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

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

CV 6417

17 **ARIZONA DEPARTMENT OF WATER**  
18 **RESOURCES' NOTICE OF FILING**  
19 **REPORT**

20 Special Master Sherri Zendri

21 **CONTESTED CASE NAME:** *NONE*

22 **DESCRIPTIVE SUMMARY:** The Arizona Department of Water Resources (“ADWR”) provides notice of filing the report as requested in the Court’s Order filed February 22, 2023.

23 **NUMBER OF PAGES:** Three and eighteen-page attachment

24 **DATE OF FILING:** May 25, 2023

25 Pursuant to the Court’s Order (Order for Technical Report and Order Setting Status  
26 Conference) dated February 22, 2023, ADWR hereby provides notice of filing its report which provides information regarding the amount of time required by ADWR to complete subflow zone reports for the Upper Salt River watershed, the Upper Gila River watershed

1 and the Upper Little Colorado River Watershed. Additionally, in its report, ADWR  
2 provides estimates of expected costs payable to a third party to prepare subflow zone  
3 reports for the above referenced watersheds. Finally, this report contains ADWR's  
4 recommendations as to the most efficient method to complete technical reports and HSRs  
5 for the Upper Salt River watershed, Upper Gila River watershed and the Upper Little  
6 Colorado River watershed. A copy of the report is attached to the original of this Notice  
7 being filed with the Clerk (Attachment A) and is being posted to ADWR's website at:  
8 <https://new.azwater.gov/adjudications>.

9 **DATED** this 25th day of May, 2023.

10 ARIZONA DEPARTMENT OF WATER  
11 RESOURCES

12   
13 \_\_\_\_\_  
14 Kome Akpolo, Deputy Counsel  
15 Kimberly R. Parks, Deputy Counsel

16 **ORIGINAL** of the foregoing notice and attachment  
17 sent by first-class mail on May 25, 2023, to:

18 Clerk of the Maricopa Superior Court  
19 Attn: Water Case  
20 601 W. Jackson Street  
21 Phoenix, Arizona 85003

22 **COPY** of the foregoing notice and attachment  
23 sent by first-class mail on May 25, 2023, to:

24 Special Master Sherri Zendri  
25 Maricopa County Superior Court  
26 Central Court Building  
201 West Jefferson Street, Suite 3A  
Phoenix, AZ 85003-2205

1 **COPIES** of the foregoing notice and attachment  
2 sent by first-class mail on May 25, 2023, to all parties  
3 on the court-approved mailing list for the  
4 Little Colorado River Adjudication, CV 6417.

*Lizette Fuentes*

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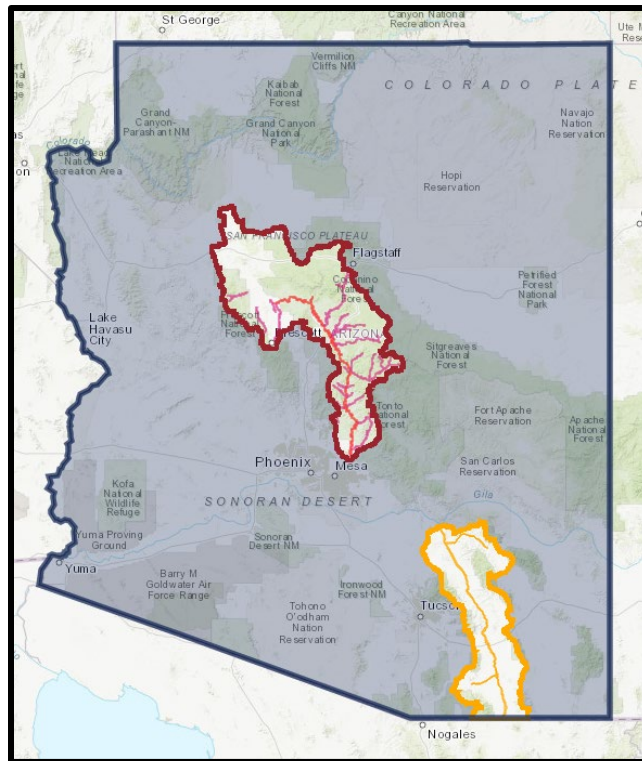
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# **ATTACHMENT A**



# Future Report Recommendations

## *In re General Stream Adjudication*



Arizona Department of Water Resources

May 2023

On February 22, 2023, the Court requested that the Arizona Department of Water Resources (“ADWR”) file a report with the Court that addresses the following:

“[T]he amount of time required by ADWR and the expected cost that would normally be payable to a third party to prepare a subflow zone report for separate reports for Upper Salt River, Upper Gila River, and the Upper Little Colorado River Watershed. The report shall also estimate the costs and time to prepare a joint report, or three separate reports filed simultaneously with respect to the subflow zones for the three watersheds. Arizona Department of Water Resources shall provide its recommendations as to the most efficient method to complete the technical reports and HSRs for the Upper Salt River, Upper Gila River, and the Upper Little Colorado River Watershed.”

