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IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIRST APPELLATE DISTRICT

DIVISION ONE

NORTH GUALALA WATER COMPANY, Plaintiff and Appellant, v. STATE WATER RESOURCES CONTROL BOARD, Defendant and Respondent.	A109438 (Mendocino County Super. Ct. Nos. SCUK CVG '01 86109, SCUK CV PT '03 90347)

The North Gualala Water Company (NGWC) appeals from a judgment denying two consolidated petitions for writ of mandate. The petitions challenge the State Water Resources Control Board's (Board) jurisdiction to compel NGWC to obtain a permit to pump groundwater from two wells located near the North Fork Gualala River, as well as the Board's interpretation of pumping limitations placed on the permit. In an issue of first impression, the parties dispute the proper construction of the statutory phrase, "subterranean streams flowing through known and definite channels," which has defined the Board's permitting jurisdiction over the state's groundwater resources since 1914.[1] As a fallback position in the event that the Board's statutory permitting authority over the

[1] The quoted language appears in Water Code section 1200, which limits the Board's permitting authority over subsurface water as follows: "Whenever the terms stream, lake or other body of water, or water occurs in relation to applications to appropriate water or permits or licenses issued pursuant to such applications, such term refers only to surface water, and to subterranean streams flowing through known and definite channels." All further statutory references are to the Water Code unless otherwise indicated.

wells is upheld, NGWC argues that the Board has placed unwarranted conditions on the company's permit. We affirm the trial court's judgment denying NGWC's petitions.

I. BACKGROUND

A. Water-Right Permit 14853 and Term 9

NGWC provides municipal water service to approximately 1,000 customers in, or near, the Town of Gualala. Between 1965 and 1989, NGWC diverted surface water directly from the North Fork of the Gualala River (North Fork) by means of an infiltration gallery located at the confluence of the North Fork and the Little North Fork Gualala River.[2] This diversion was authorized by appropriative water-right permit 14853 (Permit 14853), issued by the Board's predecessor in 1965.

Permit 14853 authorized NGWC to divert two cubic feet per second from the North Fork. To resolve a protest to its permit application by the California Department of Fish and Game (DFG), NGWC agreed to accept limitations on its right to divert water from the river that were intended to maintain instream flows for the protection of fish life. These limitations were set forth in "Term 9" of the permit. However, given flow conditions in the North Fork at that time, Term 9 in its original form never actually limited NGWC's diversions.

In 1978, as a result of a further protest by DFG and after discussions between NGWC and DFG, the Board amended Term 9 to read as follows: "For the protection of fish and wildlife, permittee shall during the period: (a) from November 15 though February 29, bypass a minimum of 40 cubic feet per second; (b) from March 1 though May 31, bypass a minimum of 20 cubic feet per second; (c) from June 1 though November 14, bypass a minimum of 4 cubic feet per second. The total streamflow shall be bypassed whenever it is less than the designated amount for that period."[3] Under

[2] An infiltration gallery is a network of perforated collector pipes located just beneath the surface of the river bed which are connected to a pumping system that draws the water out for treatment, storage, and distribution.

[3] In a later order, the Board explained that the word "bypass" in Term 9 originally referred to the volume of water that must flow past the point of diversion per second before water could be diverted under Permit 14853. As discussed below, when NGWC

certain flow conditions, the amended Term 9 did restrict NGWC's right to divert water from the North Fork.

B. NGWC's Production Wells: 1989–2001 Proceedings

In 1989 and 1996, NGWC developed two production wells, Wells 4 and 5, in an area adjacent to the North Fork known as Elk Prairie. Both wells were located approximately 200 feet from the river. One purpose of constructing the wells was to improve the quality of water and reduce water treatment costs. The wells draw groundwater from depths of approximately 50 and 140 feet below the ground.

When NGWC developed Well 4 it did not seek any water right permit for it because NGWC believed that Well 4 was pumping percolating groundwater which is not subject to the Board's permitting jurisdiction. (See § 1200.)[4] In a June 1989 letter replying to a third party complaint lodged against NGWC by the Gualala River Steelhead Project, the chief of the Board's Division of Water Rights addressed the jurisdictional issue as follows: "Your letter also requested information regarding [NGWC's] River Deep Well. Our information indicates that the well is located near the North Fork Gualala River, about 100 feet upstream of [NGWC's] point of diversion. The well is about 100 feet deep. Analysis of the well water indicates that it has a composition different than the surface supply which suggests that well water is percolating ground water, not river underflow. The Board does not have jurisdiction over the use of percolating ground water."

