

FOR PUBLICATION

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

GILA RIVER INDIAN
COMMUNITY, a federally
recognized Indian tribe,

Plaintiff - Appellee,

SAN CARLOS APACHE TRIBE,

*Intervenor-Plaintiff -
Appellee,*

v.

DAVID SCHOUBROEK; EVA
SCHOUBROEK; DONNA
SEXTON; MARVIN
SEXTON; PATRICK SEXTON,

Defendants - Appellants.

No. 23-2743

D.C. No.
4:19-cv-00407-
SHR

OPINION

Appeal from the United States District Court
for the District of Arizona
Scott H. Rash, District Judge, Presiding

Argued and Submitted February 5, 2025
Phoenix, Arizona

Filed July 24, 2025

Before: Richard R. Clifton, Jay S. Bybee, and Bridget S.
Bade, Circuit Judges.

Opinion by Judge Bybee

SUMMARY*

Water Rights

The panel affirmed in part and reversed in part the district court’s summary judgment in favor of the Gila River Indian Community (GRIC), and remanded for further proceedings, in GRIC’s action against two landowners regarding water rights in the Gila River.

GRIC alleged that defendants’ farms were pumping groundwater that originated in the Gila River, in derogation of GRIC’s rights. The panel affirmed the district court’s finding that jurisdiction was proper in federal court but reversed its finding that the District of Arizona had prior exclusive jurisdiction. The panel concluded that the district court’s 1935 “Globe Equity Decree” among parties with claims to the Gila River mainstem did not give the district court prior exclusive jurisdiction over GRIC’s claims against defendants because the *res* in the Decree was not the mainstem water, but rather was the water rights of the parties to the Decree. The panel further held that the “Gila River

* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

Adjudication” did not give the Arizona Supreme Court prior exclusive jurisdiction. Accordingly, the district court had non-exclusive original jurisdiction to hear this case under 28 U.S.C. § 1362.

The panel affirmed the district court’s denial of defendants’ motion for summary judgment on claim preclusion, based on GRIC’s 2007 district court complaint that was dismissed with prejudice. The panel concluded that the parties were identical in this suit and the prior suit, and the claims were likely identical, but the 2007 dismissal did not constitute a final judgment that had preclusive effect because GRIC only dismissed the 2007 complaint with prejudice because of a 2005 Agreement that required “Hot Lands” owners such as defendants to comply with the Upper Valley Forbearance Agreement, which addressed wells that allegedly pumped Gila River subflow without Decree rights.

The panel reversed the district court’s grant of GRIC’s motion for summary judgment and remanded for further proceedings. The panel held that under Arizona’s complex water scheme, surface water, such as the flow of the Gila River, is subject to the doctrines of prior appropriation and beneficial use, but groundwater is not appropriable and may be pumped by the landowner. Surface water, however, also has subflow, which is governed by the same law that governs the flow of a river. The panel concluded that, under the burden-shifting framework for proving subflow, GRIC had shown at most that defendants could be drawing some water that originated in the Gila River, but it could turn out that such water did not meet the legal definition of subflow or that the amount was *de minimis*. Because the entry of summary judgment was inappropriate, the panel vacated the remedy ordered by the district court.

COUNSEL

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OPINION

BYBEE, Circuit Judge:

The Gila River Indian Community (GRIC) sued two landowners—the Schoubroek and Sexton families (collectively, Defendants)—alleging that their farms were pumping groundwater that originated in the Gila River, in derogation of GRIC’s rights. The parties, both below and on appeal, litigated this case at the poles. With respect to jurisdiction, GRIC argued that the district court has the exclusive power to hear this case; Defendants claimed that a special ongoing state court proceeding in Arizona is the exclusive forum. The parties vigorously contested the merits, engaging in a protracted battle of experts over whether Defendants have drawn any water to which GRIC is entitled. And, as to the remedy, GRIC asked that the wells at issue be shut down, even if they pump only small amounts of Gila River water. The district court held that it had exclusive jurisdiction over this case, granted summary judgment for GRIC, and ordered the wells capped.

In the end, neither party has it quite right. The district court has jurisdiction, but it is not exclusive. We conclude that under Arizona’s complex water scheme, GRIC has shown at most that Defendants may be drawing some water that originated in the Gila River, but it may turn out that such water does not meet the legal definition of subflow or that the amount is *de minimis*. As for the remedy, we remand for further proceedings. For the reasons that follow, we affirm in part as to jurisdiction, reverse the grant of summary judgment, and remand for further proceedings.

I. BACKGROUND

We begin with a brief history of the Gila River and the tribal rights to its water, then we discuss relevant Arizona water law and proceedings, and finally we summarize this case and its procedural history.

A. *The Gila River, the Indian Tribes, and the Globe Equity Decree*

Congress established the Gila River Reservation (the Reservation) in 1859. *In re Gen. Adjudication of All Rights to Use Water in Gila River Sys. and Source (Gila VI)*, 127 P.3d 882, 885 (Ariz. 2006) (en banc). Between 1876 and 1915, various Executive Orders expanded the borders of the Reservation to its current size of more than 370,000 acres. GRIC is a sovereign Indian nation organized and federally recognized under § 16 of the Indian Reorganization Act of 1934, 25 U.S.C. § 5123, and composed of members of the Pima and Maricopa tribes. *Gila River Indian Cmty. v. Henningson, Durham & Richardson*, 626 F.2d 708, 709 (9th Cir. 1980). GRIC's constitution and bylaws were approved by the Secretary of the Interior in 1936, and the United States holds the Reservation's land in trust for GRIC. *Id.*

The Reservation borders the Gila River, which originates in New Mexico and flows westward across Arizona, fed by a number of tributaries—the Salt, Verde, Agua Fria, Santa Cruz, and San Pedro Rivers—which drain much of central and southern Arizona. The Reservation is located near the confluence of the Salt and Gila rivers, downstream of landowners who settled near the Gila River after Congress established the Reservation.

In 1924, Congress appropriated funds for the San Carlos Irrigation Project (the Project) which involved the

construction of a dam on the Gila River and the creation of the San Carlos Reservoir. *Gila VI*, 127 P.3d at 885. As part of the Project, the United States entered into agreements with landowners along the Gila River. *Id.* Landowners conveyed water rights to the United States in exchange for waters from the Reservoir. *Id.*

In 1925, the United States filed suit in the District of Arizona on behalf of itself, GRIC, the San Carlos Apache Tribe, and other landowners, and named as defendants individuals, irrigation districts, canal companies, and corporations. *Id.* This action, known as the “Globe Equity Litigation,” sought a comprehensive determination of Gila River water rights. In it, plaintiffs alleged that they were “entitled to certain quantities of water from the Gila River and its tributaries and that the defendants’ claims were ‘in conflict with or adverse to’ the rights of the tribes and the projects.” *Id.* (quoting the 1925 complaint).

The Globe Equity Litigation progressed over the next ten years as the district court dismissed without prejudice all defendants with claims exclusively to water from Gila River tributaries. This left only those parties with claims to the Gila River mainstem. In 1935, those parties stipulated to the entry of the “Globe Equity Decree” (the Decree) which stated that the parties “have concluded and settled all issues in this cause as between plaintiff and said parties defendant.” The Decree both defined and settled the claims and rights as to the parties to the Decree by listing dates of priority, the amount of water each party is entitled to, and the places where the parties may divert water. *Id.* (quoting the Decree). The District of Arizona has maintained continuing jurisdiction over the Decree since 1935. *Id.* at 885 & n.2; *United States v. Gila Valley Irrigation Dist.*, 117 F.3d 425,

426 (9th Cir. 1997) (“We have jurisdiction under the Decree . . .”).

B. The Gila River Adjudication and Basic Principles of Arizona Water Law

In 1981, the Arizona Supreme Court consolidated a “series” of petitions seeking determination of water rights into a single proceeding—the Gila River Adjudication (the Adjudication). *Gila VI*, 127 P.3d at 886; *see also United States v. Sup. Ct. In and For Maricopa Cnty.*, 697 P.2d 658, 662–665 (Ariz. 1985) (en banc) (discussing the history leading up to the Adjudication). The Adjudication’s goal is to determine water use rights in the Gila River Basin. *See* Ariz. Rev. Stat. § 45-257 (Arizona statute describing the Adjudication process). The Adjudication’s orders are enforced by the director of the Arizona Department of Water Resources, but the director lacks power over “existing judgments or decrees.” Ariz. Rev. Stat. § 45-103(B). As of 2016, thirty-five years after it was established, the Adjudication involves over 82,000 claims and over 38,000 parties. Defendants’ predecessors-in-interest filed “Statements of Claimant” with the Arizona Department of Water Resources in the Adjudication for the wells at issue here. Those claims have not yet been adjudicated.

Arizona has a “bifurcated system of allocating water rights” that “differentiates groundwater users from surface water users.” *In re Gen. Adjudication of All Rights to Use Water in the Gila River Sys. and Source (Gila IV)*, 9 P.3d 1069, 1073 (Ariz. 2000). “By statute, surface water is subject to the doctrines of prior appropriation and beneficial use.” *Id.* (citing Ariz. Rev. Stat. §§ 45-141(A); 45-251(7)). “Percolating groundwater, on the other hand, is not appropriable and may be pumped by the overlying

landowner, subject to the doctrine of reasonable use” *Id.* (citations omitted).