Order for Technical Report and Order Setting Status Conference at 5-6 (February 22, 2023).

## **I. Watershed Map**

According to the United States Geological Survey (“USGS”), a watershed “is an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel.”<sup>1</sup> Watersheds are scientifically determined areas where water is contained within the boundaries of the watershed and that flow to the lower points in the topography and into major streams and water bodies.<sup>2</sup> All water flow connects within a watershed to contribute to the same water body. Therefore, it is safe to assume that any consumptive water use sourced by these rivers and streams will also impact the water availability of the waterbody they feed and the watershed as a whole.

Watersheds are delineated by the USGS using a nationwide system based on surface hydrologic features.<sup>3</sup> That system identifies hydrologic areas using hydrologic unit codes (“HUC”).<sup>4</sup> A hydrologic unit defines the extent of a surface water drainage to the outlet point or points.<sup>5</sup> “A hydrologic unit may represent all or only part of the total drainage area to the outlet point so that multiple hydrologic units may be required to define the entire

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<sup>1</sup> See USGS, *Watersheds and Drainage Basins* (June 8, 2019), <https://www.usgs.gov/special-topics/water-science-school/science/watersheds-and-drainage-basins#overview> (last accessed May 16, 2023).

<sup>2</sup> *Id.*

<sup>3</sup> See USGS, *Hydrologic Unit Codes (HUCs) Explained*, <https://nas.er.usgs.gov/hucs.aspx> (last accessed May 18, 2023).

<sup>4</sup> *Id.*

<sup>5</sup> See USGS, *Watershed Boundary Dataset*, [https://www.usgs.gov/national-hydrography/watershed-boundary-dataset#:~:text=The%20hydrologic%20units%20\(HU\)%20in,identified%20using%20a%20unique%20code](https://www.usgs.gov/national-hydrography/watershed-boundary-dataset#:~:text=The%20hydrologic%20units%20(HU)%20in,identified%20using%20a%20unique%20code) . (last accessed May 18, 2023).

drainage area for a given outlet.”<sup>6</sup> For the purposes of the adjudication, ADWR refers to 6-digit HUCs as watersheds, and 8-digit HUCs as subwatersheds.<sup>7</sup>

ADWR began its analysis of the requested watersheds by reviewing the map of watersheds which are subject to Arizona’s general stream adjudication (“Adjudication”) that is posted on ADWR’s website (the “Watershed Map”).<sup>8</sup> The Watershed Map generally followed what the USGS has determined to be the state’s current watershed boundaries, except for some areas where political boundaries were used instead of watershed boundaries. ADWR finds it scientifically appropriate to use the USGS’ HUC system to identify watershed boundaries and classify streams when preparing technical reports for the Court. This determination is supported by the current guidance from USGS, that directs that hydrologic unit boundaries to be defined solely by topography and hydrologic features rather than administrative or political boundaries; therefore, ADWR updated the Watershed Map to reflect HUC boundaries.<sup>9</sup> This update did not modify boundaries in the San Pedro River or Verde River watersheds nor in the Silver Creek subwatershed. A copy of both the old and the updated maps are available on ADWR’s website.

Update of the Watershed Map does not cause an issue for previously filed SOC’s. Although there are different SOC forms for each watershed, each form requires the same information. In addition, when ADWR investigates claimed water uses, it relies on the actual location of the point(s) of diversion and place(s) of use, not necessarily what was claimed by the claimant.

## II. Previous Work and Claim Numbers

Below is a summary of the work that has been completed by ADWR in each watershed and how many SOC’s have been filed in each watershed. ADWR concurs with

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<sup>6</sup> *Id.*

<sup>7</sup> According to USGS, six-digit HUCs are historically known as basins, and eight-digit HUCs are known as subbasins. However, since these terms have not historically been used to designate those units in the adjudication, and because all these units are also properly known as “watersheds” and “subwatersheds” ADWR will use those terms. See USGS, *Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)*, at 31 (September 2013), [http://pubs.usgs.gov/tm/11/a3/pdf/tm11-a3\\_4ed.pdf](http://pubs.usgs.gov/tm/11/a3/pdf/tm11-a3_4ed.pdf) (last accessed May 4, 2023).