In November 1992, a groundwater geologist hired by the Sea Ranch Water Company, Richard Slade, reported to the Board that relatively impermeable rock formations underlie the North Fork channel, that the stream valley itself is filled with

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later changed the point of diversion under the permit, the bypass terminology in Term 9 could no longer be applied according to its original meaning.

[4] As further discussed below, subsurface water that is not part of a subterranean stream flowing through a known and definite channel is referred to in the case law as "percolating groundwater," which falls outside the Board's jurisdiction. (See *People v. Shirokow* (1980) 26 Cal.3d 301, 304, fn. 2.)

alluvial deposits[5] of unconsolidated layers of gravel, sand, silt, and clay, and that a water quality analysis indicated that the source of the well water was the Gualala River system. The report concluded that the groundwater extracted by Well 4 from the alluvium underneath Elk Prairie was from a subterranean stream as defined by the Board. Based on the Slade report, the Board staff notified NGWC that its extraction from Well 4 was an illegal diversion of water, and advised it to submit a water right application for the well.

In February 1993, NGWC filed a petition to change the authorized points of diversion in Permit 14853 to include Well 4. In its petition, NGWC stated that it was reserving the right to challenge the Board's conclusion that Well 4 pumped water from a subterranean stream after conducting additional field work. NGWC filed a petition to add Well 5 to Permit 14853 in 1994.

In January 1998, NGWC's consultants, Luhdorff & Scalmanini Consulting Engineers, filed a technical report with the Board regarding the groundwater pumped by Wells 4 and 5. Based on its own measurements and data collection, Luhdorff & Scalmanini concluded that the groundwater in the alluvial deposits under the Elk Prairie is not recharged from the North Fork and is not flowing in a subterranean stream. Contrary to the conclusion of the Slade report, Luhdorff & Scalmanini found that the groundwater underneath Elk Prairie is maintained by a combination of deep percolation of surface precipitation during the rainy season and subsurface flow from the underlying bedrock formations into the alluvium during the dry season. Also contrary to Slade's analysis, Luhdorff & Scalmanini concluded that the underlying bedrock beneath Elk Prairie was not relatively impermeable, but was highly fractured and permeable, most likely due to its proximity to the San Andreas fault zone.

The chief of the Board's Division of Water Rights responded to NGWC that, after reviewing Luhdorff & Scalmanini's analysis, the Division of Water Rights still believed

[5] "Alluvium" is defined by Webster's Dictionary as "clay, silt, sand, gravel, or similar detrital material deposited by running water." (Merriam-Webster's Collegiate Dict. (10th ed. 2000), p. 31.)

the groundwater pumped by Wells 4 and 5 was flowing in a known and definite channel, and thus was subject to the Board's jurisdiction. Citing Slade's analysis, other studies of the area, and the Board's own investigations, the Division of Water Rights rejected Luhdorff & Scalmanini's critical finding that the bedrock was permeable to water relative to the overlying alluvium. It opined instead that "it appears that the bedrock is sufficiently impervious relative to the alluvial aquifer material to form the bed and banks of a subterranean stream." The Division of Water Rights advised that if NGWC wished to withdraw its petition to change the point of diversion, it would recommend that the Board hold a groundwater classification hearing to resolve the issue of the Board's permitting authority.

NGWC made no formal request for a groundwater classification hearing at that time. It informed the Board that it wished to continue the process of petitioning to change the point of diversion, while reserving the issue of groundwater classification for any future hearing to be held on its change petitions.

In August 1999, the Board adopted Order WR-99-09-DWR which granted NGWC's petitions to substitute Wells 4 and 5 for the previous points of diversion. DFG and other fishing interests protested the change sought by NGWC. The protestants expressed concern that NGWC was not meeting the bypass flow requirements of Term 9, and that the company would have trouble supplying the water demand of its customers if it was required to reduce diversions from the wells to meet these requirements. To address these concerns, Order WR-99-09-DWR required as a condition of the approval that NGWC submit a surface flow measurement plan to ensure compliance with Term 9 of Permit 14853. A subsequent order, Order WR 99-11, added a further condition that NGWC prepare a water supply contingency plan to address how municipal water needs would be met if the natural flow of the North Fork fell below the minimum amounts specified in Term 9.

