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BEFORE THE
ARIZONA NAVIGABLE STREAM ADJUDICATION COMMISSION

IN THE MATTER OF THE NAVIGABILITY OF THE
GILA RIVER FROM THE NEW MEXICO BORDER
TO THE CONFLUENCE WITH THE COLORADO
RIVER, GREENLEE, GRAHAM, GILA, PINAL,
MARICOPA AND YUMA COUNTIES, ARIZONA

No.: 03-007-NAV

**ARIZONA STATE LAND DEPARTMENT'S
RESPONSE TO THE PROPOSED FINDINGS OF
FACT AND CONCLUSIONS OF LAW JOINTLY
SUBMITTED BY THE SALT RIVER PROJECT,
FREEPORT MINERALS CORPORATION, THE
GILA RIVER INDIAN COMMUNITY, AND THE
SAN CARLOS APACHE TRIBE REGARDING
THE GILA RIVER**

The State of Arizona, on behalf of the Arizona State Land Department ("ASLD," "Department," or the "State"), responds to the Proposed Findings of Fact and Conclusions of Law Jointly Submitted by the Salt River Project, Freeport Minerals Corporation, The Gila River Indian Community, and the San Carlos Apache Tribe as follows. The State has limited this filing to the total number pages that would have been filed if Opponents prepared separate Findings of Fact and Conclusions of Law. See Commission Order, December 23, 2014.

FINDINGS OF FACT

1. Admit this is what this record reflects.
2. Admit this is what this record reflects.
3. Admit this is what this record reflects.
4. Admit this is what this record reflects.
5. Admit this is what this record reflects.
6. Admit this is what this record reflects.
7. Admit this is what this record reflects.
8. Admit this is what this record reflects.

9. Twelve (12) experts testified in 2005 regarding the Gila River's (the "River" or "Gila") history and physical characteristics. Six experts testified in 2014 regarding the River's history and physical characteristics.
10. The record in this case includes numerous documents from Arizona's history, as well as expert reports, transcripts, and correspondence from citizens.
11. Admit this is what this record reflects.
12. The ANSAC 2009 Report listed the testimony and documentary evidence which was submitted to the Commission. *See ANSAC 2009 Report*, p. 21-23.
13. The Lower Gila Report was originally prepared by ASLD with help from several consulting entities. It was updated in 2003 by J.E. Fuller. 004, p. i (ASLD Lower Gila Report).
14. The Upper Gila Report was originally prepared by a team of consulting entities including J.E. Fuller. 002, p. 1 (ASLD Upper Gila Report). The report was revised by J.E. Fuller in 2003. As Mr. Fuller testified to at the Gila Hearings, the original Upper Gila Report was not drafted by Mr. Fuller. Tr. 6/16/14, pp. 11-12 (Fuller). J.E. Fuller was merely a subcontractor who drafted selected portions of the Report. Tr. 6/16/14, pp. 11-12 (Fuller).
15. Admit this is what this record reflects.
16. *Historic Geomorphology of the Gila River* by Gary Huckleberry is evidence item X032-126. *See X032-126*. Mr. Huckleberry did testify in 2005 (*see generally* Tr. 11/16/05, pp. 52-100 (Huckleberry)) and he was the primary author of chapter VII of the Lower Gila Report, which may differ slightly from X032-126 (004, p. proceeding VII-1(ASLD Lower Gila Report)).
17. Admit this is what this record reflects.
18. Admit this is what this record reflects.
19. Admit this is what this record reflects.
20. Admit this is what this record reflects.
21. Admit this is what this record reflects.
22. The Commission has considered all evidence submitted to it, including evidence from previous proceedings.
23. Admit this is what this record reflects.
24. Admit this is what this record reflects.
25. Admit this is what this record reflects.
26. Admit this is what this record reflects.
27. Admit this is what this record reflects.
28. Admit this is what this record reflects.
29. Admit this is what this record reflects.
30. Admit this is what this record reflects.
31. Mr. Burtell's report is evidence X008-2 (Burtell Decl.) (commonly referred to as Freeport 2).

32. Admit this is what this record reflects.
33. Dr. Lingenfelter's affidavit is X008-3 (Lingenfelter Aff.).
34. Admit this is what this record reflects.
35. Admit this is what this record reflects.
36. Mr. Fuller's Boating PowerPoint is evidence item X020-80 (Fuller Boating).
37. Mr. Fuller's Navigability PowerPoint is evidence item X020-79 (Fuller Nav.).
38. Admit this is what this record reflects.
39. The Personal Narrative of James O. Pattie of Kentucky is evidence item X006-8 (Pattie Narrative).
40. Admit this is what this record reflects.
41. *Various Citations*... is evidence number X006-9 (Hjalmarson Citations).
42. Admit this is what this record reflects.
43. Admit this is what this record reflects.
44. Admit this is what this record reflects.
45. Evidence item X036-120 is excerpts from *The Far Western Frontier* edited by Ray A. Billington. X036-120, elec. p. 6. It is a reprint of the original edition. *Id.* at elec. p. 7.
46. Admit this is what this record reflects.
47. Evidence item X036-122 is a selection from a book titled Early Western Travels 1748-1846 by Reuben Gold Thwaites, which purports to be annotated reprints from various travel accounts, including Pattie's. X036-122, elec. p. 7. It is not the "Preface" to the 3rd Edition of Pattie's narrative.
48. Admit this is what this record reflects.
49. It's not clear what this evidence item is.
50. Admit this is what this record reflects.
51. Admit this is what this record reflects.
52. Admit this is what this record reflects.
53. Admit this is what this record reflects.
54. Admit this is what this record reflects.
55. Excerpts from *A Handbook of Arizona* were submitted by both Freeport and SCAT as evidence numbers X031-116 and X016-5.
56. Admit this is what this record reflects.
57. Admit this is what this record reflects.
58. Admit this is what this record reflects.
59. Admit this is what this record reflects.
60. Admit this is what this record reflects.

61. Mr. Fuller testified about the records we have of historic boating accounts on the Gila. X020-79 (Fuller Nav.). Mr. Fuller testified that the Gila was navigable. Tr. 6/16/14, p. 265 (Fuller). Mr. Farmer also testified that the Gila was navigable. Tr. 6/18/14, pp. 641-42 (Farmer). Mr. Hjalmarson provided an extensive report and numerous supporting documents to support his conclusion that the Lower and Middle Gila was navigable. *See* 023 (Hjalmarson 2002 Rpt.), 025 (Ross), X006-9 (Hjalmarson Citations). Mr. Donald Jackson, a historian retained by Maricopa County, testified during the 2005 hearings that the Gila was navigable. *See* 021, pp. 1, 18 (Jackson PowerPoint); Tr. 11/17/05, p. 220 (Jackson). Numerous other witnesses provided testimony that supported the conclusion that the Gila River was navigable, although they were not asked to render an ultimate opinion regarding the River's navigability. *See* Tr. 11/16/05, pp. 52-100 (Huckleberry); X035-129 (Huckleberry Decl.); Tr. 11/16/05, pp. 102-120 (Tellman); Tr. 11/17/05, pp. 331-339 (Colby); Tr. 11/16/05, pp. 210-220 (Weedman).

62. Mr. Fuller testified that his PowerPoint presentations provided the update to his previous reports. Tr. 6/16/14, pp. 14-15 (Fuller). His presentations are X020-79, Navigability of the Gila River, and X020-80, Boating in Arizona.

63. Same as State's Finding of Fact ("State's FOF") 60 – Admit this is what this record reflects.

64. Admit this is what this record reflects.

65. Admit this is what this record reflects.

66. Admit this is what this record reflects.

67. Admit this is what this record reflects.

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69. Admit this is what this record reflects.

70. Admit this is what this record reflects.

71. Admit this is what this record reflects.

72. Evidence was presented to the commission regarding Chriachua Apache use of bullboats on the upper Gila. 002, p. 3-1 (ASLD Upper Gila Report). There was also some evidence of Indian use of baskets used as boats to cross the Gila. 002, p. 3-6 and X025-110 (ASLD Upper Gila Report). Finally, there was some evidence presented that Indian oral history included stories about canoes. X020-79, PPT 72; Tr. 6/16/14, p. 166 (Fuller). Nonetheless, evidence of Indian use of the River is not extensive. Tr. 6/16/14, p. 166 (Fuller).

73. Admit this is what this record reflects.

74. Admit this is what this record reflects.

75. Admit this is what this record reflects.

76. This statement is contained within Mr. Gookin's report at different pages then cited by the Opponents. He failed to provide the document that supported that statement to the Commission, and the link to that document does not work. *See* X009, p. IV:2-3 (elec. p. 63-4) and Appendix B, p. 3 (elec. p. 136) (link for Gregonis and Reinhard (1979) (Gookin Rpt).

77. According to Mr. Gookin's 2014 report, the Hohokam recorded a method of trade in their pottery. X009, p. IV-3 (Gookin Rpt.). Mr. Gookin takes from that evidence that boats were not recorded in Hohokam pottery, and then further

speculates that that means the Hohokam definitely didn't use boats. *Id.* Mr. Gookin does not have expertise in archaeology or history. *See* X009, Appendix C, p. 1 (Gookin Rpt.). He does not list any experience with history or archaeology in his rather detailed CV. *See* X009, Appendix C (Gookin Rpt.). More importantly, he did not provide the Commission with the evidence he relied upon in forming his opinion so that the Commission could make up its own mind. Mr. Gookin testified that he relied on the History and Archaeology sections of the ASLD reports. Tr. 6/19/14, p. 996 (Gookin). The ASLD report does not include evidence of Hohokam boating. *See generally* 002, chapter 2; 004, chapter 3.

78. Admit that is what this record reflects.

79. Although Opponents attempt to make much of the fact that there has been no evidence presented to the Commission on Hohokam use of boats, their conclusion from that fact – that the Hohokam did not use boats and therefore that the Gila must not have been suitable for boats – is faulty logic. There are other reasons that boats may not have been used by the Indians and their predecessors – either Indians did use boats but the physical evidence did not survive (X020-80, PPT 60 (Fuller Boating); Tr. 6/16/14, p. 49 (Fuller)), or there were cultural prohibitions against the use of boats (*see* X016-9, p. 25-6 (Utah Special Master)) (“It seems likely that use must have been made of the rivers by these Indians, though no trace of boats or canoes used by them has been found. The present day Indians, the Navajos and the Utes, probably owing to old superstitions and legends, have not navigated these rivers in boats and do not now navigate them except to cross at fords”).

80. The cited page does not support the factual allegation. Mr. Farmer's transcript at 618 does not discuss Hohokam use of boats or Mr. Farmer's knowledge thereof. *See* 6/18/14, p. 618 (Farmer). Even if such a statement appears in the transcripts (for instance at page 620), Mr. Farmer also testified he had no expertise in history or archaeology. Tr. 8/18/14, p. 543 (Farmer).

81. The cited record does not exist. There is no page 999-1000 for the transcript for 8/18/14. Those pages transcribe events that took place on 8/19/14, where Mr. Gookin did indeed opine that his opinion applied to the middle and lower Gila as well as Segment 6. Tr. 8/19/14, pp. 999-1000 (Gookin).

82. Admit that is what this record reflects. Mr. Gookin's testimony is contradicted by the well documented history of commercial use on the Gila. *See* State's FOF 325-7, 352-5, 382-5, 397-9, 420, 455-61, 495-505, 517-520, and 522-535.

83. Admit this is what this record reflects.

84. Admit this is what this record reflects.

85. In the 1931 Utah case, the Special Master concluded that no evidence of prehistoric boats or canoes had been found and that the Native American inhabitants of the area did not use the rivers for transportation. X016-9, pp. 25-6 (Utah Special Master). Nonetheless, the Court in that case found some of the rivers at issue navigable. The Special Master also found that some Southwestern tribes had cultural beliefs that precluded their use of the rivers in that case for boating. X016-9, pp. 25-6 (Utah Special Master). Mr. Fuller did state that he was unaware of the existence of any of those types of beliefs from the tribes in Arizona (Tr. 6/17/14, p. 463 (Fuller)), but Mr. Fuller never indicated that he was an expert in these tribal cultures, and no cultural expert has provided testimony before ANSAC.

87. The cited pages do not support the factual allegation. ASLD's report of the Lower Gila River at page IV-64 discusses railroads and stage lines, not boat travel. 004, p. IV-64 (ASLD Lower Gila Report). ASLD's Report of the Lower Gila River at page III-24 discusses historical archaeology. 004, p. III-24 (ASLD Lower Gila Report). ASLD's Upper Gila Report at page 8-2 summarizes the history of the region but does not discuss boat travel. 002, p. 8-2 (ASLD Upper Gila Report). This is not the place in either of these reports where boating accounts are discussed.

88. ASLD's Upper Gila Report states that there is some historical evidence that small boats were used on the Upper Gila. 002, p. 4 (ASLD Upper Gila Report). This statement does not support the Opponents contention that early travelers in Arizona *carried* watercraft. Opponents also cite for this proposition a statement that trappers *constructed* rafts on the Colorado – which also does not support their statement. 002, p. 3-1 (ASLD Upper Gila Report). Finally, opponents cite Mr. Hood's cross examination of Mr. Fuller where Mr. Fuller admits that there is no specific historical record of trappers using boats on the Upper Gila. Tr. 6/17/14, p. 324-25 (Fuller). Again this evidence does not support Opponents' conclusion. Instead, the evidence shows that some trappers *built* boats to travel on the Gila. X006-8, pp. 65-66 (Pattie Narrative).

89. The cited page does not support the factual allegation. Opponents again misstate what is in the record they cite. ASLD's Upper Gila Report at page 3-1 discusses trappers *building* boats to travel on the Colorado – not *carrying* watercraft. 002, p. 3-1 (ASLD Upper Gila Report).

90. Admit this is what this record reflects. Substantial additional evidence was put into the record by both sides, evidence that should be considered by ANSAC in making its new decision.

91. Admit this is what this record reflects.

92. The cited record does not exist. There is no page 326-7 in the transcript for 6/16/14. Upon re-reading the account Mr. Fuller admitted that the eight canoes were likely on the Colorado but that one canoe was on the Gila. Tr. 6/17/14, pp. 326-9 (Fuller).

93. Admit this is what this record reflects.

94. Mr. Gookin's report makes this statement. However, his citation to support that statement is not in the record and indeed the link appears to be incorrect. *See* X009, p. IV:16 (elec. p. 83) and Appendix B, p. 5 (elec. p. 138) (citation for Pry and Anderson (2011)) (Gookin Rpt.).