<sup>8</sup> See [https://new.azwater.gov/sites/default/files/BIG\\_ADJUD\\_WATERSHEDS\\_0.pdf](https://new.azwater.gov/sites/default/files/BIG_ADJUD_WATERSHEDS_0.pdf). Along with being available on ADWR’s website, at the request of the Court, a physical copy of the Watershed Map will be delivered to the Special Master.

<sup>9</sup> See USGS, *Federal Standards and Procedures for the National Watershed Boundary Dataset (WBD)*, at 8 (September 2013), [http://pubs.usgs.gov/tm/11/a3/pdf/tm11-a3\\_4ed.pdf](http://pubs.usgs.gov/tm/11/a3/pdf/tm11-a3_4ed.pdf) (last accessed May 4, 2023). (“Do not use administrative or political boundaries, such as county, State (sic), or national forest boundaries, as criteria for defining a hydrologic unit boundary unless the administrative boundary is coincident with a topographic feature that appropriately defines the hydrologic unit.”); ADWR assumes that these boundaries were drawn in an effort to be more efficient. However, it is now clear that any investigation based on an arbitrary line will not result in a robust technical analysis. There are better ways to address multi-basin water uses. ADWR suggests that if the parties and the Court feel that it would be more efficient to address, for example, particular rights in the Verde Canyon subwatershed and particular rights in the Upper Salt subwatershed at the same time, that those be addressed together during the contested case phase.

the Court that ADWR should issue a Hydrographic Survey Report (“HSR”) only after a subflow zone and *de minimis* report have been issued and approved for the watershed.<sup>10</sup>

### **a. Gila River Adjudication**

#### **i. San Pedro River Watershed**

ADWR filed a final HSR for the San Pedro River watershed in November 1991.<sup>11</sup> ADWR has filed several subflow zone reports for the San Pedro River watershed, the most recent was filed in May 2015.<sup>12</sup> These reports include only the mainstem of the San Pedro and two of its major tributaries, Babocomari River and Aravaipa Creek. ADWR is currently working on a cone of depression model to identify wells located outside the subflow zone that are pumping appropriable water. ADWR issued its report on domestic, stockpond and stockwatering uses in November 1993, and the Court issued a memorandum decision addressing stockwatering, stockponds and domestic uses in November 1994.<sup>13</sup> The Special Master has initiated contested cases within the San Pedro River watershed for those uses that are within the existing subflow boundary but has not addressed uses falling outside the existing subflow zone. Currently, there is no date set for ADWR to complete a subflow zone report for the other potential subflow zones within the San Pedro River watershed. There are 13,547 SOCs in the San Pedro River watershed.

#### **ii. Santa Cruz River Watershed**

In April 2000, ADWR filed a preliminary report intended to assist with an understanding of the water uses and rights found in the Santa Cruz Active Management Area, titled “Santa Cruz Active Management Area Inventory of Water Uses and Rights Pilot Project Report.” For this report, ADWR conducted a preliminary analysis of water uses and estimated the potential location of a subflow zone. While the information contained in this report will be helpful when putting together an HSR for the Santa Cruz River watershed, the report does not contain sufficient information or analysis to substitute for a subflow zone report or HSR. There are 15,183 SOCs in the Santa Cruz River watershed.

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<sup>10</sup> Order for Technical Report and Order Setting Status Conference, at 1-2 (Feb. 22, 2023).

<sup>11</sup> Hydrographic Survey Report for the San Pedro River Watershed (1991), <https://infoshare.azwater.gov/docushare/dsweb/View/Collection-19508>.

<sup>12</sup> Supplement to 2014 Subflow Zone Delineation Report for the San Pedro River Watershed (Reissued May 2015), <https://infoshare.azwater.gov/docushare/dsweb/View/Collection-19502>.

<sup>13</sup> Technical Report on De Minimis Adjudication of Domestic, Stockpond and Stockwatering Uses in the San Pedro Watershed, (November 1993); Memorandum Decision, Findings of Fact, and Conclusions of Law for Group 1 Cases Involving Stockwatering, Stockponds, and Domestic Uses, W1-11-19 (November 14, 1994). <https://infoshare.azwater.gov/docushare/dsweb/Get/Document-11106/Memorandum%20Decision%2c%20Findings%20of%20Fact%20and%20Conclusions%20of%20Law%20for%20Group%201%20Cases%20Involving%20Stockwatering%2c%20Stockponds%20and%20Domestic%20Uses.pdf>



### **iii. Upper Gila River and Middle Gila River Watersheds**

Other than settlement work, ADWR has not completed any Adjudication related reports for the Upper Gila River and Middle Gila River watersheds. Although the Upper Gila River and Middle Gila River watersheds are HUC 6 (and therefore can be addressed separately), because of the small number of SOCs involved, ADWR recommends that they be addressed together. There are 9,970 SOCs in the Upper Gila River watershed and 5,457 SOCs in the Middle Gila River watershed, for a combined total of 15,427 SOCs.