Although most surface streams flow above ground, “[t]he boundary between surface water and groundwater is not at all clear.” *Gila IV*, 9 P.3d at 1073. Surface streams also have “subflow,” which Arizona treats like surface water and is subject to prior appropriation. *Id.* Subflow “is not a scientific, hydrological term.” *Id.* In 1931, the Arizona Supreme Court defined it as “those waters which slowly find their way through the sand and gravel constituting the bed of the stream, or the lands under or immediately adjacent to the stream, and are themselves a part of the surface stream.” *Maricopa Cnty. Mun. Water Conservation Dist. No. 1. v. Sw. Cotton Co.*, 4 P.2d 369, 380 (Ariz. 1931) (citation omitted). “The notion of ‘subflow’ is significant in Arizona law, for it serves to mark a zone where water pumped from a well so appreciably diminishes the surface flow of a stream that it should be governed by the same law that governs the stream.” *In re Gen. Adjudication of All Rights to Use Water in the Gila River Sys. and Source (Gila III)*, 989 P.2d 739, 743 (Ariz. 1999) (en banc) (citing *Sw. Cotton*, 4 P.2d at 380–81). Subflow matters because it is “probably much greater in volume in some cases than the water upon the surface,” given that rivers, including the Gila, may be dry on the surface. *Gila IV*, 9 P.3d at 1073 (quoting 2 Clesson S. Kinney, *A Treatise on the Law of Irrigation and Water Rights* § 1161, at 2107 (2d ed. 1912)). “[T]he concept of subflow serves to protect appropriable surface water rights against interference caused by the pumping of groundwater.” *Id.* at 1073–74.

The Arizona Supreme Court acknowledged in *Gila II* that most states have abandoned a “bifurcated” water law system. *In re Gen. Adjudication of All Rights to Use Water*

in the Gila River Sys. and Source (Gila II), 857 P.2d 1236, 1240 (Ariz. 1993) (en banc). Arizona, however, has retained it even though it “rests on a hydrological misconception” because groundwater and surface water are connected and pumping groundwater even “distantly within an aquifer” may diminish surface water, just as pumping subflow itself would. *Gila III*, 989 P.2d at 743 (citing *Gila II*, 857 P.2d at 1243). Nonetheless, in *Gila II* the Arizona Supreme Court “reaffirm[ed] *Southwest Cotton*’s narrow concept of subflow.” 857 P.2d at 1247. In *Gila IV*, the Arizona Supreme Court further defined subflow and created a test for determining whether a well is pumping subflow. 9 P.3d at 1081–82. This test will be discussed in greater detail in Part III.C, below.

C. *Procedural History*

GRIC filed suit in the District of Arizona in 2019 to stop allegedly unlawful pumping by Defendants. Four wells are at issue here—three Sexton wells (Sexton 1, 2, and 3) and one Schoubroek well. GRIC sought an order declaring that Defendants’ four wells are pumping Gila River subflow without a Decree right; an order directing the Gila Water Commissioner to cut off and seal the wells; and an order that Defendants cease pumping.¹

Initially, Defendants moved to dismiss under Federal Rule of Civil Procedure 12(b)(1) and argued that jurisdiction was proper only in the Adjudication in state court or, alternatively, that the Court must abstain in deference to the Adjudication. The district court held that it had jurisdiction under 28 U.S.C. § 1362, which confers original jurisdiction

¹ The district court deemed this third ground for relief unnecessary. This is not contested on appeal.

when a matter “arises under the Constitution, laws or treaties of the United States” and is brought by an Indian Tribe. “Additionally and alternatively,” the court found jurisdiction proper under 28 U.S.C. § 1331, the federal question statute. Importantly, the district court rejected Defendants’ argument that the Adjudication had exclusive jurisdiction over this case and instead held that *it* had exclusive jurisdiction because “this case involves Defendants’ alleged use of mainstem water.” The district court concluded that no abstention doctrine applied.

The parties then moved for summary judgment. GRIC² moved for summary judgment on the merits. Defendants moved for summary judgment on the applicability of the prior exclusive jurisdiction doctrine, the validity and enforceability of a forum selection clause,³ and claim preclusion grounds.

The district court made four decisions on summary judgment that are relevant on appeal. First, the district court⁴ held that it had prior exclusive jurisdiction to hear this case and denied Defendants’ first motion. Second, it held that GRIC’s claims were not precluded and denied Defendants’ second motion. Third, applying Arizona law, it granted summary judgment to GRIC on the merits, concluding that

² Before summary judgment, the San Carlos Apache Tribe (Intervenor or the Tribe) moved to intervene. The district court granted the Tribe permissive intervention. The district court noted that the Tribe’s claims in its Complaint-In-Intervention are identical to GRIC’s complaint and that the Tribe joined GRIC’s pending motions and pleadings.

³ The district court denied summary judgment as to the forum selection clause. This is not contested on appeal.

⁴ District Judge Susan R. Bolton ruled on the 12(b)(1) motion. The case was transferred to District Judge Scott H. Rash shortly after. Case No. 4:19-cv-407 (D. Ariz.), dkt. 28.

the undisputed facts showed that Defendants' wells were pumping subflow from the Gila River.⁵ Last, it ordered GRIC's requested remedy—that Defendants' four wells be shut down in their entirety.

The district court then denied Defendants' Rule 60 and reconsideration motions. The district court entered final judgment in September 2023 and declared that “from at least 2016 to 2021, . . . waters of the Gila River mainstem, consisting of or including the subflow of the Gila River” irrigated the Sexton and Schoubroek land “without any Globe Equity Decree right to such waters.” It ordered the Gila Water Commissioner to direct Defendants to seal all four wells.

II. JURISDICTION AND STANDARD OF REVIEW

We have appellate jurisdiction under 28 U.S.C. § 1291. “A district court’s determination of subject matter jurisdiction, including its application of the prior exclusive jurisdiction rule, is reviewed *de novo*.” *Applied Underwriters, Inc. v. Lara*, 37 F.4th 579, 587 (9th Cir. 2022) (citation omitted). We review questions relating to *res judicata* and summary judgment *de novo*. *Clark v. Bear Stearns & Co., Inc.*, 966 F.2d 1318, 1320 (9th Cir. 1992) (citations omitted). Last, we review the “grant or denial of an injunction, as well as the scope of that injunction, for abuse of discretion.” *Internet Specialties W., Inc. v. Milon-DiGiorgio Enters., Inc.*, 559 F.3d 985, 993 (9th Cir. 2009) (citations omitted).

⁵ The district court granted this motion in part. The part denied by the court is not relevant on appeal.

III. ANALYSIS

Defendants raise four issues on appeal: whether (1) the Adjudication court, and not the district court, has exclusive jurisdiction over GRIC's claims; (2) GRIC's claims are precluded because the same claims were dismissed with prejudice in a 2007 case; (3) the district court erred in granting summary judgment for GRIC because there are disputes of material fact as to whether Defendants' wells pump subflow; and (4) the relief ordered by the district court—shutting off the wells entirely—is overbroad. We discuss each issue in turn.

A. *The District Court's Jurisdiction*

On appeal, the parties disagree over whether a state or federal forum has exclusive jurisdiction over this case. GRIC claims that the district court has exclusive jurisdiction; Defendants claim the Adjudication court has exclusive jurisdiction. At oral argument, both parties agreed that if neither forum has exclusive jurisdiction, then this case has been properly brought in federal court.

Under Article III, the “judicial Power” of the federal courts “shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made . . . under their Authority.” U.S. Const. art. III, § 2, cl. 1. The significance of this provision is that “[f]ederal courts are courts of limited jurisdiction. They possess only that power authorized by Constitution and statute, which is not to be expanded by judicial decree.” *Kokkonen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 377 (1994) (citations omitted). Unlike state courts, which we presume to be courts of general jurisdiction until proven otherwise, in federal court “[i]t is to be presumed that a cause lies outside this limited jurisdiction [in Article III], and the

burden of establishing the contrary rests upon the party asserting jurisdiction.” *Id.* (citations omitted).

GRIC claimed, and the district court agreed, that exclusive jurisdiction rested in the district court because this was an action “arising under” the 1935 Globe Equity Decree that established GRIC’s right to the mainstem water of the Gila River. They asserted that the district court had original jurisdiction pursuant to 28 U.S.C. § 1362 because the action was “brought by any Indian tribe . . . recognized by the Secretary of the Interior, wherein the matter in controversy arises under the Constitution, laws, or treaties of the United States.” Defendants answered that they (or their predecessors-in-interest) were not parties to the Decree and were not bound by it. Accordingly, the case did not arise under the laws of the United States. Rather, Defendants said, water rights are determined by state law, and Arizona had vested exclusive jurisdiction over determination of water rights to the Gila River in the Adjudication court.

The clash between the putative *exclusive* jurisdiction of a federal court and state court with respect to water rights invokes the prior exclusive jurisdiction doctrine. That “doctrine holds that ‘when one court is exercising *in rem* jurisdiction over a *res*, a second court will not assume *in rem* jurisdiction over the same *res*.’” *Chapman v. Deutsche Bank Nat’l Tr. Co.*, 651 F.3d 1039, 1043 (9th Cir. 2011) (quoting *Marshall v. Marshall*, 547 U.S. 293, 311 (2006) (additional citation omitted)). “The purpose of the rule is the maintenance of comity between courts; such harmony is especially compromised by state and federal judicial systems attempting to assert concurrent control over the *res* upon which jurisdiction of each depends.” *United States v. One 1985 Cadillac Seville*, 866 F.2d 1142, 1145 (9th Cir. 1989) (citation omitted). The prior jurisdiction doctrine is a

mandatory rule of judicial abstention: if two suits are *in rem* or *quasi in rem*, “requiring that the court or its officer have possession or control of the property which is the subject of the suit in order to proceed with the cause and to grant the relief sought, the jurisdiction of one court must of necessity yield to that of the other.” *Penn. Gen. Cas. Co. v. Pennsylvania ex rel. Schnader*, 294 U.S. 189, 195 (1935); *see also Sexton v. NDEX W., LLC*, 713 F.3d 533, 536 n.5 (9th Cir. 2013) (describing the doctrine as “best understood as a prudential (although mandatory) common law rule of judicial abstention”).