NGWC did not challenge any of the findings or conditions in the 1999 orders, but proceeded to develop and file proposed plans for measuring surface flows and addressing water supply contingencies. In January and August 2000, the Board staff requested

changes in these plans. Through its attorneys, NGWC agreed to some of the changes. At the same time, NGWC asserted that the Board had never issued a formal decision on the issue of whether the groundwater pumped by Wells 4 and 5 was part of a subterranean stream or percolating groundwater, and that NGWC had not waived its rights on that issue. In addition, NGWC disputed whether, by its terms, the second sentence of Term 9 ("[t]he total streamflow shall be bypassed whenever it is less than the designated amount for that period") placed any limitation on the pumping of groundwater from Wells 4 and 5 so long as the pumping did not reach a level that would reverse the normal groundwater gradient between the wells and the river, thereby reducing surface streamflows. NGWC requested that its issues concerning the classification of the groundwater and the application of Term 9 be resolved through a formal hearing.

In April 2001, the chief of the Division of Water Rights informed NGWC that its plans were not approved. The chief's letter explained that Term 9 applied to any diversions of water under the permit, and since Wells 4 and 5 are the only points of diversion in the permit, Term 9 applied to them. NGWC petitioned the Board for reconsideration of the chief's decision. The petition asked the Board to hold a hearing on the legal classification of the groundwater pumped by Wells 4 and 5 and on the interpretation of Term 9.

In Order WR 2001-14, issued in June 2001, the Board: (1) upheld the chief's decision that NGWC's water measurement and water supply plans were inadequate; (2) determined that a groundwater classification hearing was not properly part of a proceeding seeking reconsideration of the chief's decision to disapprove the two plans submitted by NGWC; (3) discussed and rejected NGWC's interpretation that Term 9 was not a limitation on its ability to pump groundwater from Wells 4 and 5; and (4) invited NGWC to petition to change the bypass flow requirements in Term 9 and to bring the groundwater classification issue before the Board, either by raising it as a defense to a future enforcement action or by initiating an independent proceeding.

In July 2001, NGWC filed a complaint for declaratory relief and petition for writ of mandate challenging the sufficiency of the evidence to support Order WR 2001-14

(2001 mandate petition). NGWC's 2001 mandate petition also challenged the Board's interpretation of Term 9. The trial court stayed the case in December 2001 to allow NGWC to formally petition the Board for a groundwater classification hearing and to permit the Board to resolve that issue before the case proceeded.

C. 2002 Groundwater Classification Hearing

NGWC filed its request for a groundwater classification hearing in January 2002 and a hearing was conducted on June 4 and 5, 2002. In addition to NGWC, the participants included DFG and a "permitting team" from the Division of Water Rights. By established Board procedure, the permitting team was separated by an ethical wall from the "hearing team" that assisted the hearing officer and Board members in the hearing.

The Board proposed to apply a four-part test for determining whether groundwater fell within its permitting authority that it had first utilized in a 1999 decision concerning the Garrapata Water Company: "[F]or groundwater to be classified as a subterranean stream flowing through a known and definite channel, the following physical conditions must exist: [¶] 1. A subsurface channel must be present; [¶] 2. The channel must have a relatively impermeable bed and banks; [¶] 3. The course of the channel must be known or capable of being determined by reasonable inference; and [¶] 4. Groundwater must be flowing in the channel."[6] (*In re Garrapata Water Co.* (June 17, 1999) State Wat. Resources Control Bd. Dec. No. 1639 <http://www.waterrights.ca.gov/hearings/Decisions.htm> [as of May 31, 2006] (*Garrapata*).) The Board based the *Garrapata* test on its reading of an 1899 California Supreme Court case, *City of Los Angeles v. Pomeroy* (1899) 124 Cal. 597 (*Pomeroy*).

