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11 **IN THE SUPERIOR COURT OF THE STATE OF ARIZONA**
12 **IN AND FOR THE COUNTY OF MARICOPA**

13 IN RE THE GENERAL ADJUDICATION
14 OF ALL RIGHTS TO USE WATER IN
15 THE GILA RIVER SYSTEM AND
16 SOURCE

17 W-1 (Salt)
18 W-2 (Verde)
19 W-3 (Upper Gila)
20 W-4 (San Pedro)
21 (Consolidated)

22 Contested Case No. W1-106

23 **ARIZONA DEPARTMENT OF**
24 **WATER RESOURCES' COMMENTS**
25 **ON SRP's MOTION FOR PARTIAL**
26 **SUMMARY JUDGMENT ON LEGAL**
STANDARD FOR SUBFLOW ZONE
DELINEATION ON VERDE
TRIBUTARIES AND MOTION *IN*
LIMINE

Assigned to the Hon. Scott Blaney

Referred to Special Master Sherri Zendri

CONTESTED CASE NAME: *In re Subflow Technical Report, Verde River Watershed*

HSR INVOLVED: None

DESCRIPTIVE SUMMARY: The Arizona Department of Water Resources (“ADWR”) hereby provides comments in response to the Motion for Partial Summary Judgment filed

1 by the Salt River Valley Water Users' Association and the Salt River Project Agricultural
2 Improvement and Power District (collectively, "SRP") regarding the legal standard for
3 the subflow zone delineation in the Verde River watershed.

4 **NUMBER OF PAGES:** 16 pages

5 **DATE OF FILING:** June 20, 2024

6 On May 21, 2024, SRP filed a motion seeking partial summary judgment on "the
7 proper legal standard for delineating the subflow zone on the Verde River tributaries."
8 Specifically, SRP is seeking summary judgment on the proper standard for determining
9 whether a subflow zone exists on the Big Chino Wash downstream from Partridge Creek,
10 including the lowermost portion of Partridge Creek, and on all of Williamson Valley
11 Wash.¹ If the Court does not grant SRP's Motion for Partial Summary Judgment, SRP
12 moves the Court for an order *in limine* precluding the admission of evidence on (1) the
13 extent or saturation level of Floodplain Holocene Alluvium ("FHA") along the Big Chino
14 Wash and Williamson Valley Wash, and (2) any current hydraulic connection between
15 the surface and subsurface systems of those streams or between those systems and other
16 streams, which SRP says is not relevant to the subflow zone delineation.²

17 SRP's requests seek the Court's acceptance of several legal conclusions that have
18 not been established by facts or through previous Court orders in the way that SRP
19 suggests. ADWR disputes that evidence and testimony on these topics is irrelevant for
20 the purposes of delineating the subflow zone considering SRP's position and the
21 objections SRP has filed to ADWR's report. SRP is also seeking to preemptively
22 exclude testimony relevant to the work that ADWR and the Arizona Geological Survey
23

24 ¹ See Salt River Project's Motion for Partial Summary Judgment on Legal Standard for
25 Subflow Zone Delineation on Verde Tributaries and, Alternatively, Motion *In Limine*
(hereinafter "SRP's Motion") filed May 21, 2024 at 1-2.

26 ² *Id.*

1 (“AZGS”) performed when delineating the proposed subflow zone for the Verde River
2 watershed. As described more fully below, both the Motion for Partial Summary
3 Judgment and the alternative Motion *in Limine* should be denied.

4 **Summary Judgment Standard**

5 Rule 56 of the Ariz. R. Civ. P. authorizes this Court to grant summary judgment
6 when there is no genuine dispute as to any material fact and the moving party is entitled
7 to judgment as a matter of law.³ Accordingly, the moving party must establish that no
8 such issue remains for trial, even if the evidence is viewed in the light most favorable to
9 the non-moving party. *Thompson v. Better-Bilt Aluminum Prod. Co., Inc.*, 171 Ariz. 550,
10 558, 832 P.2d 203, 211 (1992). Additionally, this Court is authorized to grant summary
11 judgment for a non-moving party, grant summary judgment on grounds not raised by a
12 party or consider summary judgment on its own after identifying for the parties material
13 facts that may not be genuinely in dispute. Ariz. R. Civ. P. 56(f).