The parties agree that this doctrine applies to water rights adjudications, which we have characterized as *quasi in rem* or *in rem* proceedings. *State Eng’r of State of Nev. v. S. Fork Band of Te-Moak Tribe of W. Shoshone Indians of Nev.*, 339 F.3d 804, 811 (9th Cir. 2003); *United States v. Alpine Land & Reservoir Co.*, 174 F.3d 1007, 1013 (9th Cir. 1999). In an ordinary case where federal and state courts each claim jurisdiction over a *res*, the general rule is that the court that first resolves the merits has jurisdiction. *See Penn. Gen. Cas. Co.*, 294 U.S. at 195 (“[T]he principle, applicable to both federal and state courts, is established that the court first assuming jurisdiction over the property may maintain and exercise that jurisdiction to the exclusion of the other.” (citation omitted)). What is unusual about this case is that the parties each claim that a federal or state court has exclusive jurisdiction not as a matter of first-in-time jurisdiction over the *res*—a form of *in personam* jurisdiction—but as a matter of exclusive subject matter jurisdiction. GRIC claims that this is an action under the Decree, over which the U.S. District Court for the District of Arizona has exercised jurisdiction since 1935. Defendants argue that the Arizona Adjudication court has had

comprehensive jurisdiction to decide Gila River water rights since 1981. We disagree with both parties.

1. The district court does not have prior exclusive jurisdiction over GRIC's claims

The district court, construing the Decree broadly, held that it “was a final, comprehensive adjudication of the entire mainstem,” over which the District of Arizona had prior exclusive jurisdiction. The district court framed this jurisdictional dispute as hinging on the *source* of water involved—claims to mainstem Gila River water must be in federal court and claims to tributary water must be in the state court Adjudication. Defendants argue that jurisdiction instead depends on the *parties* involved. Although Defendants do not dispute that GRIC's claims concern mainstem water,⁶ they contend that the Decree cannot vest the district court with exclusive jurisdiction over mainstem Gila River claims because the Decree does not purport to enjoin or define the rights of non-parties. GRIC responds that the Decree is enforceable against parties and non-parties alike.

In *Gila VI*, the Arizona Supreme Court discussed the Decree and its relationship to the Adjudication. 127 P.3d

⁶ GRIC's complaint alleges that Defendants are pumping “subflow,” which is mainstem water. *Gila IV*, 9 P.3d at 1073 (“Because subflow is considered part of the surface stream it is appropriable as such . . .”). Because Defendants present a facial attack on the court's jurisdiction, we take these allegations as true. *Safe Air for Everyone v. Meyer*, 373 F.3d 1035, 1039 (9th Cir. 2004) (“In a facial attack, the challenger asserts that the allegations contained in a complaint are insufficient on their face to invoke federal jurisdiction.”). At summary judgment, Defendants contested whether their wells in fact pump mainstem water.

882.⁷ It said, as an initial matter, that “all of [GRIC’s] water rights, under all theories, to the Gila River mainstem were placed at issue and resolved in the [Decree]. The Decree precludes all further claims to the mainstem of the Gila River *by the parties to the Decree*.” *Id.* at 895 (emphasis added). The Court went on to say:

[T]he Decree was intended to resolve all claims to the Gila River mainstem. The United States included as defendants in the Globe Equity litigation all those with claims to the mainstem of the Gila River, and the Decree includes all water rights theories that the parties could have asserted. Thus, as to the mainstem of the Gila River, the Decree is comprehensive.

Id. at 902. Nowhere in *Gila VI*, however, did the Arizona Supreme Court interpret the Decree as binding non-parties. Instead, the *Gila VI* court held that “non-parties to the Decree [may] assert its preclusive effect, but only as to waters in the Gila River mainstem.” *Id.* at 903.

This holding is consistent with the history leading up to the Decree, the text of the Decree, and its function. Before

⁷ A 2016 law review article provides a helpful summary of the various interlocutory appeals concerning the Gila River Adjudication (*Gila I* through *Gila VI*). See Rhett Larson & Kelly Kennedy, *Bankrupt Rivers*, 49 U.C. Davis L. Rev. 1335, 1352–55 (2016), https://lawreview.law.ucdavis.edu/sites/g/files/dgvnsk15026/files/media/documents/49-4_Larson_Kennedy.docx.pdf [https://perma.cc/MP3D-5Y46]. A 2007 article discusses the Decree and Adjudication in even greater detail. See generally Joseph M. Feller, *The Adjudication That Ate Arizona Water Law*, 49 Ariz. L. Rev. 405 (2007), <https://arizonalawreview.org/feller/> [https://perma.cc/8UWQ-JUKZ].

formalizing the Decree, the United States “entered into stipulations dismissing without prejudice all defendants who maintained claims only to waters of the Gila River tributaries.” *Gila VI*, 127 P.3d at 885. The remaining parties stipulated to the Decree, which settled claims to the mainstem. *Id.*; see *Gila Valley Irrigation Dist. v. United States (GVID)*, 118 F.2d 507, 508 (9th Cir. 1941) (noting that the Decree “determines and regulates the rights of the water users on the Gila River in New Mexico and Arizona”).

The Decree recites that “the plaintiff and the parties defendant . . . have concluded and settled all issues in this cause as between plaintiff and said parties defendant” GRIC admits that the Decree is a “consent decree,” and the Decree refers to itself as a “settlement.” A consent decree is “essentially a settlement agreement subject to continued judicial policing.” *United States v. Oregon*, 913 F.2d 576, 580 (9th Cir. 1990) (internal quotation marks and citation omitted). “Without question courts treat consent decrees as contracts” *Rouser v. White*, 825 F.3d 1076, 1081 (9th Cir. 2016) (quotation marks and citation omitted).

The district court understood the *res* in the Decree to be the mainstem water. According to the district court, because the Decree meted out the entirety of the mainstem, it functioned as an *in rem* proceeding that settled Decree rights against the world. We think this overreads the Decree. The Decree does not mince words—it binds “the parties defendant whose claims and rights have been presented by answer or stipulation.” The *res* here is not the entire mainstem; it is the water rights of the parties to the Decree. That makes the Decree proceedings an action against a finite number of participants and settles water rights between those parties only. Such a proceeding is better described as a *quasi in rem* proceeding. See *Hanson v. Denckla*, 357 U.S. 235,

246 n.12 (1958) (“A judgment in rem affects the interests of all persons in designated property. A judgment quasi in rem affects the interests of particular persons in designated property.”); *see also S. Fork Band of Te-Moak Tribe*, 339 F.3d at 811 (concluding an action was *quasi in rem* because “it is the parties’ interests in the property that serve as the basis for the jurisdiction” (alterations omitted)). Although the Decree may have settled the most important claims to water from the Gila River mainstem, it did not settle all claims once and for all.

GRIC relies on two of our cases to support its argument that prior exclusive jurisdiction rests in the district court. First, it analogizes this case to *Alpine Land & Reservoir Co.*, 174 F.3d 1007. In *Alpine*, a Nevada county filed suit in state court to challenge the Nevada State Engineer’s grant of a water rights transfer application. *Id.* at 1009. The District of Nevada enjoined the state court proceeding because it “interfered” with its exclusive jurisdiction to hear water rights disputes based on two decrees entered years earlier in the district court. *Id.* at 1009–10. We held that the district court had exclusive jurisdiction over actions arising under those decrees. *Id.* at 1012–13.

GRIC overreads *Alpine*. We found exclusive jurisdiction in the district court in that case because we understood the Alpine Decree as “expressly reserv[ing] appellate jurisdiction over decisions of the [Nevada] State Engineer” in federal court. *Id.* at 1013. We “inferred” exclusivity because “it would make no sense for the district court to retain jurisdiction and apply its own judgment to future conduct contemplated by the judgment, yet have a state court construing what the federal court meant in the judgment.” *Id.* (quoting *Flanagan v. Arnaz*, 143 F.3d 540, 545 (9th Cir. 1998)). But we also recognized “the possibility

that in some circumstances, the words, context, or subsequent order of the federal court might show that retention of jurisdiction was not intended to be exclusive.” *Id.* (quoting *Flanagan*, 143 F.3d at 545). This is one such case. The difference between *Alpine* and this suit is that the Decree did not “contemplate[]” non-parties, and in the underlying litigation, the district court only exercised jurisdiction over the mainstem water rights of parties. *See id.* at 1013–14. In other words, as we have explained, the proceedings here were *quasi in rem*. In contrast, the underlying proceedings in *Alpine* were *in rem*, thus granting “the first court to gain jurisdiction over [the] *res* . . . exclusive jurisdiction over an action involving that *res*.” *Id.* at 1013 (citations omitted).

Second, GRIC cites *Sandpiper Village Condominium Association, Inc. v. Louisiana-Pacific Corp.*, 428 F.3d 831 (9th Cir. 2005), and argues that the district court has power, under the All Writs Act, to “protect its judgment” from threats by parties and non-parties alike. *Id.* at 841 & n.14. We do not think *Sandpiper* goes so far. The *Sandpiper* settlement included a provision that “retain[ed] jurisdiction in the district court for the purpose of overseeing and enforcing the prior judgment.” *Id.* at 841. But the settlement conferred “exclusive and continuing jurisdiction over the Actions and Parties, including all members of the Class, the administration and enforcement of the settlement, and the benefits to the Class” *Id.* at 835 (quoting the settlement agreement and order). It is true that the U.S. Supreme Court has said, in dicta, that the All Writs Act “extends, under appropriate circumstances, to persons who, though not parties to the original action or engaged in wrongdoing, are in a position to frustrate the implementation of a court order or the proper administration of justice.” *United States v. N.Y.*

Tel. Co., 434 U.S. 159, 174 (1977) (citations omitted). But we do not discern anything in this action that would frustrate the Decree. Defendants do not claim a superior right to water from the Gila River; they simply claim that they are not pumping any water from the Gila River. This is a straightforward, although factually complex, case over water rights under Arizona's bifurcated system. Whatever "appropriate circumstances" might justify a district court protecting its prior order through an injunction, we will not convert the Decree into an *in rem* proceeding for the purposes of establishing the district court's jurisdiction.

GRIC's remaining arguments for exclusivity largely track two additional points made by the district court. The district court concluded that the scarcity of water in Arizona requires certainty when determining water rights and allowing "non-parties to the Decree to assert new mainstem claims would threaten the certainty on which thousands of Gila River water users have relied for nearly 90 years." It also observed that, after many years, the Adjudication court has not resolved these claims and is proceeding slowly. Neither argument persuades us that the district court has exclusive jurisdiction in this case. The scarcity of water and slow pace of the Adjudication court may be reasons to vest jurisdiction in *some* court, but neither provides a basis for declaring that *exclusive* jurisdiction exists in federal court.

