

BEFORE THE  
ARIZONA NAVIGABLE STREAM ADJUDICATION COMMISSION

IN THE MATTER OF THE  
NAVIGABILITY OF THE BIG  
SANDY RIVER FROM ITS  
HEADWATERS TO ITS CONFLUENCE  
WITH SANTA MARIA RIVER, MOHAVE  
COUNTY, ARIZONA

No.: 05-011-NAV

**REPORT, FINDINGS AND DETERMINATION  
REGARDING THE NAVIGABILITY OF THE BIG SANDY  
RIVER FROM ITS HEADWATERS TO ITS CONFLUENCE  
WITH THE SANTA MARIA RIVER**

BEFORE THE  
ARIZONA NAVIGABLE STREAM ADJUDICATION COMMISSION

IN THE MATTER OF THE  
NAVIGABILITY OF THE BIG  
SANDY RIVER FROM ITS  
HEADWATERS TO ITS CONFLUENCE  
WITH SANTA MARIA RIVER, MOHAVE  
COUNTY, ARIZONA

No.: 05-011-NAV

**REPORT, FINDINGS AND DETERMINATION  
REGARDING THE NAVIGABILITY OF THE BIG SANDY  
RIVER FROM ITS HEADWATERS TO ITS CONFLUENCE  
WITH THE SANTA MARIA RIVER**

Pursuant to Title 37, Chapter 7, Arizona Revised Statutes, the Arizona Navigable Stream Adjudication Commission ("Commission") has undertaken to receive, compile, review and consider relevant historical and scientific data and information, documents and other evidence regarding the issue of whether the Big Sandy River from its headwaters to its confluence with the Santa Maria River was navigable or nonnavigable for title purposes as of February 14, 1912. Proper and legal public notice was given in accordance with law and a hearing was held at which all parties were afforded the opportunity to present evidence, as well as their views, on this issue. The Commission having considered all of the historical and scientific data and information, documents and other evidence, including the oral and written presentations made by persons appearing at the public hearing and being fully advised in the premises, hereby submits its report, findings and determination.

## I. PROCEDURE

Pursuant to A.R.S. § 37-1123(B), the Commission gave proper notice by publication of its intent to receive, compile, review, study and consider all relevant historical and scientific data and information and comments, and other evidence regarding the issue of navigability or nonnavigability of the Big Sandy River from its headwaters to its confluence with the Santa Maria River in Mohave County, Arizona. The notice was published on June 17, June 24 and July 1, 2005 in the Kingman Daily Miner published in Kingman, Mohave County, Arizona. A copy of the Notice of Intent to receive, compile, review, study and consider evidence on the issue of navigability of the Big Sandy River in Mohave County, Arizona, is attached hereto as Exhibit "A."

After collecting and documenting all reasonably available evidence received pursuant to the Notice of Intent to receive, compile, review, study and consider evidence, the Commission scheduled a public hearing to receive additional evidence and testimony regarding the navigability or nonnavigability of the Big Sandy River in Mohave County. Public notice of this hearing was given by legal advertising on July 7, 2005 Kingman Daily Miner, published in Kingman, Mohave County, Arizona; and on July 8, 2005 in the Arizona Republic, a newspaper of general circulation in Arizona published in Phoenix, Maricopa County, Arizona, pursuant to A.R.S. § 37-1126 and, in addition, by mail to all those requesting individual notice and by means of the ANSAC website ([azstreambeds.com](http://azstreambeds.com)). This hearing was held on August 8, 2005 in the City of Kingman, the county seat of Mohave County, to give the greatest opportunity possible for any person to appear and provide evidence or testimony on the navigability of the Big Sandy River in that county and, further, because the law requires that such hearings be held in the counties in which the watercourse being studied is located. Attached hereto as Exhibit "B" is a copy of the notice of the public hearing.

All parties were advised that anyone who desired to appear and give testimony at a public hearing could do so and, in making its findings and determination as to navigability and nonnavigability of the Big Sandy River from its headwaters to its confluence with the Santa Maria River, the Commission would consider all matters presented to it at the hearing, as well as other historical and scientific data, information, documents and evidence that had been submitted to the Commission at any time prior to the date of the hearing, including all data, information, documents, studies and evidence previously submitted to the Commission under prior law. Following the public hearing on the Big Sandy River held on August 8, 2005 in Kingman, Arizona, all parties were advised that they could file post-hearing memoranda pursuant to the Commission Rules. Two post-hearing memoranda were filed by the parties, including Salt River Project Agricultural Improvement and Power District and Salt River Valley Water User's Association, and Phelps Dodge Corporation, now known as Freeport-McMoRan Copper & Gold, Inc.. Attached as Exhibit "C" is a list of the post-hearing memoranda filed by the parties.

On October 20, 2005, at a public hearing in Phoenix, Arizona, after considering all of the evidence and testimony submitted and the post-hearing memoranda filed with the Commission, and the comments and oral argument presented by the parties, and being fully advised in the premises, the Commission, with a unanimous vote, found and determined in accordance with A.R.S. § 37-1128 that the Big Sandy River from its headwaters to its confluence with the Santa Maria River in Mohave County, Arizona, was nonnavigable as of February 14, 1912 nor was it susceptible of navigability. A copy of the notice for the hearing held on October 20, 2005 at Phoenix, Arizona, is attached as a part of Exhibit "B." Copies of the agenda and minutes of all of the hearings held on August 8, 2005 in Kingman, Mohave County, Arizona and on October 20, 2005 in Phoenix, Maricopa County, Arizona, are attached hereto as Exhibit "D."

## II. THE BIG SANDY RIVER FROM ITS HEADWATERS TO ITS CONFLUENCE WITH THE SANTA MARIA RIVER

The Big Sandy River merges with the Santa Maria River at Alamo Lake to form the Bill Williams River. The third major watercourse in this area is Burro Creek, which is a tributary to the Big Sandy River and joins it above its confluence with the Santa Maria River. The confluence of the Big Sandy River and the Santa Maria River form the beginning of the Bill Williams River, which then travels 35 miles until it flows into the Colorado River. The four rivers and their minor tributaries constitute a major drainage system in west central Arizona known as the Bill Williams River Basin. The terrain through which these rivers flow is very similar and all four could have been studied and treated as a single complex watercourse. A number of the reports and evidentiary submittals considered more than one river. For example, there is a single Arizona Stream Navigability Study for the Big Sandy River, Burro Creek and Santa Maria River prepared by J E Fuller Hydrology & Geomorphology, Inc., in association with SWCA, Inc. Environmental Consultants and the Arizona Geological Survey dated January 1999 and revised June 2004. However, each river was treated as a separate major watercourse and together they flow through three (3) different contiguous counties of the State (Yavapai, Mohave and La Paz) and separate hearings were held for each watercourse so a separate report has been prepared for each river course. When completed, each of the reports will be recorded with the County Recorder in the county or counties through which that river flows. This report deals solely with the Big Sandy River, but does consider evidence submitted on the other three (3) watercourses where appropriate.

The headwaters of the Big Sandy River are at the confluence of Knight Creek and Trout Creek north of the Hualapai Indian Reservation in the Pilgrim Wash Quadrangle at approximately Latitude 34° 55' 23" North, Longitude 113° 37' 30" West in the Southeast Quarter of Section 23, Township 18 North, Range 13 West, Gila and Salt River

Base and Meridian. The river flows in a southerly direction generally paralleling U.S. Highway 93 past the community of Wikieup, Arizona. Approximately 12 miles south of Wikieup, the Big Sandy is joined by its major tributary, Burro Creek, at Latitude 34° 32' 16" North, Longitude 113° 34' 17" West, near the center of Section 24, Township 14 North, Range 12 West, Gila and Salt River Base and Meridian, and at that point it veers slightly southwest away from U.S. Highway 93, flowing past the ghost town of Signal where it veers slightly to the southeast until it converges with the Santa Maria River at Latitude 34° 18' 30" North, Longitude 113° 31' 38" West in the Southwest Quarter of Section 8, Township 11 North, Range 12 West, Gila and Salt River Base and Meridian. At this point, water is backed up in the mouths of both rivers by Alamo Reservoir which is created by Alamo Dam downstream.

From its headwaters, the Big Sandy River flows south through the Big Sandy River Valley which is a wide basin with alluvial fill 3,000 feet deep in some places and suitable for agriculture, past the settlement of Wikieup and then veers slightly to the southwest and cuts through the mountainous terrain of Greenwood Peak, Signal Mountain, Arrastra Mountain, and Artillery Peak until its confluence with the Santa Maria River. The lower reach of the river is characterized by steep narrow canyon walls with bedrock near the surface in many places. Near its confluence with the Santa Maria River, the river valley opens up into a wider basin. The Big Sandy River is 54 miles in length and drains an area of approximately 2,810 square miles, including the Burro Creek drainage. The northern portion of the drainage area is bordered on the east by the Aquarius Mountains and on the west by the Hualapai Mountains. The highest elevation in the Big Sandy drainage area is 8,417 feet at Hualapai Peak in Hualapai Mountain Park and the lowest point is 1,120 feet at its confluence with the Santa Maria River. A number of washes and creeks flow into the Big Sandy, including Cove Springs Wash, Tom Brown Canyon Creek, Crow Canyon Wash, Stove Spring Canyon Wash,

Crown Spring Wash, Rupley Wash, Graveyard Wash, Pilgrim Wash, Bitter Creek, Bronco Creek, and a number of other unnamed watercourses. Its primary tributary is Burro Creek which has a watershed drainage area of 687 square miles.

The Big Sandy is considered as a perennial river in that it usually flows year round, but there are some reaches that run dry during periods of drought. The climate within the Big Sandy watershed varies significantly with elevation. Annual precipitation is 15 to 20 inches in the mountainous high elevation areas and drops to as low as 6 inches near its mouth at the Alamo Reservoir. Likewise, the vegetation varies substantially within the basin, depending upon the altitude, with piñon and juniper woodlands found in the higher mountain ranges and cacti and riparian species in the intervening valleys and lower elevations. A map of the Big Sandy River watershed is attached hereto as Exhibit "E."

### III. BACKGROUND AND HISTORICAL PERSPECTIVES

#### A. Public Trust Doctrine and Equal Footing Doctrine

The reason for the legislative mandated study of navigability of watercourses within the state is to determine who holds title to the beds and banks of such rivers and watercourses. Under the Public Trust Doctrine, as developed by common law over many years, the tidal lands and beds of navigable rivers and watercourses, as well as the banks up to the high water mark, are held by the sovereign in a special title for the benefit of all the people. In quoting the U. S. Supreme Court, the Arizona Court of Appeals described the Public Trust Doctrine in its decision in *The Center for Law v. Hassell*, 172 Arizona 356, 837 P.2d 158 (App. 1991), *review denied* (October 6, 1992).

An ancient doctrine of common law restricts the sovereign's ability to dispose of resources held in public trust. This doctrine, integral to watercourse sovereignty, was explained by the Supreme Court in *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 13 S.Ct. 110, 36 L.Ed. 1018 (1892). A state's title to lands under navigable waters is a title different in character from that which the State holds in lands intended for sale. . . . It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing

therein freed from the obstruction or interference of private parties. *Id.* at 452, 13 S.Ct. at 118; *see also Martin v. Waddell*, 41 U.S. (16 Pet.) at 413 (describing watercourse sovereignty as "a public trust for the benefit of the whole community, to be freely used by all for navigation and fishery, as well for shellfish as floating fish").

*Id.*, 172 Ariz. at 364, 837 P.2d at 166.

This doctrine is quite ancient and was first formally codified in the Code of the Roman Emperor Justinian between 529 and 534 A.D.<sup>1</sup> The provisions of this Code, however, were based, often verbatim, upon much earlier institutes and journals of Roman and Greek law. Some historians believe that the doctrine has even earlier progenitors in the rules of travel on rivers and waterways in ancient Egypt and Mesopotamia. This rule evolved through common law in England which established that the king as sovereign owned the beds of commercially navigable waterways in order to protect their accessibility for commerce, fishing and navigation for his subjects. In England the beds of non-navigable waterways where transportation for commerce was not an issue were owned by the adjacent landowners.