95. Admit this is what this record reflects.

96. Admit Mr. Gookin's report says this. However, it cites as support Figure IV-3. X009, p. IV-13 (elec. p. 76) (Gookin Rpt.). There is no figure IV-3 in Mr. Gookin's report.

97. The cited page does not contain the quotation. This quotation is not located at the location cited. X008-2, p. 8 (Burtell Decl.). Apparently Opponents feel that it is notable that their hydrologist did not find any historical records of boating at Ft. Goodwin.

98. Admit this is what this record reflects.

99. Admit this is what this record reflects. Tr. 11/16/05, pp. 126-159 (Littlefield); 11/17/05, pp. 52-353; *see also* 019 (Littlefield Deposition).

100. Admit this is what this record reflects. Dr. Littlefield's testimony is found at Tr. 8/18/14, pp. 1295-

1484 (Littlefield), and Tr. 8/19/14, pp. 1537-1635 (Littlefield).

101. Dr. Littlefield concluded that the federal land surveyors were under specific instructions to distinguish between navigable and non-navigable streams. Tr. 11/16/05, p. 128 (Littlefield); 012 (Littlefield 2005). Dr. Littlefield also admitted that there was no statutory definition of “navigable,” that each surveyor had his own interpretation (Tr. 8/18/14, pp. 1437-41 (Littlefield) and Tr. 11/17/05, pp. 56-8 (Littlefield)), and that none of the historical figures included in his report, including the surveyors, were applying *The Daniel Ball* test (Tr. 8/18/14, p. 1463 (Littlefield)). Therefore, with the exception of cases where the surveyor made specific notations of the width and depth of the river in question, the determinations of federal land surveyors is of limited use to ANSAC.

102. Although Dr. Littlefield testified that federal surveyor’s opinions are evidence of non-navigability (Tr. 8/18/14, p. 1317 (Littlefield)), this opinion lacks credibility because there is no way to judge what criteria a federal surveyor was applying when he made a navigability determination. Dr. Littlefield admitted that there was no statutory definition of “navigable,” that each surveyor had his own interpretation (Tr. 8/18/14, pp. 1437-41 (Littlefield)), and that none of the historical figures included in his report, including the surveyors, were applying *The Daniel Ball* test (Tr. 8/18/14, p. 1463 (Littlefield)). Thus determinations by federal surveyors and Dr. Littlefield’s opinions that were based on them are of limited value to ANSAC.

103. The width and depth information is relevant to determining navigability because they are describing the conditions of the river at the times they were there (Tr. 6/16/14, p. 181 (Fuller)), but federal surveyors were not using standards for title navigability when they characterized rivers as navigable or non-navigable (Tr. 11/17/05, pp. 56-8 (Littlefield); Tr. 6/16/14, p. 181 (Fuller); Tr. 8/18/14, pp. 1437-41, 1463 (Littlefield)).

a. Federal surveyors were told to meander navigable waterways (Tr. 8/18/14, p. 1315 (Littlefield)), but since they were not using *The Daniel Ball* test to determine navigability (Tr. 8/18/14, p. 1463 (Littlefield)) their opinions are of little use to ANSAC.

b. In some cases even though the River was meandered on both banks Dr. Littlefield assumed that surveyors were determining the River was non-navigable. Tr. 8/18/24, p. 1437 (Littlefield). Dr. Littlefield also admitted that some surveyors did not meander navigable rivers. Tr. 8/18/14, p. 1436 (Littlefield).

c. Dr. Littlefield’s report indicates that his opinion is that the River was not navigable. 012, p. 55 (Littlefield 2005). However, some surveyors indicated that the Gila was deep and wide, and that in some cases it had to be crossed by a boat or by swimming. X020-79, PPT 87-8; Tr. 6/16/14, p. 180 (Fuller).

d. Dr. Littlefield testified to the years in which the interior surveys of townships along the Gila were surveyed, but that testimony does not appear on the page cited. *See instead* Tr. 8/18/14, p. 1316 (Littlefield).

104. Admit this is what this record reflects.

105. In the 1850’s John R. Bartlett of the United States Army Corps of Topographical Engineers opined that the Gila River was only navigable to its junction with the Salt River, and then only for flatboats and during floods. 002, p. 3-14 (ASLD Upper Gila Report). This evidence is interesting but since it is contradicted by the evidence in the record that flatboats were and could have been used on the Gila both above and below the Salt River confluence, it is of limited value to the Commission. State’s FOF 354, 456, 497, 538.

106. In the 1850's John R. Bartlett of the United States Army Corps of Topographical Engineers opined that the Gila River was navigable, then changed his mind and opined it was non-navigable. Tr. 6/17/14, p. 341 (Fuller); *see also* Tr. 6/16/14, pp. 168-9, 174-5, 179-80 (Fuller).

107. Mr. Burtell opined that none of the early descriptions of the River (Segments 1 through 3) indicated that the Gila was navigable. However, early descriptions of the River in Segment 1 indicated the River was between 1 and 4 feet deep. *See* State's FOF 305-308, 310. Segment 2 descriptions also found that the River was at least 2 feet deep. *See* State's FOF 337-8. Segment 3 descriptions indicate that the River was at least 2 feet deep. *See* State's FOF 367-369.

108. Admit that it is Dr. Littlefield's opinion that the parties to the patents made judgments as to the navigability of the Gila. Even if those patents indeed indicated that the parties involved felt the Gila was non-navigable, none of the individuals were applying *The Daniel Ball* test. Tr. 8/18/14, p. 1463 (Littlefield). Further, many of the patents cited in Dr. Littlefield's report were issued after statehood, in some cases as late as the 1953's when the Gila was in a substantially depleted condition (*See* Tr. 8/18/14, pp. 1443-46 (Littlefield)) and some were taking water from an irrigation ditch and so had nothing at all to say about the Gila (Tr. 8/18/14, pp. 1443-46 (Littlefield)).

109. Admit that it is Dr. Littlefield's opinion that state, federal and homestead patents "shed considerable light on the navigability" of a watercourse. It is not clear why this is the case, considering that many of the patents were taken out after statehood, and all were taken out when the river was in its depleted condition (Tr. 8/18/14, pp. 1443-46 (Littlefield)) and the fact that none of these observers was applying *The Daniel Ball* test (Tr. 8/18/14, p. 1463 (Littlefield)). The Commission finds a difference between historic figure's conclusions (for instance that the river was navigable or not) and historic figure's observations (how wide and deep the river is). Since ANSAC cannot know what standards various historic figures were applying when they reached their conclusions, those conclusions are of less value than the observations, which ANSAC can use to make its determination.

110. Admit that Dr. Littlefield testified he examined all the patents. Dr. Littlefield testified primary sources are more reliable. Tr. 8/18/14, p. 1425 (Littlefield). However, he provided no copies of patents for the Commission to examine for itself, even though he indicated at one point that all documents that he relied on had been provided to the Commission, he later retracted that statement. Tr. 8/18/14, pp. 1425-26 (Littlefield).

- a. Admit this is what this record reflects.
- b. Admit this is what this record reflects.
- c. Admit this is what this record reflects.

111. Admit this is Dr. Littlefield's opinion. Dr. Littlefield admitted under cross examination that the Desert Land Act does not state that water must be taken from a non-navigable watercourse. *See* Tr. 11/17/05, pp. 145-150 (Littlefield).

112. Admit that is what Dr. Littlefield's report said. Dr. Littlefield included patents issued between 1924 and 1953. Tr. 8/18/14, pp. 1145-6 (Littlefield). This is well after the River was substantially diverted.

113. Admit that Dr. Littlefield made this statement in his report. X002, p. 91 (Littlefield Rpt.). None of

the State patents discussed in Dr. Littlefield's report were issued before 1918 (to a canal company) and 1926 to a private landowner. Tr. 8/18/14, p. 1446 (Littlefield). These patents were issued well after the Gila had been substantially diverted.

114. Admit this is what this record reflects. See above at 113.

115. Admit that Dr. Littlefield's opinion is that the Gila was not navigable. However, Dr. Littlefield admitted under cross examination that he had failed to consider even the historical boating accounts that were previously in the record in forming his opinion. Tr. 8/18/14, pp. 1483-84 (Littlefield). He based his opinion on the judgments of others – others who were not applying *The Daniel Ball* test to determine navigability (Tr. 8/18/14, p. 1463 (Littlefield)).

116. Admit this is what this record reflects. None of the historical figures cited in Dr. Littlefield's report were applying *The Daniel Ball* test. Tr. 8/18/14, p. 1463 (Littlefield).

117. Admit that ANSAC previously found that the prior evidence did not show navigability. This Commission must weigh the evidence itself. Significant additional evidence was entered into the record so that ANSAC could review the accounts themselves instead of relying solely on the opinions of the experts in the case.

118. In 2009 the Commission found that boating on the Gila was limited to recreational purposes and therefore would not support a finding of navigation. ANSAC 2009 Report, p. 58. However, based upon the guidance provided by the Arizona Court in *State ex rel, Winkleman v. Ariz. Navigable Stream Adjudication Comm*, 224 Ariz. 230, 229 P.3d 242 (App. 2010), and the U.S. Supreme Court in *PPL Montana v. Montana*, 565 U.S. _____, 132 S.Ct, 1216 (2012), and other cases, this Commission finds that the record contains sufficient evidence of historic boating to support a finding that the Gila was navigable. For specific examples of boating on the River, see State's FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535.

119. Based upon the new evidence presented and the guidance provided by the Arizona Court in *State ex rel, Winkleman v. Ariz. Navigable Stream Adjudication Comm*, 224 Ariz. 230, 229 P.3d 242 (App. 2010), and the U.S. Supreme Court in *PPL Montana v. Montana*, 565 U.S. _____, 132 S.Ct, 1216 (2012), and other cases, this Commission finds that the record contains sufficient evidence of historic boating to support a finding that the Gila was navigable. For specific examples of boating on the River, see State's FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535.

120. Recorded uses of the Gila for boating in all Segments span a variety of months and a long period of years. See State's FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535. The depth estimates submitted by the various experts confirm that all Segments of the Gila were navigable. See State's FOF 320-322, 348-350, 379-381, 392-393, 396, 418-419, 450-453, 483-485, 492, 515-516. There were no obstacles in any Segment of the Gila sufficient to impact navigability. See State's FOF at 271-274. In addition, the record of modern boating demonstrates that the Gila was susceptible to navigation. See State's FOF 329-335, 340, 356-365, 386, 395, 400-403, 421-427, 449, 507-509, 540. Finally, the River's susceptibility and use is confirmed by historic photographs and descriptions which overwhelmingly show a navigable river. See State's FOF at 305-311, 337-339, 367-375, 388, 394, 408-414, 429-441, 445, 466-482, 511-512.

a. There are six recorded instances of historic boating trips on the Upper Gila (Segments 1-3). These include a successful crossing of the River by rafts (X004-19 (*Weekly Arizona Miner*)), a prospector who had no difficulties on the Upper Gila boating in a dugout from Clifton to above Riverside (X004-12 (*Arizona Silver Belt*)), two unnamed men who successfully boated from New Mexico to Yuma in 1891 (X004-20 (*Tombstone Epitaph*)), Adams and Evans in 1895, who had a small difficulty lining their boat in Segment 4 but otherwise had an uneventful trip down the River (X014-33 (*Arizona Sentinel*, 3/9/1895)), Duvall's solo journey from New Mexico to Yuma in 1901 (X019, p. 18 (Maricopa Supp.)) and Carpenter and Todd's successful trip in Segment 3 in 1905 (X019, p. 30 (Maricopa Supp.)).

121. Admit this is what this record reflects.

122. The Commission has heard significant testimony concerning James Ohio Pattie's narrative of beaver trapping in Arizona. See X006-8 (Pattie Narrative); 6/16/14, p. 190 (Fuller). The record is clear that Pattie used at least one canoe on the Gila. Tr. 6/17/14, p. 326-9 (Fuller).

123. *The Personal Narrative of James O. Pattie* is evidence item X006-8.

124. Evidence item X006-8 is a complete copy of the narrative itself, but does not contain the editor's preface or introduction, which have been submitted as evidence item X036-121 (Flint 1881). See also X006-8 (Pattie Narrative).

125. It is clear that Timothy Flint wrote the Editor's Preface, as he was the editor of *The Personal Narrative of James O. Pattie*. No expert testified as to who attached the anonymous *Notes* contained within exhibit X036-120 to the James O. Pattie narrative contained within *The Far Western Frontier*, edited by Ray A. Billington. X036-120 (*Far Western Frontier*). The exhibit itself also does not indicate whether the Notes were attached by Flint or Billington. See X036-120 (*Far Western Frontier*).

126. Mr. Flint included "topographical illustrations," or drawings of some of the events contained within the narrative. See X006-8, pp. 14, 56, 65, 79, and 89 (Pattie Narrative). These were not drawn by Pattie, but were instead created from published and unpublished descriptions of the country and events. X036-121, p. iii-iv (Flint 1881) ("My influence upon the narrative regards orthography [spelling], and punctuation and the occasional interposition of a topographical illustration, which my acquaintance with the accounts of travelers in New Mexico, and published views of the country have enabled me to furnish. The reader will award me the confidence of acting in good faith, in regard to *drawing* nothing from my own thoughts." (italics added)).

127. Whether James O. Pattie wrote the descriptions of the Gila River or whether they were written by Timothy Flint based upon other published and unpublished descriptions of Arizona is irrelevant. The descriptions contained within the *The Personal Narrative of James O. Pattie* are consistent with other historical descriptions of the River. See State's FOF at 305-311, 337-339, 367-375, 388, 394, 408-414, 429-441, 445, 466-482, 511-512.

128. The Commission can rely upon Pattie's descriptions of the River (see State's FOF 169-171) as they are consistent with other historical descriptions of the River. See State's FOF at 305-311, 337-339, 367-375, 388, 394, 408-414, 429-441, 445, 466-482, 511-512.

129. Flint states that, "I have found more call to suppress, than to add, to soften, than to show in stronger

relief many of the incidents. Circumstances of suffering, which in many similar narratives have been given in downright plainness of detail, I have been impelled to leave to the reader's imagination, as too revolting to be recorded." X036-121, p. iv (Flint 1881).

130. It is unlikely that Flint's "suppression" or "softening" of "circumstances of suffering" would lead him to change the mere description of the country or the fact that Mr. Pattie used a canoe on the River. *See* X036-121, p. iv (Flint 1881); State's FOF 169-171, 172-173.