Finally, the Intervenor argues that because Defendants (through their predecessors-in-interest) were not using water at the time of the Decree, the United States had no reason to name them as a party to the Decree. Without exclusive federal jurisdiction, Intervenor argues, this omission would allow post-Decree pumpers like Defendants to evade the Decree's determinations as to mainstem water. We disagree. We acknowledge that the Decree is not irrelevant here. In

fact, the findings made in that proceeding with respect to GRIC's prior appropriation of Gila River water are not challenged here. But the Decree itself is not at the heart of this case because Defendants are not claiming that they have a prior right to water from the Gila River; their claim is based on groundwater pumped from under their lands. That is not a Decree-based claim. Thus, the district court cannot purport to establish prior exclusive jurisdiction over Defendants when the Decree binds "parties defendant," which cannot possibly include someone who was not even pumping groundwater when the Decree came into effect. If Defendants are pumping water in derogation of GRIC's Decree rights, then GRIC's recourse is to file a suit to enforce its priority, not to try to enforce a judgment that did not include Defendants.

The Decree's limited scope does not confer exclusive jurisdiction in federal court over non-party defendants like the Sextons and Schoubroeks.

2. The Adjudication court does not have prior exclusive jurisdiction over GRIC's claims

Defendants argue that the Adjudication court has exclusive jurisdiction over their claims because it was the "first proceeding to encompass Defendants' water uses." Defendants point to a 2007 judgment from the Arizona Superior Court that states that disputes "involving nonparties to the Globe Equity Decree regarding its enforcement shall be subject to the jurisdiction of the Gila River Adjudication Court." This single paragraph from a 2007 judgment approving a 2005 settlement agreement in an Arizona trial court is not enough to confer exclusive jurisdiction in the Adjudication court. As the district court noted, that judgment is not binding here.

Even if the Adjudication court is an acceptable forum, Defendants cannot point to anything that confers exclusive jurisdiction there. Importantly, there is no evidence that the Adjudication court has ever exercised jurisdiction over Defendants' claims. Although Defendants filed Statements of Claimants in the Adjudication in 1985, in the ensuing forty years the Adjudication court has made no progress in adjudicating those claims. The bare filing of a claim in that proceeding is no guarantee that the Adjudication court will exercise jurisdiction over it. Until that court actually asserts jurisdiction over Defendants' claims, we will not consider whether such jurisdiction is exclusive of the federal courts. Defendants' actions so far are akin to taking a number at the DMV. Until that number is called, you have not been served, and at best are in line potentially to be served, so long as you are present when your number finally comes up. The same is true here. Defendants took a number when they filed a Statement of Claimant, but the Adjudication has not yet called their number and has not indicated it will do so anytime soon.⁸

⁸ The question of the Adjudication's jurisdiction over the Gila River itself (apart from its tributaries) seems to be an open one in the Adjudication. A Special Master Report in the Adjudication recently said that stakeholders disagree about whether the Adjudication court is bound by the Decree and the extent to which the Adjudication court has jurisdiction in certain parts of the Gila River watershed. Report of the Special Master on Amendments to the Watershed Boundary Map and Sequencing of Future Hydrographic Survey Report Development, Maricopa County Superior Court, Cases Nos. W-1 through W-4, and Apache County Superior Court, Case No. CV 6417, at 14 (March 25, 2024) (Zendri, S.M.) ("Special Master Report"), <https://www.superiorcourt.maricopa.gov/SuperiorCourt/GeneralStreamAdjudication/docs/W-1-W-2-W-3-W-4-CV6417-Rep-of-SM-3-25-24.pdf> [<https://perma.cc/CJ32-QRN2>].

Defendants have not shown that the Adjudication has exclusive jurisdiction over their claims.

3. The district court has non-exclusive jurisdiction to hear this case

Before concluding it had exclusive jurisdiction over this dispute, the district court otherwise assured itself of its jurisdiction. At oral argument on appeal, both parties agreed that if we held that neither forum had prior exclusive jurisdiction, jurisdiction would be proper in federal court. We agree.

GRIC's complaint asserted five bases for jurisdiction: (1) 28 U.S.C. § 1362; (2) 28 U.S.C. § 1331; (3) "continuing jurisdiction over the interpretation, administration and enforcement of the Decree"; (4) inherent "jurisdiction to manage its proceedings, vindicate its authority, and effectuate its decrees, including the Decree"; and (5) "continuing jurisdiction over all uses of the waters of the mainstem of the Gila River."

For the reasons we discussed above in Part III.A.1, the alleged non-statutory grounds for jurisdiction are unavailing because the Decree, on its face, does not confer jurisdiction over Defendants. The statutory grounds for jurisdiction merit further discussion, much of which was covered by the district court's 2020 jurisdictional order.

Section 1362 provides that "[t]he district courts shall have original jurisdiction of all civil actions, brought by any Indian tribe or band with a governing body duly recognized by the Secretary of the Interior, wherein the matter in controversy arises under the Constitution, laws, or treaties of the United States." When Congress enacted § 1362 in 1966, one "primary purpose" was to "give tribes the right to sue on

their own behalf in any controversy involving tribal property or matters of tribal sovereignty where the United States declines to do so on a tribe's behalf as trustee." *Hous. Auth. of City of Seattle v. Wash., Dep't of Revenue*, 629 F.2d 1307, 1312 (9th Cir. 1980) (citing *Henningson*, 626 F.2d 708) (internal quotation marks and additional citations omitted). Before § 1362 existed, tribes had to rely on the United States to sue on their behalf under 25 U.S.C. § 175. Otherwise, they were relegated to state court. See *Arizona v. San Carlos Apache Tribe of Ariz.*, 463 U.S. 545, 559 n.10 (1983). Thus, § 1362 served "to open the federal courts to the kind of claims that could have been brought by the United States as trustee, but for whatever reason were not so brought." *Moe v. Confederated Salish and Kootenai Tribes of Flathead Rsrv.*, 425 U.S. 463, 472 (1976).

While the United States can sue on behalf of tribes in "all suits at law and in equity" under § 175, § 1362 (as well as § 1331, the statute conferring "federal question" jurisdiction) is limited to cases "aris[ing] under" federal law. In *Henningson*, we commented that cases interpreting § 1362 had been "less than clear as to how far its jurisdictional reach extends."⁹ 626 F.2d at 712. After surveying the relevant caselaw and considering congressional intent, we determined that Congress did not intend § 1362 to allow tribes to bring actions "in every instance" where the United States could do so under § 175. *Id.* at 714. That is because the language of § 1362 is "identical" to § 1331, and "Congress could easily have

⁹ The Supreme Court has only helped us so much, explaining that "it would appear that Congress contemplated that a tribe's access to federal court to litigate a matter arising 'under the Constitution, laws, or treaties' would be at least in some respects as broad as that of the United States suing as the tribe's trustee." *Moe*, 425 U.S. at 473.

provided that Indian tribes could bring under section 1362 any action which the United States could bring under section 175, but Congress did not do so.” *Id.* We said that the “common thread running through” cases properly brought under § 1362 “is that they all involved possessory rights of the tribes to tribal lands.” *Id.* at 714; see *Fort Mojave Tribe v. Lafollette*, 478 F.2d 1016, 1018 (9th Cir. 1973) (“Congress intended by § 1362 to authorize an Indian tribe to bring suit in federal court to protect its federally derived property rights in those situations where the United States declines to act.” (citations omitted)).

For this reason, jurisdiction in this case is proper in federal court under § 1362. As Defendants acknowledge, the United States owns the reserved land (and appurtenant water rights) on behalf of GRIC. *Henningson*, 626 F.2d at 709 (“Fee title to the land on the Gila River Indian Reservation is held by the United States in trust for the Tribe.”). That means that the United States could have (and has in the past) sued to protect these water rights in federal court under 25 U.S.C. § 175. See *Moe*, 425 U.S. at 472; *In re Gen. Adjudication of All Rights to Use Water in Gila River Sys. and Source (Gila V)*, 35 P.3d 68, 72 (Ariz. 2001) (en banc) (noting that when the government establishes an Indian reservation it “acquires a reserved right in unappropriated water which vests on the date of the reservation and is superior to the rights of future appropriators”) (quoting *Cappaert v. United States*, 426 U.S. 128, 138 (1976)).¹⁰ This

¹⁰ Indeed, the United States has brought such suits before in the District of Arizona, suing a landowner “on its own behalf and on behalf of Indian tribes [that] have rights to the natural flow of the river.” See *United States v. Smith*, 625 F.2d 278, 279 (9th Cir. 1980). *Smith* mirrors this case in key respects—it concerned a defendant-landowner who bought land after the Decree went into effect “but obtained no Gila River water

case concerns possessory rights to water, which *Henningson* placed well within the ambit of § 1362.¹¹

* * *

We therefore reverse the district court's determination that it had prior exclusive jurisdiction over this suit but affirm its determination that it otherwise had original jurisdiction under 28 U.S.C. § 1362, and that the Adjudication court does not have prior exclusive jurisdiction here.

B. *Claim Preclusion*

Defendants argue that a 2007 complaint that was dismissed with prejudice precludes GRIC from suing here. GRIC responds that its claims should not be precluded, and even if they are, the Intervenor is not precluded from bringing this suit.

1. Relevant history

Like the rest of this case, the history is convoluted. In 1982, GRIC filed a complaint in the District of Arizona alleging that thousands of landowners, including Defendants' predecessors-in-interest, were unlawfully pumping Gila River subflow in derogation of GRIC's Decree rights. In 1990, the district court stayed all claims, and then, following the Arizona Supreme Court's 2000 decision in *Gila IV*, lifted the stay and directed GRIC to file a new complaint. In 2001, GRIC did so and brought the same allegations as it did in 1982.

rights" and then began to pump water from an underground well near the Gila River. *Id.*

¹¹ Because jurisdiction is proper in federal court under § 1362, we need not consider whether § 1331 also confers jurisdiction.