### **iv. Lower Gila River-Agua Fria River Watershed**

ADWR has not completed any Adjudication related reports for the Lower Gila River-Agua Fria River watershed. There are 31,896 SOCs in the Lower Gila River-Agua Fria River watershed. ADWR recommends that a subflow zone report and *de minimis* report be completed for the entire watershed. However, because of the large number of SOCs in this watershed, ADWR further recommends that the Lower Gila River-Agua Fria watershed be broken up into four subwatersheds: the Agua Fria, Hassayampa, Centennial Wash, and Lower Gila-Painted Rock Subwatersheds for the purposes of HSRs.

### **v. Salt River Watershed**

In December 1992 ADWR filed a preliminary HSR for the Upper Salt River subwatershed. The report is titled, "Preliminary Hydrographic Survey Report for the Upper Salt River Watershed." The Upper Salt River watershed should be properly referred to as a subwatershed as the Salt River watershed is divided into six HUC 8 subwatersheds (Lower Salt, Tonto, Upper Salt, Carrizo, White and Black). However, ADWR's watershed map, discussed previously, had only an Upper Salt River watershed (encompassing the Tonto, Upper Salt, Carriza, White and Black subwatersheds) while the lower portion of the Salt River watershed (the portion of the Salt River watershed lying below the confluence with the Verde River) was included within the Lower Gila River watershed. Similarly, to other HSRs filed in the early 1990s, the Upper Salt River Preliminary HSR included an analysis of water uses but did not include water right recommendations.<sup>14</sup> The Upper Salt River Preliminary HSR is now thirty years old and only includes the upper portion of the watershed. There has not been a final HSR issued for the Upper Salt River watershed and there is no subflow zone nor *de minimis* reports for the Salt River watershed. There are 10,756 SOCs in the Salt River watershed. ADWR recommends analyzing the entire Salt River watershed as a whole because it will allow many of the water storage locations to be evaluated along with the uses that are being made of the water.

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<sup>14</sup> In 1995 A.R.S. § 45-256(B) was modified to require HSRs to include recommended water rights attributes for proposed water rights. Prior to statutory authorization, ADWR's HSRs included analysis but did not include recommendations.

## **vi. Verde River Watershed**

ADWR completed a *de minimis* report on domestic, stockponds, stockwatering and wildlife uses in August 2022, as well as subflow reports in December 2021 and April 2023 for the Verde River watershed.<sup>15</sup> HSRs are due for most of the subwatersheds in the Verde River watershed,<sup>16</sup> starting in 2026 with the preliminary HSR for the Sycamore Creek subwatershed, and running through 2030 for the final HSRs for both the Big Chino and Little Chino subwatersheds.<sup>17</sup> To date, there is no deadline set for the Verde Canyon subwatershed preliminary HSR. There are 25,240 SOCs in the Verde River watershed. ADWR intends to address non-Indian Federal reserved water rights in the HSR in which they are located. However, ADWR recommends that Indian reserved water rights claims be addressed in separate HSRs. There are four tribal reservations in the Verde River watershed, reservations for the Yavapai Prescott Indian Tribe, for the Yavapai-Apache Nation, for the Fort McDowell Yavapai Nation, and for the Tonto Apache Tribe. Of these four, the Fort McDowell Yavapai Nation and the Yavapai Prescott Indian Tribes both have water rights settlements and do not need to be addressed in an HSR.

## **vii. Lower Gila River Watershed**

ADWR has not completed any Adjudication related reports for the Lower Gila River watershed. There are 1,221 SOCs in the Lower Gila River watershed.