131. *See* Response to State's FOF 45-53.

132. Admit this is what this record reflects.

133. Opponents wholly misstate Quaife's introduction. Although Quaife discusses that Pattie is uneducated, he credits Pattie with filling in a portion of the "solid background of the history . . . with the bright colors of high adventure." X036-123, p. vi (Flint 1930). Quaife goes on to state that the narrative, "is not cheap fiction, but the relation of actual experiences..." X036-123, p. vi (Flint 1930). Although Quaife discusses the fact that Pattie was likely not the leader of the expedition that he writes about (X036-123, p. xxi-xxii (Flint 1930)), was likely inaccurate in small details such as dates and other precise details (X036-123, p. xix (Flint 1930)), and was almost certainly self-conceited (X036-123, p. xxi (Flint 1930)), nonetheless concludes that "Pattie actually engaged in the travels and underwent the experiences set forth in his narrative" (X036-123, p. xxii (Flint 1930)).

134. The quoted text is not located at X036-123, p. xiv (Flint 1930).

135. Admit this is what this record reflects.

136. Admit this is what this record reflects.

137. Admit this is what this record reflects.

138. The accuracy of the names of people Pattie encountered in California is irrelevant to the navigability of the Gila River.

139. The accuracy of Pattie's vaccination claims in California are irrelevant to the navigability of the Gila River.

140. The accuracy of Pattie's vaccination claims in California are irrelevant to the navigability of the Gila River.

141. The accuracy of Pattie's vaccination claims in California are irrelevant to the navigability of the Gila River.

142. The accuracy of Pattie's vaccination claims in California are irrelevant to the navigability of the Gila River. However, Opponents' continuing failure to accurately cite the record is relevant. The quoted passage actually states, "Strangely enough there is no record in the archives respecting the ravages of small-pox or Pattie's professional tour; yet his statement is confirmed by the fact that the statistical tables show an extraordinary number of deaths this year among the Indians of all the northern missions. St. Cruz, S. Jose, and St. Clara do not appear to have been visited at all. Here in the extreme north only the few who had not had the small-pox were vaccinated." X036-127, p. 169, fn. 39 (Howe).

143. Opponents cite footnote 43 on page 82-3 of X036-127 for the proposition that Pattie's complete

narrative is “absurdly inaccurate in many respects... built upon a substratum of truth.” Bancroft does state in the footnote that this particular story is “absurdly inaccurate in many respects,” but does not include in this footnote the remaining quotation, nor does Bancroft expand this statement to include Pattie’s entire narrative. X036-127, p. 82-3, fn. 43 (Howe).

144. Bancroft, in footnote 42 on page 170 states, “See chapter iii., this volume, on the Solis revolt, and especially Pattie’s version of that affair. His dates are all wrong; there are many absurd inaccuracies built on a substratum of truth; and there is apparently deliberate falsehood respecting his personal exploits in the capture of Solis.” X036-127, p. 170, fn. 42 (Howe). Again this references Pattie’s adventures in California and Mexico, not his time in Arizona.

145. In 2014, Mr. Fuller presented evidence to the Commission about historical boating on the River. *See* 6/16/14, pp. 188-211 (Fuller); State’s FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535.

146. Admit this is what this record reflects. The cited references are one of the places Mr. Fuller spoke about the Pattie narrative. *See also* 6/16/14, p. 190 (Fuller); Tr. 6/17/14, p. 326-9 (Fuller).

147. Admit this is what this record reflects.

148. Admit this is what this record reflects.

149. Admit this is what this record reflects.

150. Although Mr. Fuller could not provide a reference during his testimony, Pattie’s navigation of the Gila River is contained in X006-8, pp. 65-66 (Pattie Narrative).

151. Mr. Fuller did testify that Mr. Pattie and his party used eight dugout canoes on the Gila. However, on re-examination of the evidence Mr. Fuller agreed that the eight canoes account was on the Colorado, and that Mr. Pattie only recorded the use of one canoe on the Gila. Tr. 6/17/14, p. 326-9 (Fuller).

152. ASLD admits that Mr. Pattie apparently only made one canoe and used it on the Gila. Tr. 6/17/14, p. 326-9 (Fuller); *see also* Tr. 6/20/14, p. 1134-5 (Burtell).

153. There is no cite for the proposition that Safford did not exist in the 1820’s, nonetheless, the State admits to this fact.

154. Again, there is no citation for this fact, nonetheless, the State admits that Pattie’s expeditions took place prior to 1830. *See* State’s FOF 169.

155. Admit Safford was established in 1873. X039-129, p. 1 (History of Safford).

156. There is no citation for this fact. Pattie certainly could and did travel between the approximate location of Safford and the Colorado River. *See* State’s FOF 169-173.

157. Admit that the State referenced the Pattie narrative. State’s FOF 168-173.

158. There is no credible reason to doubt either Mr. Pattie’s descriptions of the Gila River in the 1820’s nor his use of a canoe in the River. *See* State’s FOF 168-173 and facts above.

159. Mr. Fuller certainly cited to Mr. Davis’ thesis. Although the citations for June 16th are correct, the citation for June 17th does not support the conclusion.

160. The cited page does not support the stated fact. Mr. Fuller did not state that he had not read Mr. Davis' thesis.

161. Admit this is what this record reflects.

162. ASLD's reports and the evidence submitted show use of the Gila River for trade and travel. State's FOF 325-7, 352-5, 382-5, 397-9, 420, 455-61, 495-505, 517-20, 522-35.

163. Mr. Fuller stated that the historical accounts are primarily of low draft boats used in a downstream direction. Tr. 6/16/14, p. 60 (Fuller). However steamboats were run approximately 20 miles up the Gila to Dome. Tr. 6/16/14, pp. 188-9 (Fuller).

164. Admit this is what this record reflects.

165. Although there were difficulties associated with the rafts used by the Mormon Battalion, they reached Yuma. See State's FOF 458.

166. The citation is incorrect for this material. Excerpts from Corle's book appear at X015-1 (Corle).

167. The complete citation in Dr. Littlefield's Report reads as follows:

Sixty or seventy miles above the mouth of the Gila, having more wagons than necessary, and scarcely able to get them on, I tried the experiment, with very flattering assurances of success, of boating with two pontoon wagon beds, and a raft for the running gear. I embarked a portion of the rations, some road tools, and corn. The experiment signally failed, owing to the shallowness of the water on the bars; the river was very low. In consequence of the difficulty of approaching the river, orders mistaken &c., the flour only was saved from the loading, and the pontoons were floated empty to the crossing of the Rio Colorado, where they were used as a ferry boat.

X002, p. 94-5 (Littlefield Rpt.).

168. Two different accounts exist of the Howard family trip in 1849, both of which were submitted to the Commission. See State's FOF 455. In one account, the Howards are recorded as launching in September 1849. X004-14 (*Weekly Citizen*). Neither account mentions that the account took place during a flood. See X004-14 (*Weekly Citizen*) and X004-47 (Hannum, *Quaker Forty-niner*).

169. Dr. Littlefield's report states that the reason the military officials at Fort Yuma were concerned about the Howard family was because of the dangerous nature of the river. X002, p. 131-2 (Littlefield Rpt.). The reason for the officer's concern does not appear in the reported accounts. X004-14 (*Weekly Citizen*) and X004-47 (Hannum, *Quaker Forty-niner*). Fort Yuma existed to protect travelers from Indian attack during that time. Tr. 8/18/14, p. 1476 (Littlefield). There are no rapids or other obstacles that would make travel on the Gila dangerous in Segments 6 – 8 where the Howard family trip took place, and historical boaters apparently had little difficulty with this stretch of the River. See State's FOF 455, 448, 461, 491, 505, 514, 519.

170. Admit this is what this record reflects.

171. Admit this is what this record reflects.

172. Admit to the letter from Camp Salvation. See State's FOF 495. Dr. Jackson (a historian) also testified that other parties of 49ers used the Gila for travel. See State's FOF 496. Indeed, other accounts from 1849 exist, including the Howard family (see State's FOF 455) and HMT Powell (see State's FOF 460).

173. The Commission found in its 2009 report that 49ers use of boats on the Gila was unsuccessful. However, this conclusion is unsupported by the evidence.

174. Henry Morgan operated Morgan's Ferry near Maricopa Wells (in Segment 6) for twenty-five years beginning in 1867. 004, p. IV-5 (ASLD Lower Gila Report). The fact that there was a ferry at that location demonstrates that the River would have normally been more than a foot deep and was susceptible to the navigation of large boats. Tr. 6/16/14, pp. 32, 34-5 (Fuller). *See also* State's FOF at 105, 244-248, 463, 538.

175. A February 1881 river trip by Cotton and Bingham from Phoenix to Yuma was announced in the *Arizona Gazette* for the next day, the trip to be made in an eighteen-foot-long skiff. 004, p. IV-7 (ASLD Lower Gila Report); Tr. 11/17/05, pp. 210-11 (Jackson); Tr. 6/16/14, p. 196 (Fuller); X020-79, PPT 106 (Fuller Nav.). *See* State's FOF at 498.

176. In November 1881, William "Buckey" O'Neil launched a boat in Phoenix headed for Yuma. X020-79, PPT 107 (Fuller Nav.); Tr. 6/16/14, pp. 196:19-197:12 (Fuller); 021, p. 11-12 (Jackson PowerPoint). Apparently his craft was not particularly nimble, as the article reports he and his party had to push it while standing in water up to their knees. X020-79, PPT 107 (Fuller Nav.); Tr. 6/16/14, pp. 196:19-197:12 (Fuller); 021, p. 11-12 (Jackson PowerPoint). There is also some indication that a certain amount of liquor was consumed by the boaters. X020-79, PPT 107 (Fuller Nav.); Tr. 6/16/14, pp. 196:19-197:12 (Fuller); 021, p. 11-12 (Jackson PowerPoint). There is some confusion about whether the trip made it to Yuma or stopped in Gila Bend (in Segment 8). X020-79, PPT 107 (Fuller Nav.); Tr. 6/16/14, pp. 196:19-197:12 (Fuller); 021, p. 11-12 (Jackson PowerPoint). In any event, Mr. O'Neil successfully boated through Segment 7. X020-79, PPT 107 (Fuller Nav.); Tr. 6/16/14, pp. 196:19-197:12 (Fuller); 021, p. 11-12 (Jackson PowerPoint); Tr. 11/17/05, p. 211 (Jackson). *See* State's FOF 499.

177. *See* State's FOF 499.

178. *See* State's FOF 499.

179. The *Arizona Sentinel* reported on March 28, 1891, that Straus, Dallman & Co. had put into service a new ferryboat – large enough to carry a loaded six-horse team in safety. 004, p. IV-8 (ASLD Lower Gila Report). The fact that there was a ferry at that location demonstrates that the River would have normally been more than a foot deep and was susceptible to the navigation of large boats. Tr. 6/16/14, pp. 32, 34-5 (Fuller). *See also* State's FOF at 105, 244-248, 463, 538.

180. In January – February 1895, W.A. "Amos" Adams and J.W. Evans boated from approximately 35 miles above Solomonville in Segment 2 to Sacaton in Segment 6 in an 18 x 3.5 foot homemade wooden flatboat with a cabin. X014-33 (*Arizona Sentinel*, 3/9/1895); X020-79, PPT 111 (Fuller Nav.); 021, p. 12 (Jackson PowerPoint). After a side trip to Phoenix, Adams and Evans rejoined the Gila at the Salt River confluence (in Segment 6/7) and traveled down to Yuma. X014-33 (*Arizona Sentinel*, 3/9/1895); X020-79, PPT 111 (Fuller Nav.); 021, p. 12 (Jackson PowerPoint). Adams and Evans lined some of the rapids in Segment 4. X014-33 (*Arizona Sentinel*, 3/9/1895). Mr. Evans apparently stood on shore letting the boat down by a rope, and Mr. Adams rode in the boat through the rapids. X014-33 (*Arizona Sentinel*, 3/9/1895). At one point the rope broke and Mr. Evans recounts an exciting journey swimming and climbing downriver to where the boat awaited, slightly damaged (the repair took only a few hours) but

still afloat and with its watertight compartments intact. X014-33 (*Arizona Sentinel*, 3/9/1895). State's FOF 354 and 398.

181. Adams and Evans did not boat the section of the River from Sacaton to the Salt River confluence as they wanted to make a side trip to Phoenix. *See* State's FOF 354. Although the newspaper article related that they experienced 81 miles of rough rapids and falls, the canyon distance from San Carlos to Winkelman where falls would be likely is only 28 miles. X014-33 (*Arizona Sentinel*); Tr. 6/16/14, p. 199-200 (Fuller). They made the trip during January and February, generally not high water months. Tr. 6/16/14, p. 199-200 (Fuller). Although the majority of the trip was without incident, Mr. Evans noted that he would not make the trip again. X014-33 (*Arizona Sentinel*).

182. *See* above at 180-81.

183. The *Arizona Republican* reported in April 1905 that Jack Shivley [or Shibley] boated from Phoenix to Gila Bend (in Segment 7), capsizing once but successfully completing the trip. X014-34 (*Arizona Republican*, 4/3/1905). However, he was boating on flood flows. Tr. 6/16/14, pp. 201-2, 207-8 (Fuller). *See* State's FOF 106. Flood boating accounts were not considered by Mr. Fuller in rendering his opinion. Tr. 6/16/14, p. 27-28, 207 (Fuller). *See also* State's FOF 103.

184. *See* above at 183.

185. *See* above at 183.

186. In terms of historical recreational use of the Gila, there is an unconfirmed report that Stanley Sykes boated the entire River in 1909. X025-110, p. 259 (Granger). A statement to this effect is made in Granger's *Arizona Names*, but no confirming documentation has been found. X025-110, p. 259 (Granger). Mr. Sykes authored an article talking about a winter trip in the 1890's from Phoenix to Yuma, but does not mention a subsequent entire Gila trip. X004-62 (*Coconino Sun*). *See* State's FOF 328.

187. In his testimony, Mr. Burtell confused Mr. Sykes' less well documented 1909 trip (*see* above at 186 and State's FOF 328; *see also* State's FOF at 503) with Mr. Sykes' relatively well documented trip during the 1890's (*see* State's FOF 502). Tr. 6/20/14, p. 1132-3, 1137-8 (Burtell).

