**Interconnected Groundwater and Surface Water Under the Sustainable Groundwater Management Act**

By Andrew H. Sawyer[[1]](#footnote-1)\*

“Man has coped with the complexity of water by trying to compartmentalize it. The partition committed by hydrologists—into ground water, soil water, surface water, for instance—is as nothing compared with that which has been promulgated by the legal profession . . . . [A]ll these waters are actually interrelated and interdependent . . . .” (Thomas & Leopold, *Ground Water in North America* (1964) 143 Science 1001, 1003.)

“’Undesirable result’ means one or more of the following effects caused by groundwater conditions . . . : (6) Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.” (Wat. Code, § 10721, subd. (x).) “The plan may, but is not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015.” (*Id.*, § 10727.2, subd. (b)(4).)

“We reject . . . the . . . position that because SGMA [the Sustainable Groundwater Management Act] is comprehensive it occupies the field and supplants the common law. But even if the legislation was deemed comprehensive . . . the two systems can live in harmony. If the expansive and historically rooted appropriative rights system in California did not subsume or eliminate the public trust doctrine in the state, then certainly SGMA, a more narrowly tailored piece of legislation, can also accommodate the perpetuation of the public trust doctrine.” (*Environmental Law Foundation v. State Water Resources Control Bd.* (2018) 26 Cal.App.5th 844, 866.)

I. Common Law Water Rights to Groundwater

A. California initially adopted the law of capture, or absolute ownership rule, based on the English common law. (*Hanson v. McCue* (1871) 42 Cal. 303, 309-10 [absolute right of landowner to extract groundwater, so long as extractions are not malicious] [dicta]; see *Gould v. Eaton* (1896) 111 Cal. 639, 644-45 [recognizing absolute ownership, notwithstanding harm to party with water rights to interconnected surface waters cause by groundwater extractions].)

B. In *Katz v. Walkinshaw* (1903) 141 Cal. 116, the California Supreme Court rejected the absolute ownership rule, and replaced it with a rule of correlative rights among overlying land owners. (141 Cal. at pp. 121-136; see *id.* at pp. 135-136 [principles of prior appropriation will apply to extractions for use on non-overlying land].)

C. In *Hudson v. Dailey* (1909) 156 Cal. 617, the California Supreme Court rejected the distinction between percolating groundwater and stream flow. (*Id.* at p. 628.) Where groundwater and surface waters are interconnected, the “common source” or “correlative rights” doctrine applies, integrating the water rights and applying priorities without regard to whether the diversion is from surface or groundwater. (*Id.* at pp 627–628.)

D. Case law recognizes overlying and appropriative rights to groundwater, analogous to riparian and appropriative rights to surface water. (*City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1240; see also *Katz v. Walkinshaw* (1903) 141 Cal. 116, 135–136.)

1. Lands overlying a groundwater basin have overlying rights to the safe yield of the basin. Safe yield is the amount that can be pumped annually without causing an undesirable effect such as declining groundwater levels or land subsidence. Overlying rights are correlative, shared by the owners.

2. If there is a surplus after overlying needs are met, appropriative rights may allow water to be taken for use on lands not overlying the basin. Municipal uses are also considered appropriative. Appropriative rights holders have “first in time” priority among themselves, but have lower priority than holders of overlying rights.

3. Prescriptive rights may be gained under some circumstances by using water belonging to another during five consecutive years of overdraft (basin pumping exceeding safe yield), but a prescriptive right cannot be acquired against a public entity or public utility. (*City of Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 270–286.)

E. The federal reserved rights doctrine applies to groundwater (*Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District* (9th Cir. 2017) 849 F.3d 1262, cert. den., 138 S.Ct. 469; accord *In re the General Adjudication Of All Rights To Use Water In The Gila River System And Source* (1999) 195 Ariz. 411, cert. denied (2000) 530 U.S. 1250 Federal reserved rights extend to groundwater; contra *In re All Rights to Use Water in the Big Horn River System* (Wyo. 1988) 753 P.2d 76.

F. Groundwater Adjudications

1. Seek to limit pumping or provide a physical solution to prevent long term overdraft. (See *City of Santa Maria v. Adam* (2012) 211 Cal.App.4th 266, 287–89, cert. denied (2013) 571 U.S. 940 [discussing authority to impose a physical solution]; *Wright v. Goleta Water Dist.* (1985) 174 Cal.App.3d 74, 89–90 [reviewing determination of “safe yield”].)