### **b. Little Colorado River Adjudication**

The Little Colorado River is a HUC 6, and therefore is referred to as a watershed. The Silver Creek subwatershed is a HUC 8. However, the current HUC boundary for the Silver Creek subwatershed is slightly different than that used for the HSR. The updated watershed map does not modify the Silver Creek HSR boundary. The Upper Little

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<sup>15</sup> Technical Report – De Minimis Domestic, Stockpond, and Stock and Wildlife Watering Uses in the Verde River Watershed (August 2022), [https://infoshare.azwater.gov/docushare/dsweb/Get/Document-25303/2022\\_08\\_29\\_Technical\\_Report\\_DeMinimis\\_Uses\\_in\\_the\\_Verde\\_River\\_Watershed.pdf](https://infoshare.azwater.gov/docushare/dsweb/Get/Document-25303/2022_08_29_Technical_Report_DeMinimis_Uses_in_the_Verde_River_Watershed.pdf); Subflow Delineation Report for the Verde River Mainstem and Sycamore Canyon Subwatershed (December 2021), [https://infoshare.azwater.gov/docushare/dsweb/Get/Document-22776/2021-12-30-Partial\\_Verde\\_Subflow\\_Delineation.pdf](https://infoshare.azwater.gov/docushare/dsweb/Get/Document-22776/2021-12-30-Partial_Verde_Subflow_Delineation.pdf); Technical Report – Subflow Delineation for the Remainder of the Verde River Watershed (April 2023), [https://infoshare.azwater.gov/docushare/dsweb/Get/Document-67609/2023\\_04-28\\_COMBINED\\_Verde\\_River\\_Remainder\\_Subflow\\_Delineation\\_Report.pdf](https://infoshare.azwater.gov/docushare/dsweb/Get/Document-67609/2023_04-28_COMBINED_Verde_River_Remainder_Subflow_Delineation_Report.pdf).

<sup>16</sup> For purposes of the Adjudication, the Verde River watershed is broken up into 5 subwatersheds. These Verde subwatersheds do not conform to HUC 8 boundaries. At the HUC 8 level the Verde is divided into 3 subwatersheds, Big Chino-Williamson Valley, Upper Verde and Lower Verde. Since work has already begun in the Verde, ADWR does not propose changing the way the Verde is divided for the purposes of HSRs.

<sup>17</sup> Sycamore Creek subwatershed Preliminary HSR is due March 6, 2026; Sycamore Creek subwatershed Final HSR is due March 12, 2027; Lower Verde Valley subwatershed Preliminary HSR is due September 3, 2027; Lower Verde Valley subwatershed Final HSR is due September 5, 2028; Big and Little Chino subwatersheds Preliminary HSRs is due March 9, 2029; Big and Little Chino subwatersheds Final HSRs is due March 8, 2030.

Colorado River and Lower Little Colorado River subwatersheds are a collection of subwatersheds grouped together.

### **i. Upper Little Colorado River Subwatershed**

Except for the *de minimis* report on uses supplied by wells that was filed in 1994, ADWR has not completed any Adjudication related reports for the Upper Little Colorado River subwatershed.<sup>18</sup> This report has not been addressed by the Court, and it would require significant update as it no longer comports with the *de minimis* guidelines and procedures that have been developed since 1994. There are 6,060 SOCs in the Upper Little Colorado River subwatershed. This subwatershed includes the Zuni, Carrizo Wash, and Upper Little Colorado River HUC 8 subwatersheds. ADWR recommends that they be investigated together because of the low number of SOCs in the area.

### **ii. Silver Creek Subwatershed**

ADWR completed its final HSR for the Silver Creek subwatershed in November 1990.<sup>19</sup> In September 1993, ADWR completed its *de minimis* report for stockponds and stockwatering in the Silver Creek subwatershed.<sup>20</sup> In April 1994, ADWR completed a *de minimis* report on water uses supplied by wells.<sup>21</sup> The 1994 report has not been addressed by the Court, and it would require a significant update as it no longer comports with the *de minimis* guidelines and procedures that have been developed since 1994. ADWR is currently working on the subflow report for Silver Creek subwatershed which is due September 2026. There are 3,681 SOCs in the Silver Creek subwatershed.

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<sup>18</sup> Technical Report on De Minimis Adjudication of Uses Supplied From Wells in the Little Colorado River System (April 1994), <https://infoshare.azwater.gov/docushare/dsweb/Get/Document-11111/1994%20Technical%20Report%20on%20De%20Minimis%20Adjudications%20of%20Uses%20Supplied%20From%20Wells%20in%20the%20Little%20Colorado%20River%20System.pdf>.

<sup>19</sup> Hydrographic Survey Report for the Silver Creek Watershed (November 1990),

<https://infoshare.azwater.gov/docushare/dsweb/Get/Document-11104/SilverCreekHydrographicReport-Vol1maps.pdf>.

<sup>20</sup> Technical Report on De Minimis Adjudication of Stockpond and Stockwatering Uses in the Silver Creek Watershed (September 1993), <https://infoshare.azwater.gov/docushare/dsweb/Get/Document-11112/1993%20Technical%20Report%20on%20De%20Minimis%20Adjudication%20of%20Stockpond%20and%20Stockwatering%20Uses%20in%20the%20Silver%20Creek%20Watershed.pdf>.