188. Sometime in the 1890's, Stanley Sykes and Charlie McLean decided to travel by boat to Yuma from Phoenix. X004-62 (*Coconino Sun*). They built a canvas covered boat and set off. X004-62 (*Coconino Sun*). There was insufficient water on the Salt to support boating because of the irrigation diversions. X004-62 (*Coconino Sun*). However, once they reached the River there was sufficient water to boat. X004-62 (*Coconino Sun*). They overturned the boat while boating over an irrigation diversion dam, but had no other difficulties on the Gila. X004-62 (*Coconino Sun*). *See* State's FOF 502.

189. During the 2005 hearings Ms. Tellman testified that the Sykes trip was "quite unsuccessful." Tr. 11/16/05, pp. 105-6 (Tellman). This testimony is contradicted by the newspaper report itself, which was entered into evidence by ASLD. *See* X004-62 (*Coconino Sun*). The article records some difficulty with insufficient water on the Salt, but the only difficulty on the Gila was the fact that they overturned going over an irrigation diversion. X004-62 (*Coconino Sun*).

190. The article mentions that, on the Gila, one man is hunting for food and the other is in the boat.

X004-62 (*Coconino Sun*). It's not clear from the article if the reason only one man is riding in the boat is because of insufficient water or whether it is to allow for the hunting on shore, as both men ride in the boat over the irrigation diversion upon which they overturn, and they are forced to swim for a distance before reaching an area where it is shallow enough to try and catch their gear. X004-62 (*Coconino Sun*). In any case, this trip took place in the 1890s when significant irrigation diversions had impacted the flow in the River. X004-62 (*Coconino Sun*).

191. In 1846, Emory described the River as navigable as far as the Pima Villages in Segment 6 and possibly with small boats at all stages of the water. 012, p. 108 (Littlefield 2005). Although by 1853, Emory described the River as not navigable, he noted that it was a "never failing stream, discharging a large volume of water." 012, p. 108 (Littlefield 2005). See State's FOF 436. The low-flow channel of the River certainly moved around within the floodplain, making it difficult to use as a boundary. Tr. 6/16/14, pp. 168-9 (Fuller).

192. Admit this is what this record reflects. Like the other historical figures quoted in Dr. Littlefield's report, Lieutenant Nathaniel Michler was not using *The Daniel Ball* test to determine navigability. Tr. 8/18/14, p. 1463 (Littlefield).

193. The transcript page cited does not support the fact alleged, at that page Mr. Fuller is discussing the Spanish exploration of Arizona. The cite for the ASLD Report at this page includes only the following statement about Kearny and Emory's exploration, "The American military expedition of Stephen Watts Kearny and William Emory in 1846 and Bartlett's boundary survey of 1850-1853 of the Gadson Purchase, included explorations of the Upper Gila and San Francisco Rivers. Later expeditions through Arizona abandoned the Gila River route of the trappers and the military for Cooke's less difficult route located to the south of the study area." 002, p. 8-2 (ASLD Upper Gila Report). This reference does not "detail" the exploration nor does it discuss the explorations means of travel. 002, p. 8-2 (ASLD Upper Gila Report).

194. In 1846, Emory described the River as navigable as far as the Pima Villages in Segment 6 and possibly with small boats at all stages of the water. 012, p. 108 (Littlefield 2005). Although by 1853, Emory described the River as not navigable, he noted that it was a "never failing stream, discharging a large volume of water." 012, p. 108 (Littlefield 2005). See State's FOF 436. Like the other historical figures quoted in Dr. Littlefield's report, William Emory was not using *The Daniel Ball* test to determine navigability. Tr. 8/18/14, p. 1463 (Littlefield). Therefore, Emory's observations are relevant to the Commission, but his conclusions are not.

195. Logs were once rafted down the Gila to Yuma for use at the prison (for cooking, laundry, and electric lights), but the new prison superintendent had the logs floated down in the swift current, a method that was more efficient. X004-18 (*Los Angeles Herald*, 3/28/1897).

196. Although Mr. Fuller agreed on cross examination that it was possible that the logs came from one-half mile up the River (Tr. 6/17/14, pp. 427-8 (Fuller)), a closer examination of the facts indicates that while possible, it is not probable. The account originates in 1897. X004-18 (*Los Angeles Herald*, 3/28/1897). In 1852 and 1853, the Steamboat Uncle Sam travelled "some distance" up the River in search of firewood. X004-15 (*Arizona Sentinel*, 1/25/1879). There would be no need to travel "some distance" up the River if firewood was located within ½ mile of the confluence. Similarly, the Schooner McCord was engaged in transporting firewood on the River. X019, p. 18

(Maricopa Supp.). There would be no need to send a schooner if firewood was less than a mile away.

197. The transcript page cited does not support the fact alleged. Mr. Fuller did not testify on this page that this was the only documented instance of log floating. Tr. 6/17/14, p. 427 (Fuller). Although this 1897 account is the only specific documentation in the record of log floating on the Gila, the ASLD report also noted that early Euro-American residents floated logs on the lower River. See State's FOF 459.

198. In January 1879, Charles Hamilton, R.W. Jordan and E.R. Halesworth arrived in Yuma after having boated down the Salt River from Phoenix in their home-built skiff. X004-15 (*Arizona Sentinel*, 1/25/1879). Although the purpose of their trip is unknown, they reported that the River in Segment 7 would support commerce in the form of flatboats with a two-foot draw loaded with grain, pumpkins, and other fruits could easily float down to Yuma from Phoenix. X004-15 (*Arizona Sentinel*, 1/25/1879). They experienced a single narrow spot at Gila Bend (in Segment 7), but otherwise reported no difficulty. X004-15 (*Arizona Sentinel*, 1/25/1879); Tr. 6/16/14, p. 195 (Fuller); X020-79, PPT 105 (Fuller Nav.).

199. In 1890, Frank Burke and George Davis were transporting gold from the Harqua Hala mines (in Segment 7) when their boat overturned near Sentinel (in Segment 8). X019, p. 25 (Maricopa Supp.); Tr. 6/16/14, p. 207 (Fuller). Opponents confuse Burke and Davis, who boated Segments 7 and 8 carrying gold (X020-79, PPT 119 (Fuller Nav.); Tr. 6/16/14, p. 207 (Fuller)), with the unnamed party that boated from the New Mexico highlands to Yuma on a hunting and trapping trip during November 1890 through April 1891 (X020-79, PPT 109 (Fuller Nav.); Tr. 6/16/14, p. 198-9 (Fuller)). See State's FOF 500 and 325.

200. The *Arizona Sentinel* reported on 4/2/1892 that commercial trappers J.K. Day and George Day left Camp Verde in a small boat and trapped beaver and otter on their way down the Verde, Salt, and Gila Rivers to the Colorado – more than 800 miles – in less than six months and that the brothers vowed to repeat the trip the following September. This was their fifth trip. X007-63 (*Arizona Sentinel*, 4/2/1892). They experienced no difficulties. X007-63 (*Arizona Sentinel*, 4/2/1892); Tr. 6/16/14, p. 199 (Fuller).

201. Lieut. Gully, and Richardson built a boat at the Pima villages and floated down to Yuma through Segments 6, 7, and 8. X004-17 (*Arizona Weekly Citizen*, 6/20/1896); X020-79, PPT 112 (Fuller Nav.); Tr. 6/16/14, pp. 200-01 (Fuller). See State's FOF 457. There were no incidents other than some hostile Indians. Tr. 6/16/14, pp. 200-01 (Fuller); X020-79, PPT 112 (Fuller Nav.).

202. HMT Powell took a heavily loaded boat down in 1849, and had some trouble with sandbars, but recommended flat boats below the Pima Villages (Segments 6-8). X020-79, PPT 117 (Fuller Nav.); Tr. 6/16/14, p. 203 (Fuller). See State's FOF 460.

203. There is no page citation for X016-8 (Criteria for Assessing Small Watercourses). Admit this is what this record reflects.

204. Admit this is what this record reflects. The cited article is not a boating account, unless a board torn from a fence qualifies as a boat. This article was not mentioned by Mr. Fuller. It nonetheless demonstrates that the Gila was deep enough at this point to almost drown three men. X002, p. 135 (Littlefield Rpt.); Tr. 8/18/14, p. 1479 (Littlefield).

205. Admit this is what this record reflects. Dr. Littlefield did not produce the newspaper account at issue so the Commission could determine the evidence themselves.

206. In 1905 several new ferry boats entered the ferry business, the *Gila King*, the *Mayflower* and the *Rey del Gila*. The *Gila King* was twenty feet long, six feet wide and capable of carrying a 3000 pound load. 004, IV-13 (ASLD Lower Gila Report). See also State's FOF 246. Although the evidence before ANSAC does not indicate many specifics about the operation of these ferries (Tr. 11/16/05, p 71 (Gilpin)), the fact existence of these ferries demonstrates that the River would have normally been more than a foot deep and was susceptible to the navigation of large boats. Tr. 6/16/14, pp. 32, 34-5 (Fuller). See also State's FOF at 105, 244-248, 463, 538.

207. Admit this is what this record reflects.

208. Opponents characterize an attempt to launch a boat when the Phoenix railway bridge was washed out as an unsuccessful boating account. Flood boating accounts were not considered by Mr. Fuller in rendering his opinion. Tr. 6/16/14, p. 27-28, 207 (Fuller). See also State's FOF 103.

209. A prospector in a dugout set sail from Clifton (in Segment 2) headed for Florence (in Segment 6) in 1886. X004-12 (*Arizona Silver Belt*, 4/3/1886); Tr. 6/16/14, p. 204-05 (Fuller); X020-79, PPT 118 (Fuller Nav.). He had no problems until "within 15 miles of Riverside [in Segment 5]" where his dugout capsized after hitting a "sawyer". X004-12 (*Arizona Silver Belt*, 4/3/1886). See State's FOF 352, 420. This trip was a boating failure in Segment 5. Tr. 6/16/14, p. 204-06 (Fuller). No other historic boater had difficulties in this Segment. See X019, p. 16, 18 (Maricopa Supp.); X014-33 (*Arizona Sentinel*, 3/9/1895); X004-20 (*Tombstone Epitaph*, 4/19/1891); State's FOF 420.

210. Many newspaper accounts exist of trips taken down the Gila. See State's FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535. Some of the trips were reported on before their launch, some during the trip and some after the trip reached its destination. The majority of historic boaters had little difficulty boating the Gila, even in increasingly diminished flows.

211. While at times 19th century Western newspapers may have acted as "boosters" for the local community (012, p. 111-12 (Littlefield 2005)), the majority of the boating accounts relied on by the State are lacking the characteristics of "booster" articles described by Dr. Littlefield. They are not articles where local residents "commented on their hamlet's virtues while away", nor are they "long articles extolling their respective areas' many advantages." 012, p. 111-12 (Littlefield 2005). By contract they are factual stories that accurately note any difficulties associated with the trip. See State's FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535.

212. The Commission finds that the boating accounts in the record not only demonstrate that all Segments of the Gila was used for trade and travel, but also demonstrate that it was susceptible to use for trade and travel.

213. The Commission finds that the historic boating accounts in the record demonstrate that all Segments of the Gila were used for navigation and were susceptible for use for navigation. See X004-20 (*Tombstone Epitaph*, 4/19/1891) (hunting and trapping); X019, p. 18 (Maricopa Supp.) (travel); X004-12 (*Arizona Silver Belt*, 4/3/1886) (travel); X004-19 (*Weekly Arizona Miner*) (travel); X019, p. 30 (Maricopa Supp.) (hunting); X004-14 (*Weekly*

Citizen) and X004-47 (Hannum, *Quaker Forty-niner*) (travel); X025-116, p. 66 (Ross) (travel); X019, p. 25 (Maricopa Supp.) (transporting gold); X019, p. 13 (Maricopa Supp.) (hunting and trapping); X006-9, p. 7 (Hjalmarson Citations) (travel); 012, p. 10 (Littlefield 2005) (travel); X004-18 (floating logs and transporting firewood); 004, p. IV-3 (ASLD Lower Gila Report); X019, pp. 17, 34 (Maricopa Supp.) (transporting passengers); X019, p. 18 (Maricopa Supp.) (transporting firewood); X004-15 (*Arizona Sentinel*, 1/25/1879) (transporting firewood); X004-16 (*Arizona Sentinel*) (transporting passengers); X004-12 (*Arizona Silver Belt*, 4/3/1886) (transporting passengers); X006-1 (Robertson, *Yuma*) (transporting firewood); X020-79, PPT 117 (Fuller Nav.) (two accounts -heavily loaded vessel and transporting 12 oxen); Tr. 11/17/05, pp. 216-20 (Jackson) (survey), *see also* X020-80, PPT 6 (Fuller Boating) (typical trade and travel uses in 1912). The River also supported personal uses that demonstrate the River's availability for commercial navigation. *See PPL*, 132 S.Ct. at 1233 (citing with approval *United States Appalachian Elec. Power Co.*, 311 U.S. 377, 416 (1940), for the proposition that "[P]ersonal or private use by boats demonstrates the availability of the stream for the simpler types of commercial navigation"); X014-33 (*Arizona Sentinel*, 3/9/1895) (recreation in a 3 ½ foot x 18 foot flat-bottomed boat); X019, p. 16 (Maricopa Supp.) (recreational travel); X004-17 (*Arizona Weekly Citizen*, 6/20/1896) (recreational travel); X004-15 (*Arizona Sentinel*, 1/25/1879) (recreational travel but could use for commerce); 021, p. 11 (Jackson PowerPoint) (recreational travel); X020-79, PPT 107 (Fuller Nav.) (recreational travel); X004-62 (*Coconino Sun*) (recreational travel); X019, p. 15 (Maricopa Supp.) (recreational boating). Many additional uses could have been made on the River but for its continuously, and increasingly depleted condition and sparse settlement. Tr. 6/16/14, P. 90 (Fuller) (flows "significantly depleted"); X020-80, PPT 61-65 (Fuller Boating); X025-104 (AZ Census); X012-71, p. 436-37 (*Far Southwest*).

214. The record also contains information relating to ferries that operated on the River. *See above; see also* State's FOF at 105, 244-248, 463, 538.

215. Although the evidence before ANSAC does not indicate many specifics about the operation of these ferries (Tr. 11/16/05, p 71 (Gilpin)), the existence of these ferries demonstrates that the River would have normally been more than a foot deep and was susceptible to the navigation of large boats. Tr. 6/16/14, pp. 32, 34-5 (Fuller). *See above; see also* State's FOF at 105, 244-248, 463, 538.

216. The Straus, Dallman & Co. ferry was large enough to carry a loaded 6-horse team in safety. 004, P. IV-8 (ASLD Lower Gila Report).