14 As a threshold matter, ADWR is not a party to the general stream adjudication.⁴
15 ADWR serves as technical advisor to the Court.⁵ Therefore, ADWR offers these
16 comments regarding the motion for the Court’s consideration.

17 **A. Established Procedures for Delineating the Subflow Zone**

18 On November 27, 2017, the Special Master issued an order directing ADWR to
19 delineate the subflow zone for the Verde River watershed.⁶ The order requested ADWR
20 to issue a map and technical report that included the subflow zone of perennial and
21 intermittent streams, as well as that of ephemeral reaches if human surface water

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23 ³ Ariz. R. Civ. P. 56 (a).

24 ⁴ *See* Order With Regard To The Fifth Set of Issues Submitted for Decision filed in the
Gila River adjudication on July 27, 1989, W-1, W-2, W-3, W-4.

25 ⁵ Arizona Revised Statutes § 45-256.

26 ⁶ Order for Production of a Subflow Zone Delineation Technical Report for the Verde
River Watershed filed November 27, 2017.

1 diversions or groundwater pumping has caused those reaches to become ephemeral and a
2 saturated zone exists beneath the ephemeral reach that is connected to the saturated zone
3 beneath the adjoining perennial or intermittent reaches.⁷ The Court also directed ADWR
4 to include the methodology and analysis for the designation of the subflow zone.⁸

5 The order stated that the saturated floodplain Holocene alluvium defines the
6 subflow zone and that ADWR should assume that the “entire lateral extent of the
7 floodplain Holocene alluvium is saturated.”⁹ The Court indicated that the subflow zone
8 must be delineated as a continuous zone that depicts the full extent of the floodplain
9 Holocene alluvium, even where that alluvium is covered by alluvial fans.¹⁰ However, the
10 Court also specified that the surface geology cannot be the sole criteria used to identify
11 the lateral (side to side) boundaries of the floodplain Holocene alluvium.¹¹ The Court
12 indicated that if ADWR determined, with respect to any specific area, that it could not
13 delineate a reasonably accurate and reliable subflow zone, then it could use criteria
14 specified in *Gila River IV*, and any other criteria that would be geologically and
15 hydrologically appropriate, including vegetation patterns, aerial photography,
16 topographic soil breaks and its professional judgment to determine the boundaries.¹²

17 The order further required that the subflow zone delineation remain as narrow
18 as the saturated floodplain Holocene alluvium and that it excludes the alluvial plains of
19 tributary aquifers or ephemeral streams (except those ephemeral reaches that meet the
20 conditions for inclusion) and the areas of basin fill recharge.¹³ To accomplish this,
21 the order directed ADWR to apply the setback rules adopted by Judges Goodfarb and

22 ⁷ *Id.* at 2.

23 ⁸ *Id.*

24 ⁹ *Id.*

24 ¹⁰ *Id.* at 2-3.

25 ¹¹ *Id.* at 3.

25 ¹² *Id.*

26 ¹³ *Id.*

1 Ballinger.¹⁴ The Court also directed ADWR to determine the subflow zone “based on
2 conditions existing in the earliest year or during ‘a range of years immediately prior to
3 regular, discernable diversion or depletion of stream flows resulting from human activity’
4 for which reliable and reasonably complete data exists.”¹⁵

5 The November 27, 2017 Order is consistent with decades of prior rulings on the
6 concept of subflow and the delineation of the subflow zone. Also relevant to this
7 discussion are Judge Goodfarb’s 1994 Order, which provided definitions for perennial,
8 intermittent, and ephemeral streams,¹⁶ and required that there be a hydraulic connection
9 between the surface stream and the subflow zone.¹⁷ In addition to affirming Judge
10 Goodfarb’s Order “in its entirety,” the Arizona Supreme Court held in *Gila IV* that “our
11 various descriptions of subflow in *Gila River II* and *Southwest Cotton* should not serve as
12 a straitjacket that restricts us from reaching in the direction of the facts and, so far as
13 possible under those decisions, conforming to hydrological reality.”¹⁸

14 **B. The subflow zone may not be adjacent to or beneath an ephemeral stream.**

15 The Court has consistently held that “the subflow zone may not be adjacent to or
16 beneath an ephemeral stream” but that the subflow zone may be “adjacent or beneath an
17 **ephemeral section of a perennial or intermittent stream**, if the ephemeral section is
18 caused by adjacent surface water diversion or groundwater pumping. There must,
19 however, be a saturated zone beneath connected to similar zones beneath the upper and
20

21 _____
22 ¹⁴ *Id.* at 4.