<sup>21</sup> Technical Report on De Minimis Adjudication of Uses Supplied From Wells in the Little Colorado River System, (April 1994), <https://infoshare.azwater.gov/docushare/dsweb/Get/Document-11111/1994%20Technical%20Report%20on%20De%20Minimis%20Adjudications%20of%20Uses%20Supplied%20From%20Wells%20in%20the%20Little%20Colorado%20River%20System.pdf>.

### iii. Lower Little Colorado River Subwatershed

In July 2019, ADWR completed a *de minimis* report for the Lower Little Colorado River subwatershed for stockponds and stock and wildlife watering uses.<sup>22</sup> In April 1994, ADWR completed a *de minimis* report on uses supplied by wells.<sup>23</sup> The 1994 report has not been addressed by the Court, and it would require a significant update as it no longer comports with the *de minimis* guidelines and procedures that have been developed since 1994. ADWR is currently working on a subflow report which is due September 2025 and a preliminary HSR (no ordered due date, but anticipated June 2028).<sup>24</sup> There are 5,909 SOCs in the Lower Little Colorado River subwatershed. This subwatershed includes all of the remaining subwatersheds in the Little Colorado River watershed, and ADWR recommends that it be investigated together because of the small number of SOCs in the area.

#### c. Summary

There are inconsistencies in what uses the Court has requested that ADWR analyze for possible *de minimis* inclusion. The chart below summarizes the reports described above.

**Completed Report Summary**

Watershed/Subwatershed	<i>De Minimis</i>	Subflow	Preliminary HSR	Final HSR
San Pedro River Watershed	Stockponds, Stockwatering, and Domestic 1993	2015	1990	1991
Santa Cruz River Watershed				
Upper and Middle Gila River Watersheds				
Lower Gila River Watershed				
Salt River Watershed			1992	
Verde River Watershed	Stockponds, Stockwatering,	2021/2023 <sup>25</sup>	Due 2026, 2027, 2029	Due 2027, 2028, 2030

<sup>22</sup> Technical Report – De Minimis Adjudication of Stockpond and Stock and Wildlife Watering Uses, Lower Little Colorado River Subwatershed (July 2019), <https://infoshare.azwater.gov/docushare/dsweb/Get/Document-11651/2019%2007-30%20LLCR%20Technical%20Report.pdf>.

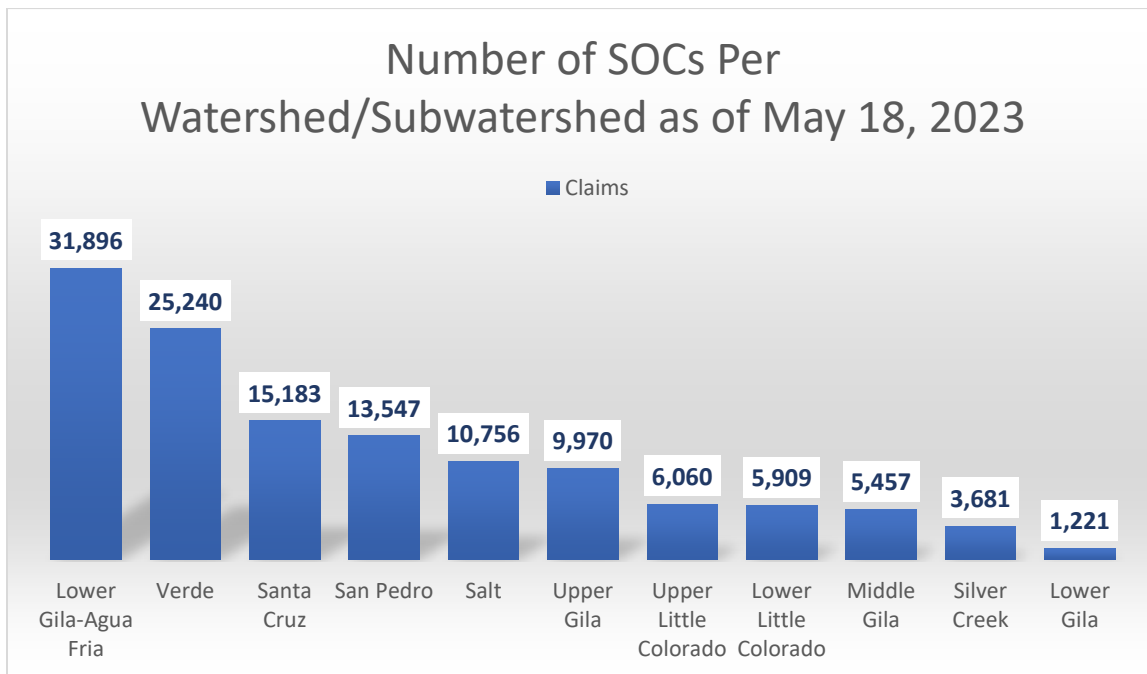
<sup>23</sup> Technical Report on De Minimis Adjudication of Uses Supplied From Wells in the Little Colorado River System, (April 1994), <https://infoshare.azwater.gov/docushare/dsweb/Get/Document-11111/1994%20Technical%20Report%20on%20De%20Minimis%20Adjudications%20of%20Uses%20Supplied%20From%20Wells%20in%20the%20Little%20Colorado%20River%20System.pdf>.