217. *See* 206 above.

218. There is no citation for this fact.

219. Admit this is what this record reflects.

220. Dr. Jackson was a credible witness who provided additional information to the Commission.

221. Dr. Jackson provided information helpful to the Commission in determining that the Gila was actually used as a "highway for commerce" at or before statehood and that the River was susceptible to such use.

222. The Commission finds that no historic boater had difficulty in Segment 1 (*see* State's FOF 327) or Segment 2 (*see* State's FOF 355). Only the Stanistaus Lasselle party had difficulty in Segment 3. *See* State's FOF 385. Of the 5 recorded historic trips that passed through Segment 4, only two had any difficulty and only one decided

to portage (*see* State's FOF 399), despite the fact that the largest rapids on the Gila are located in this Segment (*see* State's FOF 393). No recorded historic boater had difficulty in Segment 5 except the prospector who apparently hit a submerged tree. *See* State's FOF 420. No historical boater recorded any difficulty in Segment 6 except some parties apparently encountered inconvenient sandbars. *See* State's FOF 461. Of the many recorded historical boaters in Segment 7, none had any difficulty except Sykes and McLean who had difficulty with an irrigation diversion, and Hamilton, Jordan and Halesworth, who hit a narrow spot near Gila Bend. *See* State's FOF 505. No historic boaters encountered any difficulty in Segment 8 except Burke and Davis, who overturned near Sentinel. *See* State's FOF 518-19. Historic uses in Segment 8 included log floating and steamboats. *See* State's FOF 517.

223. Dr. Lingenfelter, an avocational historian, is a physicist by profession. *See* X008-3, p. 1 (Lingenfelter Aff.); X028, elec. p. 4, title page (Lingenfelter, *Steamboats on the Colorado*). Dr. Lingenfelter did not testify before the Commission and the parties were not given the opportunity to cross examine Dr. Lingenfelter.

224. Dr. Lingenfelter is the author of *Steamboats on the Colorado*. X028 (Lingenfelter, *Steamboats on the Colorado*).

225. Admit that Dr. Lingenfelter stated that in his affidavit.

226. Admit that Dr. Lingenfelter stated that in his affidavit.

227. Admit that Dr. Lingenfelter stated that in his affidavit. However, Dr. Lingenfelter apparently missed evidence in his own book, and otherwise contained in the historical record, that indicated that in addition to the other boats used on the Gila, steamboats were used with some regularity on Segment 8 of the River. *See* State's FOF 521-537.

228. Admit that Dr. Littlefield made this statement. However, Dr. Littlefield failed to consider many of the historical boating accounts contained within the record. *See* Tr. 8/18/14, p. 1483 (Littlefield) (Dr. Littlefield failed to consider Pattie's canoe use, either of Sykes' trips, the Day brothers trip, Adams and Evans' trip, and Lieutenant Gully and Richardson's trip and possibly others). Dr. Littlefield also conceded that none of the historical figures included in his report were applying *The Daniel Ball* test (Tr. 8/18/14, p. 1463 (Littlefield)).

229. Dr. Littlefield testified he had not seen photographs of boating on the river in the 1800s. Tr. 8/18/14, p. 1395 (Littlefield). Dr. Littlefield apparently failed to locate historical boating accounts, so his failure to locate photographs is not persuasive. *See* Tr. 8/18/14, p. 1483 (Littlefield).

230. Dr. Littlefield's report does contain that information. Dr. Littlefield himself admitted that Mr. McCormick stated that it was not "navigated," not that it was not "navigable." Tr. 8/18/14, pp. 1470-71 (Littlefield). What Dr. Littlefield fails to account for is that Mr. McCormick was on the board of directors of the Arizona Railroad Company and, like other territorial officials at the time, had a vested financial interest in encouraging railroads in Arizona. X012-71, p. 441; *see also* X012-71, pp. 458-463.

231. Admit that is what the record reflects. Dr. Littlefield did not provide a copy of the article in question so that the Commission could assess the context of the article, and therefore the Commission finds this evidence less persuasive. *But see* State's FOF at 305-311, 337-339, 367-375, 388, 394, 408-414, 429-441, 445, 466-482, 511-512.

232. Admit that is what the record reflects. Dr. Littlefield did not provide a copy of the article in question

so that the Commission could assess the context of the article, and therefore the Commission finds this evidence less persuasive. *But see* State's FOF at 305-311, 337-339, 367-375, 388, 394, 408-414, 429-441, 445, 466-482, 511-512.

233. Admit that is what the record reflects. Dr. Littlefield did not provide a copy of the article in question so that the Commission could assess the context of the article, and therefore the Commission finds this evidence less persuasive. Note that the discharge measurements cited here by Dr. Littlefield were during the unusually large 1905 flood season. *See* State's FOF 99-102.

234. Admit that is what the record reflects. Dr. Littlefield did not provide a copy of the article in question so that the Commission could assess the context of the article, and therefore the Commission finds this evidence less persuasive. Many experts on the case agree that the low flow channel changes location within the floodplain. State's FOF 98. Mr. Fuller presented credible evidence, evidence that is corroborated by common sense, that boating occurs in the low flow channel. State's FOF 79. Therefore the configuration of the floodplain has no bearing on a river's navigability. State's FOF 80.

235. Admit this is what the record reflects. Dr. Littlefield did not provide a copy of the article in question so that the Commission could assess the context of the article, and therefore the Commission finds this evidence less persuasive. *But see* State's FOF at 305-311, 337-339, 367-375, 388, 394, 408-414, 429-441, 445, 466-482, 511-512.

236. Admit this is what the record reflects. The report was published in 2011. X010-2, cover page (*Transportation History*).

237. Admit this is what the record reflects. The report was published in 2011. X031-114, cover page (*Rail Plan*).

238. The Arizona State Rail Plan was developed to "identify the current rail system, determine infrastructure needs, and have rail projects included in the State's long-range planning processes..." X031-114, p. 2 (*Rail Plan*). The Arizona Transportation History was developed in anticipation of Arizona's centennial and is a "history of Arizona's highways." X010-2, technical report documentation page, elec. p. 3 (*Transportation History*). Neither report's purpose encompasses a need to address Arizona's long-dead river transportation system. Indeed, the thriving Colorado River steamboat trade merits only a small paragraph in the Arizona State Rail plan (X031-114, p. 2 (*Rail Plan*)) and the barest mention in three scattered paragraphs in the Arizona Transportation History report (X010-2, pp. 14, 109, 121 (*Transportation History*)). Neither report is particularly helpful to ANSAC in making its determination.

239. The Arizona Transportation History report was prepared for Arizona Department of Transportation (ADOT). However, the authors of the report are careful to make clear that the views and policies presented do not necessarily reflect the official position of ADOT or the Federal Highway Administration. X010-2, disclaimer, elec. p. 2 (*Transportation History*).

240. Admit this is what the record reflects.

241. Admit this is what the record reflects.

242. Quote includes minor typos.

243. Admit this is what the record reflects.

244. Admit this is what the record reflects.

245. Admit this is what the record reflects.

246. Admit this is what the record reflects.

247. Admit this is what the record reflects. Mr. Fuller testified that less than half of Arizona's population in 1870 lived along the rivers. State's FOF 211; Tr. 6/16/14, p. 50 (Fuller).

248. The Arizona State Rail plan includes a brief history of the railroads in Arizona. X031-114, pp. 2-3 (*Rail Plan*).

249. The cited page is not included in the record cited.

250. Admit this is what the record reflects.

251. Admit this is what the record reflects.

252. The record cited does not support this fact. The Arizona State Rail Plan discusses the history of railroads in Arizona, not the history of other transportation types in Arizona. X031-114, pp. 2-3 (*Rail Plan*). In fact, the history portion doesn't discuss highways or air travel either, yet these forms of commercial transportation clearly still exist. See X031-114, pp. 2-3 (*Rail Plan*).

253. The cited page is not included in the record cited.

254. Admit this is what the record reflects.

255. Admit this is what the record reflects.

256. Admit this is what the record reflects, except that the 1849 report should be 1879.

257. Admit this is what the record reflects.

258. The Governor actually reported that, "Arizona has remained shut up and barred out from progress by its inaccessibility." The cited page does not reflect what the State needs to progress. However, given the Governor's other job as a railroad promoter (X012-71, p. 476 (*Far Southwest*)) it would not be surprising to find that he was interested in increasing railroad access to Arizona. See also X012-71, pp. 458-463 (*Far Southwest*).

259. Quote includes minor typos.

260. The Governor actually reported that,

Arizona has remained shut up and barred out from progress by its inaccessibility. There were neither railroads to it nor in it, nor any roads other than those afforded by the natural surface of the ground, and these are rendered more than ordinarily difficult by the hot, dry, and sandy or stony ground over which lie the approaches to the Territory. In the Territorial laws these are spoken of as desert roads.

Lately it has been made possible to reach Arizona on rail from the East by traveling along the 42d parallel of latitude down to San Francisco, in longitude 122°, and thence southeastwardly backward 720 miles to Yuma, east of longitude 115° and south of latitude 33°. This isolation has kept it shut out from immigration and precluded the development which its great resources would otherwise have commanded. The language habitually applied to it is very descriptive of its remoteness. Californians and Arizonians alike speak of going outside when traveling to Arizona, and inside when returning to the surrounding territory.

X021-93, p. 1 (San Carlos Apache Tribe Second Supp.).

261. Admit this is what the record reflects.

262. X021-99 is the Governor's report for 1886, not 1895. The cited text does not appear at X021-102.
263. Admit this is what the record reflects.
264. Admit this is what the record reflects.
265. Admit this is what the record reflects.
266. Admit this is what the record reflects.
267. Admit this is what the record reflects.
268. The citation is not in the record. The San Carlos Apache Tribe did not submit into evidence an *Annual Report* for 1903. *See* above at 256.
269. The cited page does not support the factual allegation.
270. The historical record reflects that the Gila River was used and susceptible to use as a highway for commerce. *See* above at 213.
271. Admit this is what this record reflects.
272. Quote includes minor typos.
273. Admit this is what the record reflects.
274. The cited page is not included in the record. *See* X031-116.
275. Dr. Lingenfelter actually stated that, "Thus, the early operators of these mines [at Ajo and Clifton-Morenci] were constantly looking for cheaper transportation, either by river or by rail." X008-3, p. 8 (Lingenfelter Aff.).
276. Admit this is what this record reflects.
277. Quote includes minor typos.
278. Quote includes minor typos.
279. Admit this is what this record reflects.
280. The cited page does not support the factual allegation.
281. Admit this is what this record reflects.
282. The cited page does not support the factual allegation.
283. Admit this is what this record reflects.
284. The Commission received evidence regarding the hydrology and geomorphology of the Gila.
285. Admit this is what this record reflects.
286. Admit this is what this record reflects.
287. Admit this is what this record reflects.
288. Admit this is what this record reflects.
289. The page cited does not support the fact alleged. The rating curves represent average conditions in the study reaches. 002, p. 5-45 (ASLD Upper Gila Report). Rating curves were checked against actual measurements and historical descriptions. Tr. 6/16/14, p. 224 (Fuller). Hydrology estimates, rating curves, and historic description were then put together to determine the susceptibility of each Segment. Tr. 6/16/14, p. 229 (Fuller).
290. Admit this is what this record reflects.

291. Admit this is what this record reflects.

292. Admit this is what this record reflects.

293. Admit this is what this record reflects. However, as each watercourse must be determined on its own merits, this information is of limited value to the Commission.

294. The record shows that the Gila in its ordinary and natural condition had a reliable base flow that could have supported boating year round. *See State's FOF 48-58 (flows); 63-69, 320-322, 348-350, 379-381, 392-393, 396, 418-419, 450-453, 483-485, 492, 515-516 (depth)*

295. Admit this is what this record reflects.

296. Admit this is what this record reflects.

297. Admit this is what this record reflects.

298. Admit this is what this record reflects.

299. During the 2005 and 2014 hearings, the Commission received evidence regarding the geomorphology of the River.

300. Admit this is what this record reflects.

301. Admit this is what this record reflects.

302. Admit this is what this record reflects.

303. The Commission received evidence regarding the geomorphology of the Gila during the 2005 and 2014 hearings.

304. The page cited does not support all the fact alleged. Dr. Schumm admitted that he was unfamiliar with the River above its confluence with the Salt. Tr. 11/17/05, pp. 19-20 (Schumm). However, braiding, where it may occur on a river, does not itself prohibit navigation. Tr. 6/16/14, pp. 110 (Fuller); *see also* Tr. 8/19/14, p. 1734:20-25, 1735:1 (Musetter) (Braided rivers can be navigable and this is consistent with Dr. Schumm's previous testimony). *See State's FOF 75.* Dr. Huckleberry, a well-regarded expert on the Gila, concluded that in its alluvial sections, the Gila is characterized as a compound channel, which consists of braided flood channels and a sinuous to meandering single thread low flow or primary channel. X035-129 (Huckleberry Decl.). *See State's FOF 28, 78.*

305. Admit this is what this record reflects. However, Mr. Fuller testified that the definition if unstable changes depending on your perspective. Tr. 6/16/14, p. 115-16 (Fuller). A change in the position of the low-flow channel within the floodplain does not affect boating. Tr. 6/16/14, p. 115-16 (Fuller).