This principle was well established by English common law long before the American Revolution and was a part of the law of the American colonies at the time of the Revolution. Following the American Revolution, the rights, duties and responsibilities of the crown passed to the thirteen new independent states, thus making them the owners of the beds of commercially navigable streams, lakes and other waterways within their boundaries by virtue of their newly established sovereignty. The ownership of trust lands by the thirteen original states was never ceded to the federal government. However, in exchange for the national government's agreeing to pay the debts of the thirteen original states incurred in financing the Revolutionary War, the states ceded to the national government their undeveloped western lands. In the Northwest Ordinance of 1787, adopted just prior to the

---

<sup>1</sup> Putting the Public Trust Doctrine to Work, David C. Slade, Esq. (Nov. 1990), pp. xvii and 4.



ratification of the U.S. Constitution and subsequently re-enacted by Congress on August 7, 1789, it was provided that new states could be carved out of this western territory and allowed to join the Union and that they "shall be admitted . . . on an equal footing with the original states, in all respects whatsoever." (Ordinance of 1787: The Northwest Territorial Government, § 14, Art. V, 1 stat. 50. See also U.S. Constitution, Art. IV, Section 3). This has been interpreted by the courts to mean that on admission to the Union, the sovereign power of ownership of the beds of navigable streams passes from the federal government to the new state. *Pollard's Lessee v. Hagan, et al.*, 44 U.S. (3 How.) 212 (1845), and *Utah Division of State Lands v. United States*, 482 U.S. 193 (1987).

In discussing the Equal Footing Doctrine as it applies to the State's claim to title of beds and banks of navigable streams, the Court of Appeals stated in *Hassell*:

The state's claims originated in a common-law doctrine, dating back at least as far as Magna Charta, vesting title in the sovereign to lands affected by the ebb and flow of tides. See *Martin v. Waddell*, 41 U.S. (16 Pet.) 367, 412-13, 10 L.Ed. 997 (1842). The sovereign did not hold these lands for private usage, but as a "high prerogative trust . . . , a public trust for the benefit of the whole community." *Id.* at 413. In the American Revolution, "when the people . . . took into their own hands the powers of sovereignty, the prerogatives and regalities which before belong either to the crown or the Parliament, became immediately and rightfully vested in the state." *Id.* at 416.

Although watercourse sovereignty ran with the tidewaters in England, an island country, in America the doctrine was extended to navigable inland watercourses as well. See *Barney v. Keokuk*, 94 U.S. 324, 24 L.Ed. 224 (1877); *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 434, 13 S.Ct. 110, 111, 36 L.Ed. 1018 (1892). Moreover, by the "equal footing" doctrine, announced in *Pollard's Lessee v. Hagan*, 44 U.S. (3 How.) 212, 11 L.Ed. 565 (1845), the Supreme Court attributed watercourse sovereignty to future, as well as then-existent, states. The Court reasoned that the United States government held lands under territorial navigable waters in trust for future states, which would accede to sovereignty on an "equal footing" with established states upon admission to the Union. *Id.* at 222-23, 229; accord *Montana v. United States*, 450 U.S. 544, 101 S.Ct. 1245, 67 L.Ed.2d 493 (1981); *Land Department v. O'Toole*, 154 Ariz. 43, 44, 739 P.2d 1360, 1361 (App. 1987).

The Supreme Court has grounded the states' watercourse sovereignty in the Constitution, observing that "[t]he shores of navigable waters, and the soils under them, were not granted by the Constitution to the United States, but were reserved to the states respectively." *Pollard's Lessee*, 44

U.S. (3 How.) at 230; see also *Oregon ex rel. State Land Board v. Corvallis Sand & Gravel Co.*, 429 U.S. 363, 374, 97 S.Ct. 582, 589, 50 L.Ed.2d 550 (1977) (states' "title to lands underlying navigable waters within [their] boundaries is conferred . . . by the [United States] constitution itself").

*Id.*, 172 Ariz. 359-60, 837 P.2d at 161-162.

In the case of Arizona, the "equal footing" doctrine means that if any stream or watercourse within the State of Arizona was navigable on February 14, 1912, the date Arizona was admitted to the Union, the title to its bed is held by the State of Arizona in a special title under the public trust doctrine. If the stream was not navigable on that date, ownership of the streambed remained in such ownership as it was prior to statehood--the United States if federal land, or some private party if it had previously been patented or disposed of by the federal government--and could later be sold or disposed of in the manner of other land since it had not been in a special or trust title under the public trust doctrine. Thus, in order to determine title to the beds of rivers, streams, and other watercourses within the State of Arizona, it must be determined whether or not they were navigable or non-navigable as of the date of statehood.

#### **B. Legal Precedent to Current State Statutes**

Until 1985, most Arizona residents assumed that all rivers and watercourses in Arizona, except for the Colorado River, were non-navigable and accordingly there was no problem with the title to the beds and banks of any rivers, streams or other watercourses. However, in 1985 Arizona officials upset this long-standing assumption and took action to claim title to the bed of the Verde River. *Land Department v. O'Toole*, 154 Ariz. 43, 739 P.2d 1360 (App. 1987). Subsequently, various State officials alleged that the State might hold title to certain lands in or near other watercourses as well. *Id.*, 154 Ariz. at 44, 739 P.2d at 1361. In order to resolve the title questions to the beds of Arizona rivers and streams, the Legislature enacted a law in 1987 substantially

relinquishing the state's interest in any such lands.<sup>2</sup> With regard to the Gila, Verde and Salt Rivers, this statute provided that any record title holder of lands in or near the beds of those rivers could obtain a quitclaim deed from the State Land Commissioner for all of the interest the state might have in such lands by the payment of a quitclaim fee of \$25.00 per acre. The Arizona Center for Law in the Public Interest filed suit against Milo J. Hassell in his capacity as State Land Commissioner, claiming that the statute was unconstitutional under the public trust doctrine and gift clause of the Arizona Constitution as no determination had been made of what interest the state had in such lands and what was the reasonable value thereof so that it could be determined that the state was getting full value for the interests it was conveying. The Superior Court entered judgment in favor of the defendants and an appeal was taken. In its decision in *Hassell*, the Court of Appeals held that this statute violated the public trust doctrine and the Arizona Constitution and further set forth guidelines under which the state could set up a procedure for determining the navigability of rivers and watercourses in Arizona. In response to this decision, the Legislature established the Arizona Navigable Stream Adjudication Commission and enacted the statutes pertaining to its operation. 1992 Arizona Session Laws, Chapter 297 (1992 Act). The charge given to the Commission by the 1992 Act was to conduct full evidentiary public hearings across the state and to adjudicate the State's claims to ownership of lands in the beds of watercourses. *See generally* former A.R.S. §§ 37-1122 to -1128.

The 1992 Act provided that the Commission would make findings of navigability or non-navigability for each watercourse. *See* former A.R.S. § 37-1128(A). Those findings were based upon the "federal test" of navigability in former A.R.S. § 37-1101(6). The Commission would examine the "public trust values" associated with

---

<sup>2</sup> Prior to the enactment of the 1987 statute, the Legislature made an attempt to pass such a law, but the same was vetoed by the Governor. The 1987 enactment was signed by the Governor and became law. 1987 Arizona Session Laws, Chapter 127.

a particular watercourse only if and when it determined that the watercourse was navigable. See former A.R.S. §§ 37-1123(A)(3), 37-1128(A).

The Commission began to take evidence on certain watercourses during the fall of 1993 and spring of 1994. In light of perceived difficulties with the 1992 Act, the Legislature revisited this issue during the 1994 session and amended the underlying legislation. See 1994 Arizona Session Laws, ch. 278 ("1994 Act"). Among other things, the 1994 Act provided that the Commission would make a recommendation to the Legislature, which would then hold additional hearings and make a final determination of navigability by passing a statute with respect to each watercourse. The 1994 Act also established certain presumptions of non-navigability and exclusions of some types of evidence.

Based upon the 1994 Act, the Commission went forth with its job of compiling evidence and making a determination of whether each watercourse in the state was navigable as of February 14, 1912. The Arizona State Land Department issued technical reports on each watercourse, and numerous private parties and public agencies submitted additional evidence in favor of or opposed to navigability for particular watercourses. See *Defenders of Wildlife v. Hull*, 199 Ariz. 411, 416, 18 P.3d 722, 727 (App. 2001). The Commission reviewed the evidence and issued reports on each watercourse, which were transmitted to the Legislature. The Legislature then enacted legislation relating to the navigability of each specific watercourse. The Court of Appeals struck down that legislation in its *Hull* decision, finding that the Legislature had not applied the proper standards of navigability. *Id.* 199 Ariz. at 427-28, 18 P.2d at 738-39.

In 2001, the Legislature again amended the underlying statute in another attempt to comply with the court's pronouncements in *Hassell* and *Hull*. See 2001 Arizona Session Laws, ch. 166, § 1. The 2001 legislation now governs the Commission in making its findings with respect to rivers, streams and watercourses.

#### IV. ISSUES PRESENTED

The applicable Arizona statutes state that the Commission has jurisdiction to determine which, if any, Arizona watercourses were "navigable" on February 14, 1912 and for any watercourses determined to be navigable, to identify the public trust values. A.R.S. § 37-1123. A.R.S. § 37-1123A provides as follows:

A.

B. The commission shall receive, review and consider all relevant historical and other evidence presented to the commission by the state land department and by other persons regarding the navigability or nonnavigability of watercourses in this state as of February 14, 1912, together with associated public trust values, except for evidence with respect to the Colorado river, and, after public hearings conducted pursuant to section 37-1126:

1. Based only on evidence of navigability or nonnavigability, determine which watercourses were not navigable as of February 14, 1912.
2. Based only on evidence of navigability or nonnavigability, determine which watercourses were navigable as of February 14, 1912.
3. In a separate, subsequent proceeding pursuant to section 37-1128, subsection B, consider evidence of public trust values and then identify and make a public report of any public trust values that are now associated with the navigable watercourses.

A.R.S. §§ 37-1128A and B provide as follows:

A. After the commission completes the public hearing with respect to a watercourse, the commission shall again review all available evidence and render its determination as to whether the particular watercourse was navigable as of February 14, 1912. If the preponderance of the evidence establishes that the watercourse was navigable, the commission shall issue its determination confirming the watercourse was navigable. If the preponderance of the evidence fails to establish that the watercourse was navigable, the commission shall issue its determination confirming that the watercourse was nonnavigable.

B. With respect to those watercourses that the commission determines were navigable, the commission shall, in a separate, subsequent proceeding, identify and make a public report of any public trust values associated with the navigable watercourse.

Thus, in compliance with the statutes, the Commission is required to collect evidence, hold hearings, and determine which watercourses in existence on February 14, 1912, were navigable or nonnavigable. This report pertains to the 54-mile

reach of the Big Sandy River from its headwaters to its confluence with the Santa Maria River. In the hearings to which this report pertains, the Commission considered all of the available historical and scientific data and information, documents and other evidence relating to the issue of navigability of the Big Sandy River in Mohave County, Arizona as of February 14, 1912.

Public Trust Values were not considered in these hearings but will be considered in separate, subsequent proceedings if required. A.R.S. §§ 37-1123A3 and 37-1128B. In discussing the use of an administrative body such as the Commission on issues of navigability and public trust values, the Arizona Court of Appeals in its decision in *Hassell* found that State must undertake a "particularized assessment" of its "public trust" claims but expressly recognized that such assessment need not take place in a "full blown judicial" proceeding.

We do not suggest that a full-blown judicial determination of historical navigability and present value must precede the relinquishment of any state claims to a particular parcel of riverbed land. An administrative process might reasonably permit the systematic investigation and evaluation of each of the state's claims. Under the present act, however, we cannot find that the gift clause requirement of equitable and reasonable consideration has been met.

*Id.*, 172 Ariz. at 370, 837 P.2d at 172.