NGWC accepted the four-part test with certain qualifications, but argued that the groundwater pumped by Wells 4 and 5 did not satisfy its requirements because: (1) the

[6] The Board utilized the test again in 2002 in a case involving the Pauma Valley Water Company. (*In re Determination of Legal Classification of Groundwater in the Pauma and Pala Basins etc.* (Oct. 17, 2002) State Wat. Resources Control Bd. Dec. No. 1645 <http://www.waterrights.ca.gov/hearings/Decisions.htm> [as of May 31, 2006].)

only subsurface channel present, that formed by the alluvial materials in the vicinity of the North Fork, does not narrow or contract in the direction of the alleged flow as would be required under a correct reading of *Pomeroy*; (2) the Franciscan bedrock forming the bed and banks of the alluvial channel is not sufficiently impermeable to satisfy the second element of the test; and (3) the groundwater underneath Elk Prairie is not in fact flowing "in the channel," but in a direction perpendicular to it.

DFG expressed its concern that absent regulation by water right permit, NGWC could significantly expand its pumping and reduce river flows to levels inadequate for fish protection.

The Board found in Order WRO 2003-0004 that all elements of its four-part test had been met and that the water pumped from NGWC's wells required a water right permit. Upon NGWC's ensuing petition for reconsideration, the Board rejected NGWC's argument that the water in a subterranean stream must always be flowing in a direction parallel to the sides of the subsurface channel. The Board found that "water is in fact flowing generally downstream within the channel under Elk Prairie, following a hydraulic gradient and following the path of least resistance."

D. 2003 Mandate Petition

In May 2003, NGWC filed a new petition for writ of mandate, challenging Order WRO 2003-0004, which was eventually consolidated with NGWC's 2001 mandate petition.

The trial court concluded that the Board's four-part test was the appropriate means of making the determination required by section 1200. The court applied the substantial evidence standard to each of the four elements, and found that substantial evidence existed to support the Board's findings as to all four elements. The court denied NGWC's consolidated petitions for writ of mandate, and entered judgment in favor of the Board on December 14, 2004. This appeal followed.

II. DISCUSSION

A. Standard of Review

The parties differ over the applicable standard of review. The Board concedes that its interpretation of the "subterranean stream" language in section 1200 is subject to de novo review, but argues that if the four-part *Garrapata* test properly effectuates the intent of that language, the Board's findings that the various elements of the test have been satisfied must be upheld unless they are unsupported by substantial evidence. NGWC maintains that this court must conduct a de novo review of the Board's determination that it has jurisdiction over the wells because the Board made no findings of fact on "the principal disputed factual issues."

NGWC had maintained that to be part of a subterranean stream coming within section 1200 the groundwater must (1) flow in a direction generally parallel to the subterranean channel and (2) not be maintained by subsurface inflows emanating from fractures in the underlying bedrock. It asserts that Order WRO 2003-0004 contained no findings of fact on these disputed factual issues. According to NGWC, the Board must therefore have determined *as a matter of law* that the groundwater is part of a subterranean stream for purposes of section 1200 based solely on the fact that the groundwater occurs in alluvial deposits which are more permeable than the Franciscan bedrock underlying them. Although we do not believe this accurately characterizes the Board's findings or methodology in this case, we concur that the materiality of groundwater source and flow direction present questions of law that we will consider de novo.

In sum, both parties agree that the Board's interpretation of the "subterranean stream" clause of section 1200 presents a question of law subject to de novo review. Issues regarding the materiality of groundwater source and flow direction under section 1200 also present questions of law subject to de novo review. To the extent that NGWC disputes any of the facts found by the Board, as opposed to disputing the legal methodology the Board applied to determine its jurisdiction, the Board's findings must be

upheld unless they are unsupported by substantial evidence. (§ 1126, subd. (c); Code Civ. Proc., § 1094.5, subd. (c).)[7]

B. Deference Due to Board's Interpretation of Section 1200

The parties also differ over the degree of deference which this court should give to the Board's interpretation of section 1200. According to the Board, because the Legislature has delegated a "designated field of expertise" to the Board, the Board's statutory interpretation should "generally be followed unless it is clearly erroneous." (*San Mateo City School Dist. v. Public Employment Relations Bd.* (1983) 33 Cal.3d 850, 856.) NGWC maintains that the proper standard is that applicable when a court must decide whether an agency regulation exceeds the authority delegated to the agency by the Legislature. (See *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 11, fn. 4 (*Yamaha*); *Environmental Protection Information Center v. Department of Forestry & Fire Protection* (1996) 43 Cal.App.4th 1011, 1022.) According to NGWC, when an agency is construing a statute affecting its own jurisdiction, the proper standard of review is therefore one of " 'respectful nondeference.' " (*Environmental Protection Information Center v. Department of Forestry & Fire Protection*, at p. 1022.)