2. A number of groundwater basins have been adjudicated, with decrees entered pursuant to settlement. (E.g., *California American Water Company v. City of Seaside* (Super. Ct. Monterey County, 2006, No. M66343 [seaside aquifer]); see Governor’s Commission to Review California Water Rights Law, Final Report (1978). p. 148 [Where groundwater management has been achieved though adjudication, the result was achieved through settlement, and “strict water law doctrine has usually not been followed in determining water rights to extract groundwater. Parties have reached agreements on allocations they believe to be fair and reasonable . . . .”])

3. Adjudication of a large groundwater basin will prove very difficult, if not impossible, absent legislation such as that providing for stream system adjudications. (See Governor’s Commission to Review California Water Rights Law, Final Report (1978), pp. 158–161; *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224 [rejecting use of equitable apportionment or other theories to simplify determination of water right holders’ allocations of water in a groundwater adjudication].)

4. In 1969, the Legislature authorized the State Water Resources Control Board (State Water Board) to initiate an adjudication where pumping restrictions or a physical solution is necessary to protect groundwater quality. (Wat. Code, § 2100 et seq.)

5. In 2015, the Legislature enacted reform legislation for comprehensive groundwater adjudications. (Code Civ. Proc., § 830 et seq.; Wat. Code, § 10737 et seq.)

1. The legislation may remove some of the barriers to management through adjudication. (See, e.g., Code Civ. Proc., § 830, subd. (b)(7) [authorizing court to consider applying the principles established in *In re Waters of Long Valley Creek Stream System* (1979) 25 Cal.3d 339 (*Long Valley*), [under which unexercised riparian rights may be subordinated in priority to rights that have been exercised], effectively removing the barrier to management by adjudication that would otherwise arise under *Wright v. Goleta Water Dist.* (1985) 174 Cal.App.3d 74, 87–89. [absent a statutory scheme for comprehensive groundwater adjudication, *Long Valley* principles cannot be applied in a groundwater adjudication].)
2. The legislation includes provisions to prevent adjudications from undermining management under the SGMA. (Wat. Code, § 10737 et seq.); see also Code Civ. Proc., §§ 830, subd. (b)(4), 835, subd. (a)(1), 836, subd. (m), 836.5, 837, subd. (a), 847, subd. (e), 848, subd. (a)(1), 849, subd. (b), Wat. Code, § 10737 et seq.)
3. An adjudication under the legislation may include rights to surface waters if the court finds that including an interconnected surface water body is necessary for the fair and effective determination of the groundwater rights. (Code Civ. Proc*.*, § 833, subd. (c).)

II. State Management

A. Most Western states have applied the doctrine of prior appropriation to groundwater, and the same state agency administers water rights for both surface and groundwater. (Tarlock, Law of Water Rights and Resources (2011 ed.), § 6:4, pp. 389-90; cf. *Bamford v. Upper Republican Natural Resources Dist.* (1994) 245 Neb. 299, 305, 312-314 [upholding groundwater management statute, in a state that recognizes common law correlative rights to groundwater]; *Kline v. State, ex rel. Oklahoma Water Resources Bd.* (Okla. 1988) 759 P.2d 210, 212-13 [same]; see also *North Gualala Water Co. v. State Water Resources Control Bd.* (2006) 139 Cal.App.4th 1577, 1590 [“California is the only western state that still treats surface water and groundwater under separate and distinct legal regimes.”].)

B. In California, the statutes establishing the water right permit and license system and stream system adjudications are limited to appropriations from surface waters and subterranean stream in known in definite channels. (Wat. Code, §§ 1200, 2500.)

1. The bill to enact the Water Commission Act of 1913, which established California statutory water rights system, included both groundwater and surface water, as introduced, but was amended to make it inapplicable to groundwater, except for subterranean streams in known and definite channels. (Sax, *We Don’t Do Groundwater: a Morsel of California Legal History* (2003) 6 U. Denv. Water L. Rev. 269, 292-93.)