306. Admit that this is Dr. Schumm's opinion. The weight of the evidence demonstrates that the physical characteristics could and in fact did support navigation. *See State's FOF 48-58 (flows); 63-69, 320-322, 348-350, 379-381, 392-393, 396, 418-419, 450-453, 483-485, 492, 515-516 (depth); 70-92 (channel); 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535 (historic boating accounts); 329-335, 340, 356-365, 386, 395, 400-403, 421-427, 449, 507-509, 540 (modern boating); 271-274 (obstacles).*

307. Admit this is what this record reflects. As Mr. Fuller testified, the overall channel pattern is irrelevant to navigability because boating occurs on the low-flow channel. Tr. 6/16/14, pp. 100-110 (Fuller); *see also* X035-129 (Huckleberry Decl.). *See State's FOF 72.*

308. Admit this is what this record reflects. *But see* X035-129 (Huckleberry Decl.).
309. Admit this is what this record reflects. *But see* X035-129 (Huckleberry Decl.).
310. Historical descriptions almost exclusively describe the River with a single low-flow channel. X020-79, PPT 76-88, 98 (Fuller Nav.). *See* State's FOF 138. Historic descriptions of the River vary but generally confirm the hydrologic and geomorphologic evidence that the Gila was navigable at statehood. X020-79, PPT 76-88, 98 (Fuller Nav.). *See* State's FOF 137.
311. The transcript page cited does not support the fact. However, the report is quoted accurately, although it is referring solely to the Upper Gila area. 002, p. 4-18 (ASLD Upper Gila Report).
312. Admit this is what this record reflects.
313. Mr. Hjalmarson used three independent federal methods to reach his conclusion that the River was navigable. Tr. 11/17/05, p. 252-53 (Hjalmarson).
314. The cited reference does not support the factual allegation. Mr. Hjalmarson, in his deposition, actually stated that he "used hydrology – hydraulic geometry as part of my methodology, yes." 024, p. 123 (Hjalmarson Depo.).
315. Admit the quote Hjalmarson report. Deny Opponents' conclusory, characterization of the evidence.
316. Mr. Hjalmarson did not use the term "calibration." Tr. at 11/17/05:293-295 (Hjalmarson). Rather, he did comparisons and used the Osterkamp publication for formulas. *Id.*
317. The cited reference does not support the factual allegation. Admit as to the quotations listed from the Hjalmarson reports, but deny Opponents' characterization of the evidence.
318. Langbein states that river tractive forces of about 0.001 and 0.002 are near the maximum feasible for commercial navigation. The Gila River is 0.001. 023, p. 27 (Hjalmarson 2002 Rpt.).
319. Mr. Hjalmarson did not "assume" a smooth parabolic channel. It was the "representative channel" as a result of his computation. Tr. at 11/17/05:265-266 (Hjalmarson). Further, although the smooth parabolic represents the steady state conditions down the entire reach, he agreed that the entire stretch of the Gila River is not a smooth parabolic channel. *Id.* at 266.
320. Dr. Huckleberry agreed with Mr. Hjalmarson and other experts that "the ordinary channel pattern in the alluvial sections of the Gila River today are best described as a compound channel, which consists of braided flood channels and a sinuous to meandering single thread low flow or primary channel." X035-129, p. 1 (Huckleberry Decl.).
321. Admit that an earlier ANSAC Determination may have included such a conclusory statement. That being said, ANSAC must make its determination based on all the evidence and consider it fairly without bias.
322. *See* 345 below.
323. Admit the quotations are from Hjalmarson reports. These quotes are not "opinions" but rather assumptions made by Mr. Hjalmarson to determine hydraulic geometry. Mr. Hjalmarson recognized that the low flow channel is where the "navigability defining flow would occur" at all times. 024, p. 80 (Hjalmarson Depo.). Moreover, Mr. Hjalmarson's report noted that River's channel was stable. "Little braiding is suggested by the maps of the

channel produced from the original federal surveys and by accounts of explorers. There were many accounts of willow and cottonwood trees along the river that clearly suggest the channel was stable in the absence of large floods.” 025, p. 35 (Hjalmarson Notes).

324. Mr. Fuller testified that although the location of the low flow channel may move in response to a large flood, it still exists and retains its characteristics of boating. Tr. 6/17/14, p. 351 (Fuller).

325. Admit this is what this record reflects.

326. Admit this is what this record reflects. *But see* 324, 322 above.

327. Large flood widen the floodplain of the River and increase the braiding within the floodplain, but a sinuous low-flow channel reforms soon after even large floods. X035-129, p. 1. (Huckleberry Decl.).

328. Deny Opponents’ conclusory statements and characterization of the evidence. Admit the quoted references. Littlefield’s testimony is limited to Segments 7 and 8. Tr. 8/18/14, p. 1450 (Littlefield).

329. Admit this is what this record reflects.

330. Admit this is what this record reflects.

331. Mr. Burtell admitted that the low-flow channel at the Duncan and York gages was split only 21-26% of the time. X008-2, p. 5 (Burtell Decl.). Even historic photographs produced by Mr. Burtell, where they show braiding at all, show mostly a single braid. *See* X008-2, figures 4 and 7 (Burtell Decl.).

332. Admit this is what this record reflects.

333. Admit this is what this record reflects.

334. Cited references do not support the fact alleged.

335. Deny Opponents’ conclusory statements and characterization of the evidence. Admit Littlefield Report contains the quoted materials.

336. Admit this is what this record reflects.

337. Deny Opponents’ conclusory statements and characterization of the evidence. Admit that quoted statements are from Mussetter testimony.

338. Admit quoted statements are from Gookin’s 2014 report and Mussetter report.

339. Admit this is what this record reflects.

340. Admit this is what this record reflects. Boating does not take place on the flood channel. *See* State’s FOF 74-76, 79.

341. Admit this is what this record reflects. Boating does not take place on the flood channel. *See* State’s FOF 74-76, 79.

342. Admit this is what the record reflects. Dr. Mussetter’s opinion is contradicted by the evidence in the record, particularly evidence of actual boating on the River. *See* State’s FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535.

343. Admit this is what the record reflects. Dr. Mussetter’s and Mr. Gookin’s opinions on this matter are not credible considering the history of boating on the River. *See* State’s FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535.

344. Admit this is what this record reflects.

345. Based upon all the evidence, the Commission finds that in its alluvial stretches (Segments 1, 3, and 5-8) the Gila river was a single, low-flow meandering channel inserted into a wider braided channel network, and in its canyon reaches (Segments 2 and 4) it has primarily a single, low-flow meandering channel.

346. The Commission, based upon all the evidence, finds that Mr. Fuller's, Mr. Hjalmarson's and Dr. Huckleberry's descriptions of the Gila River's geomorphology are credible and persuasive.

347. The Commission received evidence of the types of obstacles that could be present on a River, as well as the obstacles that were likely present on the Gila in its ordinary and natural condition.

348. Admit this is what the record reflects. Dr. Littlefield's opinion is contradicted by the evidence in the record, particularly evidence of actual boating on the River. *See* State's FOF 325-327, 352-355, 382-385, 397-399, 420, 455-461, 495-505, 517-520, and 522-535.

349. Admit this is what this record reflects.

350. Quote includes minor typos.

351. Admit this is what this record reflects.

352. Mr. Fuller testified that a boater does not necessarily have to portage every time he or she encounters an obstacle. Most obstacles the boater can go around by using the deeper channel, lining the boat, using body weight to propel the boat over the obstacle, or dragging the boat. Tr. 6/16/14, p. 79-80 (Fuller).

353. Admit this is what this record reflects.

354. Admit this is what this record reflects.

355. Admit this is what this record reflects.

356. Admit that this is what the record reflects. Dr. Mussetter on cross admitted that *U.S. v. Utah*, 283 U.S. 64, 86 states that "the presence of sandbars causing impediments to navigation does not make a river non-navigable." Tr. 8/20/14, p. 1774 (Mussetter).

357. Mr. Fuller testified that "strainers" or "sawyers" (trees whose branches are leaning into or fallen into the water) are more likely to be present on the Gila in modern times particularly below dams because floods removed them from the channel. Tr. 6/16/14, p. 79 (Fuller). Nonetheless, they are a hazard only to the unprepared and inexperienced or inattentive boater. Tr. 6/16/14, p. 79 (Fuller).

358. Admit that this is what this record reflects. However, the conclusion that beaver dams would have been an impediment to navigation on the Gila is not supported by the competent evidence. Mr. Weedman, the only biologist to provide information to the Commission, opined that beaver would likely only build dams on the side or backwater channels of the Gila or in the tributaries to the Gila. X012-73, p. 2 (Weedman Aff.); *see also* State's FOF 297-303. Other boating experts opined that crossing beaver dams in a boat was not at all difficult. Tr. 6/16/14, pp. 75-6 (Fuller); Tr. 6/18/14, pp. 566-67 (Farmer).

359. Admit this is what this record reflects.

360. Admit this is what this record reflects.

361. Admit this is what this record reflects.

362. Admit this is what this record reflects.

363. Admit this is what this record reflects. Mr. Fuller also testified about steamboats on the Gila. Tr. 6/16/14, p. 188 (Fuller). *See also* State's FOF 521-537.

364. The only competent evidence on the backwater flow from the Colorado into the Gila was presented by Stantec, who concluded that backwater reached no more than 2.5 miles up the Gila. 001-22, p. 1 (Gila Backwater Analysis).

365. Admit this is what this record reflects. Dr. Littlefield's testimony is not credible as primary sources for Steamboat use on the Gila were provided to the Commission. *See* State's FOF 521-537.

366. Mr. Fuller indicated on cross examination that he was not exactly sure where Gila City was located and he did not know off the top of his head how many miles upriver Dome was located from the confluence (Tr. 6/17/14, p. 410 (Fuller)), but the previous day he testified that Dome was approximately 20 miles upstream of the confluence with the Colorado (Tr. 6/16/14, p. 157 (Fuller)).

367. Admit this is what this record reflects. Dr. Lingenfelter's opinion is contradicted by the weight of the evidence.

368. Admit this is what this record reflects.

369. Admit this is what this record reflects.

370. Admit this is what this record reflects.

371. Admit this is what this record reflects.

372. Admit this is what this record reflects.

373. Admit this is what this record reflects.

374. Mr. Fuller discussed dories as a type of boat available at statehood and used for commercial purposes at that time, and indicated that they were appropriate for use on the Gila in some places. Tr. 6/16/14, pp. 37-40 (Fuller).

375. Admit this is what this record reflects.

376. Admit this is what this record reflects.

377. Admit this is what this record reflects.

378. Admit this is what this record reflects.

CONCLUSIONS OF LAW

Opponents' analysis attempts to muddy the clear legal test, reduces the conclusions of law to those which Opponents find can be helpful out of context or as misstated, and ignores some controlling law entirely.

1. While it is true that "all evidence should be examined during navigability determinations," opponents neglect to include controlling law that directs the Commission to consider "[e]vidence from that early period should be considered by ANSAC as the best evidence of the River's natural condition." *Winkleman*, 224 Ariz. at 242, 229 P.3d at 254.

2. No contention.

3. No contention.

4. Opponents' (4-11) are facts, not conclusions of law. The section is entitled "Ordinary and Natural Condition" yet there is no reference to the 2010 Arizona Court of Appeals *Winkleman* decision which specifically addresses how the Commission should define "ordinary and natural condition."

5. The Gila was primarily a single channel. *See State's FOF 28, 29, 72, 73, 74, 75, 411, 414, 445, 447, 490, 509, 510, 513.*

6. Mr. Fuller, who has boated the Upper Gila, testified that the navigability of the Gila is not and never was impeded by any significant braiding. *See State's FOF 74.* He also stated that where braiding may occur on a river, it does not itself prohibit navigation. *See State's FOF 75.* Braiding only occurs during the less than 1% of the time when the river is in flood. *See State's FOF 73.*

7. After a flood, the rivers return to their pre-flood, low-flow channel condition. The Gila would have returned to have a primary low-flow channel after the 1906 flood, and only the diverted flows would prevent a return. *See State's FOF 83-92, 98-102.*

8. Dr. Huckleberry, who did his PhD dissertation on the Gila and submitted a declaration on the Gila's channel configuration, testified that there is a high-probability that the Gila would have returned to have a single low-flow channel after the 1906 floods and before statehood in 1912. *See State's FOF 72, 101.*

9. *See supra 8.*

10. *See supra 7, 8.*

11. This is an incorrect statement of the facts. Both Mr. Fuller and Dr. Huckleberry have distinguished their previous testimony by acknowledging that previously they were addressing the entire flood channel when describing it as having braided characteristics. In Mr. Fuller's recent testimony, and in Dr. Huckleberry's recent affidavit, both clarified that the Gila had a low-flow or primary channel that was a single meandering channel. *See Tr. 6/16/14, p. 107-110 (Fuller); X035-129 (Huckleberry Decl.).*

(12-14) It is unclear why paragraphs 12-14 dealing with the *PPL Montana* decision have been placed in the "Ordinary and Natural Condition" section of Opponents' Conclusions of Law, but having placed it there, the State will address each paragraph as written.

12. It is incorrect as a matter of law for Opponents to state that the U.S. Supreme Court in *PPL Montana* "rejected the 'liberal' interpretation of the federal test of navigability . . ." Opponents' COL, p. 12. This is another example of Opponents' misstating the law instead of presenting the Commission with the objective law. Nowhere in the opinion does the Court "reject a liberal interpretation," and in fact, the Court expressly avoids doing so by not addressing Petitioner PPL Montana's third contention about why the Montana Supreme Court's decision is flawed, the third contention being the "liberal construction of the navigability test." Petitioner's contentions were the following:

PPL contends the opinion of the Montana Supreme Court is flawed in three respects: first, the court's failure to consider with care the navigability of the particular river segments to which title is disputed, and its disregard of the necessary overland portage around some of those segments; second, its misplaced reliance upon evidence of present-day, recreational use; and third, what the state court itself called its liberal construction of the navigability test, which did not place the burden of proof

upon the State to show navigability. Brief for Petitioner 26.

PPL Montana, 132 S. Ct. at 1226. The Supreme Court addressed the first two specific contentions in Parts A and B of Section IV of its opinion, respectively, and then had the following to say about Petitioner’s third contention: “The above analysis is sufficient to require reversal of the grant of summary judgment to Montana. Therefore, the Court declines to decide whether the Montana Supreme Court further erred as to the burden of proof regarding navigability.” *Id.* at 1234.

While the State does not contend that a “liberal interpretation” of the law is required for the Commission to find the Gila navigable, the State does seek to ensure that the Commission understands and follows the exact state of the law before coming to a decision. It is clear that the Court in *PPL Montana* did not address a “liberal interpretation” and it is also clear that the Court did not overrule and still supports its previous decisions, as well as the controlling Ninth Circuit’s previous decisions. Those decisions have consistently used a broad and inclusive standard of navigability. *See* State’s Conclusions of Law (“State’s COL”) 603, 604, 605.

In fact, the U.S. Supreme Court has made clear that a “narrow rule” is not appropriate.

[T]he true test of navigability of a stream does not depend upon the mode by which commerce is, or may be, conducted, nor the difficulties attending navigation. . . . It would be a narrow rule to hold that in this country, unless a river was capable of being navigated by steam or sail vessels, it could not be treated as a public highway.

The Montello, 20 Wall. 430, 441, 22 L. Ed. 391 (1874), *quoted with approval in United States v. Utah*, 283 U.S. at 76, 51 S. Ct. at 441; *see also U.S. v. Holt State Bank*, 270 U.S. 49, 56, 46 S.Ct. 197, 199 (1926).

