15. Since statehood, the Verde River has continued to be altered by humans, including the construction of two dams. Tr. 12/15/14 at p. 124:19-20.

C. Historic Descriptions of the Verde River.

16. In 1870, the United States Surgeon General writing for the War Department described the river at the confluence of the Verde and Beaver Creek (Segment 5). “The river is thus well confined, and its bottom land is very narrow.” Tr. 12/15/14, p. 130:16 – 131:1; Fuller PPT, slide 90.

17. In 1884, two writers offered contemporaneous descriptions of the Verde River. Fuller PPT, slide 89. In his book, “History of Arizona Territory,” Wallace W. Elliot, refers to the river fifty miles northeast from Prescott to its junction with the Salt, as “a fine river of eighty feet in width.” *Id.*

18. Patrick Hamilton, in “The Resources of Arizona,” wrote that the waters of the Verde were “clear and limpid” and that the river was “as large as the Gila,” “well

stocked with fish,” and “capable of irrigating vast stretches of land.” *Id.* See also, ASLD Report, Table 3-1.

19. Surveys conducted in the 1870’s also provide important contemporaneous descriptions of the Verde River. In particular, a survey by C. B. Foster during April 23-24 and May 3-8, 1877 described 10 miles of Verde River that passed through Township 16 as a beautiful stream with an average width of 66 ft. (100 links) and an average depth of 3 ft. Hjalmarson PPT Slide 101.

20. Other surveys conducted in the same time period (1870s) reported depth measurements in the middle and lower portions of the Verde ranging from 3 feet to 5 feet near the confluence with the Salt. Tr. 12/18/14, p. 950:1 to p. 953:17. Hjalmarson PPT slide 124.

21. Historic maps also provide information about the condition of the river closer to the time of statehood. USGS topographical maps published from 1901 to the 1930s and covering segments 2 through 5 consistently show the Verde River as a solid line, and except for a few places in Segment 5, the river is depicted as a single channel. Tr. 12/15/14 pp. 137:3 – 142:8; Fuller PPT slides 100-105.

22. Information regarding the Verde River is also available through historical photographs, although these do not always provide information regarding the river’s depth. Several photographs from the 1880s show a flowing river, with a single meandering channel. Tr. 12/15/14 pp. 143:3-19; 145:15-149:10; 151:7-19; Fuller PPT slides 107, 110, 113-119.

23. Photographs closer in time to the date of statehood similarly show a single channel river, even though by that date, human diversions had made an impact on the river's flow. Tr. 12/15/14 pp. 144:24-145:14; Fuller PPT slides 108, 109, 111, 125, 126.

D. Evidence of Navigation on the Verde River.

1. Historical Boating Accounts.

24. There are numerous historical accounts of boating on the Verde River. *See generally*, Tr. 12/15/14 pp.153:7-178:25; Fuller PPT slides 127 – 144.

25. First, there are several reported instances of the military using boats on the Verde River in the late 1800s. There are accounts of cavalry troops at Ft. McDowell (Segment 5) using a raft as a ferry as early as 1868. *Id.* at 153:8-13; Fuller PPT slide 127. A similar report was made about troops at Ft. Verde (Segment 2) using a boat as a ferry during high flow in 1878. *Id.* at 153:18-154:11. There is even a picture of soldiers in a boat ten miles downstream of Camp Verde (Segment 2) in 1885. Fuller PPT, slide 129.

26. There were also several newspaper accounts of boating down the river for travel, fishing, or hunting. For example, on February 14, 1883, the Arizona Gazette reported that two men, N. Willcox and Dr. Andrews, went from the Fort McDowell area down to Barnum's pier on the Salt River, and had a pleasant trip except for some rain they experienced while camping. *Id.* at 154:13 – 155:8, Fuller PPT slide 128.

27. In December 1888, the Phoenix Herald reported that Major Spaulding and another man traveled by canoe from Fort McDowell to Mesa Dam (on the Salt River) (Segment 5). Upon their arrival the Major was accidentally shot when a gun discharged,

but the boat trip itself was otherwise successful. *Id.* at 156:2 – 157:7, Fuller PPT at Slide 130.