The 2001 *Hull* court, although finding certain defects in specific aspects of the statute then applicable, expressly recognized that a determination of "navigability" was essential to the State having any "public trust" ownership claims to lands in the bed of a particular watercourse:

The concept of navigability is "essentially intertwined" with public trust discussions and "[t]he navigability question often resolves whether any public trust interest exists in the resource at all." Tracy Dickman Zobenica, *The Public Trust Doctrine in Arizona's Streambeds*, 38 Ariz. L. Rev. 1053, 1058 (1996). In practical terms, this means that before a state has a recognized public trust interest in its watercourse bedlands, it first must be determined whether the land was acquired through the equal footing doctrine. However, for bedlands to pass to a state on equal footing grounds, the watercourse overlying the land must have been "navigable" on the day that the state entered the union.

199 Ariz. at 418, 18 P.3d at 729 (also citing *O'Toole*, 154 Ariz. at 45, 739 P.2d at 1362) (emphasis added).

The Legislature and the Court of Appeals in *Hull* have recognized that, unless the watercourse was “navigable” at statehood, the State has no “public trust” ownership claim to lands along that watercourse. Using the language of *Hassell*, if the watercourse was not “navigable,” the “validity of the equal footing claims that [the State] relinquishes” is zero. *Hassell*, 172 Ariz. at 371, 837 P.2d at 173. Thus, if there is no claim to relinquish, there is no reason to waste public resources determining (1) the value of any lands the State **might** own if it had a claim to ownership, (2) “equitable and reasonable considerations” relating to claims it might relinquish without compromising the “public trust,” or (3) any conditions the State might want to impose on transfers of its ownership interest. *See id.*

## V. BURDEN OF PROOF

The Commission in making its findings and determinations utilized the standard of the preponderance of the evidence as the burden of proof as to whether or not a stream was navigable or nonnavigable. A.R.S. § 37-1128A provides as follows:

After the commission completes the public hearing with respect to a watercourse, the commission shall again review all available evidence and render its determination as to whether the particular watercourse was navigable as of February 14, 1912. If the preponderance of the evidence establishes that the watercourse was navigable, the commission shall issue its determination confirming that the watercourse was navigable. If the preponderance of the evidence fails to establish that the watercourse was navigable, the commission shall issue its determination confirming that the watercourse was nonnavigable.

This statute is consistent with the decision of the Arizona courts that have considered the matter. *Hull*, 199 Ariz. at 420, 18 P.3d at 731 (“... a ‘preponderance’ of the evidence appears to be the standard used by the courts. *See, e.g., North Dakota v. United States*, 972 F.2d 235-38 (8<sup>th</sup> Cir. 1992)”); *Hassell*, 172 Ariz. at 363, n. 10, 837 P.2d at 165, n. 10 (The question of whether a watercourse is navigable is one of fact. The

burden of proof rests on the party asserting navigability . . ."); *O'Toole*, 154 Ariz. at 46, n. 2, 739 P.2d at 1363, n. 2.

The most commonly used legal dictionary contains the following definition of "preponderance of the evidence":

Evidence which is of greater weight or more convincing than the evidence which is offered in opposition to it; that is, evidence which as a whole shows that the fact sought to be proven is more probable than not. *Braud v. Kinchen*, La. App., 310 So.2d 657, 659. With respect to burden of proof in civil actions, means greater weight of evidence, or evidence which is more credible and convincing to the mind. That which best accords with reason and probability. The word "preponderance" means something more than "weight"; it denotes a superiority of weight, or outweighing. The words are not synonymous, but substantially different. There is generally a "weight" of evidence on each side in case of contested facts. But juries cannot properly act upon the weight of evidence, in favor of the one having the *onus*, unless it overbear, in some degree, the weight upon the other side.

Black's Law Dictionary 1064 (5<sup>th</sup> ed. 1979).

The "preponderance of the evidence" standard is sometimes referred to as requiring "fifty percent plus one" in favor of the party with the burden of proof. One could image a set of scales. If the evidence on each side weighs exactly evenly, the party without the burden of proof must prevail. In order for the party with the burden to prevail, sufficient evidence must exist in order to tip the scales (even slightly) in its favor. See generally *United States v. Fatico*, 458 U.S. 388, 403-06 (E.D. N.Y. 1978), *aff'd* 603



F.2d 1053 (2<sup>nd</sup> Cir. 1979), *cert.denied* 444 U.S. 1073 (1980); *United States v. Schipani*, 289 F.Supp. 43, 56 (E.D.N.Y. 1968), *aff'd*, 414 F.2d 1262 (2d Cir. 1969).<sup>3</sup>

## VI. STANDARD FOR DETERMINING NAVIGABILITY

The statutes defines a navigable watercourse as follows:

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

A.R.S. § 37-1101(5).

The foregoing statutory definition is taken almost verbatim from the U. S. Supreme Court decision in *The Daniel Ball*, 77 U.S. (10 Wall) 557, 19 L.Ed. 999 (1870), which is considered by most authorities as the best statement of navigability for title purposes.<sup>4</sup> In its decision, the Supreme Court stated:

Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or

---

<sup>3</sup> In a recent Memorandum Decision of the Arizona Court of Appeals, the Defenders of Wildlife and others through their representative, Arizona Center for Law in the Public Interest, attacked the constitutionality of the burden of proof for navigability determination by the Commission specified in A.R.S. § 37-1128(A). In that case, the Defenders claimed that the burden of proof specified in the statute conflicts with federal law and should be declared invalid because it is contrary to a presumption favoring sovereign ownership of bedlands. In discussing and rejecting *Defenders* position the Court stated: "... In support of this argument, Defenders cite to our decision in *Defenders*, see 199 Ariz. At 426, ¶ 54, 18 P.3d at 737, and to *United States v. Oregon*, 295 U.S. 1, 14 (1935). But neither of these decisions held that the burden of proof in a navigability determination must be placed on the party opposing navigability. Moreover, this court has twice stated that the burden of proof rests on the party asserting navigability. *Hassell*, 172 Ariz. At 363 n. 10, 837 P.2d at 165 n. 10; *O'Toole*, 154 Ariz. At 46 n. 2, 739 P.2d at 1363 n. 2. We have also recognized that a 'preponderance' of the evidence appears to be the standard used by the courts" as the burden of proof. *Defenders*, 199 Ariz. At 420, ¶ 23, 18 P.3d at 731 (citing *North Dakota v. United States*, 972 F.2d 235, 237-38 (8<sup>th</sup> Cir. 1992)). Defenders have not cited any persuasive authority suggesting that these provisions in § 37-1128(A) are unconstitutional or contrary to federal law. We agree with this court's prior statements and conclude that neither placing the burden of proof on the proponents of navigability nor specifying the burden as a preponderance of the evidence violates the State or Federal Constitutions or conflicts with federal law." *State of Arizona v. Honorable Edward O. Burke* 1 CA-SA 02-0268 and 1 CA-SA 02-0269 (Consolidated); Arizona Court of Appeals, Division One, (Memorandum Decision filed December 23, 2004).

<sup>4</sup> The *Daniel Ball* was actually an admiralty case, but the U.S. Supreme Court adopted its definition of navigability in title and equal footing cases. *Utah v. United States*, 403 U.S. 9, 91 S.Ct. 1775, 29 L.Ed.2 279 (1971) and *United States v. Oregon*, 295 U.S. 1, 55 S.Ct. 610, 70 L.Ed.2 1263 (1935).

are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.

77 U.S. at 563.

In a later opinion in *U.S. v. Holt Bank*, 270 U.S. 46 (1926), the Supreme Court stated:

[Waters] which are navigable in fact must be regarded as navigable in law; that they are navigable in fact when they are used, or are susceptible of being used, in their natural and ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water; and further that navigability does not depend on the particular mode in which such use is or may be had--whether by steamboats, sailing vessels or flatboats--nor on an absence of occasional difficulties in navigation, but on the fact, if it be a fact, that the [water] in its natural and ordinary condition affords a channel for useful commerce.

270 U.S. at 55-56.

The Commission also considered the following definitions contained in A.R.S. § 37-1101 to assist it in determining whether the Big Sandy River was navigable at statehood.

11. "Watercourse" means the main body or a portion or reach of any lake, river, creek, stream, wash, arroyo, channel or other body of water. Watercourse does not include a manmade water conveyance system described in paragraph 4 of this section, except to the extent that the system encompasses lands that were part of a natural watercourse as of February 14, 1912.

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

3. "Highway for commerce" means a corridor or conduit within which the exchange of goods, commodities or property or the transportation of persons may be conducted.

2. "Bed" means the land lying between the ordinary high watermarks of a watercourse.

6. "Ordinary high watermark" means the line on the banks of a watercourse established by fluctuations of water and indicated by physical characteristics, such as a clear natural line impressed on the bank,

shelving, changes in the character of the soil, destruction of terrestrial vegetation or the presence of litter and debris, or by other appropriate means that consider the characteristics of the surrounding areas. Ordinary high watermark does not mean the line reached by unusual floods.

8. "Public trust land" means the portion of the bed of a watercourse that is located in this state and that is determined to have been a navigable watercourse as of February 14, 1912. Public trust land does not include land held by this state pursuant to any other trust.

Thus, the State of Arizona in its current statutes follows the Federal test for determining navigability.

## **VII. EVIDENCE RECEIVED AND CONSIDERED BY THE COMMISSION**

Pursuant to A.R.S. § 37-1123, and other provisions of Title 37, Chapter 7, Arizona Revised Statutes, the Commission received, compiled, and reviewed evidence and records regarding the navigability and nonnavigability of the Big Sandy River from its headwaters to its confluence with the Santa Maria River. Evidence consisting of studies, written documents, newspapers and other historical accounts, pictures and testimony were submitted. There were a number of separate documentary filings, the most comprehensive of which were the Preliminary and Final Report and Study prepared by JE Fuller Hydrology and Geomorphology, Inc., in association with SWCA, Inc. Environmental Consultants and the Arizona Geological Survey dated January 1999 and revised and updated in June 2004 by JE Fuller Hydrology and Geomorphology, Inc., submitted by the Arizona State Land Department. Also submitted and considered was the Small and Minor Watercourse Criteria Report and the report on the Three County Pilot Study; and a study entitled "The Application of the Public Trust Doctrine to the Gila River - Santa Maria River, Western Arizona" submitted by the Arizona Center for Law in the Public Interest. Documents were also submitted by David Barron of the Arizona Center for Law in the Public Interest. The list of evidence and records, together with a summarization is attached as Exhibit "F". A public hearing was held on August 8, 2005, at Kingman, Arizona, in Mohave County, for the public to present testimony and evidence on the issue of navigability of the Big Sandy River. A number

of individuals appeared at the hearing in Kingman and gave testimony. A public hearing was also held on October 20, 2005, in Phoenix, Arizona, to consider the evidence submitted and the post-hearing memoranda filed. The minutes of these hearings are attached hereto as Exhibit "D."

**A. Prehistoric Conditions on the Big Sandy River Watershed**

The archaeology of west central Arizona, and specifically the Big Sandy River Basin, is perhaps more poorly known than the archaeology of any other portion of the state. Evidence of paleoindian occupation in this area is very sparse and consisted only of surface finds of lithic tools.<sup>5</sup> A clovis projectile point was found in the Arizona Strip area to the north, and another was found by a rancher in the Aquarius Mountains to the east of the Big Sandy River. No paleoindian sites have been excavated, although there are most likely sites which have not yet been located. A number of archaic period sites have been located which indicate that during the later archaic period since 2000 B.C., an increasing number of hunters and gatherers seem to have occupied the Big Sandy River Basin area. Although there is virtually no evidence of occupation during the early or middle archaic phases between 7500 B.C. and 2000 B.C., it is likely that such sites exist but have not yet been discovered. The sites that have been located suggest that these prehistoric people clustered around the major waterways in and around central Arizona.

The formative period culminates in a transition from the hunting-gathering economy of the archaic period to agriculture, villages and ceramics. It came later by about 700 years to the area of the Big Sandy River Basin than other places in Arizona. With the introduction of pottery and maize to this region about A.D. 700, two archaeologically defined farming cultures were identifiable. The first was the Prescott

---

<sup>5</sup> The paleoindian period is generally considered to be between 9500 B.C. or 11,500 B.P. (Before Present) to approximately 7500 B.C. when the archaic period is deemed to have commenced.