Additionally, the Ninth Circuit, a controlling court for ANSAC, explicitly used the word “liberal” when describing the test for navigability.

We recognize that navigability is a flexible concept and [e]ach application of [*The Daniel Ball* test] . . . is apt to uncover variations and refinements which require further elaboration. For this reason, we have liberally construed the phrase customary modes of trade and travel on water, taking into account transportation methods in use at the time of statehood.

State of Alaska v. United States, 754 F.2d 851, 854 (9th Cir. 1985) (internal quotation marks and citations omitted) (second emphasis added).

13. *See supra* 12 above for discussion of Opponents’ legally incorrect portrayal of *PPL Montana* and the word “liberal.”

a. If Opponents’ are attempting to argue that the Commission should apply *The Daniel Ball* test to the non-natural and non-ordinary river at statehood in 1912 they are wrong as a matter of law; *Winkleman* has said otherwise. *See* State’s COL 589-594. Additionally, to understand *PPL Montana* as establishing the ordinary and natural date as the date of statehood is to do away with the Equal Footing Doctrine upon which *The Daniel Ball* test is based. If *PPL Montana* is to be read to key the ordinary and natural condition determinations to the date of statehood, 1912, then each state, after the original 13, would have a different set of natural and ordinary conditions to use to determine navigability of their rivers, depending on when they came into the union. This would violate the principal of the Equal Footing Doctrine. Under the Equal Footing Doctrine, states entering the union come in under equal status.

Nothing is more equal than determining the navigability of rivers as they were in their natural and ordinary conditions before significant man-made impacts. *See also* Maricopa County’s Responsive Closing Brief, 1/23/15, ¶ 22.

b. No contention. The State segmented the Gila River for ease of understanding its lengthy watercourse, and all parts of the Gila are navigable.

c. *See supra* 13(a). Additionally, the State has never contended that the Gila River was solely used by “explorers and trappers who may have dragged their boats in or alongside the river.” Opponents’ COL 13(c). Significant actual use evidence and evidence of susceptibility exists. *See* State’s FOF (Historic Boating) 325-326, 352-354, 383-384, 455-460, 495-504, 520, 522-538; *see* State’s FOF (Modern Use) 329, 360, 386, 402, 422, 449, 507, 540.

d. Opponents’ paraphrasing mistakes the law. *PPL Montana* did not state that “post-statehood use of the river can be considered only if that use involves the same river conditions and the same types of boats that existed at statehood.” Opponents’ COL 13(d) (emphasis added). *PPL Montana* said watercraft must be “meaningfully similar to those in customary use for trade and travel at the time of statehood” and that “the river’s poststatehood condition is not materially different from its physical condition at statehood.” 132 S.Ct. at 1233. It should be noted that the U.S. Supreme Court found that the Montana Supreme Court offered no indication that it made these necessary findings. *Id.* at 1234. The court did not make a finding that watercraft used today were similar to those used at the time of statehood because no evidence was presented by the State of Montana. *Id.* In contrast, the State has presented evidence by actual boaters that some of the boats that navigate the Gila River today are meaningfully similar to boats found at statehood. *See* State’s FOF 249-254.

e. No contention. The State has presented evidence that the Gila River was and is navigated in the areas where water still flows, a majority of the year. *See* State’s FOF (Boating Percentages) 322, 349, 380, 396, 419, 450, 492, 516, 521.

14. *PPL Montana* does indeed address the issue of obstructions to navigation but once again Opponents neglect to include the context of the Court’s discussion, presumably because what the Court decided regarding the Great Falls reach of the Missouri River has very little applicability to the Gila River. The Court decided, and for good reason, that the Great Falls reach of the Missouri, which consists of a 17-mile segment with five waterfalls with heights of 87, 19, 48, 7, and 26 feet and continuous rapids in between, is non-navigable. *Id.* at 1223, 1231-32. In contrast, the Gila has no natural obstructions and only a few minor rapids. *See* State’s FOF 317, 339, 378, 389, 416, 448, 487, 514.

15. This is not a conclusion of law. *See* State’s COL 584-588 for conclusions of law regarding segmentation. *See also* State’s FOF 22-33 for the State’s discussion of segmentation and *see* State’s FOF generally for reasons why each segment is or was navigable.

16. *See supra* 15.

17. *See supra* 15.

18. This is not a conclusion of law. No cases exists that state there is a requirement for prehistoric boating or flotation of logs. The Special Master, who was appointed to review the navigability of the Green, Grand,

Colorado and San Juan rivers, believed the absence of evidence of Indian use should not be deemed dispositive of a river's navigability:

It seems likely that use must have been made of the Rivers by these Indians, though no trace of boats or canoes used by them has been found. The present day Indians, the Navajos and the Utes, probably owing to old superstitions and legends, have not navigated these Rivers in boats and do not now navigate them except to cross at fords.

Report of the Special Master, at 25-26 (October 15, 1930) (X016-FMI_X009); *United States v. Utah*, 283 U.S. 64, 74, 89 (1931) (generally affirming the Special Master's findings with respect to the Green, Grand, and Colorado rivers).

19. This is not a conclusion of law. The State has presented myriad evidence. *See* State's FOF (Historic Boating) 325-326, 352-354, 383-384, 455-460, 495-504, 520, 522-538.

20. This is not a conclusion of law. Opponents continue to cite facts without providing the law to support their facts. No cases exist that require upstream travel and no cases exist that discount evidence of navigability based on navigation by low-draft boats. Furthermore, the Gila was navigated by more than low-draft boats. *See* State's FOF 236.

21. Deny. *See* State's COL 615. "The extent of existing commerce is not the test." *United States v. State of Utah*, 283 U.S. at 82. *See also* *Defenders*, 199 Ariz. at 421-25. 18 P.3d at 732-36 (stating that the federal test does not require travel or trade on the waterway to be commercial, sustained, successful or upstream.).

22. Deny. *See supra* 21.

23. No contention.

24. Not a conclusion of law. Depths of flow have been estimated to be greater than two (2) feet. *See* State's FOF 321.

25. Not a conclusion of law. Modern flow depths in Segment 1 are sufficient to support small boats today, in a depleted river. *See* State's FOF 322. Substantial evidence exists that shows actual use and susceptibility to use for Segments 1-3 of the Gila. *See* State's FOF 304-386.

26. Not a conclusion of law. Mr. Burtell's report mischaracterizes the Upper Gila accounts. *See* State's FOF 304-386; *see also* State's Responsive Closing Brief, 1/23/15, pp. 4-6.

27. Not a conclusion of law. The Gila was actually used as a highway for commerce at statehood, and is still boated today by meaningfully similar boats, in its substantially depleted condition. *See* State's FOF (Historic Boating) 325-326, 352-354, 383-384, 455-460, 495-504, 520, 522-538. *See* State's FOF (Boating Percentages) 322, 349, 380, 396, 419, 450, 492, 516, 521. *See* State's FOF (Modern Use) 329, 360, 386, 402, 422, 449, 507, 540.

28. Not a conclusion of law and untrue as a statement of fact. Mr. Don Farmer also testified during the 2014 hearing and stated that the Gila is navigable. Mr. Farmer stated that it would have been possible to navigate the entire River in a wooden boat in 1912 if the water had been restored. *See* State's FOF 132.

29. Not a conclusion of law. *See infra* 31.

30. Not a conclusion of law. *See infra* 31.

31. Opponents misrepresent Mr. Fuller's testimony. Mr. Fuller said that canoes can be paddled in 6

inches of water. Tr. 6/16/14, pp. 42:10-20 (Fuller). Mr. Fuller's navigability determination was based on the entirety of his report including historical use, scientific reconstruction of the natural and ordinary condition of the Gila, an assessment of the hydrology and geomorphology of the Gila, an assessment of the actual boating that still continues on the Gila, and Mr. Fuller's actual boating on the Gila to determine its susceptibility to navigation. Mr. Fuller and Mr. Farmer, the State's experts, are the only experts who boated the Gila. It is frankly quite mystifying why Opponents did not attempt to navigate the Gila when this case is about navigation. One can only assume that Opponents were afraid of what they would find. The Gila is navigable today in its substantially depleted condition and would have been more navigable in its natural and ordinary condition.

32. Opponents again take Mr. Fuller's statement out of context. Here is the verbatim statement:

Q. Do you make a distinction between "navigable" and "boatable"?

A. Thinking back as to how I used the word yesterday -- I think folks in your profession may think of those terms differently. I'm generally using them synonymously.

Q. So anything you can float a boat on is navigable; is that what your opinion is?

A. No, I wouldn't necessarily say that. I'm saying I tend to use the words interchangeably.

Tr. 6/17/14, pp. 370-71 (Fuller).

a. Mr. Fuller did indeed state that *The Daniel Ball* test can be satisfied by use of canoes on the Gila, but he also stated that canoes were not the only boats used on the Gila on the same page. What Opponents once again fail to do is provide any case law. The reason one must presume: case law specifically states that canoe use can prove navigability. See State's COL 606. Qualifying actual use is not limited to large scale vessels because both the U.S. Supreme Court and the Ninth Circuit Court of Appeals have recognized the importance of small boats like canoes as valuable transports of people and goods. See *The Montello*, 20 Wall. at 441 (finding fur trade which utilized canoes evidence of a navigation on a channel for useful commerce); *Econ. Light & Power Co. v. United States*, 256 U.S. 113, 117, 41 S. Ct. 409, 410, 65 L. Ed. 847 (1921) (finding actual use where Desplaines river was used by the kinds of craft common to early fur-trading days, including canoes); *State of Alaska v. Ahtna, Inc.*, 891 F.2d 1401, 1403, 891 F.2d 1401, 1403 (9th Cir. 1989) (finding lower Gulkana navigable where actual use at statehood was by hunters and fishermen using 16 to 24 ft boats); see also *Nw. Steelheaders Ass'n, Inc. v. Simantel*, 112 P.3d 383, 389-90 (2005) (finding John Day river navigable and stating "qualifying travel and trade is not limited to large-scale commercial or multiple passenger vessels of the sort typically engaged in modern commerce" because "courts have recognized the relevance of the historic role of small boats to transport goods in volumes that might seem insignificant by modern standards.").

b. No contention. Mr. Fuller certainly believes in order to prove susceptibility to navigation, one component must be that there is sufficient depth of flow to float a boat. Tr. 6/16/14, p. 20 (Fuller).

c. He also testified that it deals with business and trade and travel. Tr. 6/17/14, p. 455 (Fuller).

d. Mr. Fuller did indeed state that "one of the standards" of a successful boating trip is that nobody died. Tr. 6/17/14, p. 371 (Fuller).

e. No contention.

f. No contention. As the only scientific expert with a realistic understanding of boating

because he also boated the Gila and boats regularly, Mr. Fuller understands that boating any river is not void of hazards. “[B]oating failures occur on lots of navigable rivers.” Tr. 6/16/14, p. 209 (Fuller).

g. No contention. *See supra* 32(f).

h. Mr. Fuller also stated, “The boats arrived. They arrived ahead of the land troops. Nobody died. Nobody was injured. That seems like successful boating. Whatever Colonel Cooke had in his head that made that a failure, maybe it was insubordination, maybe it is the fact that they had to lighten their load, maybe that -- who knows what it was. But I don’t know what it was.” Tr. 6/17/14, p. 419 (Fuller).

i. This is a blanket statement without supporting law. *See supra* 31.

j. Opponents are wrong as a matter of law. In *United States v. Utah*, 283 U.S. at 74, the Supreme Court did not affirm the Special Master’s findings regarding the San Juan river because neither of the parties contested the Special Master’s findings regarding the San Juan river. Regardless of the reason for Utah not contesting the findings on the San Juan, “each determination as to navigability must stand on its own facts.” *United States v. Utah*, 283 U.S. at 87. As has been shown in State’s COL, case law supports a navigability finding. Additionally, Opponents cite to Mr. Fuller’s determination that the San Pedro and Santa Cruz rivers are not navigable without fully comprehending what that means. Mr. Fuller has made an objective determination of the navigability of all of Arizona’s rivers, and his determination that some rivers are not navigable, even rivers that are being contested by other parties, is consistent with his objective and fair determination that the Gila is navigable.

33. a. Opponents remove quotes from their surrounding contextual quotes to misstate the facts and to misstate the scientific expert opinion of Mr. Fuller, a professional hydrologic engineer. Mr. Fuller believes that for the Gila, depth is the primary factor because “in the natural characteristics of rivers. . . [w]idth is not going to be a criteria if it’s deep enough.” Tr. 6/16/14, p. 61 (Fuller). Mr. Fuller also testified that there were boats other than low-draft boats on the lower Gila. *See State’s FOF* 236.

b. Mr. Fuller explicitly addressed the differences and similarities between modern boats and the boats available at statehood. He stated that boats used today on the Gila and in the minimum depth standards are meaningfully similar to boats at statehood. *See State’s FOF* 249-254.

c. The State submitted Exhibit A to its State’s Closing Brief filed November 14, 2014 and the summary of opinions shows that all depths are greater than a half foot of depth, with average depths being as high as three feet in some places. Maricopa County’s expert Win Hjalmarson concluded that the lower Gila had average depths of 4.3 feet in the upper portion and 5.3 feet in the lower portion. Maricopa County’s FOF 67.

d. Mr. Farmer and the State do not contend that the Gila had only six inches of water in its natural and ordinary condition. Opponents do not even make that contention. *See Exhibit A, State’s Closing Brief*, 11/14/14. Mr. Farmer was stating that canoes can navigate six (6) inches or less of water.