28. Another newspaper account describes a trip taken by JK and George Day from Camp Verde to Yuma (Segments 2-5) in 1892. According to the Arizona Sentinel, the brothers were trapping, and traveled all of the way down to Yuma to take their furs to market. The article describes them as being out on the river from September to April, and reports that they had a large quantity of furs with them. It also states that this was their fifth trip and that they planned to take the same trip again the following year. *Id.* at 158:15 – 160:17, Fuller PPT Slide 132.

29. Another trip, less successful, reported in multiple newspapers occurred in April 1905 when four individuals, Messrs. Hooker, Cox, Smith and Miller, took two iron boats down the river (along with a third boat containing a Mr. Armstrong) planning to spend seven days fishing and hunting. Three of the people gave up when they encountered low water downstream of Camp Verde and found that their boat was too heavy. *Id.* at 163:5 – 165:21, Fuller PPT slide 136.

30. According to the August 12, 1910 edition of the Bisbee Daily Review four men reportedly planned to go from “Verde country” to Mesa. All four were in one boat with their guns and supplies. All went well until they wrecked their boat and ended up walking 60 miles to Mesa. *Id.* at 166:13- 169:9. So, although the trip did not end as planned, the party managed to travel through segments 2, 3, and 4. *Id.*

31. A few years after statehood, two men (Messrs. Stevens and Webber) took a trip in the spring of 1917 through segments 2 and 3. The trip was in a wooden rowboat and occurred during spring runoff. *Id.* at 169:12 – 170:18, Fuller PPT slide 138.

32. According to the Verde Copper News, in February 1931, two men (Messrs. Fogel and Gireaux) took a five week trapping trip from Clarkdale to Fort McDowell in a flat bottomed boat. *Id.* at 170:19 – 171:6, slide 139.

33. One of the more interesting historical accounts was not contemporaneous but comes from a memoir written Dr. Ralph Palmer. Dr. Palmer who in the early 1900s was new to the territory, describes an outing on the Verde River during the winter of 1903 in Segment 2. According to Dr. Palmer his host took him out on the river in a steel boat that they hauled upstream in a wagon. After the men put the boat in the river, the horse that hauled the wagon up was trained to return it downstream. The two men then traveled down the river, hunting ducks. *Id.* at 162:13 – 163:4, Fuller PPT, slide 135.

2. Modern Boating.

34. The boats used by modern boaters are meaningfully similar to the boats customarily used at the time of statehood. Tr. 12/15/14 p. 250:9-16.

35. The same depths are needed for historical and modern boats. *Id.* at 57:24-58:5; *see also*, Fuller Powerpoint re Boating, EIN X017, 107 (“Fuller Boating PPT”) Slides 110-117.

36. As the Special Master reported in *United States v. Utah*, 283 U.S. 64 (1931):

The watercraft most commonly used in commercial navigation on these Rivers at various periods of time have been rowboats of 16 to 18 feet in length, *drawing 6-12 inches*; rowboats 18 to 22 feet long, *drawing 14-18 inches*; steel rowboats 18 feet long, *drawing 7-19 inches*; motorboats of 20 to 27 feet in length, *drawing 10 inches to 2 1/2 feet*; rowboats 16-18 feet in length, propelled by outboard motors *drawing 15-18 inches*; scows 32 by 8 feet, and 24 by 6 feet, *drawing 8 inches*; ... Such commercial navigation would seem to be conducted according to the “customary modes of trade and travel on water”.

Report of the Special Master filed on October 15, 1930, EIN X017:92, (“Special Master Report”) at p. 117 (emphasis added)

37. The weight and design of modern canoes is essentially the same as a canoe from 1912. Tr. 12/15/14 at 57:24-58:5. *See also* Fuller Boating PPT Slides 109; 117.