23 ¹⁵ *Id.*

24 ¹⁶ Goodfarb Order filed June 30, 1994 in Case Nos. W-1, W-2, W-3, and W-4
(Consolidated), *In re the General Adjudication of All Rights to Use the Water in the Gila
25 River System and Source*, at 23-24.

26 ¹⁷ *Id.* at 35.

¹⁸ *In re the General Adjudication of All Rights to Use the Water in the Gila River System
and Source*, “*Gila IV*,” 198 Ariz. 330, 334, 9 P.3d 1069, 1073 (2000).

1 lower perennial or intermittent stream sections” (emphasis added).¹⁹ Special Master
2 Harris confirmed this directive in her 2017 Order: “(ADWR) is requested to develop a
3 map of and a technical report regarding the subflow zone of the perennial and intermittent
4 streams in the Verde River Watershed. The map shall also include the subflow zone of
5 **ephemeral reaches of perennial and intermittent streams** if: (1) anthropological
6 surface water diversions or groundwater pumping caused that portion of the perennial or
7 intermittent stream to become ephemeral; and (2) a saturated zone exists beneath the
8 ephemeral reach²⁰ that is connected to the saturated zone beneath the adjoining perennial
9 or intermittent reaches” (emphasis added).²¹ Consistent with these orders, ADWR
10 classified all streams within the Verde River watershed as either perennial, intermittent,
11 or ephemeral under predevelopment conditions, as discussed in Section E, *infra*.²²

12 SRP disagrees in part with ADWR’s stream classification analysis.²³ SRP takes the
13 position that Big Chino Wash downstream of Partridge Creek, the lowermost portion of
14 Partridge Creek, and all of Williamson Valley Wash were not ephemeral under
15 predevelopment conditions.²⁴ SRP also takes the position that FHA exists along these
16 streams.²⁵ In doing so, SRP appears to be developing the arguments that 1) if FHA
17 exists, the entire FHA located anywhere along these streams is assumed to be saturated,
18 2) if it is saturated, there was a hydraulic connection at some point in time, and 3)
19 therefore, the entire FHA of a stream that was perennial or intermittent under

20 ¹⁹ See 1994 Goodfarb Order, *supra* note 16, at 35, affirmed “in all respects” by the
21 Arizona Supreme Court in *Gila IV*, 198 Ariz. at 344.

22 ²⁰ A “reach” is the term often used to refer to a section of a stream rather than its entire
length. USGS.gov/faqs.

23 ²¹ November 27, 2017 Order, *supra* note 6, at 2.

24 ²² ADWR’s “Technical Report: Subflow Zone Delineation for the Remainder of the Verde
River Watershed” (hereinafter “Subflow Report”) filed April 2023 at 11-13.

25 ²³ SRP’s Motion at 4-5.

26 ²⁴ *Id.* at 4.

²⁵ *Id.* at 5.

1 predevelopment conditions is the subflow zone.²⁶ However, these conclusions are not
2 consistent with the Court’s prior orders and ignore scientific reality. For the reasons
3 described below, the Court should deny both the Motion for Partial Summary Judgement
4 and the alternative Motion *in Limine*.

5 **C. ADWR is not required to map FHA along ephemeral streams or along**
6 **ephemeral reaches of perennial or intermittent streams where there is not**
7 **a connection of saturated FHA between the ephemeral stream and a**
8 **perennial or intermittent stream.**

8 As described above, the saturated FHA defines the subflow zone, but the subflow
9 zone may not be adjacent to or beneath an ephemeral stream; therefore, ADWR is not
10 required to map FHA along streams that were ephemeral under predevelopment
11 conditions. The Court has further directed that “[s]treams may be excluded from the
12 subflow analysis if they were ephemeral under predevelopment conditions **and there is**
13 **not a connection of FHA between the ephemeral stream and a perennial or**
14 **intermittent stream**” (emphasis added).²⁷

15 SRP argues that the existence of FHA along the Big Chino Wash and Williamson
16 Valley Wash is undisputed.²⁸ SRP is seeking to exclude testimony regarding whether
17 FHA exists along either Big Chino Wash or Williamson Valley Wash and the extent of
18 FHA in those areas, arguing that no party presented evidence that FHA does not exist in
19 those areas, so all parties must agree with SRP’s assertion that FHA does, in fact, exist.²⁹

20 As a basic scientific principle, every stream, whether perennial, intermittent, or
21 ephemeral carries a sediment load that is deposited on the floodplain during floods. All
22 streams, regardless of size, have had at least one flood in the past 10,000 years, and

23 _____
24 ²⁶ *Id.* at 6-12.