34. Opponents use conclusory statements and mischaracterize the evidence.

a. Deny. Mr. Fuller actually testified that his personal boating skills or “personal experience sitting in a boat” helped me determine what was boatable and not boatable. Tr. 6/17/14, p. 360 (Fuller). Further, he simply assumed the skill of novice boater in determining whether the river was boatable or not. Tr. 6/17/2014, p. 362

(Fuller). A novice boater would presumably have some idea of how to sit in a boat, load a boat, and hold a paddle. Tr. 6/17/2014, p. 362 (Fuller). Not having those basic boating skills does not preclude boating, it simply means the boater may have a more difficult time going down the river. Tr. 6/17/2014, p. 362 (Fuller). Moreover, only novice level boating skills are required for rapids on the river. *See* Tr. 6/16/14, p. 69 (Fuller).

b. Deny. Mr. Fuller in his boating presentation gave examples of a principle on how people adapted their boats to effectively use the river in question. Tr. 6/16/14, p. 23-25 (Fuller). The principle articulated by the slide (X020-80, PPT 8 (Fuller Boating)) and Mr. Fuller's testimony is that sometimes it took time from the initial boating attempt on a river to develop the requisite technology and skills. Tr. 6/17/15, p. 435 (Fuller). Further, Mr. Fuller stated that he didn't think that there were any substantially different kinds of boats that were invented after statehood that created the opportunity to navigate the Gila compared to what was available before statehood. Tr. 6/17/14, p. 434 (Fuller).

c. Admit in part. Mr. Fuller testified that strainers, or "sawyers," which are trees or branches extending into the water, can be an obstacle to get around for those boaters that are not prepared, inexperienced, or just plain not paying attention. Tr. 6/16/2014, p. 79 (Fuller).

d. Admit in part. Mr. Fuller's point was that historically boaters expected less durability of their boats, and were prepared for it, including being ready to make necessary repairs to continue their trips. Tr. 6/16/14, p. 88 (Fuller).

e. Admit in part. Mr. Fuller did testify he could boat rivers that some boaters could not boat. Tr. 6/17/14, p. 360-361 (Fuller). That being said, more importantly and relevant to this Commission's determination of navigability, Mr. Fuller assumed the skills of a novice boater. In other words, someone who had some understanding of how to sit in a boat, load a boat, and how to hold a paddle---basic skills. Tr. 6/17/14, p. 362 (Fuller).

f. Admit in part, deny in part. Mr. Fuller's statement on the ratings classification of rapids and that "I through V are navigable" refers to the fact that those rapids are boatable. Tr. 6/16/14, p. 68-69 (Fuller). Again, most of the rapids are I or IIs which only require novice level boating skill. Tr. 6/16/14, p. 69 (Fuller).

35. Deny Opponents' conclusory statement and mischaracterization of evidence and law.

a. Deny. Again, in applying the navigability test to the Gila River, Mr. Fuller assumed the skills of a novice boater. Tr. 6/17/14, p. 362 (Fuller).

b. Admit in part.

c. No contention.

d. Deny. Opponents' conclusory statement mischaracterizes and misstates the evidence.

i. No contention that Mr. Lingenfelter's affidavit contains the quoted statements.

ii. Deny. Mr. Fuller stated that the principles of physics are the same for historical boats and modern boats. Tr. 6/16/14, p. 43 (Fuller). The design and shape of the boat at the water it displaces is responsible for how much water it draws. Tr. 6/16/14, p. 44 (Fuller). The basic shape of the canoe is essentially unchanged. Tr. 6/16/14, p. 44 (Fuller). Moreover, besides the draw, and design being essentially unchanged for canoes, the weight of canoes is about the same. X020-80, PPT 109 (Fuller Boating); *see* Tr. 6/18/2014, p. 635

(Farmer) (the weight ratio of a historic wooden canoe and a modern canoe would not change the draft of the boat significantly at all).

iii. No contention.

iv. No contention as to Mr. Fuller testifying as to the quoted statements. Deny

Opponents' conclusory statement that misstates and mischaracterizes the evidence.

v. No contention as to quoted statements. Deny as to Opponents' misstatements and mischaracterizations of evidence and testimony.

vi. Deny. Although there is increased durability of modern low draft boats such as canoes, modern canoes and historical canoes are substantially identical in shape, design, and displace the same amount of water. Tr. 6/16/2014 at 86 (Fuller). This meets the requirements under *PPL Montana*, 132 S. Ct. at 1233 (party must demonstrate that the watercraft are meaningfully similar to those in customary use for trade and travel at statehood). See Tr. 6/16/14 at 87 (Fuller) ("at the time the people who were using those older, less durable boats, low durability was an expectation of those. When you went out in your canvas canoe, you brought a canvas canoe repair kit with you.").

vii. Deny.

e. Deny as to Opponents' unsupported conclusory statement with no citation to the record.

i. No contention. However, based on Mr. Farmer's significant boating experience on many of Arizona's rivers including the Gila River, he has reasonable expectations, based on his experience of the expected flows and depths of the River at any given time of the year. Tr. 6/18/2014 at 636 (Farmer).

ii. No contention.

iii. No contention.

iv. No contention.

f. Frivolous and incorrect statement. See States Responsive Closing Brief, 1/23/15, p. 18. Mr. Fuller was the only scientific expert in this case to have gone out and boated the River. Mr. Fuller first performed a comprehensive analysis of whether the Gila River was navigable in its ordinary and natural condition at statehood. Then Mr. Fuller performed a scientific analysis of the river to determine if it met navigability requirements based on hydrologic and geomorphologic conditions. Next, Mr. Fuller researched and reviewed historic accounts of the River and historic photographs to see if they supported his scientific conclusions. Finally, and perhaps most importantly, Mr. Fuller went and looked at the River itself to see if his conclusions were correct.

g. *PPL Montana* said watercraft must be "meaningfully similar to those in customary use for trade and travel at the time of statehood" and that "the river's poststatehood condition is not materially different from its physical condition at statehood." 132 S.Ct. at 1233. It should be noted that the U.S. Supreme Court found that the Montana Supreme Court offered no indication that it made these necessary findings. *Id.* at 1234. The court did not make a finding that watercraft used today were similar to those used at the time of statehood because no evidence was presented by the State of Montana. *Id.* In contrast, the State has presented evidence by actual boaters that some of the boats that navigate the Gila River today are meaningfully similar to boats found at statehood. See State's FOF 249-

254.

36. No contention. While it is true that “all evidence should be examined during navigability determinations,” opponents neglect to include controlling law that directs the Commission that “[e]vidence from that early period should be considered by ANSAC as the best evidence of the River’s natural condition.” *Winkleman*, 224 Ariz. at 242, 229 P.3d at 254.

37. No contention.

38. Opponents attempt to restate *The Daniel Ball* test but leave out important components such as the river must also be in its “ordinary and natural condition” A.R.S. § 37-1101(5).

39. Opponents cite to the case *Lykes Bros., Inc. v. Corps of Eng’rs*, 821 F. Supp. 1457, 1459 (M.D. Fla. 1993), *aff’d*, 64 F.3d 630 (11th Cir. 1995) for the contention that a river should be deemed nonnavigable if military did not transport men and supplies on the river. The Arizona Court of Appeals has already dismissed the use of this case in its decision in *Defenders of Wildlife v. Hull*, 199 Ariz. 411, 421 (finding the use of the case “unconvincing”). What opponents don’t mention is that the case was affirmed by the Eleventh Circuit Court of Appeals based on the fact that there was substantial evidence that there was no defined and navigable channel through Cowbone Marsh. 64 F.3d at 638. Even the Opponents’ experts agree that the Gila had a single channel in its ordinary and natural condition. Tr. 8/19/14, p. 1699:7-14, p. 1734:9 (Mussetter); Tr. 6/20/14, p. 1161-62:4-9 (Burtell). In any case, there is evidence that settlers did use the Gila. *See* State’s FOF (Historic Boating) 325-326, 352-354, 383-384, 455-460, 495-504, 520, 522-538. There are also many reasons why transportation on the Gila did not flourish, railroad competition being one of them. *See* State’s FOF 185-201.

40. *See supra* 39. Not a conclusion of law. The State has addressed this previously.

41. Not a conclusion of law. The State has addressed this previously.

42. Opponents cite the obscure case *Webb v. Bd. of Comm’rs of Neosho Cnty.*, 124 Kan. 38, 257 P. 966 (1927). In that case the Supreme Court of Kansas found that the Neosho river was “not a navigable stream in fact” based on the findings of facts that “[i]n ordinary times, or ordinary stages of the water in the Neosho river at the points in question, light boats could be transferred, but could not be transported any great distance up or down the river at such ordinary times without being pushed or helped over the riffles.” *Id.* at 966. The Gila river is navigated today by light boats without the need to push or help them over the riffles and was navigated at the time of statehood.

43. The State’s expert has testified that boating can occur at most times of the year on the Gila river today in some segments, and would have been possible at all times of the year, for all segments, when the Gila was in its natural and ordinary condition. *See* FOF (Boating Percentages) 322, 349, 380, 396, 419, 450, 492, 516, 521. The Gila is not a river that only supports navigability occasionally.

In any event, Opponents do not cite controlling law that addresses their exact contention because they are misstating the law. No mention is made of *Utah v. United States*, where the Supreme Court found sufficient actual use on the lake where the use was “sporadic and their careers were short” because that “does not detract from the basic finding that the lake served as a highway and it is that feature that distinguishes between navigability and non-navigability.” 403 U.S. 9, 12 (1971). Opponents’ real problem is that they continue to refute the clear law that states

small boat use is evidence of navigability. See State's COL 606.

The Commission should be well aware that controlling courts are the Arizona Court of Appeals, the Ninth Circuit, and of course the U.S. Supreme Court. The State has cited many controlling cases to support its navigability position.

Opponents cite to *Miami Valley Conservancy Dist. v. Alexander*, 692 F.2d 447, 447 (6th Cir. 1982) as evidence of a court finding sporadic evidence of boat use proves nonnavigability. Again, what Opponents fail to disclose is that the Sixth Circuit, not a controlling court for ANSAC, found that “[a]s many as thirty-two men could have been required to pull a loaded flatboat upstream. Military use of the rivers through great quantities of manpower was not the customary mode of travel for settlers and farmers of the time.” *Id.* at 451. Additionally, the court found that any keelboat use “included portages of six, twelve, or one hundred fifty miles.” *Id.* The facts in this case do not apply to the Gila.

Opponents also cite *United States v. State of Oregon*, 295 U.S. 1 (1935). The Court found that all “five divisions are shallow bodies of water which, with the exception of Lake Malheur, disappear completely or become negligible during a dry season.” *Id.* at 16. With regard to Lake Malheur, the Court found that the water was “not to be continuous enough to afford channels or waterways capable of use in navigation” as it becomes “mud or dry land” in some places. *Id.* at 17. This body of waters differs substantially from the Gila in its natural and ordinary condition. See also *Defenders of Wildlife*, 199 Ariz. at 423 (addressing *United States v. State of Oregon*, 295 U.S. 1).

See *Defenders of Wildlife*, 199 Ariz. at 424 for a discussion about *North Dakota v. United States*, 770 F. Supp., 506.

Opponents cite *United States v. Harrell*, 926 F.2d 1036 (11th Cir. 1991), another court that is not controlling on the Commission's decision. In that case the court found Lewis Creek nonnavigable for obvious reasons:

Lewis Creek is impassable under ordinary conditions prevailing throughout the year. Only when unpredictable, infrequent, and temporary flooding of the Tombigbee River occurs during parts of the winter months does Lewis Creek become passable; in some years, these floods do not occur at all.

Id. at 1040.

Opponents cite to *Harrison v. Fite*, 148 F. 781 (8th Cir. 1906). The Arizona Court of Appeals has also dismissed this case in *Defenders of Wildlife*, 199 Ariz. at 422. This is not a controlling case. Additionally, the Eighth Circuit does not use *The Daniel Ball* test in this decision.

Opponents cite to *In re River Queen*, 275 F. Supp. 403, 407 (W.D. Ark. 1967) *aff'd sub nom. George v. Beavark, Inc.*, 402 F.2d 977 (8th Cir. 1968). Again, this is not a controlling court. In that case the only evidence of actual use of the river for navigability was three witnesses testifying to fishing on the river. *Id.* at 409. The Gila has much more evidence of actual use.

44. Opponents continue to cite and recite to cases that discuss exceptional use during periods of temporary high water. The State's expert has testified that the Gila River was navigable most of the year in its ordinary and natural condition. See State's FOF (Boating Percentages) 322, 349, 380, 396, 419, 450, 492, 516, 521. Opponents cite to *United States v. Rio Grande Dam & Irrigation Co.*, 174 U.S. 690 (1899). The Arizona Court of

Appeals in *Defenders v. Wildlife*, 199 Ariz. at 424, had the following to say about *Rio Grande*:

[N]one of the cases cited by Appellees mandate that, before a river can be considered navigable, it must be determined that floatation of logs or other material could have been “regularly conducted for commercial purposes.” Such a requirement exaggerates the specific findings made by individual courts and, as applied by section 37-1128(D)(6), is contrary to the federal test.

See *supra* 43 for further discussion about Opponents’ claims of exceptional use.

45. Opponents cite government surveys as indicative of a navigability determination. The U.S. Supreme Court has held otherwise.

A legal inference of navigability is said to arise from the action of the surveying officers who, when surveying the lands in that region, ran a meander line along the northerly bank and did not extend the township and section lines across the river. But this has little significance. The same thing was done on the Platte and other large western streams known to be unnavigable. Besides, those officers were not clothed with power to settle questions of navigability that surveyors are not “clothes with power to settle questions of navigability” and therefore their actions regarding meandering rivers have little significance, and they were known to meander both navigable and nonnavigable streams.

State of Oklahoma v. State of Texas, 258 U.S. 574, 585 (1922).

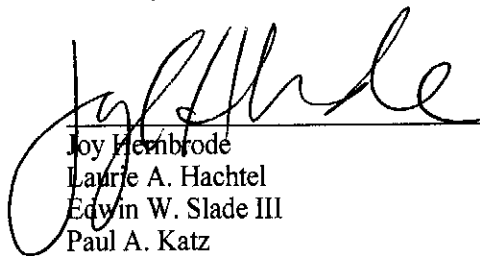
Opponents also cite to federal patents as some evidence of a navigability determination. In *Choctaw Nation v. Oklahoma*, 397 U.S. 620, 648 (1970), the Supreme Court specifically stated that “such disposals by the United States ‘during the territorial period are not lightly to be inferred, and should not be regarded as intended unless the intention was definitely declared or otherwise made very plain.’” There is no patent which contains a specific statement that the federal government intended to convey title to land under the Gila River. According to *Choctaw*, no inference should be made.

Government officials certainly described the Gila in much detail and with sufficient depth for navigability. See State’s FOF 305, 306, 337, 338, 367, 368, 383, 408, 409, 466, 469, 470, 471, 475-478, 482, 511.

46. The Commission should find the Gila navigable based on controlling law stated in State’s COL and based on the facts as stated in State’s FOF.

DATED this 6th day of February, 2015.

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this 6th day of February, 2015, to:

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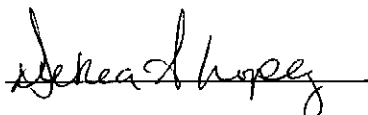
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A handwritten signature in cursive script, appearing to read "Geneva Hope", written over a horizontal line.