38. Because the river’s flow has only been depleted since the time of statehood, the boat-ability of the modern-day Verde River is either substantially similar to what it was like at statehood or has declined. Tr. 12/15/14 p. 250:9-16. Consequently, if the river is boat-able during modern times, it follows that in its ordinary and natural condition, the river was even more navigable. *Id.* at p. 192:7–193:12.

39. The Commission heard testimony from a wide range of people who have boated the Verde River. At the first public hearing held in Prescott on May 1, 2014, numerous residents appeared and testified regarding their experience boating the Verde River during all times of the year.

40. When the hearings reconvened in December 2014, Jon Fuller testified regarding his own experience boating the river and even provided photographs and videos of boating on the Verde River. Tr. 12/15/14 *passim*; EIN X052, 175-187.

41. Similarly, Mr. Don Farmer testified about his extensive experience boating the Verde River over the past 40 years. Tr. 12/16/14 p. 379:15 – 539:12; Tr. 12/17/14 p. 547:1 – 573:22. Mr. Farmer testified that he had boated segments 1 through 5 during all times of the year, and estimated that he had boated the river approximately 50 to 60 times during his life. *Id.* at 381:1-25.

42. Brad Dimock, an expert on historic boat, testified about how modern boats compared to historic boats and described his own experiences boating the Verde River. *Id.* at 3/31/15 p. 2818:19 – 2820:20.

43. Jerry Van Gasse also appeared briefly before the Commission to describe a river trip that he guided for former Congressman Mo Udall and other dignitaries from Washington D.C. Tr. 2/19/15 p. 1493:6-1500:2; EIN X064.

44. Previously the ASLD provided evidence from the Central Arizona Paddler's Club and a poll of their members that showed that all of Segments 1 through 5 have been boated. Tr. 12/15/14 231:5 – 21, Fuller PPT slide 194.

45. Prior ANSAC testimony from Jim Slingluff, who wrote the river guide to the Verde River, and John Colby, a businessman who ran a successful commercial boating business on the Verde River, established extensive modern boating. *Id.* at pp. 231:22 – 232:12.

46. Current commercial boating uses on the Verde River include kayak rentals and guided tours. *Id.* at p. 230:10-22.

47. The Commission heard testimony from Richard Lynch of Verde Adventures about his commercial enterprise providing guided tours of the Verde River

along with special events. Tr. 12/16/14 at 283:15 – 378:14. According to Mr. Lynch, Verde Adventures helps 5,000 to 6,000 people each year boat the Verde River. *Id.* at 285:21 – 286:12.

48. Other community and commercial events along the river include races such as the Verde River Canoe Challenge, which attracted hundreds of boaters annually. *Id.* at p. 234:12 – 238:4. Similar events on the river include the Verde River Fest, Verde River Days and Verde River Runoff. *Id.* at 237:7–23.

49. The state and federal governments also have a presence on the Verde River. Arizona Game and Fish employees regularly boat the Verde to conduct wildlife surveys. *Id.* at p. 232:13 -19. U. S. Forest Service issues hunting and fishing permits as well as commercial rafting and boating permits. *Id.* at 232:19 – 233:2.

50. River guides for the Verde have been published by the Arizona State Parks and Southwest Boating Guide. *Id.* at 239:7 – 20; Fuller PPT slide 205.

E. The Verde River in its Ordinary and Natural Condition.

51. The river’s actual condition at statehood was different from its natural, predevelopment condition. See “NAVIGABILITY ALONG THE NATURAL CHANNEL OF THE VERDE RIVER, AZ, detailed analysis from Sullivan Lake to the USGS gage near Clarkdale. and General analysis from Clarkdale gage to mouth,” Hjalmar W. Hjalmarson, PE, October 4, 2014 (EIN X-15)(“Hjalmarson Report”) at p. 5.