2. In 1935, legislation was introduced that would have amended the statutory stream system adjudication provisions of the Water Commission Act to apply to groundwater, among other reforms. (Sen. Bill No. 1085 (1935 Reg. Sess.) as introduced Apr. 16, 1935, § 1.) Before the bill was enacted it was amended to limit its applicability to surface waters and subterranean streams flowing through known and definite channels. (Stats. 1935, ch. 647, § 1, p. 1795.) In 1971, Assemblymember Carley Porter, Chair of the Assembly Committee on Water, proposed to have the statutory stream adjudication provisions apply to groundwater, and to require reporting of groundwater extractions statewide. (Porter, *What’s in the Legislative Cards for Ground Water,* Eighth Biennial Conference on Ground Water (1971) 63, 65-66.) The reforms were not enacted. (See also Sen. Bill No. 820 (2005-2006 Reg. Sess.) [bill to require reporting of groundwater extractions statewide; vetoed].)

3. The classification of groundwater does not change the State Water Board’s responsibility to consider impacts on groundwater in the administration of surface water rights.

i. In reviewing applications for permits to appropriate surface water, and in conducting statutory adjudications, State Water Board must consider impacts on interconnected groundwater. (See State Water Board Order WR 2000-13 at pp. 25-26; State Water Board Decision 1614 (1987) at p. 2.)

ii. Where a surface water appropriation involves storage of water underground, the State Water Board’s authority over the permittee includes authority to regulate the rediversion and use of the stored water. (See Wat. Code, §§ 1243, 1253; Cal. Code Regs., tit. 23, § 722.)

4. Recent legislation providing for State Water Board to adopt instream flow protection requirements that apply to diversions for cannabis cultivation authorizes the State Water Board to apply those requirements to groundwater extractions. (Wat. Code, 13149, subd. (a)(1)(A).)

C. Waste and Unreasonable Use

1. In 1939, the Legislature amended the Water Commission Act to authorize the Division of Water Resources (predecessor to the State Water Board) to take “all appropriate proceedings or actions” to prevent waste or unreasonable use. (Stats. 1939, ch. 838, § 1, p. 2420.) This authority is not limited to appropriations subject to the statutory appropriation system established by the Water Commission Act. (See Code Com. Notes, 67C West’s Ann. Wat. Code (2009 ed.) foll. § 275, pp. 319.)
2. The State Water Board recognizes that its authority under Water Code section 275 applies to groundwater. (State Water Board Decision 1474 (1977) [Water Code section 275 applies to groundwater]; Sax, *We Don’t Do Groundwater: a Morsel of California Legal History* (2003) 6 U. Denv. Water L. Rev. 269, 308-313 [same]; Sawyer, *State Regulation of Groundwater Pollution Caused by Changes in Groundwater Quality or Flow* (1988) 19 Pacific L. J. 1267, 1286-1291 [same].)

3. State Water Board authority under Water Code section 275 includes rulemaking authority. (*Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463, 1482–87; see Cal. Code Regs., tit. 23, § 862 [regulation implementing Wat. Code, § 275, applicable to both surface diversions and diversions of hydraulically connected groundwater].)

D. The Public Trust Doctrine

1. California’s public trust doctrine applies to water diversion and use.

a. The state has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 446.)

b. The purpose of the public trust is to protect navigation, fishing, recreation, environmental values, and fish and wildlife habitat. (*Id.* at pp. 434-435.)

c. The public trust protects public trust uses of navigable waters, including waters navigable by recreational craft, and applies to upstream diversions that affect navigable waters. (*Id.* at pp. 435-37.) A variant of the public trust applies to activities which harm the fishery in non-navigable waters. (*People v. Truckee Lumber Co.* (1897) 116 Cal. 397, 399; see *California Trout, Inc. v. State Water Resources Control Board* (1989) 207 Cal.App.3d 585, 630.)

d. Diversions may be permitted despite harm to public trust interests, but the state must be mindful of its duty as trustee to consider the effects on public trust values and “to preserve, so far as consistent with the public interest, the uses protected by the trust.” (*National Audubon Society v. Superior Court, supra*, at pp. 446-447.)

e. No party can acquire a vested right to appropriate water in a manner harmful to the public trust. (*Id.* at p. 445.) Even after an appropriation has been approved, the public trust imposes a duty of continuing supervision. In applying the public trust doctrine, the state has the power to reconsider past water allocations. (*Id*. at p. 447.)

f. The State Water Board has authority to apply the public trust doctrine to diversions under all bases of right recognized under California law. (See *In re Water of Hallett Creek Stream System* (1988) 44 Cal.3d 448, 472 fn. 16 [riparian rights]; State Water Board Order 95-4 at 14-15 [pre-1914 rights).)

g. The State Water Board and the courts have concurrent jurisdiction to apply the public trust doctrine. (*Id*. at 449-451.)