Culture with its small pueblos and crudely painted pottery, which appears to be a derivative of the contemporaneous Anasazi, Cohonina, and Sinagua archaeological cultures of the Colorado Plateau. This culture survived between A.D. 900 to A.D. 1300 and then seems to have disappeared. Evidence of its villages are especially located in the Aquarius Mountains and some along the river itself where there is some evidence of farming. Archaeologists do not know which modern native American tribe or tribes may be descended from this group. The other culture, known as the Patayan Culture, is evidenced between A.D. 500 and A.D. 1500, and originated along the lower Colorado River and spread eastward into the deserts of western Arizona and north along the Colorado River. The Patayan Culture developed into the Cerbat archaeological culture of the modern Pai tribes (Hualapai, Havasupai, and Yavapai). It was characterized by seasonally occupied rancherias, unpainted pottery, and expedient farming practices.

From about A.D. 1300 to European contact, there was a period of tremendous cultural change and upheaval in the southwest, with many of the old cultures such as Hohokam, Mogollon, Sinagua and Anasazi abandoning vast areas and migrating and occupying other smaller areas. The Prescott Culture declined and disappeared during this period, its members probably being absorbed in the area to the north of that under consideration. In the area to north of that under consideration, a numic-speaking peoples, who became known as the Paiute began migrating into this area after A.D. 1300. The southern Paiute, the Chemahuevi and the Ute, are classified as numic speakers, the northernmost branch of the Uto-Aztecan linguistic family. All of the present tribes along the Colorado River are in some way descended from them and the Cerbat Culture with which they merged. The Cerbat Culture and its decedents were dominant on the Colorado River south of the present site of Hoover Dam and spread into western Arizona. The Hualapai Culture is probably the most dominant group in the Big Sandy watershed area from this period until the 1850's. Two villages of the

Hualapai Indians existed on the upper reaches of the Big Sandy River in the 1600's and 1700's.

There is some evidence of farming along the upper Big Sandy River Basin area during the formative period, probably by Prescott cultural groups who built small villages up to 1300 when this culture disappeared. It is possible that the Cerbat (Patayan) cultural groups used the same area for farming during their seasonal migrations. There is no evidence of any significant irrigation systems having been built. There is also no evidence that any of the prehistoric Indians utilized the River for transportation, either by canoe or raft, nor is there any evidence that they utilized it on any regular basis for flotation of logs.

#### **B. Early European Exploration of the Big Sandy River Watershed**

Although Spanish exploration of the southwest began in 1540 with the Coronado Expedition, no Europeans traveled in the area of the Big Sandy River watershed until 1604 when Juan Mateo de Oñate, Governor of Spanish New Mexico, came into the area. It seems clear that he traveled through the Bill Williams River corridor on his way to California, but what tributaries or streams he used to reach it is uncertain. It may have been that he was the first European to travel down the Big Sandy River corridor and through a portion of the Big Sandy River Valley. He traveled on foot and his party made no attempt to float down any of the streams he crossed to reach the Colorado River. At this time and later there were two villages of the Hualapai Indians living on the upper reaches of the Big Sandy River, and Oñate may have encountered them. In 1744, Father Jacobo Sedelmayr traveled up the Colorado River from Yuma to the mouth of the Bill Williams River which he called Rio Azul. He followed the Bill Williams River upstream some distance and may have traveled a short distance up the corridor of the Big Sandy or the Santa Maria River. In 1776 Father Francisco Garces of the Yuma Mission journeyed up the Colorado River to the vicinity of present day Kingman and

then east to the Hopi Villages. On his return he probably crossed the Big Sandy River and may have traveled along it for a short distance. The journals of these explorers make little mention of the flow or vegetation in and around the rivers they crossed.

Mexico won its independence from Spain in 1821, and sovereignty of the area with which we are concerned passed to Mexico. The Mexican government sponsored few expeditions into western Arizona and actually attempted to discourage incursions into its territories by citizens of the United States. Notwithstanding this policy, fur trappers and mountain men began exploring the southwest as early as the 1820's. These mountain men generally rode horseback and did not normally use boats for their fur trapping activities. These fur trappers were familiar with the Bill Williams River and possibly the Big Sandy and Santa Maria Rivers as well. William Sherley ("Old Bill") Williams certainly visited the river to which he gave his name on at least two occasions. He was with the party of Joseph Reddford Walker, together with Joe Meek and several others, who traveled up the Bill Williams River corridor, and probably the Big Sandy, in order to reach the Hopi Villages. Another mountain man, Antoine Leroux left a written record of having met Bill Williams on the Bill Williams River in 1837 while he was trapping for beaver. The record does not indicate whether he came down the Big Sandy or Santa Maria River corridor to reach the point where he met Leroux. Other fur trappers and mountain men may well have passed over or traveled up or down the Big Sandy River corridor but left no written record of their travels. These early trappers or mountainmen traveled on foot, mule or horseback. There is no record of them having used boats or canoes for traveling on the rivers or watercourses, except for crossing the Colorado River.

The war with Mexico of 1846-48 ended with the Treaty of Guadalupe Hidalgo whereby the United States acquired all of the Mexican territory in the southwestern United States north of the Gila River, including California. During the war a number of

expeditions traveled to California, but there is no record of any of them traveling down the Big Sandy or Bill Williams River watershed to cross the Colorado into California.

Following the acquisition of this vast territory by the United States, expeditions commanded by young Army engineer officers were sent by the Army to explore the newly acquired territory and find good routes for roads and railroads. The Sitgreaves Expedition of 1851 guided by Antoine Leroux crossed the Big Sandy River and traveled down the Bill Williams River corridor. That same year Joseph Reddford Walker also traveled down a portion of the Big Sandy River corridor. In 1854 the Whipple Expedition traveled all the way down the corridors of the Big Sandy River and the Bill Williams River and mapped both of these streams. Other American expeditions led by Edward F. Beale in 1857 and William Jackson Palmer in 1867 followed the same routes. Another individual who traveled in this area and crossed the headwaters of the Big Sandy at various times and followed it part way to the south was François Xavier Aubrey who was a Santa Fe trader and made these trips in 1853 and 1854. In 1867 and 1868, William Jackson Palmer conducted surveys along the 32<sup>nd</sup> and 35<sup>th</sup> parallels to map out possible routes for railroads from the East to California. He avoided the area between these parallels because of the rough and inhospitable terrain. The route he surveyed became the major transcontinental routes (Southern Pacific and Santa Fe Railroads and later Interstate Highways 8, 10 and 40) for the areas with which we are concerned. The area between these corridors is still undeveloped and remains relatively isolated, except for U.S. Highway 93, which connects the northern and southern transcontinental routes.

The best description of the Big Sandy from this period of time was written by Whipple who was surveying the area for a railroad route from Ft. Smith, Arkansas, to Los Angeles. He stated that the Big Sandy abounds in antelope, deer, rabbits and partridges which feed on the rich gramma grass and seed it yields. He stated that the



river was quite wide in certain places but very shallow. He also stated that it would disappear into the sandy bed and then after being dry for a couple of miles, it would resurface again in the channel, flowing and fertilizing the banks for a distance, and then sink again into the sand. The mountains through which the Big Sandy and Bill Williams Rivers flow were too difficult for a permanent road to California, and the Beale Road to the north of the Big Sandy River Valley along the 35<sup>th</sup> parallel surveyed by Palmer became established as the most direct transcontinental route to California in that area. The Santa Fe Railroad and Interstate 40 follow generally along this route today. A review of all of these early travelers indicates that while the Big Sandy River Valley and the Bill Williams River valley were corridors of traffic and travel for at least part of its distance, and when flowing were a source of water for travelers. All travel was accomplished by foot, horseback and wagon, and no one tried to float or navigate either of these rivers.

### **C. Settlement and Development of the Big Sandy River Area**

In 1861, silver was discovered in El Dorado Canyon on the west side of the Colorado River and miners began to explore the area of the Bill Williams River basin and its tributaries. Aubrey City, a river landing, was established at the mouth of the Bill Williams River. It was named after Francois Xavier Aubrey, a Santa Fe trader, who traveled through the area. In 1874, Jackson McCracken and "Chloride Jack" Owen discovered rich silver deposits in the Big Sandy River Valley. Within ten years there were three major mining districts in the area--the McCracken Mountain Mining District, Greenwood Mining District on Burro Creek just east of its confluence with the Big Sandy, and the Eureka Mining District on the Santa Maria, approximately 20 miles east of its confluence with the Big Sandy. The McCracken Mine, Senator Mine and Signal Mine were all located on the Big Sandy River. While the mines were located in the hills away from the river, mills were constructed along the Big Sandy to process the ore, and

small communities grew up around them. These communities included Signal or Signal City, which is still recognized as a ghost town, Greenwood or Greenwood City, New Virginia or Virginia City, Scatterville, and Lyonsville. A community was also located at Alamo Crossing at the confluence of the Big Sandy and the Santa Maria Rivers. Supplies were brought up the Colorado River by boat to Aubrey City and from there they were hauled by mule wagons to the various mills and towns. The haul from Aubrey to Signal City was 35 miles. The mines and mills began to decline in the late 1800's. Greenwood became a ghost town and was replaced by Signal, which also was abandoned in the 1880's as the mine closed. A mine for the production of manganese was started in the Artillery Peak Mining District west of the Big Sandy River in 1914. It continued to operate through 1955. The only settlement in the area at this time is Wikieup on U.S. Highway 93.

At about the same time that mines and mining communities were established in this area, farmers began to practice irrigation agriculture on the Big Sandy River. Below the confluence of Knight Creek and Trout Creek, the basin opens up to what is known as the Big Sandy River Valley. This area is several miles wide in places and 40 miles long, with a stream of water sinking in the sand in places and then rising again. Early day ranchers and farmers built their dams where the water rose to the surface and dug ditches to their farmland and homes. By the 1880's the Big Sandy River was lined with farms and ranches spaced from one to seven miles apart. Most of the ranches and farms were 160-acre homesteads. Fields were established near the river where crops could be grown and cattle pastured. Cattle were also run on the slopes of the hills running up from the basin on public land. The people kept saddle horses, work horses, beef cattle, milk cows, hogs, chickens and stands of bees. The crops grown were mainly alfalfa, grain, corn and wheat, but many people had gardens with vegetables, squash, Irish potatoes, sweet potatoes, watermelons and other types of melons. There were also

some vineyards and orchards of apricots, apples, peaches, pears and plums. The farmers and ranchers along the Big Sandy were largely self-sufficient and did most of their shopping in Greenwood City and later Signal, as well as an occasional trip to Kingman. A series of post offices were established at concentrations of farms and ranches. The occasional large floods would wash out fields and gardens and discouraged the farmers and ranchers. The community of Greenwood was completely washed away during the mid-1880's and was replaced by the community of Signal on the west side of the river. Between 1912 and 1927 the General Land Office maps show 26 families living on the upper Big Sandy River from the Hualapai Reservation south to Signal. Although a feasibility study by the Army Corps of Engineers in connection with the construction of Alamo Dam in 1944 estimated that approximately 10,000 acres of irrigable land was present along the Big Sandy River, due to flooding and the lack of dependable water, actual cultivation was limited to about 2,000 acres. Large floods that occurred approximately every six to seven years finally resulted in most of the families moving out of the area. Most of the water rights on the Big Sandy River are now owned by the Cyprus-Bagdad Mining Company which has constructed a pipeline that runs from near Wikieup to the mines.

During the mining boom of the 1860's and 1870's and the later farming and ranching era, numerous secondary roads were constructed in the Big Sandy River Basin. The people traveled by foot, horseback, and mule drawn wagons in this area, and there is no evidence of any commercial navigation being attempted on the Big Sandy River due to its intermittent and undependable flow. No accounts of boating on the Big Sandy River were found. In 1898, a stage line was established between Hackberry and Signal, and in 1905 the Arizona and California Railroad was completed to the south of the Big Sandy River Basin from Parker to Phoenix. In 1910, the Arizona and Swansee Railroad was completed from the Arizona and California Railroad to Swansee which

was on the south side of the Bill Williams River. There are no railroads running through the Big Sandy River Basin and the only major roadway is U. S. Highway 93 which runs from Wickenburg to Kingman and passes through Wikicup.