25 ²⁷ Findings of Fact and Conclusions of Law filed October 12, 2012 in Contested Case No.
W1-103, *In re Subflow Technical Report, San Pedro River Watershed*, at 4.

26 ²⁸ SRP’s Motion at 13.

²⁹ *Id.* at 5-6.

1 therefore traces of “floodplain Holocene alluvium” will likely exist. The most likely
2 situation in which there would not be at least some floodplain Holocene alluvium (at least
3 not on a mappable scale) would be along a stream confined in a bedrock canyon, where
4 the stream channel has not migrated laterally (side to side) over the past 10,000 years.
5 Big Chino Wash and Williamson Valley Wash are not confined to bedrock canyons, so
6 one can safely assume that FHA exists along those watercourses. However, the mere
7 presence of FHA does not mean that there is a connection of FHA between the ephemeral
8 stream and a perennial or intermittent stream which would require the ephemeral stream’s
9 inclusion in the subflow zone delineation. Thus, testimony regarding the extent of the
10 FHA associated with the Big Chino Wash, Williamson Valley Wash, and other streams
11 may indeed be relevant to the Court’s consideration of this issue.

12 In its Objections to ADWR’s Subflow Report, SRP also disagreed with the
13 termination points for the proposed subflow zone in a number of areas, including
14 Williamson Valley Wash.³⁰ In many cases, AZGS stopped mapping because they no
15 longer observed mappable Holocene alluvium.³¹ Although ADWR and AZGS did not
16 opine in the Subflow Report on the extent of FHA along reaches of Big Chino Wash,
17 Williamson Valley Wash, or any other stream reach that AZGS did not map, ADWR and
18 AZGS must be permitted to describe FHA, or lack of FHA, as observed along
19 Williamson Valley Wash and in any other area addressed in ADWR’s Subflow Report.
20 Likewise, any party that has information or data related to the existence of FHA or lack
21 of FHA should be permitted to present such evidence for the Court’s consideration, and
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23
24 ³⁰ SRP’s Objection to the Subflow Zone Delineation for the Remainder of the Verde River
Watershed filed October 27, 2023 at 3.

25 ³¹ AZGS’ Report: “Mapping of Holocene River Alluvium along perennial and intermittent
26 reaches of minor tributaries to the Verde River, Central Arizona” submitted October 2022
at, e.g., 12 and 21.

1 ADWR and AZGS should be able to offer opinions on such evidence. SRP’s Motion to
2 exclude testimony regarding the existence of and the extent of FHA should be denied.

3 **D. The assumption that the FHA is saturated only applies to the FHA of**
4 **historically perennial or intermittent streams in which there was a**
5 **hydraulic connection between the surface stream and its subflow at some**
6 **point in predevelopment time.**

7 As described above, the saturated FHA defines the subflow zone.³² This Court
8 and the Arizona Supreme Court have held that the floodplain Holocene alluvium “is the
9 only stable geologic unit which is beneath and adjacent to most rivers and streams ...
10 [and] in order to fulfill the definition of ‘subflow,’ **the geologic unit must be saturated**
11 **because of the need for a hydraulic connection between the stream and the**
12 **‘subflow’” (emphasis added).³³**

13 By Judge Goodfarb’s definition, “[e]phemeral streams discharge water only in
14 response to precipitation events or snowmelt, and do not have a baseflow component at
15 any time of the year; they flow out sporadically. **The groundwater system and surface**
16 **water system do not establish a hydraulic connection in these systems.”³⁴ (emphasis**
17 **added). Likewise, ephemeral reaches of perennial and intermittent streams are only**
18 **included in the subflow zone delineation if: (1) anthropological surface water diversions**
19 **or groundwater pumping caused that portion of the perennial or intermittent stream to**
20 **become ephemeral; and (2) a saturated zone exists beneath the ephemeral reach that**
21 **is connected to the saturated zone beneath the adjoining perennial or intermittent**
22 **reaches” (emphasis added).³⁵ Thus, for any ephemeral reach of a perennial or**
23 **intermittent stream to be included in the subflow zone delineation, there must be (or have**

24 ³² *Gila IV*, *supra* note 18, 198 Ariz. at 342.