52. In order to assess the navigability of the Verde River in its ordinary and natural condition, Mr. Hjalmarson undertook an analysis to determine the natural channel of the Verde River. *Id.* His resulting report, which emphasized the Upper Verde River,

uses hydrologic and hydraulic methods that project hydrologic information into the past. Although the overall assessment is for the entire river, his detailed assessment focuses on the 36.6 mile reach of the Verde River from the dam at Sullivan Lake to the USGS stream gage near Clarkdale, Arizona (hereinafter “Upper Verde River”). *Id.*

53. This approach was necessary because at the time of statehood the base runoff had been impacted by many upstream diversions for irrigation, storage, livestock and mining. These diversions for irrigation, livestock and mining, which were to a small degree along the Verde River and to a much greater degree along headwater tributary streams and mountain front springs, reduced the amount of downstream water. *Id.*

54. Mr. Hjalmarson used three independent hydrologic techniques to define the natural hydrology of the headwater area including tributary streams. These techniques all used published information of the United States Bureau of Reclamation (“USBR”), United States Geological Survey (“USGS”), United States Forest Service (“USFS”), Salt River Project, local historic newspapers and Federal Land Surveys. *Id.* at 6.

55. Then channel geometry, morphology and hydraulics were calculated using both flow characteristics from the first step and also published information. *Id.*

56. The first method that Mr. Hjalmarson used to estimate the human-caused reduction in the base flow involved calculating the amount of cultivated acres along Granite Creek, Williamson Valley Creek and Walnut Creek using original Federal Land Survey plats and field notes on file at the Government Land Office (“GLO”). *Tr.* 12/18/14 at p. 983:18 – 996:20; Hjalmarson PPT, slides 51-57.

57. The second method used the Hayden report to calculate the irrigated land. *Id.* at p. 996:21; Hjalmarson PPT slides 58-59.

58. Finally, the third method used conveyance-slope estimates of historic based runoff using Federal Land Survey data. *Id.* at p. 998:16 – 1000:10, Hjalmarson PPT slides 60-63.

59. For the middle and lower reach of the river, Mr. Hjalmarson relied upon existing scientific studies of base flow and adjusted for the 100 cfs difference between virgin annual runoff and the gaged annual runoff at Gage 0951000 that was associated with early settler use of base flow in the upper part of the watershed. *Id.* at p.1002:3-1010:20; Hjalmarson PPT slides 68-70, 126.

60. After computing the amount of natural flow, Mr. Hjalmarson then turned to hydraulics and channel geometry. *Id.* at 1010: 21.

61. Mr. Hjalmarson used the Rosgen stream classification system published by the United States Forest Service for the Upper Verde River. *Id.* at 1012:8 – 1013:9.

62. He also used channel measurements he obtained from the USFS, USGS, and the Sierra Club Sentinels program. *Id.* at 1015:2 – 16, Hjalmarson PPT slide 79.

63. Using that information and representative cross-sections provided to him by the USFS, Mr. Hjalmarson was able to model the channel for the Upper Verde River. *Id.* 1012:8 – 1024:18; Hjalmarson PPT slides 75-93.

64. For the middle and lower Verde channel, Mr. Hjalmarson relied upon work done by Dr. Philip Pearthree as well as federal surveys completed prior to statehood. *Id.* at 1028:20 – 1032:2, Hjalmarson PPT slides 94-103.

65. Using this methodology, Mr. Hjalmarson determined that important hydraulic characteristics of the Upper Verde River area under natural conditions at statehood were:

- The natural flow in the Upper Verde River was perennial with a median annual flow of 60 cfs and 116 cfs, respectively, at the upper and lower ends of the study reach. The corresponding average widths of flow were about 35 and 50 ft. respectively. The measured depths of flow averaged at least 2.9 ft. There were numerous pools where depths were greater than 2.9 ft. Hjalmarson Report at p.7.
- The cross-sectional geometry (size and shape) of the low-water channel appears to have remained unchanged even with the human depletion of base flow. The series of pools (deep water areas) and riffles (shallow water areas typically dominated by cobbles and small boulders) are relatively stable throughout the Upper Verde River. *Id.*

66. For the remaining reach of the Verde River, from the end of the upper reach to the mouth at the Salt River (mile 36.6 to mile 230), Mr. Hjalmarson concluded that the available evidence (depth-discharge relations at USGS gages, cadastral surveys from the 1870's to early 1900's, recent boating on the river, geomorphology, etc.) suggests the depth of natural flow was at least 2.6 feet 90% of the time during a typical year. *See* Hjalmarson Report, Appendix G, Table G2.