Yamaha distinguishes between two types of administrative rule-making: "[T]here are two categories of administrative rules . . . . One kind—quasi-legislative rules—represents an authentic form of substantive lawmaking: Within its jurisdiction, the agency has been delegated the Legislature's lawmaking power. [Citations.] . . . When a

[7] When a fundamental vested right is affected, the reviewing court applies the independent judgment test rather than the substantial evidence test. (*Strumsky v. San Diego County Employees Retirement Assn.* (1974) 11 Cal.3d 28, 32.) Under the independent judgment test, the trial court independently reviews the administrative record to determine whether the weight of the evidence supports the administrative body's findings and action. (*Bixby v. Pierno* (1971) 4 Cal.3d 130, 143, fn. 10.) After the trial court exercises its independent judgment, the appellate court need only review the record to determine whether the trial court's findings are supported by substantial evidence. (*Ibid.*) NGWC made no argument in its opening brief that the independent judgment test applies, and has therefore waived the point. (*Tisher v. California Horse Racing Bd.* (1991) 231 Cal.App.3d 349, 361.)

court assesses the validity of such rules, the scope of its review is narrow. If satisfied that the rule in question lay within the lawmaking authority delegated by the Legislature, and that it is reasonably necessary to implement the purpose of the statute, judicial review is at an end. [¶] . . . [¶] [T]he other class of administrative rules, those interpreting a statute, . . . does not implicate the exercise of a delegated lawmaking power; instead, it represents the agency's view of the statute's legal meaning and effect, questions lying within the constitutional domain of the courts. But because the agency will often be interpreting a statute within its administrative jurisdiction, it may possess special familiarity with satellite legal and regulatory issues. It is this 'expertise,' expressed as an interpretation (whether in a regulation or less formally . . .), that is the source of the presumptive value of the agency's views. An important corollary of agency interpretations, however, is their diminished power to bind. Because an interpretation is an agency's legal opinion, however 'expert,' rather than the exercise of a delegated legislative power to make law, it commands a commensurably lesser degree of judicial deference." (*Yamaha*, *supra*, 19 Cal.4th at pp. 10–11, italics omitted.)

The interpretation of section 1200 that the Board has formulated in the context of deciding the *Garrapata* and subsequent groundwater cases comes within the class of administrative rules interpreting a statute under *Yamaha*. Deciding these cases is not an exercise of the Board's quasi-legislative power to adopt regulations of general applicability. Thus, we reject the Board's proposed standard—based on pre-*Yamaha* case law—that we must defer to the Board's interpretation of section 1200 unless it is clearly erroneous. At the same time, the issue before us is not whether the Board has adopted a regulation or test that is outside of the realm of authority delegated to it by the Legislature. Whether the Board's interpretation of section 1200 is correct or not, its power to formulate and apply a construction of that statute in the course of adjudicating permitting disputes is not in question in this proceeding. The Board could not decide groundwater classification issues if it did not have that power. NGWC's proposed standard of " 'respectful nondeference' " is thus also inapplicable.