<sup>24</sup> Minute Entry, in re Lower Colorado River Subwatershed, Contested Case No. CV-6417-400 (November 9, 2021).

<sup>25</sup> By court order, this subflow report was split into two parts. Order Granting Request for Extension of Time in Part and Order Setting Settlement Conference, *in re Subflow Report, Verde River Watershed* (July 30, 2021).

	Wildlife, and Domestic 2022			
Agua Fria River Watershed				
Upper Little Colorado River Subwatershed	Uses Supplied by Wells 1994			
Silver Creek Subwatershed	Stockponds, Stockwatering 1993; Uses Supplied by Wells 1994	Due 2026	1990	1990
Lower Little Colorado River Subwatershed	Stockponds, Stockwatering and Wildlife 2019; Uses supplied by Wells 1994	Due 2025	Proposed 2028	Proposed 2029

There are also significant differences in the number of SOC's that ADWR will need to analyze for various technical reports. The chart below summarizes the number of SOC's in each watershed. As ADWR has indicated in previous filings and reports, SOC data serves as only a very rough estimate of actual uses.



### III. Arizona Geological Survey Estimates

In response to the Court’s request, ADWR identified stream reaches that need to be investigated as having potential for a subflow zone within the Salt River watershed, Upper Gila River and Middle Gila River watersheds, and Upper Little Colorado River subwatershed.<sup>26</sup> The potential stream reaches to be included in each area of interest were then shared with Arizona Geological Survey (“AZGS”) so that they could provide cost and time estimates for each. AZGS is available to start mapping the extent of Holocene channel and floodplain alluvium for the next subflow report in late 2025, which would result in the next subflow report being available, at the earliest, in late 2027. Although AZGS could not provide a precise quote, cost estimates and time estimates were provided for each watershed and subwatershed. The results are detailed in the table below.

<b>Watershed/ Subwatershed</b>	<b>Approximate Number of River Miles</b>	<b>Estimate of Time for AZGS Work</b>	<b>Estimate of Time for ADWR Work</b>	<b>Estimate of Total Time Required to Complete Report</b>	<b>Approximate AZGS Cost</b>
Upper Little Colorado River	790 river miles	18 months	18 months	36 months	\$200,000
Upper and Middle Gila River	2190 river miles	24 months	24 months	48 months	\$400,000
Salt River	1965 river miles	30 months	30 months	60 months	\$450,000

### IV. ADWR’s Recommendations

In response to the Court’s request regarding whether work should proceed in the Upper Gila River and Middle Gila River watersheds, Upper Salt River watershed, or Upper Little Colorado River subwatershed, ADWR recommends the following:

- ADWR does not recommend that the subflow zone for the for the Upper Gila River and Middle Gila River and Salt River watersheds and the Upper Little Colorado River subwatershed be issued either as a joint report or as three reports issued simultaneously. Neither AZGS nor ADWR currently has the capacity to work on more than one subflow report at a time without significantly impacting other work. ADWR could certainly wait to file any of the reports until they are all done, but that would mean a likely filing date of mid-2034.

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<sup>26</sup> These watersheds correspond with the locations that the Court requested for this report. Order for Technical Report and Order Setting Status Conference (February 22, 2023), at 5-6.