67. The median depth was at least 3 feet and the depth corresponding to the mean annual discharge was at least 3.5 feet. *Id.*

68. It was the opinion of Mr. Hjalmarson that the natural channel of the Verde River, from river mile 3.3 in the Stewart Ranch area to the mouth at the Salt River was susceptible to navigation at the time of statehood (February 14, 1912) in its natural condition. During ordinary years the river was susceptible to navigation more than 95% of the time. Hjalmarson Report at 7.

II. Conclusions of Law.

A. Issue 1: In its Ordinary and Natural Condition, Was the Verde River Navigable at the Time of Statehood?

1. State ex rel. Winkleman v. ANSAC

1. In the navigability determination of the Lower Salt River, the Arizona Court of Appeals remanded the matter back to ANSAC because it found that “although ANSAC considered a great deal of evidence concerning the condition of the River, and reviewed evidence from various times before statehood, ANSAC ultimately failed to apply the proper legal standard to the evidence presented.” *State ex rel. Winkleman v. Ariz. Navigable Stream Adjudication Comm’n.*, 224 Ariz. 230, 242 p28, 229 P.3d 242, 254 (App. 2010).

2. The Court held that “[b]ecause the proper legal test was not applied, we must vacate the superior court’s judgment and remand for ANSAC to consider whether the River would have been navigable had it been in its ordinary and natural condition on February 14, 1912.” *Id.* at ¶29.

3. In articulating the proper legal test, the Court instructed that ANSAC is “required to determine what the River would have looked like on February 14, 1912, in

its ordinary (i.e. usual, absent major flooding or drought) and natural (i.e. without man-made dams, canals, or other diversions) condition.” *Id.* at 241 ¶¶28, 229 P. 3d at 253.

4. The Court of Appeals also provided specific guidance regarding what constituted the “best evidence” of the Lower Salt’s natural condition, and concluded that with respect to that watercourse, “the River could be considered to be in its natural condition after many of the Hohokam’s diversions had ceased to affect the River, but before the commencement of modern-era settlement and farming in the Salt River Valley....” *Id.* at 242 ¶¶30, 229 P. 3d at 254.

5. Although ANSAC’s earlier determination regarding the Verde River was appealed to the Superior Court, the parties agreed to stay that appeal (as well as several others) pending the resolution of the appeal of the Lower Salt River to the Court of Appeals. After the Court of Appeals remanded the Lower Salt matter, the parties all agreed that the stayed appeals should all be remanded as well. Consequently, unlike the adjudication of the Lower Salt River, there is no specific instruction in this case as to what constitutes the “best evidence” of the natural and ordinary condition of this river.

6. In determining navigability for the Verde River, the inquiry is two-fold. First, the ANSAC must determine what constitutes the best evidence of the river’s “natural condition,” and second, whether based on that evidence, the river was “used or susceptible to being used...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)(emphasis added). *See also, Defenders of Wildlife v. Hull*, 199 Ariz. 411, 18 P. 3d 722 (App. 2001).

2. The Verde River's Susceptibility to Navigation in its Ordinary and Natural Condition.

7. The definition of navigability does not require that the watercourse actually have been used for trade or travel, but rather, requires only that it was 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. 64, 82 (1931); *see also, Alaska v. Ahtna*, 891 F.2d 1401, 1404-1405 (9th Cir. 1989).

8. The term "highway for commerce" is first found in the definition of "navigable" or "navigable watercourse." The Arizona statute (which codifies federal law) defines both as:

[A] watercourse that 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.