2. The public trust applies to protect public trust uses of surface waters from harm caused by groundwater extractions.

a. California does not treat percolating groundwater as a public trust resource. (See *Santa Teresa Citizen Action Group v. City of San Jose* (2003) 114 Cal.App.4th 689, 709 [The public trust doctrine “has no direct application to groundwater.” Absent evidence of a threat to the public’s interest in a surface waterway, “the issue is not ripe for decision.”])

b. The applicability of the public trust doctrine is not limited to activities that occur in or on waters that are public trust resources – it is a limitation on activities that affect public trust resources. (See *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 435-437 [the public trust doctrine protects navigable waters from harm caused by diversion of nonnavigable tributaries].) Hence, the public trust doctrine should apply to protect public trust uses of surface waters from harm caused by groundwater extractions.

1. *Environmental Law Foundation v. State Water Resources Control Board* (26 Cal.App.5th 844.)

i. The public trust doctrine applies to the extraction of groundwater to the extent that the extraction adversely impacts a navigable waterway.

ii. Both the State Water Board and a county, as a political subdivision of the state, have public trust responsibilities.

iii. The Sustainable Groundwater Management Act (SGMA) does not supplant common law or abrogate state's public trust duty to consider impact of groundwater extraction on rivers

III. The Sustainable Groundwater Management Act (SGMA)(Wat. Code, § 10720 et seq.)

1. Overview

1. SGMA defines sustainable groundwater management to avoid undesirable results. (Wat. Code, § 10721, subds. (v) & (x).)

2. Local agencies may elect to become groundwater sustainability agencies. (Wat. Code, § 10723 et seq.)

3. SGMA provides local authority to adopt and enforce groundwater sustainability plan, including reporting and limits on extraction. (Wat. Code, §§ 10275 et seq., 10728 et seq., 10732 et seq..)

4. SGMA provides groundwater sustainability agencies with authority to impose fees. The local agency may impose regulatory fees. (Wat. Code, § 10730, see generally *California Farm Bureau Federation v. State Water Resources Control Bd.* (2011) 51 Cal.4th 421, 438 [discussing regulatory fees].) A groundwater sustainability agency may also impose extraction fees as property related fees for water service. (§ 10730.2; see generally *Griffith v. Pajaro Valley Water Management Agency* (2013) 220 Cal.App.4th 586, 594-96 [upholding groundwater extraction charge as a water service charge within the meaning of Proposition 218, which may be imposed without a vote of property owners or the electorate].)

5. The Department of Water Resources (DWR) will provide technical assistance and review of plan adequacy. (Wat. Code, §§ 10729 et seq., 10733 et seq., 10735.2, subds. (a)(3) & (a)(5)(A).)

6. DWR is required to adopt regulations for evaluating groundwater sustainability plans, necessary plan elements, and requirements for implementation. (*Id.*, § 10733.2; see also Cal. Code Regs., tit. 23, § 350 et seq. (SGMA regulations.)

7. The State Water Board has authority to designate basins as probationary where no local agency elects to be the groundwater sustainability agency, where the local agency fails to adopt a groundwater sustainability plan, or where DWR determines that the plan or plan implementation is inadequate. (Wat. Code, § 10735.2.) If local agencies do not correct the deficiency, the State Water Board may adopt and implement an interim plan. (Wat. Code, §§ 10735.4, 10735.6, 10735.8.)

a. An interim plan includes actions to correct a condition of long-term overdraft or a condition where groundwater extractions result in significant depletions of interconnected surface waters. (Wat. Code, § 10735.8, subd. (b)(1).) An interim plan may include restrictions on extraction or a physical solution. (*Id.*, subd. (c).)

b. Except where the interim plan incorporates elements of a local agency’s groundwater sustainability plan or an adjudication, or as necessary to prevent waste an unreasonable use, the interim plan must be consistent with water right priorities.

8. Deadlines under SGMA. (But see Wat. Code §§ 10727.2, subd. (a)(3), 10735.2, subd. (d), 10735.4 [providing for extensions of some of the deadlines for local agencies].)