In 2005, the parties agreed to a settlement (the 2005 Agreement), which included the Upper Valley Forbearance Agreement (UVFA). The UVFA addressed wells that allegedly pumped Gila River subflow without Decree rights (known as “Hot Lands”). The UVFA gave Hot Lands holders six months to attempt to obtain Decree rights through a “sever-and-transfer” process (the details of which are not important here). If they applied to do so and succeeded, the problem was resolved. If they were unsuccessful, the Hot Lands would be deemed “Special Hot Lands,” and those landholders would not face further legal action by parties to the UVFA so long as they pumped no more than four acre-feet of water per year. For those Hot Lands holders that did not try to obtain Decree rights and continued to pump water, the UVFA allowed GRIC to sue to stop pumping. As the district court explained, GRIC “agreed it would not sue to stop pumping when landowners at least tried to obtain Decree rights, and thus acquired Special Hot Lands status, but it made no such promise with respect to Hot Lands owners who did not at least try to obtain Decree rights.”

The 2005 Agreement stated that GRIC would refile an identical complaint to the one filed in 2001 (and 1982), including Defendants’ predecessors-in-interest, who did not obtain Special Hot Lands status. In 2007, the District of Arizona dismissed the 2001 complaint without prejudice. GRIC then filed an identical complaint and then moved to dismiss that complaint with prejudice. The district court granted this dismissal with prejudice.¹²

¹² The parties do not dispute that the Intervenor was not a plaintiff in this action and that its status as an intervenor in this case is not affected by Defendants’ claim preclusion argument.

2. Preclusion analysis

Claim preclusion “bars litigation in a subsequent action of any claims that were raised or could have been raised in the prior action.” *Owens v. Kaiser Found. Health Plan, Inc.*, 244 F.3d 708, 713 (9th Cir. 2001) (quoting *W. Radio Servs. Co. v. Glickman*, 123 F.3d 1189, 1192 (9th Cir. 1997)). “The doctrine is applicable whenever there is (1) an identity of claims, (2) a final judgment on the merits, and (3) identity or privity between parties.” *Id.* (quotation marks and citation omitted).

Defendants argue that the 2007 dismissal with prejudice precludes GRIC’s suit. GRIC responds that this suit is not precluded because the parties to the settlement “clearly intended to preserve [GRIC’s] ability to enforce Decree rights against actors like Defendants.” Further, GRIC points out that even if its claims are precluded, the Intervenor’s claims are not.

Two of the three claim preclusion criteria are likely satisfied. The parties here are identical, and the claims are likely identical.¹³ The real issue then is the second

¹³ GRIC argues that the claims cannot be identical because the lawsuit here concerns pumping that occurred after 2016, and a 2007 dismissal cannot preclude later conduct. See *Frank v. United Airlines, Inc.*, 216 F.3d 845, 851 (9th Cir. 2000) (“A claim arising after the date of an earlier judgment is not barred, even if it arises out of a continuing course of conduct that provided the basis for the earlier claim.”). GRIC does not expand on this argument and relegates it to a footnote. Even if we were to consider this argument despite it being mentioned “only in passing,” *United States ex rel. Kelly v. Serco, Inc.*, 846 F.3d 325, 335 (9th Cir. 2017), the conduct GRIC complains of in this suit is not new; GRIC became aware of this pumping as early as 1982 and it was the subject of its 1982, 2001, and 2005 complaints in the prior action.

element—whether the 2007 dismissal constituted a final judgment that has preclusive effect here.

The district court acknowledged that under different circumstances, the 2007 dismissal could have proven the second element. But the district court was not satisfied; it insisted that the 2007 dismissal must “be read in context.” GRIC only dismissed the 2007 Complaint with prejudice because of the 2005 Agreement.¹⁴ That agreement required that Hot Lands owners comply with the UVFA. Defendants failed to do so—they did not attempt to obtain Decree rights and instead continued pumping water—so they never acquired Special Hot Lands status. The district court observed that granting Defendants’ claim preclusion argument would allow them to now use the 2007 dismissal to insulate themselves from this litigation as if they had Special Hot Lands status. Although GRIC may be precluded from filing this suit against a Special Hot Lands owner (those who did comply with the terms of the UVFA), it is not clear that it is precluded from suing Hot Lands owners who failed to comply with the UVFA. The district court thus held that GRIC’s suit was not barred because precluding it would be “contrary to the text and purpose of the UVFA.” *See* Restatement (Second) of Judgments § 28 (1982) (recognizing an exception to issue preclusion “because of the potential adverse impact of the determination on the public interest”).

We agree with the district court’s conclusion that GRIC should not be precluded from bringing suit here. We do not

¹⁴ GRIC moved to dismiss pursuant to the Arizona Water Settlements Act, Pub. L. No. 108-451 § 207(c)(1)(G), 118 Stat. 3478 (Dec. 10, 2004), which approved and implemented the 2005 Agreement, including the UVFA.

understand why Defendants should receive the preclusive benefits of the UVFA without subjecting themselves to the Hot Lands requirements. *See Wojciechowski v. Kohlberg Ventures, LLC*, 923 F.3d 685, 689 (9th Cir. 2019) (“We look to the intent of the settling parties to determine the preclusive effect of a dismissal with prejudice entered in accordance with a settlement agreement, rather than to general principles of claim preclusion.”). The district court had good reason to conclude that this is a “special circumstance[]” where “the potential adverse impact of the determination on the public interest” counsels against precluding GRIC’s suit. *See* Restatement (Second) of Judgments § 28(5)(a); *id.* § 26(1)(e) (stating that claim preclusion need not extinguish a second claim “[f]or reasons of substantive policy . . . involving a continuing or recurrent wrong”); *id.* § 26(1)(f) (acknowledging claim preclusion may not apply when “[i]t is clearly and convincingly shown that the policies favoring preclusion of a second action are overcome for an extraordinary reason”).

Because of the unique procedural history here, we believe this case qualifies for a prudential exception to claim preclusion. This holding is necessarily limited to these facts and these parties. We affirm the district court’s denial of Defendants’ motion for summary judgment on claim preclusion grounds.

C. Summary Judgment

We proceed to the merits. On summary judgment we “view the evidence in the light most favorable to the nonmoving party, determine whether there are any issues of material fact, and decide whether the district court correctly applied the relevant substantive law.” *Animal Legal Def.*

Fund v. FDA, 836 F.3d 987, 989 (9th Cir. 2016) (citation omitted).

Before evaluating the parties' arguments and discussing the evidence, we briefly review the relevant principles of Arizona water law, including its burden-shifting rubric.

1. Arizona water law

We summarized Arizona water law in Part I.B. We repeat here those basic principles and then provide additional information relevant to the summary judgment determination.

Surface water, such as the flow of the Gila River, is subject to the doctrines of prior appropriation and beneficial use. *Gila IV*, 9 P.3d at 1073 (citing Ariz. Rev. Stat. §§ 45–141(A), 45–251(7)). “[O]n the other hand, [groundwater] is not appropriable and may be pumped by the overlying landowner.” *Id.* (citations omitted). While the categories of “surface water” and percolating “groundwater” are easy enough to define in theory, “[t]he boundary between surface water and groundwater is not at all clear.” *Id.* Most surface water “not only flow[s] above the ground but also ha[s] ‘subflow,’” and where pumping groundwater “appreciably diminishes the surface flow of a stream . . . it should be governed by the same law that governs the stream.” *Id.* (internal quotation marks and citations omitted).¹⁵ Arizona courts have candidly conceded that subflow is “a purely

¹⁵ Courts have “struggled” with Arizona’s bifurcated system and most states have “revised their water laws to provide for unitary management of hydraulically connected underground and surface water.” *United States v. Gila Valley Irrigation Dist.*, No. CV31-59, 2005 WL 8161178, at *2–3 (D. Ariz. Mar. 29, 2005) (quoting *Gila II*, 857 P.2d at 1240) (Bolton, J.) (providing helpful history and background on subflow and Arizona water law).

legal, not scientific, term” and “defining its boundaries is not only difficult at best but also turns ultimately on resolution of factual questions.” *Id.* at 1076.

Arizona uses two different methods for determining whether water pumped from a below-ground well is appropriable subflow or non-appropriable groundwater. A plaintiff can prove that a well is pumping “subflow”—a hydraulic connection that means that water, when drawn off, “tend[s] to diminish appreciably and directly the flow of the surface stream.” *Sw. Cotton*, 4 P.2d at 380; *see Gila II*, 857 P.2d at 1247 (reaffirming *Southwest Cotton*’s understanding of subflow). Subflow cannot be determined “based solely on its geographic reach or on some arbitrary distance from a streambed” but “depends on whether the well is pumping water that is more closely associated with the stream than with the surrounding alluvium, and whether drawing off the subsurface water tends to diminish appreciably and directly the flow of the surface stream.” *Gila IV*, 9 P.3d at 1080 (internal quotation marks, alterations, emphasis, and citations omitted). To determine as much, courts compare “such characteristics as elevation, gradient, and perhaps chemical makeup,” and “[f]low direction.” *Gila II*, 857 P.2d at 1246.