#### **D. Geology, Geomorphology and Hydrology**

There are three great physiographic provinces in Arizona – the Colorado River Plateau in the north and east, the Basin and Range Province in the south and west with a transition zone of Central Mountain Province dividing them. The Bill Williams River Basin, including the Big Sandy River, is located in the Basin and Range and transition zone geologic provinces of West Central Arizona. The Basin and Range province extends from the Snake River Plain in Idaho south through Southern Arizona and into Mexico. It is characterized by generally north trending mountain ranges, which are separated by basins formed by normal faulting along mountain fronts. In Western and Southern Arizona, basins are deep, well-defined grabens, which tend north to northeast and have fairly regular spacings. The Big Sandy River Valley is the most prominent basin in the Bill Williams River Basin and is composed of alluvial basin fill that is very deep. The transition zone in which most of Big Sandy River is located is rugged, mountainous country between the Basin and Range and the Colorado Plateau. It has geologic and physiographic characteristics that are transitional between the highly deformed Basin and Range Province and the relatively undeformed, fairly high Colorado Plateau in Northeastern Arizona.

The geology of the Bill Williams River Basin reflects the complex history of the Basin and Range Province with several periods of magmatism and overprinting of compressional and extension terraces in the past 80 million years. A period of wide-reaching magnetism and crustal shortening associated with the Loramide Orogeny occurred in the middle to late cretaceous and early tertiary period approximately 60 to 70 million years ago. This same area was extended in the middle

tertiary between 10 and 20 million years ago forming major, low-angle normal faults trending east/northeast by west/southwest. During this latter period, some streams changed direction of their flow and the area was subjected to magmatic composition changes with volcanoes and flow of basalt. As the mountains eroded, bajatas and alluvial fans were deposited, particularly in the Big Sandy River Valley and sediment was deposited in the drainage streams.

The Big Sandy River, in its upper reaches, flows through a fairly wide alluvial basin called the Big Sandy River Valley, which has deep alluvial fill making it particularly good for agriculture. In its lower reach, below Wikieup, the Big Sandy River flows through relatively deep canyons and is confined to a great extent by bedrock until it widens out just before it joins the Santa Maria River. There are a number of good areas for farming along the upper reach of the Big Sandy River in the Big Sandy River Valley area and where the river opens up just before joining the Santa Maria River. The climate of Big Sandy River Basin is semi-arid to arid with temperature and precipitation varying substantially with the altitude. Pinion, juniper woodlands are found near its headwaters and cacti and riparian species are found near its confluence with the Santa Maria River. Precipitation along the Big Sandy River falls mainly in the summer (monsoon) and the winter rainy season. Summer rains occur during July and August and are generated by convection in which moisture from the Gulf of Mexico encounters heated mountain terrain causing the air to increase in temperature and rise. The unstable air masses lead to high intensity rain storms of short duration, often accompanied by thunder, lightning and strong winds. The dissipating tropical storms of the cyclonic variety from the Eastern Pacific and Gulf of Alaska occasionally bring heavy precipitation to portions of Western Arizona during the fall and winter seasons.

For most of its length, the Big Sandy River contains water that flows year round or is relegated to discontinuous pools during the dry portions of the year. There is no

record of stream gauge stations on the Big Sandy River prior to 1939. Some gauges that were established at that time for the purpose of documenting flow for Alamo Dam were later discontinued. Accordingly, the flow in the Big Sandy River Basin and other streams of the Bill Williams River Basin and the documentation of floods are mostly visual by persons who observed the events. The magnitude of large floods which we know occurred prior to the gauging stations are estimates. For example, the largest estimated flood, over 200,000 cubic feet per second ("cfs") was reported on the Bill Williams River in February of 1891. The largest measured flood of 92,500 cfs was on February 7, 1937. Other years in which major floods occurred were 1892, 1905, 1906, 1910, 1911, 1915 and 1920. We know that these floods occurred in early years because of the reports of residents, which stated that their farms and ranches were washed away. Also, the floods affected towns such as Greenwood, which was washed away in the 1870's and 1880's. In recent years, since gauges have been installed recorded discharge have been 29,000 cfs on September 24, 1989 and 68,700 cfs on February 9, 1993. As pointed out above, the largest measured flood was 92,500 cfs on February 7, 1937. In addition to the reports of fields, orchards, and even homes established on the Big Sandy River which were washed away during the floods of the late 1800's and early 1900's, tree ring studies and other hydrological indicators show that over all there has been little climatic change from the mid-1850's to the present time, so the condition of the Big Sandy River in 1912 may be considered similar to the present day condition. In view of its being dry a good part of the time, but subject to large floods, it is considered an erratic and undependable river in no way suitable for navigation.

The Big Sandy River is considered to be a perennial stream supplied in its upper reach by Willow Creek and Trout Creek but is dry in certain areas during certain seasons. Its low flow discharge is generally less than 10 cfs, although when floods occur they are quite dramatic in comparison. From 1860 to 1930, water was drawn from the

Big Sandy River for use in mining operations, ranching and irrigation, as well as for domestic purposes. Persons who lived in the Big Sandy River Valley at and before the turn of the century relate that the Big Sandy River channel was relatively narrow although an abraded stream allowing for wide agricultural fields, orchards and ranch houses. As noted above, many of these fields, orchards and even homes were washed away during the floods of the late 1800's and early 1900's. There is no evidence that anyone has ever attempted to use the Big Sandy River for commercial navigation or flotation of logs. There is little recent evidence since 1900 of any significant fish in the creek and no evidence of a commercial fishing industry. The Big Sandy River is not listed in the Rivers and Harbors Act of 1899, 33 U.S.C. § 401-467 (3). The customary mode of transportation in the region of the Big Sandy River was clearly not by boat. In 1912, the alternatives to boat travel in the Big Sandy River Basin included foot, horseback, mule drawn wagons and later, as the road net improved, automobiles and trucks.

#### **VIII. FINDINGS AND DETERMINATION**

The Commission conducted a particularized assessment of equal footing claims the State of Arizona might have to the bed and banks, up to the high-water mark, of the Big Sandy River, and based on all of the historical and scientific data and information, documents, and other evidence produced, finds that the Big Sandy River was not used or susceptible to being used, in its ordinary and natural condition, as a highway for commerce, over which trade and travel were or could have been conducted in the customary modes of trade and travel on water as of February 14, 1912.

The Commission also finds that the Big Sandy River, while considered to be a perennial stream, has an almost insignificant flow during the dry seasons of the year. As of February 14, 1912 and currently, it flows/flowed primarily in direct response to precipitation and snow melt.

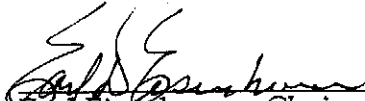
The Commission also finds that there is no evidence of any historical or modern commercial boating having occurred on the Big Sandy River.

The Commission also finds that there is no evidence of any commercial fishing having occurred on the Big Sandy River.

The Commission further finds that all notices of these hearings and proceedings were properly and timely given.

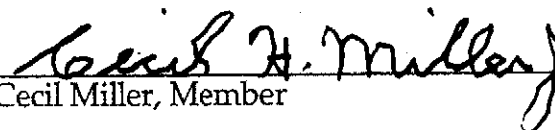
In view of the foregoing, the Commission, pursuant to A.R.S. § 37-1128A, finds and determines that the Big Sandy River in Mohave County, Arizona, was not navigable as of February 14, 1912 and not susceptible of navigability.

DATED this 28 day of April, 2011.

  
\_\_\_\_\_  
Earl Eisenhower, Chair


\_\_\_\_\_  
Dolly Echeverria, Vice Chair

  
\_\_\_\_\_  
James Henness, Member

  
\_\_\_\_\_  
Cecil Miller, Member

\_\_\_\_\_  
Jay Brashear, Member  
Deceased September 15, 2007

STAFF MEMBERS:

  
\_\_\_\_\_  
George Mehnert  
Executive Director

  
\_\_\_\_\_  
Curtis A. Jennings  
Legal Counsel to the Commission



# **EXHIBIT A**

AFFIDAVIT OF PUBLICATION

Kingman Daily Miner

3015 Stockton Hill Road, Kingman, AZ 86401

web: www.kingmandailyminer.com • e-mail: legals@kingmandailyminer.com

Phone (928) 753-6397, ext. 242 • Fax (928) 753-5661

"Serving Kingman since 1882"

STATE OF ARIZONA )  
County of Mohave ) ss.

I, **ULLI SCHNEIDER**, being first duly sworn on her oath says:  
That she is the Legals Clerk of **THE KINGMAN DAILY MINER**  
An Arizona corporation, which owns and publishes the Miner,  
a Daily Newspaper published in the City of Kingman, County of Mohave,  
Arizona; that the notice attached hereto, namely,

**Statement of Intent  
No. 2119**

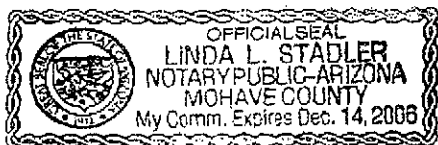
SEE ATTACHED

Has, to the personal knowledge of affiant, been published in the news-  
paper aforesaid, according to law, from the **17 day of June, 2005**  
to the **1st day of July, 2005**, inclusive without change, interruption or  
omission, amounting in **3** insertions, made on the following dates:  
**06/17, 06/24, 07/01, 2005**

By: Ulli Schneider  
Legal Clerk, 1st Day of July, 2005

By: Linda L. Stadler  
Notary Public

My commission expires: 12/14/2006



(2119)  
**STATEMENT OF INTENT**  
State of Arizona  
Navigable Stream Adjudication Commission  
Pursuant to A.R.S. §37-1101, et seq., the Arizona Navigable Stream Adjudication Commission (ANSAC) is planning to hold watercourse navigability hearings regarding the major watercourses in Mohave County. Notice is hereby given, pursuant to A.R.S. §37-1123 (B), that ANSAC intends to receive, review, and consider evidence regarding the navigability or nonnavigability of the Big Sandy River, Bill Williams River, Burro Creek, Santa Maria River and Virgin River. Interested parties are requested to file all documentary evidence they propose to submit to ANSAC by August 9, 2005. All evidence submitted to ANSAC will be the property of ANSAC and the State of Arizona. Evidence submitted will be available for public inspection at the ANSAC offices during regular office hours.  
An unbound original plus seven bound copies of documentary evidence is to be submitted. ANSAC offices are located at 1700 West Washington, Room 304, Phoenix, AZ 85007. The telephone number is (602) 542-9214. The web site address is <http://www.azstreambeds.com>. The e-mail address is [streams@mindspring.com](mailto:streams@mindspring.com). The fax number is (602) 542-9220.  
Individuals with disabilities who need a reasonable accommodation to communicate evidence to ANSAC, or who require this information in an alternate format may contact the ANSAC office at (602) 542-9214 to make their needs known.  
6/17, 6/24, 7/1/2005  
No. 2119

(2119)

STATEMENT OF INTENT

State of Arizona

Navigable Stream Adjudication Commission Pursuant to A.R.S. §37-1101, et. seq., the Arizona Navigable Stream Adjudication Commission (ANSAC) is planning to hold watercourse navigability hearings regarding the major watercourses in Mohave County. Notice is hereby given, pursuant to A.R.S. §37-1123 (B), that ANSAC intends to receive, review, and consider evidence regarding the navigability or nonnavigability of the Big Sandy River, Bill Williams River, Burro Creek, Santa Maria River and Virgin River. Interested parties are requested to file all documentary evidence they propose to submit to ANSAC by August 9, 2005. All evidence submitted to ANSAC will be the property of ANSAC and the State of Arizona. Evidence submitted will be available for public inspection at the ANSAC offices during regular office hours.