Ariz. Rev. Stat. §37-1101(5). The statute more specifically defines "highway for commerce" as "a corridor or conduit within which the exchange of goods, commodities or property *or the transportation of persons* may be conducted." Ariz. Rev. Stat. §37-1101(3). Thus, the statutory definition of "highway for commerce" does not require the transport of goods; the transportation of persons alone is sufficient to establish a "highway for commerce."

9. The term “highway for commerce” can be misleading; as the cases make clear, this requirement is satisfied by either trade or *travel* on the river, even if the travel is noncommercial. As the Arizona Court of Appeals explained in *Defenders*,

The federal test has been interpreted to neither require both trade and travel together nor that the travel or trade be commercial. *See Utah*, 403 U.S. at 11 (hauling of livestock across lake even though done by owners and “not by a carrier for the purpose of making money” was enough to support a finding of navigability because “the lake was used as a highway and that is the gist of the federal test”).

199 Ariz. at 416, 18 P.3d at 727. In *Defenders*, the court also rejected the argument that the trade and travel must be both upstream and downstream, or that the travel must be for a profitable commercial enterprise. Rather, the court observed that, “nothing in the *Daniel Ball* test necessitates that the trade or travel sufficient to support a navigability finding need be from a ‘profitable commercial enterprise.’” *Id.* at 422, 18 P. 3d at 733. *See also United States v. Hill*, 248 U.S. 420, 423 (1919) (“commerce has been held to include the transportation of persons and property no less than the purchase, sale and exchange of commodities”) *citing Gibbons v. Ogden*, 9 Wheat 1, 188 (1824).

10. As the Oregon Court of Appeals explained in *Northwest Steelheaders Ass’n v. Simantel* 199 Ore. App. 471; 112 P.3d 383 (2005):

First, with respect to “actual use,” it is not necessary that the historic use made of the river have been either widespread or commercially profitable. “The extent of * * * commerce is not the test.” . . . For example, the Court’s most recent application of the *The Daniel Ball* test upheld a determination of the navigability of Utah’s Great Salt Lake based on evidence that the Court described as “sufficient” but “not extensive.”

Id. at 389, *quoting Utah v. United States*, 403 U.S. 9, 11 (1971).

11. Further, as the Oregon Court observed, “qualifying travel and trade is not limited to large-scale commercial or multiple passenger vessels of the sort typically engaged in modern commerce.” *Id.* at 390.

12. Navigation by small boats has often been recognized as evidence of navigability. *Block v. North Dakota*, 461 U.S. 273(1983) (“Canoe travel at the time of North Dakota’s statehood represented a viable means of transporting persons and goods.”); *Puyallup Tribe of Indians v. Port of Tacoma*, 525 F. Supp. 65 (W.D. Wash 1981), *aff’d*, 717 F.2d 1251 (9th Cir 1983)(declaring navigability on the basis that “Indians navigated the river with their fishing boats and canoes”).

13. Similarly, the lack of actual use at statehood as a “highway for commerce” does not defeat a finding of navigability. *See, e.g., United States v. Utah*, 283 U.S. at 83. As the United States Supreme Court noted in that case:

Utah ...is not to be denied title to the beds of such of its rivers...either because the location of the rivers and the circumstances of the exploration and settlement of the country through which they flowed had made recourse to navigation a late adventure, or because commercial utilization on a large scale awaits future demands. The question remains one of fact as to the capacity of the rivers in their ordinary condition to meet the needs of commerce as these may arise in connection with the growth of the population....And this capacity may be shown by physical characteristics and experimentation as well as by the uses to which the streams have been put.

Id. at 83.

14. Finally, in considering the issue of “commerce,” it is important to distinguish between cases involving navigability under the Commerce Clause and cases involving navigability for title. In Commerce Clause cases, in order to support federal

regulatory jurisdiction over power plants the river must by statute be, or have been, “suitable for use for the transportation of persons or property in interstate or foreign commerce.” 16 U.S.C. §796(8)(2006). No such “interstate or foreign commerce” requirement exists when the issue is navigability for title. *Oregon v. Riverfront Protective Ass’n*, 672 F.2d 792, 795 n. 1 (9th Cir. 1982).