In *Gila IV*, the Arizona Supreme Court set out the parameters of a second option—instead of proving that the well pumps subflow, a plaintiff could instead prove that the well was “located within the lateral limits of the subflow zone.” 9 P.3d at 1083. This “subflow zone” is defined as the “saturated floodplain Holocene alluvium.” *Id.* at 1081.¹⁶

¹⁶ *Gila III* mentioned the word “zone” for the first time—it described subflow as “significant in Arizona law, for it serves to mark a zone where water pumped from a well so appreciably diminishes the surface flow of

The subflow zone refers to an indirect connection—an area “beneath and adjacent to” the river that is connected to the stream, and separated by a layer (the floodplain alluvium) which, when saturated by water from the river, eventually feeds the aquifer which is being pumped. *Id.* at 1076–83. *Gila IV* went on to endorse a set of criteria for determining the subflow zone:

1. A subflow zone is adjacent to and beneath a perennial or intermittent stream and not an ephemeral stream.
2. There must be a hydraulic connection to the stream from the saturated subflow zone.
3. Even though there may be a hydraulic connection between the stream and its floodplain alluvium to an adjacent tributary aquifer or basin-fill aquifer, neither of the latter two or any part of them may be part of the subflow zone.
4. That part of the floodplain alluvium which qualifies as a subflow, beneath and adjacent to the stream, must be that part of the geologic unit where the flow direction, the water level elevations, the gradations of the water level elevations and the chemical composition of the water in that particular reach of the stream are substantially the same as the water level, elevation and gradient of the stream.

a stream that it should be governed by the same law that governs the stream.” 989 P.2d at 743 (citing *Sw. Cotton*, 4 P.2d at 380–81).

5. That part of the floodplain alluvium which qualifies as a subflow zone must also be where the pressure of side recharge from adjacent tributary aquifers or basin fill is so reduced that it has no significant effect on the flow direction of the floodplain alluvium.

6. Riparian vegetation may be useful in marking the lateral limits of the subflow zone, particularly where there is observable seasonal and/or diurnal variations in stream flow caused by transpiration. However, riparian vegetation on alluvium of a tributary aquifer or basin fill cannot extend the limits of the subflow zone outside of the lateral limits of the saturated floodplain Holocene alluvium.

Id. at 1077 (cleaned up); *see id.* at 1081. As technical as these guidelines appear, they are not “hard and fast” rules. *Id.* at 1080.

2. Proving subflow: The burden-shifting framework

“[A] well pumping underground water is presumed initially to be pumping percolating groundwater, not appropriable subflow.” *Id.* at 1082. The initial burden—step one—is on the plaintiff to show by clear and convincing evidence that the well is in the subflow zone or otherwise pumps subflow. *Id.* If a plaintiff does so, at step two, “[t]he burden then shifts to the well owner to show that a well is either outside the subflow zone or is not pumping subflow.” *Id.*

Defendants quibble with this burden-shifting framework and argue that only the Arizona Department of Water

Resources (DWR)—and not a plaintiff, like GRIC—can marshal evidence to meet the initial “clear and convincing” burden. They point to a statement in *Gila IV* that says the burden only shifts to the landowner once “DWR determines and establishes that a well is in the subflow zone . . . or that it is pumping subflow . . .” *Id.* at 1082. But the Arizona Supreme Court decided *Gila IV* in the context of the Adjudication, in which the rules delegate the initial subflow determination to DWR. *Id.* at 1072 (explaining that the *Gila IV* court “granted interlocutory review in the Gila River general stream adjudication”).

Contrary to Defendants’ suggestion, nothing in *Gila IV* says that DWR is the *only* party capable of making this initial showing. Indeed, in *Southwest Cotton*, the seminal 1931 subflow case, the Arizona Supreme Court said: “In the first place, the presumption is that underground waters are percolating in their nature. *He* who asserts that they are not must prove his assertion affirmatively by clear and convincing evidence.” 4 P.2d at 376 (emphasis added) (citations omitted). The “he” here is GRIC. Requiring DWR to make the initial subflow showing would force GRIC to wait for a state agency to perform a subflow analysis that could take years or decades to arrive. Because neither this court nor the district court can order that analysis, we agree with the district court that GRIC has the burden to show by clear and convincing evidence that the wells at issue are in the subflow zone or pump subflow. That evidence may, but need not, include a determination by DWR.

3. GRIC’s initial burden

GRIC has both the burden of proceeding and the burden of proof. To establish its *prima facie* case, GRIC must prove by clear and convincing evidence that the wells at issue—

Sexton 1, 2, and 3, and the Schoubroek Well—are either pumping subflow or are within the subflow zone. *Gila IV*, 9 P.3d at 1082.

The parties each secured experts to survey the four wells and assess whether any well was in the subflow zone or was pumping subflow from the Gila River. Defendants hired Clear Creek Associates (CCA) which “concluded that some of the water pumped from” three of the four wells (not Sexton 3) originated in the Gila River.¹⁷

For the district court, CCA’s bottom-line conclusion was sufficient to show that there was no dispute of material fact whether three of the wells pumped *some* water from the Gila River, water the district court understood to be subflow. We will begin by discussing the evidence concerning whether these wells—Sexton 1, Sexton 2, and the Schoubroek Well—pump subflow. We will then consider whether all four wells are within the subflow zone.

Sexton 1, Sexton 2, and Schoubroek. As we noted above, Defendants’ expert, CCA, concluded that these “wells pumped low percentages of Gila River water.” CCA estimated that, of the water pumped by Defendants’ wells, Sexton 1 and 2 pumped between 0.8 and 3.5% “water derived from the Gila River” and the Schoubroek Well pumped between 0.3 and 0.8% “Gila River water.” To arrive at this conclusion, CCA created a “model” to “simulate subsurface water flow” that it ran for “100 simulated years.” It sought to “predict” the mix of three sources of subsurface

¹⁷ GRIC’s expert, Dr. Peter Mock, receives little attention on appeal. Defendants mention him in only one paragraph of their opening brief; GRIC does not mention him at all. Defendants’ experts reviewed Dr. Mock’s reports and specifically disagreed with certain assumptions and conclusions he made.

water in the area of these wells—water entering the aquifer directly from the Gila River, water entering as tributary groundwater, and agricultural recharge. As CCA explained, the model included two layers. Layer 1 was the younger alluvium, “a 40[-] to 100-foot-thick alluvial unit which parallels the Gila River and also fills the larger tributary washes which join the Gila River.” Layer 2 was the “groundwater below the younger alluvium.” Each layer consisted of thousands of “cells” which were then assigned a value of “1” for “water originating from the Gila River” or “underground water in the shallow alluvium,” and a “0” for “all water from other sources.” Those other sources included “[g]roundwater derived from leakage of water from agricultural irrigation” and “groundwater below the younger alluvium.” The model then simulated how these “1s” and “0s” mixed together over time, resulting “in estimations of the percentage of water pumped from the four wells in question that originated from the Gila River.”

Three of the wells were found to pump low percentages of “water derived from the Gila River”—Sexton 1 (2.64%), Sexton 2 (2.10%), and the Schoubroek Well (0.56%).¹⁸ CCA qualified this finding, explaining that these percentages “do *not* demonstrate that the wells *directly* deplete the river because the ‘river water’ that is tracked by the CCA model was water that had already infiltrated the subsurface around the wells, not necessarily as a result of pumping.” CCA did not “specifically analyze” subflow because it is a legal term, not a hydrogeologic one. Based on the model’s assumptions,

¹⁸ These percentages are the “average[s]” reported by CCA. Although the report also refers to this water as “river water,” CCA’s model and its expert’s declaration make clear that these percentages represent water “derived” from the Gila River. Therefore, we will refer to this water as Gila River-derived water.

CCA concluded that the highest “potential percentage of river water that may be pumped by the wells” was no more than 3.5% for Sexton 1 and 2, and 0.8% for the Schoubroek Well.

For the district court, “[b]ecause Defendants’ own expert reports determined [these three wells] are pumping subflow,” GRIC had satisfied its burden to prove subflow pumping (as to these three wells) by clear and convincing evidence at step one. Defendants disagree. They argue that because CCA did not identify subflow these percentages cannot provide clear and convincing evidence that the wells are pumping subflow from the Gila River. GRIC responds that because CCA concluded that Defendants’ wells pump water “directly” from the Gila River, these wells must be pumping subflow in derogation of their Decree rights.

For water to qualify as subflow, it must “diminish *appreciably* and *directly* the flow of the surface stream.” *Sw. Cotton*, 4 P.2d at 380 (emphasis added). If it does, it is subflow, but “if it does not, then, although it may originally come from the waters of such stream, it is not, strictly speaking, a part thereof, but is subject to the rules applying to percolating waters.” *Id.* at 381. In *Gila IV*, the Arizona Supreme Court cautioned that subflow is a “narrow concept.” 9 P.3d 1079 (quoting *Gila II*, 857 P.2d at 1245). In *Gila II*, it recommended a fact-specific comparison of characteristics such as elevation, gradient, chemical makeup, and flow direction to determine whether a well pumps subflow. 857 P.2d at 1246.

CCA’s model did not attempt to conduct the inquiry that *Gila IV* requires, nor did its findings show that these wells meet the baseline requirement that *Southwest Cotton* sets out: that the wells are “appreciably” and “directly”

diminishing the flow of the Gila River. For starters, it is a model that used “computer code” to “simulate[] the mixing” of various water sources. At best, it was a “prediction[]” of what water is being pumped by the wells. While CCA concluded that three of the wells pumped “Gila River-derived water,” CCA did not conclude, and likely could not conclude based on its model, that the water pumped by these wells “diminishes” the Gila River, let alone appreciably so. *Gila IV*, 9 P.3d at 1073. Nothing in *Gila IV* tells us that water that at some point came from Gila River is automatically subflow. Further, a 100-year simulation run that relied on hydrological predictions about how water mixed over time is not clear and convincing evidence that a well is pumping water that *directly diminishes* the River. See *Sw. Cotton*, 4 P.2d at 380.

The model contained a bevy of assumptions. As CCA’s expert Doug Bartlett explained:

[T]he CCA model d[id] *not* demonstrate that the wells *directly* deplete the river because the ‘river water’ that is tracked by the CCA model was water that had already infiltrated the subsurface around the wells, not necessarily as a result of pumping. In other words, the model assumes at the beginning of its 100-year conditioning run that all water in the shallow model layer (Layer 1) originally infiltrated from the Gila River. Therefore, although the model only “tagged” water that *at some point in the past* was in the surface flow of the Gila River . . . it also tagged all underground water in Layer 1 . . . at the

beginning of the conditioning run of the model due to this assumption.