An unbound original plus seven bound copies of documentary evidence is to be submitted. ANSAC offices are located at 1700 West Washington, Room 304, Phoenix, AZ 85007. The telephone number is (602) 542-9214. The web site address is <http://www.azstreambeds.com>. The e-mail address is [streams@mindspring.com](mailto:streams@mindspring.com). The fax number is (602) 542-9220.

Individuals with disabilities who need a reasonable accommodation to communicate evidence to ANSAC, or who require this information in an alternate format may contact the ANSAC office at (602) 542-9214 to make their needs known.

6/17,6/24,7/1/2005

No.2119

# **EXHIBIT B**

**AFFIDAVIT OF PUBLICATION**

**Kingman Daily Miner**

3015 Stockton Hill Road, Kingman, AZ 86401  
web: www.kingmandailyminer.com • e-mail: legals@kingmandailyminer.com  
Phone (928) 753-6397, ext. 242 • Fax (928) 753-5661  
"Serving Kingman since 1882"

STATE OF ARIZONA     )  
County of Mohave     ) ss.

I, **ULLI SCHNEIDER**, being first duly sworn on her oath says:  
That she is the Legals Clerk of **THE KINGMAN DAILY MINER**  
An Arizona corporation, which owns and publishes the Miner,  
a Daily Newspaper published in the City of Kingman, County of Mohave,  
Arizona; that the notice attached hereto, namely,

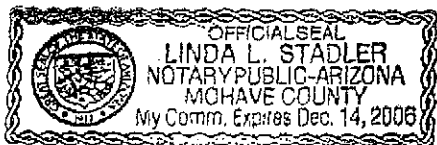
**NOTICE OF PUBLIC HEARING**  
No 2212

Has, to the personal knowledge of affiant, been published in the news-  
paper aforesaid, according to law, from the **7 day of July, 2005**, to  
the **7 day of July, 2005**, inclusive without change, interruption or  
omission, amounting in **1** insertion, made on the following date:  
**07/07, 2005**

By: Ulli Schneider  
Legal Clerk, 7th Day of July, 2005

By: Linda L. Stadler  
Notary Public

My commission expires: 12/14/2006



SEE ATTACHED

(2212)  
**NOTICE OF PUBLIC HEARING**  
State of Arizona  
Navigable Stream Adjudication  
Commission

Pursuant to A.R.S. § 37-1126 (A), notice is hereby given that the Navigable Stream Adjudication Commission will hold public hearings to receive physical evidence and testimony relating to the navigability or non-navigability of the major watercourses in Mohave County. The hearings will be held in Mohave County on August 8, 2005 beginning at 2:00 p.m. in an order established by the chair in the Mohave County Supervisors' Conference Room located at 809 E. Beale St., Kingman, Arizona. The following are presently the only hearings scheduled:

The Big Sandy River, the Bill Williams River, Burro Creek, the Santa Maria River, and the Virgin River.

Interested parties may submit evidence to the commission office prior to the hearing and/or during the appropriate public hearing. The commission will conduct its hearings informally without adherence to judicial rules of procedure or evidence.

Evidence submitted in advance of the hearing will be available for public inspection during regular Commission office hours of 8:00 a.m. to 5:00 p.m., Monday thru Friday, except on holidays. The commission office is located at 1700 West Washington Street, Room 304, Phoenix, Arizona 85007. Please call first to review evidence at (602) 542-9214.

Individuals with disabilities who need a reasonable accommodation to communicate evidence to the commission, or who require this information in an alternate format may contact the commission office at (602) 542-9214 to make their needs known.

Published: July 7, 2005  
No: 2212

(2212)  
**NOTICE OF PUBLIC HEARING**  
State of Arizona  
Navigable Stream Adjudication  
Commission

Pursuant to A.R.S. § 37-1126 (A), notice is hereby given that the Navigable Stream Adjudication Commission will hold public hearings to receive physical evidence and testimony relating to the navigability or non-navigability of the major watercourses in Mohave County. The hearings will be held in Mohave County on August 8, 2005 beginning at 2:00 p.m. in an order established by the chair in the Mohave County Supervisors' Conference Room located at 809 E. Beale St., Kingman, Arizona. The following are presently the only hearings scheduled:

The Big Sandy River, the Bill Williams River, Burro Creek, the Santa Maria River, and the Virgin River.

Interested parties may submit evidence to the commission office prior to the hearing and/or during the appropriate public hearing. The commission will conduct its hearings informally without adherence to judicial rules of procedure or evidence.

Evidence submitted in advance of the hearing will be available for public inspection during regular Commission office hours of 8:00 a.m. to 5:00 p.m., Monday thru Friday, except on holidays. The commission office is located at 1700 West Washington Street, Room 304, Phoenix, Arizona 85007. Please call first to review evidence at (602) 542-9214.

Individuals with disabilities who need a reasonable accommodation to communicate evidence to the commission, or who require this information in an alternate format may contact the commission office at (602) 542-9214 to make their needs known.

Published: July 7, 2005

No. 2212

SEE ATTACHED

# THE ARIZONA REPUBLIC

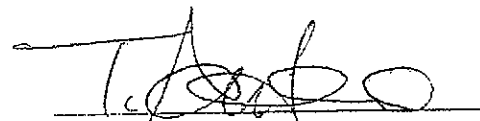
**NOTICE OF PUBLIC HEARING**  
 State of Arizona  
 Navigable Stream  
 Adjudication Commission  
 Pursuant to A.R.S. § 37-1126  
 (A), notice is hereby given  
 that the Navigable Stream  
 Adjudication Commission  
 will hold public hearings to  
 receive physical evidence  
 and testimony relating to the  
 navigability or non-  
 navigability of the major wa-  
 tercourses in Mohave Coun-  
 ty. The hearings will be held  
 in Mohave County on August  
 8, 2005 beginning at 2:00 p.m.  
 in an order established by  
 the chair in the Mohave Coun-  
 ty Supervisors' Conference  
 room located at 809 E. Beale  
 St., Kingman, Arizona. The  
 following are presently the  
 only hearings scheduled:  
 The Big Sandy River; the Big  
 Williams River; Burro Creek;  
 the Santa Maria River; and  
 the Virgin River.  
 Interested parties may submit  
 evidence to the commission  
 office prior to the hearing  
 and/or during the appropri-  
 ate public hearing. The com-  
 mission will conduct its hear-  
 ings informally without ad-  
 herence to judicial rules of  
 procedure or evidence. Evi-  
 dence submitted in ad-  
 vance of the hearing will be  
 available for public inspec-  
 tion during regular Commis-  
 sion office hours of 8:00 a.m.  
 to 5:00 p.m. Monday thru Fri-  
 day, except on holidays. The  
 commission office is located  
 at 1700 West Washington  
 Street, Room 304, Phoenix,  
 Arizona 85007. Please call  
 first to review evidence at  
 (602) 542-9214.  
 Individuals with disabilities  
 who need a reasonable ac-  
 commodation to communi-  
 cate evidence to the commis-  
 sion, or who require this in-  
 formation in an alternate for-  
 mat may contact the commis-  
 sion office at (602) 542-9214  
 to make their needs known.  
 George Mehnert, Executive  
 Director, July 5, 2005.  
 05447-July 8, 2005

STATE OF ARIZONA }  
 COUNTY OF MARICOPA } SS.

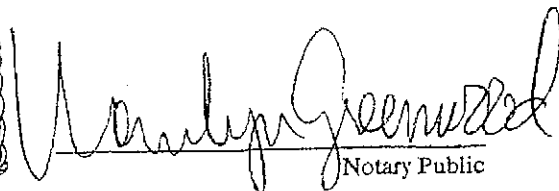
Tabitha Antoniadis, being first duly sworn, upon oath deposes and says: That she is a legal advertising representative of the Arizona Business Gazette, a newspaper of general circulation in the county of Maricopa, State of Arizona, published at Phoenix, Arizona, by Phoenix Newspapers Inc., which also publishes The Arizona Republic, and that the copy hereto attached is a true copy of the advertisement published in the said paper on the dates as indicated.

The Arizona Republic

July 8, 2005



Sworn to before me this  
 8<sup>TH</sup> day of  
 July A.D. 2005

Notary Public

**NOTICE OF PUBLIC HEARING  
State of Arizona  
Navigable Stream  
Adjudication Commission**

Pursuant to A.R.S. § 37-1126 (A), notice is hereby given that the Navigable Stream Adjudication Commission will hold public hearings to receive physical evidence and testimony relating to the navigability or non-navigability of the major watercourses in Mohave County. The hearings will be held in Mohave County on August 8, 2005 beginning at 2:00 p.m. in an order established by the chair in the Mohave County Supervisors' Conference Room located at 809 E. Beale St., Kingman, Arizona. The following are presently the only hearings scheduled.

The Big Sandy River, the Bill Williams River, Burro Creek, the Santa Maria River, and the Virgin River.

Interested parties may submit evidence to the commission office prior to the hearing and/or during the appropriate public hearing. The commission will conduct its hearings informally without adherence to judicial rules of procedure or evidence.

Evidence submitted in advance of the hearing will be available for public inspection during regular Commission office hours of 8:00 a.m. to 5:00 p.m., Monday thru Friday, except on holidays. The commission office is located at 1700 West Washington Street, Room 304, Phoenix, Arizona 85007. Please call first to review evidence at (602) 542-9214.

Individuals with disabilities who need a reasonable accommodation to communicate evidence to the commission, or who require this information in an alternate format may contact the commission office at (602) 542-9214 to make their needs known.

George Mehnert, Executive Director, July 5, 2005.

05441-July 8, 2005





STATE OF ARIZONA  
NAVIGABLE STREAM ADJUDICATION COMMISSION

1700 West Washington, Room 304, Phoenix, Arizona 85007

Phone (602) 542-9214 FAX (602) 542-9220

JANET NAPOLITANO  
Governor

E-mail: [streams@mindspring.com](mailto:streams@mindspring.com) Web Page: <http://www.azstreambeds.com>

GEORGE MEHNERT  
Executive Director

---

AGENDA AND NOTICE OF A PUBLIC HEARING TO BE HELD  
October 20, 2005, at 9:30 a.m. in Phoenix, Arizona

Pursuant to A.R.S. §38-431.02, notice is hereby given that the Navigable Stream Adjudication Commission will hold a meeting open to the public at 9:30 a.m. on October 20, 2005 at the La Quinta Inn located at 2510 West Greenway Road, Phoenix, Arizona (Northeast corner of I-17 and West Greenway Road).

Pursuant to A.R.S. §38-431.03(A)(3), the Navigable Stream Adjudication Commission may vote to go into Executive Session for purposes of obtaining legal advice from the Commission's attorney on any matter listed on the agenda, or pursuant to A.R.S. §38-431.05(A) or for discussion of records exempt by law from public inspection on any matter listed on the agenda, or for personnel matters listed on the agenda.

Title 2 of the Americans with Disabilities Act (ADA) prohibits the Commission from discriminating on the basis of disability in its public meetings. Individuals with disabilities who need a reasonable accommodation to attend or communicate at the Commission's meeting, or who require this information in alternate format, may contact George Mehnert at (602) 542-9214 to make their needs known. Requests should be made as soon as possible so the Commission will have sufficient time to respond. For those individuals who have a hearing impairment, this Commission can be reached through the Arizona Relay Service at 1-800-367-8939 (TTY) or 1-800-842-4681 (Voice). The agenda for the meeting is as follows:

1. CALL TO ORDER.
2. Roll Call.
3. Approval of Minutes (discussion and action).  
September 21, 2005, Maricopa County, Phoenix, Arizona.
4. Hearing regarding the navigability of the Upper Salt River, 04-008-NAV.
5. Hearing regarding the navigability of the small and minor watercourses in Gila County, 04-010-NAV.
6. Adoption of the Commission report regarding the Pima County Small & Minor Watercourses (discussion and action).
7. Call for Public Comment (comment sheets).  
*(Pursuant to Attorney General Opinion No. 199-006 [R99-002]. Public Comment: Consideration and discussion of comments and complaints from the public. Those wishing to address the Commission need not request permission in advance. Action taken as a result of public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.)*
8. Future agenda items and establishment of future hearings and other meetings.
9. Commission budget and continuation.
10. ADJOURNMENT.