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| January 31, 2015 | DWR sets initial priority for groundwater basins (§ 10722.4) |
| January 1, 2016 | DWR adopts regulations on criteria for modifying groundwater basin boundaries. (§ 10722.2, subd. (b).) |
| April 1, 2016 | First reports due from exempt adjudicated basins (§ 10720.8, subd. (f).) |
| June 1, 2016 | DWR adopts regulations for evaluating groundwater sustainability plans and alternatives, for the implementation of groundwater sustainability plans, and for coordination agreements. (§ 10733.2.) |
| January 1, 2017 | Local agency submission for DWR approval of an alternative to a groundwater sustainability plan if the local agency believes the alternative satisfies the objectives of the Act. (§10733.6.) |
| June 30, 2017 | A local agency of collection of local agencies elects to be a sustainability agency for a basin. (§ 10735.2, subd. (a)(1).) |
| July 1, 2017 | If there is an area within a basin that is not within the management area of any groundwater sustainability agency, and the county does not assume responsibility, extractions must be reported to the State Water Board. (§§ 5202, subd. (a)(2), 10724, subd. (b).) |
| January 31, 2020 | Groundwater sustainability plans required for medium- and high-priority basins that are in critical overdraft. (§§ 10720.7, 10735.2, subd. (a)(2).)  |
| January 31, 2022 | Groundwater sustainability plans required for medium- and high-priority basins that are not in critical overdraft. (§§ 10720.7, 10735.2, subd. (a)(4).) |
| 20 years after plan adoption | Groundwater sustainability plans achieve the sustainability goal. (§ 10727.2, subd. (b).) |

9. SGMA includes provisions for consultation with land use planning agency to promote better consistency between land use and groundwater management. (Gov. Code, §§ 65350.5, 65352, 65352.5; Wat. Code, § 10726.9.)

10. A Water Code provision adopted with SGMA sets state policy that groundwater resources be sustainably managed. (Wat. Code, § 113.)

11. Does not determine or alter proprietary water rights or limit the authority of state or local agencies under other laws. (Wat. Code, §§ 10720.5, 10726.8, 10730.8, 10735.8, subd. (i).)

 B. SGMA and Interconnected Surface Water

1. Groundwater sustainability plans may address, and in some circumstances are required to address, affects on interconnected surface water. (See Wat. Code, §§ 10721, subd. (u), (w) & (x); 10727, subd. (a).)
2. Undesirable result to be addressed in groundwater sustainability plans include: “Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.” (Wat. Code, § 10721, subd. (x)(g).)
3. Groundwater sustainability plans may, but are not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015.” (Id., § 10727.2, subd. (b)(4).)
4. DWR’s SGMA regulations set requirements for addressing effects on interconnected surface waters.
5. A groundwater sustainability plan must include identification of interconnected surface water systems and an estimate of the quantity and timing of depletions of those systems. (Cal. Code Regs., tit. 23, § 354.16, subd. (f).)

ii. A groundwater sustainability agency must set thresholds, including a threshold for the rate or volume of surface water depletions caused by groundwater use that would have adverse impacts on beneficial use of surface waters, supported by a model to quantify or assess the depletion. (*Id.,* § 354.28, subd. (c)(6).)

iii. A groundwater sustainability agencies must develop a monitoring element to provide the basis for calculating depletions of surface water caused by groundwater extractions. (*Id.,* § 354.34, subd (c)(6.)

1. Surface water impacts may result from groundwater extractions in multiple basins, requiring coordination of groundwater management. (See generally *id.,* § 357.2 [Interbasin Agreements].)
2. State Water Board intervention authority includes authority to address impacts on interconnected surface water.
3. The State Water Board may declare a basin to be probationary based on impacts on interconnected surface water, and include measures to correct those impacts as part of an interim plan. (Wat. Code, §§ 10735.2, subd. (a)(5)(B), 10735.8, subd. (b)(1).)
4. State Water Board intervention authority is delayed as applied to impacts on interconnected surface water. (§§ 10735.8, subd. (h) [Before January 1, 2025, the State Water Board cannot adopt an interim plan for a probationary basin to address impacts on interconnected surface waters]; 10735.2, subd. (a)(5)(B) [If a groundwater sustainability agency has been formed and prepared a groundwater sustainability plan, the State Water Board cannot designate the basin as probationary based on impacts on interconnected surface waters before January 31, 2025].)
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