This bears repeating—the model *assumed* that “all subsurface water present in the younger alluvium”—its Layer 1—“originated from the Gila River.” It also assumed that there was some “hydraulic conductivity” between the River and the aquifer. With these assumptions in hand, CCA’s model could only conclude that the wells pumped low percentages (between 0 and 3.5%) of “Gila River-derived water.”

Even if we accepted the assumptions as fact, and equated “Gila River-derived water” with “subflow,” the evidence is still well short of proving that the wells “appreciably” diminish the flow of the River. *See Sw. Cotton*, 4 P.2d at 380. CCA could only conclude that three of the wells pumped at most 3.5% “Gila-River derived water,” a figure that, according to Bartlett, “represents the highest potential percentage of river water that may be pumped by the wells based on the model’s assumptions.” GRIC has failed to point to any evidence, let alone *clear and convincing* evidence, that the water pumped by Sexton 1, Sexton 2, and the Schoubroek Well *appreciably* diminishes the flow of the Gila River. *See Gila II*, 857 P.2d at 1246 (“Whether a well is pumping subflow does not turn on whether it depletes a stream by some particular amount in a given period of time. . . . [I]t turns on whether the well is pumping water that is more closely associated with the stream than with the surrounding alluvium.”); *Gila IV*, 9 P.3d at 1080 (same).

The Arizona Supreme Court has indicated that the word “appreciably” has real teeth here. In *Gila II*, the United States sought to include in the Adjudication “all water hydrologically connected to the Gila River system,” and

argued that the “trial court in [the Adjudication] cannot exclude [privately-owned] wells having only a de minimis effect on the river system.” 857 P.2d at 1247. The Arizona Supreme Court rejected that argument:

We believe that the trial court may adopt a rationally based exclusion for wells having a de minimis effect on the river system. Such a de minimis exclusion effectively allocates to those well owners whatever amount of water is determined to be de minimis. It is, in effect, a summary adjudication of their rights. A properly crafted de minimis exclusion will not cause piecemeal adjudication of water rights [I]t could simplify and accelerate the adjudication by reducing the work involved in preparing the hydrographic survey reports and by reducing the number of contested cases before the special master.

Id. at 1248. In *Gila IV*, the Arizona Supreme Court “continue[d] to endorse” a de minimis exclusion, and said that “wells that, though pumping subflow, have a de minimis effect on the river system may be excluded from the adjudication based on rational guidelines” 9 P.3d at 1081, 1083. Although these comments are necessarily dicta, they represent important and repeated points. Nothing suggests that Arizona is ready to adopt a “one-drop rule” that shuts down wells found to pump small amounts of subflow.

For the district court, CCA’s bottom-line conclusion was enough to find GRIC had shown by clear and convincing evidence that these three wells pump subflow. In a section of its order labeled “Undisputed Facts,” the district court

read the CCA report as concluding that three wells “draw[] . . . Gila River water.” Because Defendants could not disprove that these three wells pumped water that “originated, at some point in the past, from the Gila River,” the district court found it “undisputed” that these three wells “are pumping Gila River subflow.” But it is no surprise that Defendants failed to dispute the origination point; they did not need to. What matters, at bottom, is whether the wells’ pumping “diminishes” the Gila River. In reaching its conclusion, the district court failed to grapple with the model’s assumptions and the low percentages the model reported.¹⁹ Nor did it explain why the CCA model, standing alone, constituted clear and convincing evidence that these wells pump subflow.

CCA’s model is not enough to show, by clear and convincing evidence, that these three wells pump subflow. After making a series of assumptions, it could only conclude that water “derived” from the Gila River is being pumped in small amounts by these wells. This is far cry from what Arizona requires—that the well pump water “that is more closely associated with the stream [here, the Gila River], than the surrounding alluvium.” *Gila II*, 857 P.2d at 1246. GRIC fails to marshal any undisputed evidence of its own that these wells pump subflow. Accordingly, the district court erred in finding that GRIC carried their burden to prove by clear and convincing evidence that Sexton 1, Sexton 2, and the Schoubroek Well pump subflow.

This is not the end of the road for GRIC. Rather, it means that the case could not be resolved in GRIC’s favor on

¹⁹ Later, in the portion of the order discussing GRIC’s requested injunctive relief—that the wells be capped—the district court explicitly chose not to consider whether a de minimis exception should apply.

summary judgment on the basis of CCA's finding that three of the wells likely pumped small percentages of Gila River-derived water. Having failed to prove by clear and convincing evidence that Defendants' wells pump subflow, GRIC still can prove, again by clear and convincing evidence, that Defendants' wells are within the subflow zone. *Gila IV*, 9 P.3d at 1082.

Subflow Zone. Because the district court concluded that GRIC had proven that Sexton 1, Sexton 2, and the Schoubroek Well pumped subflow, it did not consider separately whether those wells were also in the subflow zone. The district court only considered whether Sexton 3 was within the subflow zone and concluded that it was.

We will proceed differently. Because we conclude that the district court erred in determining that *any* of the wells pumped subflow, we will analyze whether any of the four wells are within the subflow zone, while acknowledging that the district court only made its findings as to Sexton 3.²⁰

As we discussed above, in Part III.C.1, *Gila IV* adopted an alternative approach based on a well's location, which the Arizona Supreme Court refers to as the "subflow zone." So long as a well is situated within the saturated FHA (floodplain Holocene alluvium), it will be subject to the doctrine of prior appropriation and treated as if it pumps subflow. *See id.* at 1077. Because GRIC failed to prove that any of the four wells pumped subflow, it must prove that each well is within the subflow zone—the saturated FHA. *See Gila IV*, 9 P.2d at 1082. The parties agree that to prove

²⁰ We feel comfortable discussing all these wells because GRIC argued to us, in its response brief, that all three Sexton wells are within the subflow zone. For efficiency's sake, we will also consider whether GRIC has proven that the Schoubroek Well is within the subflow zone.

that these wells are in the subflow zone they must show that (1) the well sits in the FHA; and (2) the FHA is saturated.

First, the district court concluded that there was no material dispute of fact as to whether the Sexton wells are in the FHA based on a single question and answer in CCA expert Doug Bartlett's deposition.²¹ The exchange in the deposition was as follows:

Q: So the---the three Sexton wells are located in the Gila River Holocene---the [FHA], but the Schoubroek well was not located in the [FHA] of the Gila River. That's your conclusion, right?

A: That's our interpretation.

This response is too thin a reed on which to base summary judgment as to any of the wells. It is a compound question covering four wells located on two properties. More importantly, this answer is inconsistent with both the detailed report filed by CCA and Bartlett's declaration summarizing CCA's findings. That report and declaration make clear that CCA did not believe that all the Sexton wells were within the FHA. Bartlett declared that "CCA did *not* delineate a subflow zone, nor did [it] delineate the extent" of

²¹ Defendants question whether the district court could even make an FHA finding at all. Rather, they argue that the district court must wait for DWR to delineate a subflow zone. See Part III.C.2 (rejecting this argument in the context of the burden-shifting framework). This argument is unavailing for the reasons we have already explained above—requiring DWR to conduct the subflow analysis would be akin to finding prior exclusive jurisdiction in state court, and would allow landowners to pump Gila River water indefinitely as they wait for DWR or the Adjudication court to deal with their claims.

the FHA when analyzing these four wells. As to Sexton 3 in particular, CCA stated that it “is not drawing water from the FHA,” and “if there is any FHA in the area of Sexton Well 3, it is likely to be unsaturated.”²² Any ambiguity in Bartlett’s three-word answer to a compound question was more than clarified in the written materials before the district court, and his answer should not have been accepted as a concession, at least not without further inquiry.

Defendants’ other expert, Dr. David Lipson, came to a similar conclusion. He found that Sexton 3 is “outside the Gila River Subflow Zone” and “is not screened in FHA.” Although he concluded FHA “may be present” at Sexton 3, it “is dry and has a maximum thickness of 30 feet.” Sexton 1 and 2 fared only slightly better. Dr. Lipson concluded that these wells “are probably not screened in FHA” and that “FHA may be present . . . but the FHA there is probably dry and has a maximum thickness of approximately 20 feet.” As for the Schoubroek Well, Dr. Lipson said much of the same—it is not screened in FHA, is outside the Gila River Subflow Zone, and there is no FHA at that location.

In the face of this evidence, GRIC relies on the deposition answer from Bartlett. GRIC only alludes to its own expert’s (Dr. Peter Mock) conclusion that these wells are located in the FHA. It has not supplied us with Dr. Mock’s report or raised any argument as to Dr. Mock’s determination of the subflow zone. Even assuming Dr. Mock concluded that the wells were within the subflow zone, we would be faced with a battle of the experts, and

²² CCA did not find Sexton 3 pumps subflow. Although the Schoubroek Well is approximately 1,500 feet from the Gila River, and Sexton 1 and 2 are just over 2,000 feet from the River, Sexton 3 is over 4,000 feet away.

therefore unable to conclude at the summary judgment stage that GRIC has proven by clear and convincing evidence that Defendants' wells are within the FHA. For this reason alone, the district court erred in granting summary judgment to GRIC.

Even if we thought that CCA had conceded that any of the wells were within the FHA, and that such a concession provided clear and convincing evidence that the wells were in the FHA, GRIC would still have to show that the FHA was "saturated." The district court could not, and did not, find that the experts agreed on saturation in any FHA. Instead, the district court relied on what it called a "saturation assumption" employed by the Adjudication court. In a 2005 order by the Adjudication court, Judge Ballinger adopted such an assumption to ensure that the Adjudication could "be completed 'within the lifetime[s] of some of those presently working on the case' (or at least their children's)." Order Re: Report of the Special Master on the Arizona Department of Water Resources' Subflow Technical Report, San Pedro River Watershed and Motion for Approval of Report at 17, *In re the General Adjudication of All Rights to Use Water in the Gila River System and Source*, No. W1-103 (Sup. Ct. of Ariz. Maricopa Cnty., Sept. 28, 2005) [hereinafter *Ballinger Order*] (quoting *Gila II*, 857 P.2d at 1248). DWR proposed this assumption in the Adjudication in part because the impracticality of determining saturation in the FHA—owing to the difficulties of determining its thickness and the dynamic nature of its aquifer system—was ill-suited for a case-by-case evaluation at the jurisdictional stage.