25 ³³ 1994 Goodfarb Order, *supra* note 16, at 56; *Gila IV*, *supra* note 18, 198 Ariz. at 337.

26 ³⁴ 1994 Goodfarb Order, *supra* note 16, at 24.

³⁵ November 27, 2017 Order, *supra* note 6, at 2.

1 been) a hydraulic connection between the stream and its subflow as demonstrated by
2 saturation of the FHA.

3 In 2004, ADWR proposed to assume that the entire lateral extent of the mapped FHA
4 is saturated because of the lack of data and information available to establish the
5 thickness of the FHA and the depth to the water table. As the Court noted in 2004, “[t]he
6 floodplain Holocene alluvium consists of sediments deposited under flood flow
7 conditions. It, therefore, was saturated at the time floods deposited the sediments but for
8 how long thereafter and to what extent the saturation lasted is debated.³⁶ At the time that
9 ADWR made this proposal, ADWR was tasked with mapping the subflow zones of
10 perennial and intermittent streams in the San Pedro River watershed. ADWR was not
11 required to map the FHA of streams that were ephemeral under predevelopment
12 conditions. Thus, the saturation assumption the Court adopted³⁷ only applies to the FHA
13 of historically perennial or intermittent streams in areas where those streams meet the
14 requirements for mapping.³⁸

15 SRP argues that “the entire FHA is assumed to be saturated for purposes of the
16 subflow analysis”³⁹ and argues that testimony regarding the saturation level of the FHA
17 should be excluded.⁴⁰ SRP further argues that “[b]ecause the FHA of a stream that was
18 perennial or intermittent ‘was saturated at some point in predevelopment time,’ a
19 hydraulic connection also existed between the surface and subsurface systems of that

20 ³⁶ Report of the Special Master on the Arizona Department of Water Resources’ Subflow
21 Technical Report, San Pedro River Watershed, filed July 16, 2004 in Contested Case No.
22 W1-103, *In re Subflow Technical Report, San Pedro River Watershed*, at 54-55.

23 ³⁷ September 28, 2005 Ballinger Order filed in Contested Case W1-103, *In re Subflow
24 Technical Report, San Pedro River Watershed*, at 17.

25 ³⁸ *See also*, Findings of Fact, *supra* note 27, at 4 in which the Court adopted “The
26 assumption, **for subflow mapping purposes**, that the entire lateral extent of FHA is
saturated.”

³⁹ SRP’s Motion at 8.

⁴⁰ *Id.* at 13.

1 stream.”⁴¹ SRP thus urges the Court to exclude any testimony regarding 1) the saturation
2 level of the FHA, and 2) current hydraulic connections between subflow and surface
3 streams, or subflow and other adjacent streams.⁴² SRP argues that “if the evidence
4 presented at trial demonstrates that the Big Chino Wash and Williamson Valley Wash
5 were perennial or intermittent under predevelopment conditions, the entire lateral extent
6 of the FHA on those streams is the subflow zone as a matter of law.”⁴³

7 As stated above, every stream, whether perennial, intermittent, or ephemeral
8 carries a sediment load that is deposited on the floodplain during floods, and FHA will
9 likely be found in those areas. However, the mere presence of FHA along an ephemeral
10 stream or along ephemeral reaches of perennial or intermittent streams does not establish
11 that there has ever been a connection of saturated FHA or a hydraulic connection between
12 the ephemeral stream or reach and a perennial or intermittent stream or reach; this is
13 precisely the reason that the Court still requires ADWR to investigate ephemeral reaches
14 of perennial or intermittent streams for a connection between the saturated zones
15 underneath those reaches.⁴⁴ If a hydraulic connection between such reaches is assumed,
16 the Court would not continue to request that ADWR consider whether there is a
17 connection when evaluating which areas to map. Thus, if SRP is seeking to establish that
18 there is a hydraulic connection or connection of saturated FHA between perennial or
19 intermittent reaches and areas which ADWR determined to be ephemeral or that certain
20 reaches should not be classified as ephemeral, testimony regarding these topics will be
21 relevant to the Court’s determination on these issues and should not be excluded as SRP
22 asserts.