The degree of deference to which the Board's interpretation of section 1200 is entitled depends on a series of situation-specific factors identified in *Yamaha*: "[There are] two broad categories of factors relevant to a court's assessment of the weight due an agency's interpretation: Those 'indicating that the agency has a comparative interpretive advantage over the courts,' and those 'indicating that the interpretation in question is probably correct.' [Citations.] [¶] In the first category are factors that 'assume the agency has expertise and technical knowledge, especially where the legal text to be interpreted is technical, obscure, complex, open-ended, or entwined with issues of fact, policy, and discretion. A court is more likely to defer to an agency's interpretation of its own regulation than to its interpretation of a statute, since the agency is likely to be intimately familiar with regulations it authored and sensitive to the practical implications of one interpretation over another.' [Citation.] The second group of factors . . . —those suggesting the agency's interpretation is likely to be correct—includes indications of careful consideration by senior agency officials ('an interpretation of a statute contained in a regulation adopted after public notice and comment is more deserving of deference than [one] contained in an advice letter prepared by a single staff member' [citation]), evidence that the agency 'has consistently maintained the interpretation in question, especially if [it] is long-standing' [citation]) ('[a] vacillating position . . . is entitled to no deference' [citation]), and indications that the agency's interpretation was contemporaneous with legislative enactment of the statute being interpreted. If an agency has adopted an interpretive rule in accordance with Administrative Procedure Act provisions—which include procedures (e.g., notice to the public of the proposed rule and opportunity for public comment) that enhance the accuracy and reliability of the resulting administrative 'product'—that circumstance weighs in favor of judicial deference. However, even formal interpretive rules do not command the same weight as quasi-legislative rules. Because ' "the ultimate resolution of . . . legal questions rests with the courts" ' [citation], judges play a greater role when reviewing the persuasive value of interpretive rules than they do in determining the validity of quasi-legislative rules." (*Yamaha, supra*, 19 Cal.4th at pp. 12–13.)

The relevant situational factors in this case counsel in favor of limited deference to the Board's interpretation of the statutory language, as embodied in the *Garrapata* test. The language in issue is unique to section 1200, and has no analogue elsewhere in the statutes of this state. Judging from the record before us, even expert hydrologists disagree about the physical conditions and range of naturally occurring phenomena to which the subterranean stream language might refer. Translating that language into a usable and practical legal test therefore necessarily draws upon areas of the Board's technical expertise, experience, and familiarity with its own prior precedents. Although the *Garrapata* test does not reflect a long-standing administrative interpretation of section 1200, it has been adopted and applied by the agency's highest officials in a considered manner following contested proceedings. These factors warrant some degree of deference on our part to the test the agency has formulated. At the same time, our analysis of the history, text, and intent of the subterranean stream language leads us to the conclusion that the Board's jurisdiction over groundwater was intended to be the exception rather than the rule when the Legislature adopted the language in issue. Where the Board appears to be seeking endorsement for a more expansive construction of its potential jurisdiction, as in its reading of *Los Angeles v. Hunter* (1909) 156 Cal. 603 (*Hunter*), we have not deferred to the Board's views.

C. Historical Roots of the Subterranean Stream Language in Section 1200

California is the only western state that still treats surface water and groundwater under separate and distinct legal regimes. (Sax, *We Don't Do Groundwater: A Morsel of California Legal History* (2003) 6 U.Denv. Water L.Rev. 269, 270 (hereafter *We Don't Do Groundwater*).) The persistence of these alternative regimes inevitably leads to thorny issues of classification and boundary-setting. As the present case illustrates, classification disputes in this field quickly take on an Alice-in-Wonderland quality because the legal categories (e.g., " 'subterranean streams flowing through known and definite channels,' " "percolating water") are drawn from antiquated case law and bear little or no relationship to hydrological realities. (See generally, *We Don't Do*

Groundwater, at pp. 270–304.)[8] Because the Legislature has shown little inclination to reformulate this area of law, we are left to try to construe and apply a legal classification that is borrowed from cases decided more than 100 years ago.

1. Origin of Section 1200

Section 1200 derives from section 42 of the Water Commission Act of 1913 which was passed by the Legislature in 1913 as part of Assembly Bill No. 642, and became effective following a public referendum on December 19, 1914. (See Stats. 1913, ch. 586, § 42, p. 1033; *People v. Shirokow*, *supra*, 26 Cal.3d at p. 307, fn. 6.)[9] The Water Commission Act grew out of a 1912 report by the California Conservation Commission (Commission) which found that the then-existing means of regulating the appropriation of water and water rights did not adequately protect the public's interest in the state's water resources, and did not effectively settle disputes over water rights. Regarding underground water, the Commission called for its statutory regulation and predicted that the failure to enact such legislation would result in increasing litigation over the use of underground water.