The chair reserves the right to alter the order of the agenda.

Dated this 19<sup>th</sup> day of September, 2005, George Mehnert, Director, Navigable Stream Adjudication Commission

# **EXHIBIT C**

**Post Hearing Memorandums**

Hearing No. 05-011-NAV

Page No.

1

**Arizona Navigable Stream Adjudication Commission**

**Big Sandy River  
Mohave County**

Entry Number	Date	Entry	Entry By
		Opening Memorandums	
1	09/13/05	Salt River Project's Opening Memorandum.	George Mehnert
2	09/21/05	Phelps Dodge Corporation's Opening Memorandum.	George Mehnert
		Response Memorandums	
		None	

# **EXHIBIT D**



STATE OF ARIZONA  
NAVIGABLE STREAM ADJUDICATION COMMISSION

1700 West Washington, Room 304, Phoenix, Arizona 85007

Phone (602) 542-9214 FAX (602) 542-9220

JANET NAPOLITANO  
Governor

E-mail: [streams@mindspring.com](mailto:streams@mindspring.com) Web Page: <http://www.azstreambeds.com>

GEORGE MEHNERT  
Executive Director

---

AGENDA AND NOTICE OF A PUBLIC HEARING TO BE HELD  
October 20, 2005, at 9:30 a.m. in Phoenix, Arizona

Pursuant to A.R.S. §38-431.02, notice is hereby given that the Navigable Stream Adjudication Commission will hold a meeting open to the public at 9:30 a.m. on October 20, 2005 at the La Quinta Inn located at 2510 West Greenway Road, Phoenix, Arizona (Northeast corner of I-17 and West Greenway Road).

Pursuant to A.R.S. §38-431.03(A)(3), the Navigable Stream Adjudication Commission may vote to go into Executive Session for purposes of obtaining legal advice from the Commission's attorney on any matter listed on the agenda, or pursuant to A.R.S. §38-431.03(A) or for discussion of records exempt by law from public inspection on any matter listed on the agenda, or for personnel matters listed on the agenda.

Title 2 of the Americans with Disabilities Act (ADA) prohibits the Commission from discriminating on the basis of disability in its public meetings. Individuals with disabilities who need a reasonable accommodation to attend or communicate at the Commission's meeting, or who require this information in alternate format, may contact George Mehnert at (602) 542-9214 to make their needs known. Requests should be made as soon as possible so the Commission will have sufficient time to respond. For those individuals who have a hearing impairment, this Commission can be reached through the Arizona Relay Service at 1-800-367-8939 (TTY) or 1-800-842-4681 (Voice). The agenda for the meeting is as follows:

1. CALL TO ORDER.
2. Roll Call.
3. Approval of Minutes (discussion and action).  
September 21, 2005, Maricopa County, Phoenix, Arizona.
4. Hearing regarding the navigability of the Upper Salt River, 04-008-NAV.
5. Hearing regarding the navigability of the small and minor watercourses in Gila County, 04-010-NAV.
6. Adoption of the Commission report regarding the Pima County Small & Minor Watercourses (discussion and action).
7. Call for Public Comment (comment sheets).  
*(Pursuant to Attorney General Opinion No. 199-006 [R99-002]. Public Comment: Consideration and discussion of comments and complaints from the public. Those wishing to address the Commission need not request permission in advance. Action taken as a result of public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.)*
8. Future agenda items and establishment of future hearings and other meetings.
9. Commission budget and continuation.
10. ADJOURNMENT.

The chair reserves the right to alter the order of the agenda.

Dated this 19<sup>th</sup> day of September, 2005, George Mehnert, Director, Navigable Stream Adjudication Commission



STATE OF ARIZONA  
NAVIGABLE STREAM ADJUDICATION COMMISSION

1700 West Washington, Room 304, Phoenix, Arizona 85007

Phone (602) 542-9214 FAX (602) 542-9220

JANET NAPOLITANO  
Governor

E-mail: streams@mindspring.com Web Page: <http://www.azstreambeds.com>

GEORGE MEHNERT  
Executive Director

AGENDA AND NOTICE OF A PUBLIC HEARING TO BE HELD

October 20, 2005, at 9:30 a.m. in Phoenix, Arizona

First Amended Agenda

Pursuant to A.R.S. §38-431.02, notice is hereby given that the Navigable Stream Adjudication Commission will hold a meeting open to the public at 9:30 a.m. on October 20, 2005 at the La Quinta Inn located at 2510 West Greenway Road, Phoenix, Arizona (Northeast corner of I-17 and West Greenway Road).

Pursuant to A.R.S. §38-431.03(A)(3), the Navigable Stream Adjudication Commission may vote to go into Executive Session for purposes of obtaining legal advice from the Commission's attorney on any matter listed on the agenda, or pursuant to A.R.S. §38-431.03(A) for discussion of records exempt by law from public inspection on any matter listed on the agenda, or for personnel matters listed on the agenda.

Title 2 of the Americans with Disabilities Act (ADA) prohibits the Commission from discriminating on the basis of disability in its public meetings. Individuals with disabilities who need a reasonable accommodation to attend or communicate at the Commission's meeting, or who require this information in alternate format, may contact George Mehnert at (602) 542-9214 to make their needs known. Requests should be made as soon as possible so the Commission will have sufficient time to respond. For those individuals who have a hearing impairment, this Commission can be reached through the Arizona Relay Service at 1-800-367-8939 (TTY) or 1-800-842-4681 (Voice). The agenda for the meeting is as follows:

1. CALL TO ORDER.
2. Roll Call.
3. Approval of Minutes (discussion and action). Minutes of September 21, 2005. Maricopa County.
4. Jurisdiction regarding Roosevelt Lake, including motion entitled "SALT RIVER PROJECT'S MOTION FOR FINDING OF LACK OF STATUTORY SUBJECT MATTER JURISDICTION TO DETERMINE NAVIGABILITY OF ROOSEVELT LAKE", and all other motions filed relating to this matter in both 04-008-NAV and 04-010-NAV (discussion and action).
5. Hearing regarding the navigability of the Upper Salt River, 04-008-NAV.
6. Hearing regarding the navigability of the small and minor watercourses in Gila County, 04-010-NAV.
7. Adoption of the Commission report regarding the Pima County Small & Minor Watercourses (discussion and action).
8. Determination of the navigability of the Little Colorado River 05-007-NAV (discussion and action).
9. Determination of the navigability of the Big Sandy River 05-011-NAV (discussion and action).
10. Determination of the navigability of the Bill Williams River 05-012-NAV (discussion and action).
11. Determination of the navigability of Burro Creek 05-003-NAV (discussion and action).
12. Determination of the navigability of the Santa Maria River 05-005-NAV (discussion and action).
13. Determination of the navigability of the Virgin River 05-013-NAV (discussion and action).
14. Call for Public Comment (comment sheets).  
*(Pursuant to Attorney General Opinion No. 199-006 [R99-002]. Public Comment: Consideration and discussion of comments and complaints from the public. Those wishing to address the Commission need not request permission in advance. Action taken as a result of public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.)*
15. Future agenda items and establishment of future hearings and other meetings.
16. Commission budget and continuation.
17. ADJOURNMENT.

The chair reserves the right to alter the order of the agenda.

Dated this 6<sup>th</sup> day of October, 2005. George Mehnert, Director, Navigable Stream Adjudication Commission



STATE OF ARIZONA  
NAVIGABLE STREAM ADJUDICATION COMMISSION

1700 West Washington, Room 304, Phoenix, Arizona 85007

Phone (602) 542-9214 FAX (602) 542-9220

JANET NAPOLITANO  
Governor

E-mail: [streams@mindspring.com](mailto:streams@mindspring.com) Web Page: <http://www.azstreambeds.com>

GEORGE MEHNERT  
Executive Director

---

AGENDA AND NOTICE OF A PUBLIC HEARING TO BE HELD  
August 8, 2005, at 2:00 p.m. in Kingman, Arizona

Pursuant to A.R.S. §38-431.02, notice is hereby given that the Navigable Stream Adjudication Commission will hold a meeting open to the public at 2:00 p.m. on August 8, 2005 in the Mohave County Supervisors meeting room at 809 East Beal Street, Kingman, Arizona.

Pursuant to A.R.S. §38-431.03(A)(3), the Navigable Stream Adjudication Commission may vote to go into Executive Session for purposes of obtaining legal advice from the Commission's attorney on any matter listed on the agenda, or pursuant to A.R.S. §38-431.03(A) or for discussion of records exempt by law from public inspection on any matter listed on the agenda, or for personnel matters listed on the agenda.

Title 2 of the American with Disabilities Act (ADA) prohibits the Commission from discriminating on the basis of disability in its public meetings. Individuals with disabilities who need a reasonable accommodation to attend or communicate at the Commission's meeting, or who require this information in alternate format, may contact George Mehnert at (602) 542-9214 to make their needs known. Requests should be made as soon as possible so the Commission will have sufficient time to respond. For those individuals who have a hearing impairment, this Commission can be reached through the Arizona Relay Service at 1-800-367-8939 (TTY) or 1-800-842-4681 (Voice). The agenda for the meeting is as follows:

1. CALL TO ORDER.
2. Roll Call.
3. Approval of Minutes (discussion and action).  
A. July 14, 2005, Coconino County.
4. Hearing regarding the navigability of the Big Sandy River 05-011-NAV.
5. Hearing regarding the navigability of the Bill Williams River 05-012-NAV.
6. Hearing regarding the navigability of Burro Creek 05-003-NAV.
7. Hearing regarding the navigability of the Santa Maria River 05-005-NAV.
8. Hearing regarding the navigability of the Virgin River 05-013-NAV.
9. Call for Public Comment (comment sheets).  
*(Pursuant to Attorney General Opinion No. 199-006 [R99-002]. Public Comment: Consideration and discussion of comments and complaints from the public. Those wishing to address the Commission need not request permission in advance. Action taken as a result of public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.)*
10. Future Agenda Items and Establishment of Future Hearings and other Meetings.
11. ADJOURNMENT.

The chair reserves the right to alter the order of the agenda.

Dated this 6<sup>th</sup> day of July, 2005, George Mehnert, Director, Navigable Stream Adjudication Commission



STATE OF ARIZONA  
NAVIGABLE STREAM ADJUDICATION COMMISSION

1700 West Washington, Room 304, Phoenix, Arizona 85007  
Phone (602) 542-9214 FAX (602) 542-9220

JANET NAPOLITANO  
Governor

E-mail: [streams@mindspring.com](mailto:streams@mindspring.com) Web Page: <http://www.azstreambeds.com>

GEORGE MEHNERT  
Executive Director

---

---

MEETING MINUTES

Kingman, Arizona August 8, 2005

**COMMISSION MEMBERS PRESENT**

Jay Brashear, Earl Eisenhower, Jim Henness, and Cecil Miller.

**COMMISSION MEMBERS ABSENT**

Dolly Echeverria.

**STAFF PRESENT**

George Mehnert, and Commission Legal Counsel Curtis Jennings.

1. **CALL TO ORDER.**

Chair Eisenhower called the meeting to order at approximately 2:03 p.m.

2. **ROLL CALL.**

See above.

3. **APPROVAL OF MINUTES** (discussion and action).

July 14, 2005, Coconino County.

Motion by: Jim Henness Second by: Cecil Miller

Motion: To approve the minutes of July 14, 2005.

Vote: All aye.

4. **Hearing regarding the navigability of the Big Sandy River 05-011-NAV.**

Cheryl Doyle and Engineer Jon Fuller representing the State Land Department presented evidence regarding this watercourse. The Chairman stated the hearing on this matter was completed for the purpose of taking evidence.

5. **Hearing regarding the navigability of the Bill Williams River 05-012-NAV.**

Cheryl Doyle and Engineer Jon Fuller representing the State Land Department presented evidence regarding this watercourse. Also, a discussion took place regarding the Bill Williams, Colorado River Confluence and Mr. Fuller indicated the State Land Department was presently establishing boundaries along the Colorado River. Mr. Fuller indicated he would call engineering project manager Pat Deschamps this evening to determine whether she has yet studied the boundaries regarding the Colorado River in the Bill Williams Confluence area, and that he would report back to the commission tomorrow.