24 ⁴¹ *Id.* at 9, fn.10.

25 ⁴² *Id.* at 13.

26 ⁴³ *Id.* at 12.

⁴⁴ November 27, 2017 Order, *supra* note 6, at 2.

1 **E. As the courts have recognized, ADWR’s and AZGS’s work in delineating**
2 **the subflow zone necessarily requires some consideration of current**
3 **streamflow and geologic conditions.**

4 Over the past several decades, the Court has provided ADWR with guidance as to
5 the types of information and data ADWR can consider when delineating the subflow
6 zone for a given area. For example, in *Gila IV*, the Arizona Supreme Court found that in
7 delineating the subflow zone for a given area, ADWR “may use, but is not limited to,
8 topographic maps, aerial photographs, phreatophyte presence, drilling records (or other
9 descriptions of materials encountered during drilling), water table maps, seismic data, and
10 field mapping techniques” and that the Court does “not preclude the consideration of
11 other criteria that are geologically and hydrologically appropriate for the particular
12 location.”⁴⁵ In 2004, Special Master Schade recommended that ADWR “investigate
13 additional sources, **including historical and current documents**, scientific reports,
14 mapping projects, aerial photography, and field investigations to locate perennial,
15 intermittent, and effluent-fed streams with as much accuracy and reliability as
16 possible.”⁴⁶ (emphasis added). Later, in a 2012 Order, the Adjudication Court stated,

17 “In determining what areas to include within the subflow zone, ADWR should use its
18 professional judgment and should consider, as and to the extent appropriate, a
19 combination of the following: (a) Arizona Geological Survey mapping to identify the
20 surface exposure of the boundary between either bedrock or Pleistocene and Tertiary
21 basin fill and Holocene alluvium; (b) topographic slope breaks (which may be
22 considered, when appropriate, the edge of the subflow zone; (c) vegetation patterns;
and, (d) aerial photographs to determine the boundary between basin fill or bedrock
and Holocene alluvium where alluvial fans and channel deposits are deposited on the
floodplain. ADWR should not rely solely upon surface data.”⁴⁷

23 _____
24 ⁴⁵ *Gila IV*, *supra* note 18, 198 Ariz. at 342.

25 ⁴⁶ Report of the Special Master, *supra* note 36, at 28-29; this recommendation was
adopted by the Superior Court in its Order dated September 28, 2005, *supra* note 37, at
41.

26 ⁴⁷ Findings of Fact, *supra* note 27, at 5.

1 In addition to explicitly authorizing ADWR to consider current information in delineating
2 the subflow zone, many of the information sources referenced by the Court are based on
3 current data and observations.

4 ADWR classified all streams within the Verde River watershed as either perennial,
5 intermittent, or ephemeral under predevelopment conditions.⁴⁸ As part of its stream
6 classification analysis, ADWR considered both current and historic maps and imagery
7 looking for evidence of streamflow, including the presence of water flowlines, or riparian
8 vegetation.⁴⁹ Indeed, ADWR must consider whether a reach that is currently ephemeral
9 became ephemeral due to human surface water diversions or groundwater pumping; such
10 an analysis requires ADWR to consider, at least in part, post-development conditions in
11 comparison to predevelopment conditions for those reaches. Therefore, ADWR used
12 current imagery and maps to locate all streams within the watershed and to further
13 confirm its streamflow classifications under predevelopment conditions. If the stream
14 was ephemeral under predevelopment conditions, no further analysis was conducted. If
15 the stream was found to be perennial or intermittent under predevelopment conditions,
16 ADWR would have requested that AZGS map the geology of the selected streams,
17 including ephemeral reaches if ADWR determined that those reaches were bounded by
18 perennial or intermittent reaches and, thus, likely had a saturated zone beneath connecting
19 those reaches under predevelopment conditions. ADWR's stream classifications are
20 consistent with the Court's orders.

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⁴⁸ ADWR's Subflow Report, *supra* note 22, at 11-13.

25 ⁴⁹ SRP's Separate Statement of Facts in Support of Motion for Partial Summary Judgment
26 on Legal Standard for Subflow Zone Delineation on Verde Tributaries filed May 21,
2024, Exhibit 1: Affidavit of Jon Ford at 13-15 and 16-17.