15. As the Arizona Court of Appeals cautioned in *Defenders*, “when discussing navigability, any reliance on judicial precedent should be predicated on a careful appraisal of the purpose for which the concept of navigability is invoked.” 199 Ariz. 729-30, 18 P. 3d at 418-19.

16. When the issue is navigability for title purposes, there is no requirement that the watercourse was actually used for commerce or any commercial activity. It is sufficient to show simply that the watercourse was susceptible to use for travel.

17. The law is well established that a river need not be free of obstructions to be found navigable. “Navigability based on either actual use or susceptibility to use may be established despite the presence of obstacles to free passage, such as rapids, riffles, or occasional areas of low water requiring portage, so long as the ‘natural navigation of the river is such that it affords a channel for useful commerce.’” *Northwest Steelheaders*, 199 Ore. App. at 484, 112 P.3d at 390 quoting *The Montello*, 87 U.S. (20 Wall) at 441.

18. Navigability does not depend on an absence of occasional difficulties in navigation. *Holt State Bank*, 270 U.S. 49, 56 (1926). See also *U.S. v. Utah*, 283 U.S. at 84, 86 (noting that conditions created by flood deposits of logs and driftwood “do[] not constitute a serious obstacle to navigation” and that, with respect to shifting sandbars in

the river channel, “the mere fact of the presence of such sandbars causing impediments to navigation does not make a river non-navigable”).

19. Courts have consistently held that meanders have no bearing on the issue of navigability. *Oklahoma v. Texas*, 258 U.S. 574, 586 (1922) (Surveying officers “were not clothed with the power to settle questions of navigability.”); *Railroad Co. v. Shurmeir*, 74 U.S. 272, 286 (1868) (“Express decision of the Supreme Court of the State was, that the river, in this case, and not the meander-line, is the west boundary of the lot, and in that conclusion of the State court we entirely concur.”); *Micellis v. Andrus*, 61 Or. 7, 88-89 (1912)(“[N]avigability in law can never exist independent of navigability in fact, and the fitness of a river in its original condition for the transportation...can never be settled by fiat or by meandering the banks of the stream.”).

20. Prior to statehood, the Verde River was navigated for travel, fishing, hunting, trapping and military purposes. And these uses of the river continued at least until the 1930s. These documented events demonstrate that the river was not only susceptible to use as a highway for commerce, but was actually used as one both before and after statehood.

21. Moreover, the evidence shows that had the river been in its natural condition at the time of statehood, it would have been even more susceptible to navigation.

22. Arizona citizens’ use of the Verde River as a “highway for commerce” has only increased in modern times. Although navigation of the river has shifted so that it is

predominantly but not exclusively recreational, those recreational uses of the river simply represent a more modern type of commerce.

23. But even if it weren't evidence as "commerce" per se, modern navigation of the river is also compelling evidence of the susceptibility of the river to navigation in its "ordinary and natural condition." As both Mr. Fuller and Mr. Hjalmarson testified, because the river's flow has only been diminished over time, it would have only been more navigable in its "natural" condition. The fact that segments 1 through 5 are not only currently navigable but continue to be navigated today, compels a finding of navigability.

B. Issue 2: Segmentation.

24. The United States Supreme Court held that a river's navigability must be determined on a segment-by-segment basis. *PPL Montana LLC v. Montana*, 132 S. Ct. 1215 (2012).

25. The Court recognized that "[p]hysical conditions that affect navigability often vary over the length of a river." *Id.* at 1230.

26. In determining the navigability of the Verde River, the State has proposed that the Commission consider the river in six segments and presented evidence of navigability in that context.

27. The evidence presented demonstrates that segments 1 through 5 are navigable in their ordinary and natural condition.

Respectfully submitted this 9th day of November 2015,

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