Instead, ADWR recommends the following:

1. **Deadlines:** ADWR recommends that the Court should not set deadlines for reports more than 10 years into the future, because of year-to-year budget fluctuations as well as improvements within the Adjudication process offer too many variables for accurate long-term planning and scheduling. However, ADWR supports the idea of setting a tentative order and timing for reports, setting deadlines for reports that have not yet received a deadline, and revisiting the order when circumstances dictate a need for a change.
2. **Lower Little Colorado River Subwatershed:** ADWR recommends that the Court request that ADWR file the preliminary HSR for the Lower Little Colorado River subwatershed on June 30, 2028, and that the final HSR for the Lower Little Colorado River subwatershed to be filed on June 29, 2029.
3. **San Pedro River Watershed:** The existing subflow zone reports do not cover the entire San Pedro watershed. For this reason, ADWR recommends that the Court request that ADWR prepare a subflow zone report for the remainder of the San Pedro River watershed (sometimes referred to as San Pedro Mountain Front Streams). This report should include major and minor tributaries not included in the original subflow report. ADWR estimates that there are approximately 100 stream segments that could require mapping in the San Pedro River watershed. Completing this process will allow for additional rights to be adjudicated, even if the test for wells located outside of the subflow zone is not yet available. Although ADWR did not get estimates from AZGS for this work, ADWR estimates that the cost and time estimate for the remainder of the San Pedro River watershed would be between 36 and 48 months and the cost would be between \$200,000 and \$400,000. ADWR recommends that this report be due September 29, 2029.
4. **Upper Little Colorado River:** The next area the Court should address is the Upper Little Colorado River subwatershed. ADWR believes that there is significant benefit to the Court, the parties, and the public in finishing the adjudication of the Little Colorado River system. Finishing the Little Colorado System will restrict the adjudication to one court system, reducing complexity and cost. ADWR recommends that the Court request a subflow zone report for the Upper Little Colorado River subwatershed to be due March 28, 2031, and any additional *de minimis* reports the Court deems necessary for the Upper Little Colorado River subwatershed to be due September 27, 2030. ADWR further recommends that the Court plan that the preliminary HSR for the Upper Little

Colorado River subwatershed be due no earlier than March 2036 with the final HSR due no earlier than March 2037.

5. **Verde River Watershed:** ADWR recommends that the Court set a deadline for the HSR for the Verde Canyon subwatershed. ADWR understands that the Court and the parties previously discussed possibly combining work on the Verde Canyon subwatershed with the Upper Salt River HSR.<sup>27</sup> ADWR believes that issuing the Verde Canyon subwatershed HSR and thus finishing out the investigation of the Verde River watershed will be helpful for those members of the public participating in the Adjudication, and therefore does not recommend combining the Verde Canyon subwatershed HSR with the Salt River HSR. ADWR recommends setting the date for the Verde Canyon subwatershed preliminary HSR for September 30, 2031, and the final HSR for September 30, 2032. If the Court decides to address the claims for the Yavapai-Apache Nation and for the Tonto Apache Tribe, ADWR recommends that each of these tribal HSRs be done in single phases after the Verde Canyon subwatershed HSR is complete.
6. **Salt River Watershed:** ADWR recommends that the court request a *de minimis* report for the Salt River watershed to be due no earlier than March 2033, and that a subflow zone report for the Salt River watershed be due no earlier than September 2034. ADWR recommends that no date be set for a Salt River preliminary and final HSR at this time.
7. **Upper and Middle Gila Watersheds:** ADWR recommends that the court request a *de minimis* report for the Upper and Middle Gila watersheds to be due no earlier than June 2034, and that a subflow zone report for the two watersheds be due no earlier than June 2036.
8. **San Pedro River Watershed:** ADWR recommends that the Court seek the input of the parties and ADWR on whether an “HSR II” for the San Pedro River watershed is still appropriate and necessary. The Court last formally considered this issue in 2016. Contested casework has taken considerably longer than originally anticipated, and the process of completing the adjudication of water rights in the San Pedro River watershed has been delayed by the need to address fundamental legal issues. ADWR believes that there may be more efficient ways to address uses that began after the Final HSR was issued in 1991 and that would allow more certainty for water users in the watershed.

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<sup>27</sup> Minute Entry, *in re Subflow Technical Report Verde River Watershed, Contested Case No. W1-106*, (March 4, 2020).



For the benefit of the Court and the parties, ADWR has attached a copy of its recommended schedule titled “Proposed Major Reports Timeline” (Appendix A).

If the Court rejects ADWR’s recommendations above, ADWR recommends the following:

1. The subflow zone report for the Upper Little Colorado River subwatershed be due in February 2029.
2. The subflow zone report for the Salt River watershed be due in September 2032.
3. The subflow zone report for the Upper Gila River and Middle Gila River watersheds be due in June 2034.

For the benefit of the Court and the parties, ADWR has attached a copy of its alternate recommended schedule titled “Alternate Proposed Major Reports Timeline” (Appendix B).

# **APPENDIX A**



# **APPENDIX B**