1 In its Motion, SRP raises the concern that ADWR relied “in part” on current
2 conditions, which they argue is irrelevant.⁵⁰ As an example, SRP cites the portion of
3 ADWR’s Subflow Report, which states:

4 Big Chino Wash would not fall under the “ephemeral stream exception” because
5 there is not a saturated zone connecting the stream’s upper and lower segments
6 that demonstrates a hydraulic connection, which is required for the exception
7 according to the 1994 Subflow Order. If the water table rises to the elevation of
8 the floor of an otherwise dry drainage channel, groundwater may seasonally
9 discharge into the channel contributing to surface water flows. However, Big
10 Chino Wash does not currently, nor historically, have any indication of a hydraulic
11 connection between its groundwater and surface water systems (Nicholls 2022).
12 Therefore, Big Chino Wash was not mapped as part of the 2023 Report because it
13 is an ephemeral stream without a subflow zone.⁵¹

14 ADWR did not rely on current conditions to classify Big Chino Wash as
15 ephemeral. ADWR considered both predevelopment and current maps and imagery
16 when classifying streams as authorized by the Court. In making the above statement,
17 ADWR was emphasizing that Big Chino Wash has always been ephemeral and still is
18 ephemeral, or that conditions have not changed. It is a scientific reality that streams that
19 were historically ephemeral do not suddenly become perennial or intermittent under
20 current conditions. ADWR should be permitted to offer testimony about its stream
21 classification analysis, including the use of current and historic information and data.

22 For its report, ADWR also used data and information provided by AZGS on
23 geologic settings and geomorphologic processes applicable to Holocene river alluvium
24 and AZGS’s investigations of sedimentary relationships at numerous sites along the
25 Verde River and its tributaries when those streams were found to be perennial or
26 intermittent under predevelopment conditions. As the Court has previously noted, the

⁵⁰ SRP’s Motion at 4-5.

⁵¹ ADWR’s Subflow Report, *supra* note 22, at 12-13.

1 Holocene epoch includes the current time period.⁵² The geologic mapping provided by
2 AZGS identifies various geologic units based on surface exposures currently visible on
3 the ground in conjunction with current and historic, or predevelopment, imagery and
4 maps. The use of current and historical documents, observations, and information
5 sources is well within the scope of the materials that the Court has authorized ADWR,
6 and by extension AZGS, to consider. Thus, AZGS must also be permitted to fully
7 describe its work.

8 To the extent that SRP seeks to limit testimony regarding ADWR's or AZGS's
9 consideration of current information or documents in its delineation of the subflow zone,
10 any such limits would be an unreasonable restriction on these experts' testimony because
11 it would require ADWR and AZGS to omit important processes they employ to complete
12 their work. There is no prejudice to SRP, or any other party, in permitting ADWR and
13 AZGS to fully describe their work. Accordingly, to the extent that SRP's Motion seeks
14 to exclude testimony on these topics, both the Motion for Partial Summary Judgment and
15 the alternative Motion *in Limine* should be denied.

16 **CONCLUSION**

17 For the foregoing reasons, both the Motion for Partial Summary Judgment and the
18 alternative Motion *in Limine* should be denied.

19 **RESPECTFULLY SUBMITTED** this 20th day of June, 2024.

20
21 ARIZONA DEPARTMENT OF WATER
22 RESOURCES

23 

24 _____
25 Kimberly R. Parks, Deputy Counsel
26 Karen J. Nielsen, Deputy Counsel

26 ⁵² See, e.g., *Gila IV*, *supra* note 18, 198 Ariz. at 334 n.2.

1 **ORIGINAL** of the foregoing sent by
2 first-class mail on June 20, 2024 to:

3 Clerk of the Maricopa Superior Court
4 Attn: Water Case
5 601 W. Jackson Street
6 Phoenix, Arizona 85003

6 **COPIES** of the foregoing sent by
7 first-class mail on June 20, 2024, to:

8 Special Master Sherri Zendri
9 Maricopa County Superior Court
10 Central Court Building
11 201 West Jefferson Street, Suite 3A
12 Phoenix, AZ 85003-2205

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13 mail on June 20, 2024 to all parties on the
14 court-approved mailing list for Contested
15 Case No. W1-106.

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