6. **Hearing regarding the navigability of Burro Creek 05-003-NAV.**

Cheryl Doyle and Engineer Jon Fuller representing the State Land Department presented evidence regarding this watercourse.

7. **Hearing regarding the navigability of the Santa Maria River 05-005-NAV.**



Cheryl Doyle and Engineer Jon Fuller representing the State Land Department presented evidence regarding this watercourse. Commissioner Brashear stated that he wanted mention made in the minutes that Mr. Fuller had made comments regarding boating and a potential for commercial boating on the Bill Williams River and its tributaries. The Chairman stated the hearing on this matter was completed for the purpose of taking evidence.

**8. Hearing regarding the navigability of the Virgin River 05-013-NAV.**

Cheryl Doyle and Engineer Jon Fuller representing the State Land Department presented evidence regarding this watercourse. The Chairman stated the hearing on this matter was completed for the purpose of taking evidence.

**9. Call for Public Comment (comment sheets).**

*(Pursuant to Attorney General Opinion No. 199-006 [R99-002]. Public Comment: Consideration and discussion of comments and complaints from the public. Those wishing to address the Commission need not request permission in advance. Action taken as a result of public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.)*

Assistant Attorney General Lori Hachtel spoke regarding the State Land Department's work relating to the boundaries of the Colorado River and stated that it is not likely information earlier requested by the Commission has been completed yet by the Land Department concerning the confluence of the Bill Williams River and the Colorado River.

**10. Future Agenda Items and Establishment of Future Hearings and other Meetings.**

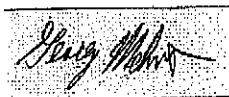
**11. ADJOURNMENT.**

Motion by: Jay Brashear                      Second by: Jim Henness

Motion: To adjourn.      Vote: All aye.

Meeting adjourned at approximately 3:04 p.m.

Respectfully submitted,



George Mehnert, Director

August 10, 2005



STATE OF ARIZONA  
NAVIGABLE STREAM ADJUDICATION COMMISSION

1700 West Washington, Room 304, Phoenix, Arizona 85007

Phone (602) 542-9214 FAX (602) 542-9220

JANET NAPOLITANO  
Governor

E-mail: [streams@mindspring.com](mailto:streams@mindspring.com) Web Page: <http://www.azstreambeds.com>

GEORGE MEHNERT  
Executive Director

---

MEETING MINUTES

Phoenix, Arizona, October 20, 2005

**COMMISSION MEMBERS PRESENT**

Jay Brashear, Dolly Echeverria, Earl Eisenhower, Jim Henness.

**COMMISSION MEMBERS ABSENT**

Cecil Miller was absent, and Commissioner Henness had to leave early at approximately 11:45 a.m.

**STAFF PRESENT**

George Mehnert.

**1. CALL TO ORDER.**

Chair Eisenhower called the meeting to order at approximately 9:36 a.m.

**2. ROLL CALL.**

See Above.

**3. APPROVAL OF MINUTES (discussion and action).**

A. September 21, 2005, Maricopa County

Motion by: Jim Henness Second by: Earl Eisenhower

Motion: To accept minutes as submitted. Vote: All aye.

**4. Jurisdiction regarding Roosevelt Lake, including motion entitled "SALT RIVER PROJECT'S MOTION FOR FINDING OF LACK OF STATUTORY SUBJECT MATTER JURISDICTION TO DETERMINE NAVIGABILILTY OF ROOSEVELT LAKE", and all other motions filed relating to this matter in both 04-008-NAV and 04-010-NAV (discussion and action).** The Office of the Attorney General, on behalf of their client the State Land Department filed a response to the original motion on October 20, 2005. The Chair accepted the Attorney General response, continued the matter to a later meeting, and granted the Salt River Project's Attorney a week to reply to the Attorney General's response to the original motion.

**5. Hearing regarding the navigability of the Upper Salt River, 04-008-NAV.**

Persons who presented evidence or spoke regarding this matter: Jon Fuller, Dennis Gilpin, David Weedman, Stanley Schumm and Douglas Littlefield, Ph.D. Also, attorneys Mark McGinnis and Rebecca Goldberg, Laurie A. Hachtel, John Ryley and Joe Sparks spoke or examined witnesses.

6. **Hearing regarding the navigability of the small and minor watercourses in Gila County, 04-010-NAV.** Persons who presented evidence or spoke regarding this matter: Jon Fuller.
7. **Adoption of the Commission report regarding the Pima County Small & Minor Watercourses (discussion and action).** The Chair continued this matter to a future meeting.
8. **Determination of the navigability of the Little Colorado River 05-007-NAV (discussion and action).**  
 Motion by: Jay Brashear                      Second by: Dolly Echeverria  
 Motion: The Little Colorado River was not navigable as of statehood. Vote: All aye.
9. **Determination of the navigability of the Big Sandy River 05-011-NAV (discussion and action).**  
 Motion by: Dolly Echeverria                      Second by: Jay Brashear  
 Motion: The Big Sandy River was not navigable as of statehood.  
 Vote: All aye.
10. **Determination of the navigability of the Bill Williams River 05-012-NAV (discussion and action).**  
 Motion by: Jay Brashear                      Second by: Dolly Echeverria  
 Motion: The Bill Williams River was not navigable as of statehood.  
 Vote: All aye.
11. **Determination of the navigability of Burro Creek 05-003-NAV (discussion and action).**  
 Motion by: Dolly Echeverria                      Second by: Jay Brashear  
 Motion: Burro Creek was not navigable as of statehood.  
 Vote: All aye.
12. **Determination of the navigability of the Santa Maria River 05-005-NAV (discussion and action).**  
 Motion by: Jay Brashear                      Second by: Dolly Echeverria  
 Motion: The Santa Maria River was not navigable as of statehood.  
 Vote: All aye.
13. **Determination of the navigability of the Virgin River 05-013-NAV (discussion and action).**  
 Motion by: Jay Brashear                      Second by: Dolly Echeverria  
 Motion: The Virgin River was not navigable as of statehood. Vote: All aye.
14. **Call for Public Comment (comment sheets).**  
*(Pursuant to Attorney General Opinion No. 199-006 [R99-002]. Public Comment: Consideration and discussion of comments and complaints from the public. Those wishing to address the Commission need not request permission in advance. Action*

*taken as a result of public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.)*

15. **Future agenda items and establishment of future hearings and other meetings.**

16. **Commission budget and continuation.**

The Director and the Chair commented that the Commission is very weak insofar as budget is concerned and that the Commission will appreciate the support of everyone to continue the Commission for two additional so that it can complete its work.

17. **ADJOURNMENT.**

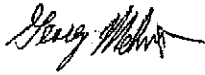
Motion by: Jay Brashear                      Second by: Dolly Echeverria

Motion:        To adjourn.

Vote: All aye.

Meeting adjourned at approximately 1:55 p.m..

Respectfully submitted,



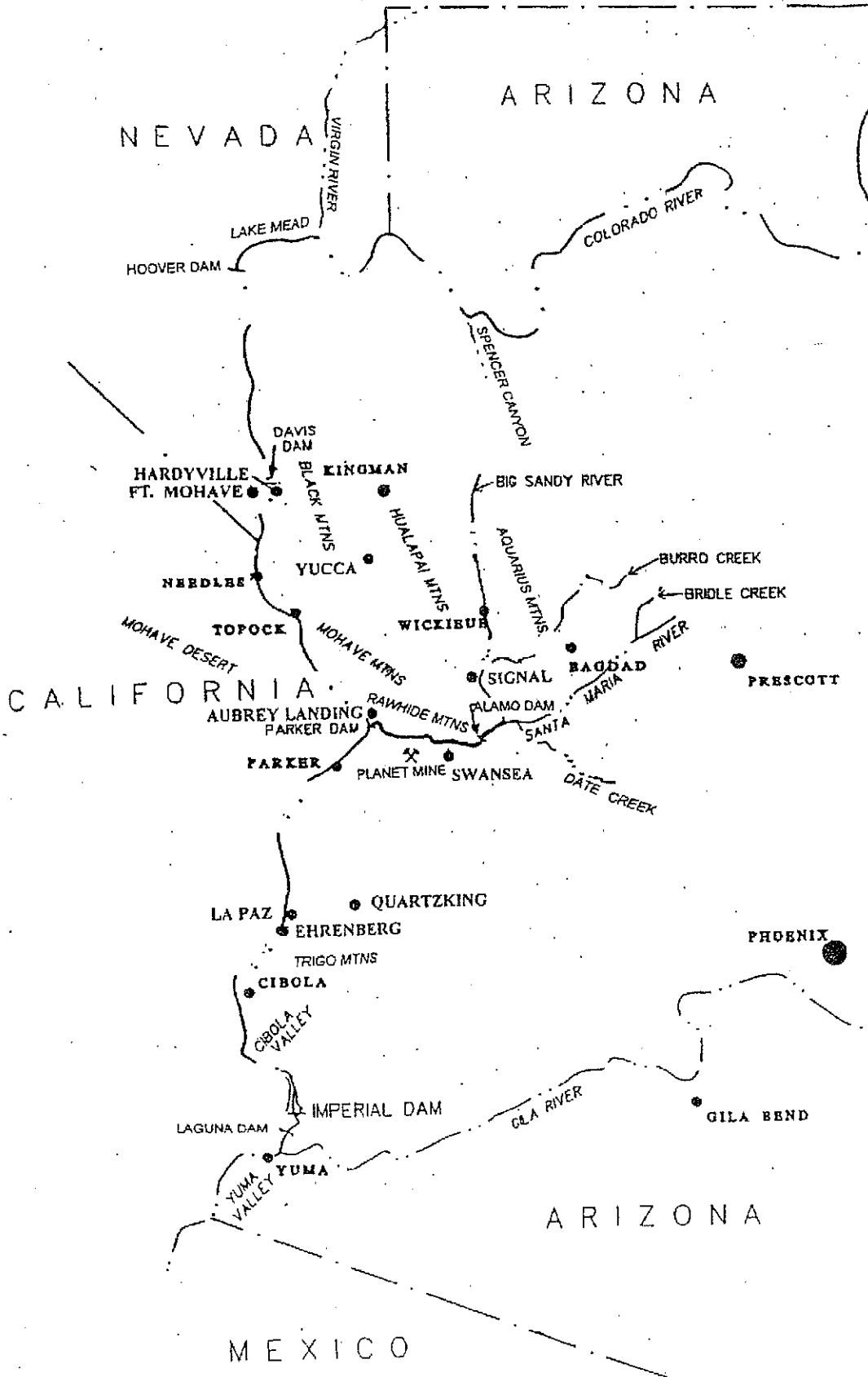
George Mehnert, Director

October 21, 2005

# **EXHIBIT E**



Figure 1. Major geographic features in west-central Arizona.



KEY:

- CITY
- ⊗ MINE

# **EXHIBIT F**



# Evidence Log

Hearing No. 05-011-NAV

Page No.

1

## Arizona Navigable Stream Adjudication Commission

Big Sandy River  
Mohave

Item Number	Received Date	Source to ANSAC	Description	Entry By
1	2/18/97	Evidence on Hand at ANSAC.	Letter from David Baron dated February 18, 1997.	George Mehnert
2	9/2/98	Evidence on Hand at ANSAC.	Small and Minor Watercourse Criteria Final Report.	George Mehnert
3	9/2/98	Evidence on Hand at ANSAC.	Final Report, 3 County Pilot Study.	George Mehnert
4	1/19/99	State Land Department	Preliminary Report Big Sandy, Burro Creek, & Santa Maria.	George Mehnert
5	2/1/99	State Land Department	Final Report Big Sandy, Burro Creek, & Santa Maria.	George Mehnert
6	7/11/04	Nancy Orr	Letter	George Mehnert
7	3/3/05	State Land Department	Final Report 2004 Update Big Sandy, Burro Creek, & Santa Maria.	George Mehnert