Defendants argue that Judge Ballinger's assumption should not be applied here because it was only meant to be

used for “jurisdictional” purposes, not as evidence of saturation. Judge Ballinger explained:

It is important to note that determination of the subflow zone does not adversely affect substantive rights of surface or groundwater users. It merely sets parameters with respect to the Court’s water use inquiry. . . . Should the dynamic nature of a river or stream exclude water users from this Court’s jurisdiction who would have been subject to having their rights declared when the proceeding was initiated?

Ballinger Order at 16. We agree with Defendants that Judge Ballinger only intended the “saturation assumption” to bring a well under the purview of the Adjudication and did not intend for it to be used to make the substantive determination that a well is saturated.

The district court recognized that the saturation assumption was jurisdictional, but found that “irrelevant” because after the presumption is applied Defendants will still have the “ability to rebut that presumption” once the burden shifts to them. But the district court erred here because this flips the burden-shifting framework on its head. *Gila IV* tells us that we should start from a presumption that wells pump groundwater, and then require the plaintiff (GRIC) to rebut that presumption by clear and convincing evidence. *Gila IV*, 9 P.3d at 1082. GRIC has not marshaled evidence, much less clear and convincing evidence, of saturation as to the wells. By adopting the saturation assumption, the district court shifted the burden of proof to Defendants to show by a preponderance of the evidence that the FHA was *not*

saturated, when in fact, they only need to defeat the clear and convincing standard. Burden shifting is not “irrelevant” here; it is an integral part of the process. GRIC does not get to cut corners by relying on a jurisdictional assumption when doing so impacts Defendants’ substantive water rights.

Determining the subflow zone is a complex, imprecise process. *See id.* at 1081. Given the difficulty of proving saturation, it is perhaps not surprising that GRIC leaned heavily into the saturation presumption instead of marshaling the requisite fact-intensive evidence. But the presumption does not satisfy GRIC’s burden of proof at step one. If GRIC cannot prove by clear and convincing evidence that any of the wells are within the subflow zone—defined as the *saturated* FHA—then it cannot prove its case. GRIC failed to meet that burden on summary judgment. We therefore reverse the district court’s grant of summary judgment as to all four wells.

D. *The Remedy*

After entering summary judgment, the district court granted GRIC’s proposed remedy—shutting off the four wells in their entirety. The parties agree that we review this determination for abuse of discretion. *Internet Specialties*, 559 F.3d at 993. “A trial court abuses its discretion by fashioning an injunction which is overly broad.” *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 886 F.3d 803, 823 (9th Cir. 2018) (internal quotation marks and citations omitted). Although we have already concluded that summary judgment was not appropriate and the case must be remanded for further proceedings, in the interest of judicial efficiency, we will discuss the remedy the district court ordered. We do this for two reasons. First, the matter has been fully briefed and argued to us. Second, the question of

remedy is very closely related to any proof that Defendants are “appreciably and directly” diminishing the flow of the Gila River. *See Sw. Cotton*, 4 P.2d at 380.

Even assuming that GRIC is able to prove at trial that Defendants’ wells pump subflow or are in the subflow zone, it seems likely that the wells will be found to be “mixed-water” wells—they will be shown to pump some subflow and some groundwater. Both sides admit that Arizona courts have not determined how “mixed-water” wells should be regulated.²³ GRIC argues that the percentage of mainstem water Defendants pump is irrelevant—if the wells pump Gila River water without a Decree right, the wells should be shut off. Defendants reply that they have a right to continue pumping groundwater and that less drastic remedies, like reducing their overall pumping, would be appropriate.

In support of its order that the wells be capped, the district court relied on two cases. The first was a 2018 order from the District of Arizona (Judge Bolton) that stated, “[i]f unauthorized diversions are indeed taking place, the prescribed remedy is to shut them down.” *See United States v. Gila Valley Irrigation District (GVID)*, No. CV 31-59, 2018 WL 4361867, at *3 (Aug. 10, 2018). The other was *United States v. Orr Water Ditch Co.*, 600 F.3d 1152 (9th Cir. 2010), a Nevada case where we said that “[s]urface water contributes to groundwater, and groundwater contributes to surface water. The reciprocal hydraulic

²³ Defendants argue that they have a “constitutionally-protected property right to groundwater.” This is incorrect. In *Gila IV*, the Arizona Supreme Court said that “a well owner does not own underground water and . . . landowners have no legally recognized property right in potential, future groundwater use.” 9 P.3d at 1083 (internal quotation marks and citations omitted).

connection between groundwater and surface water has been known to both the legal and professional communities for many years.” *Id.* at 1158. The district court found *Orr Ditch* “instructive” and concluded that GRIC’s rights “protect [it] from diminution of the flow of the Gila River resulting from groundwater being drawn by other users, including Defendants.”

We do not consider the cases cited by the district court persuasive. *Orr Ditch* explains why Defendants’ pumping of subflow (even in small percentages) should be remedied. But it tells us nothing about what that remedy should be. We have no reason to disagree with the hydraulic principle stated in *Orr Ditch* that “[s]urface water contributes to groundwater, and groundwater contributes to surface water.” *Id.* at 1158. *Orr Ditch* concerned decrees entered in Nevada, where the tribe was entitled to water, from whatever source. *See id.* at 1154. Arizona, by contrast, has a complicated, bifurcated water rights framework that distinguishes between groundwater and subflow, and the appropriability of each.

Judge Bolton’s opinion in *GVID* concerned GRIC and a party with Decree rights and did not address mixed-water wells like the ones at issue here. *See GVID*, 2018 WL 4361867, at *3. In *GVID*, the district court had before it a proposal to sever Gila River water rights from various parcels and transfer them to other lands. As we explained when reviewing the decision on appeal, GRIC objected on the grounds that the transfer of water would affect the flow and salinity of the water it received. *See United States v. Gila Valley Irrigation Dist.*, 859 F.3d 789, 801–03 (9th Cir. 2017). Judge Bolton’s statement was an off-hand comment in a case involving diversion of the surface waters of the Gila River itself. It appeared in a section dealing with standing,

not remedy. *See GVID*, 2018 WL 4361867, at *2–3. We decline to give the statement any weight in this proceeding.

The district court is not without guidance. As we discussed above, Arizona courts have indicated an openness to allowing wells pumping de minimis amounts of subflow to continue operating. *See Gila II*, 857 P.2d at 1248 (“We believe that the trial court may adopt a rationally based exclusion for wells having a de minimis effect on the river system. Such a de minimis exclusion effectively allocates to those well owners whatever amount of water is determined to be de minimis. It is, in effect, a summary adjudication of their rights.”); *Gila IV*, 9 P.3d at 1081 (“[T]he trial court’s order does not preclude, but rather contemplates, future adoption of ‘a rationally based exclusion for wells having a de minimus [sic] effect on the river system,’ an approach we continue to endorse.” (quoting *Gila II*, 857 P.2d at 1248)). Again, we are not convinced that the Arizona Supreme Court is prepared to adopt a “one drop rule,” and has indicated the opposite—that there is such a thing as a de minimis diversion.²⁴ Our sense of the Arizona Supreme Court’s instincts is confirmed in the final sentence of *Gila IV*: “Finally, wells that, though pumping subflow, have a de minimis effect on the river system may be excluded from the adjudication based on rational guidelines for such an

²⁴ We note that, although CCA concluded that, at worst, very small percentages of the groundwater pumped from Sexton 1 and 2 and the Schoubroek Well originated in the Gila River, the percentages themselves tell us nothing about how much water in absolute terms is being diverted from GRIC’s entitlement or how much of GRIC’s water, by percentage, it constitutes. These figures might all be relevant to a determination whether the amount of subflow being pumped is de minimis.

exclusion, as proposed by DWR and adopted by the trial court.” *Id.* at 1083.

The Arizona Supreme Court has never defined *de minimis*, and the figures matter. The district court approached the case (as did the parties) as an all-or-nothing proposition. There may, however, be modest solutions when small amounts of water are involved—solutions that will not force courts to choose between providing no remedy at all or shutting down wells entirely: mitigation. The CCA report addressed the possibility of mitigation:

Mitigation for the small percent of pumped water derived from the Gila River could include a variety of operational changes including:

For the Sexton wells, offset the amount of Gila River water pumped from the two large wells . . . by pumping the equivalent amount from [another well] which is not predicted to pump any Gila River water[;]

For the Schoubroek well . . ., reduce the volume of water pumped equivalent to the volume of Gila River water predicted from the well[;]

Divert the Gila River portion of pumped water back to the river via a pipeline from each well[;]

Fallow a portion of farmed acreage with a demand equivalent to the percent of Gila River water pumped[;] or

A combination of these options.

Mitigation received little attention in this appeal, but the principle is too important to ignore. If the district court finds itself fashioning a remedy, mitigation may be an effective alternative to capping the wells and may provide an acceptable middle ground for a case that has otherwise been litigated at the extremes.

IV. CONCLUSION

We **AFFIRM** the district court's finding that jurisdiction is proper in federal court but **REVERSE** its finding that the District of Arizona has prior exclusive jurisdiction. The Decree does not provide prior exclusive jurisdiction in the District of Arizona for claims brought by a Decree party against a non-party to the Decree. We agree with the district court that the Adjudication does not have prior exclusive jurisdiction over these claims.

We **AFFIRM** the district court's denial of Defendants' motion for summary judgment on claim preclusion.

We **REVERSE** the district court's grant of Plaintiffs' motion for summary judgment and **REMAND** for further proceedings consistent with this opinion.

Because the entry of summary judgment was inappropriate, we **VACATE** the remedy ordered by the district court.

The parties shall each bear their own costs on appeal.

**AFFIRMED IN PART; REVERSED IN PART;
REMANDED FOR FURTHER PROCEEDINGS.**