As introduced in January 1913, Assembly Bill No. 642 would have given the Board's predecessor, the State Water Commission, the power to investigate and determine appropriative "rights to water or the use of water" in "all streams, stream systems, portions of stream systems, lakes, or other bodies of water" in the state. (Assem. Bill No. 642 (1913 Reg. Sess.) Jan. 23, 1913, § 10.) Section 42 of the bill as introduced provided that "[t]he word 'water' in this act shall be construed as embracing

[8] Professor Sax argues that section 1200 was intended to end the artificial legal separation of surface water and groundwater by giving the Board broad jurisdiction over all groundwater flows that have a direct and appreciable impact on a surface stream. (*We Don't Do Groundwater, supra*, 6 U.Denv. Water L.Rev. at pp. 286–306.) However, neither party to this litigation has embraced Sax's analysis, and we find no support for it in the legislative history or text of the statute.

[9] The relevant sentence of section 42 of the Water Commission Act stated: "Whenever the terms stream, stream system, lake or other body of water or water occurs in this act, such term shall be interpreted to refer only to surface water, and to subterranean streams flowing through known and definite channels."

the term ‘or use of water’; and the term ‘or use of water’ in this act shall be construed as embracing the word ‘water.’ ” The bill’s broad grant of authority to the water commission made no apparent distinction between underground and surface water. However, by amendments made on April 2 and 22, 1913, the following sentence limiting the state water commission’s jurisdiction to surface water was added to section 42: “Whenever the terms stream, stream system, lake or other body of water or water occurs in this act, *such term shall be interpreted to refer only to surface water*.” (Italics added.) Finally, on April 30, 1913, the phrase “and to subterranean streams flowing through known and definite channels” was added to this sentence of section 42.

The record before us contains no evidence of contemporaneous statements discussing the legislative intent of the subterranean stream language in section 42 of the Water Commission Act, and no published court cases have interpreted the phrase since its enactment into law in 1914. From the sequence of amendments made to section 42 of Assembly Bill No. 642, it appears that the Legislature deliberately rejected wording that might otherwise have supported a broad assertion of jurisdiction over subsurface water. The addition, a few weeks later, of the phrase “and to subterranean streams flowing through known and definite channels” cannot reasonably be construed as an attempt to restore any major part of that jurisdiction. First, in contrast to the broad and inclusive list used to describe the state water commission’s surface water jurisdiction (“stream, stream system, lake or other body of water”), the phrase “subterranean streams flowing through known and definite channels” seems deliberately narrow. Virtually every word in it sets a limiting condition (e.g., flowing, known, definite, channel) that seems to reduce its breadth. Second, the use of the word “only” in the sentence is inconsistent with any legislative intent or understanding that jurisdiction over subterranean streams would encompass a major part of the state’s groundwater resources.

As discussed below, the concept of a subterranean stream flowing through a known and definite channel did not spring fully-formed from the 1913 deliberations over Assembly Bill No. 642. The concept played an important role in a series of California Supreme Court water rights cases going back to 1871. One 1899 California Supreme

Court case, *Pomeroy*, used language identical to that adopted by the Legislature in 1913. The parties have therefore properly focused our attention on these pre-1913 water law authorities. (See *People v. Lawrence* (2000) 24 Cal.4th 219, 231 [where the language of a statute uses terms that have been judicially construed there is a strong presumption that the terms carry the same technical meaning that had been placed upon them by the courts].)[10]

2. Distinction Between Flowing and Percolating Groundwater

In several cases decided between 1871 and 1909, the California Supreme Court addressed the distinction between groundwater flowing in subterranean streams and groundwater that was considered to be merely percolating through the soil. The former was governed by riparian and appropriative restrictions on use,[11] while the latter was (until 1903) subject to the unrestricted ownership rights of the overlying property owner. Thus, in *Hanson v. McCue* (1871) 42 Cal. 303, 308–309, the court observed that a "subterranean stream of a defined character, and flowing in a defined channel" would be subject to the same riparian rules that govern the use of "similar streams flowing upon the surface of the earth." In contrast, "[w]ater filtrating or percolating in the soil belongs to the owner of the freehold—like the rocks and minerals found there." (*Hanson v. McCue*, at p. 308; see also, *Southern Pac. R. R. Co. v. Dufour* (1892) 95 Cal. 615, 620; *Gould v.*

[10] At the Board's request, we have also taken judicial notice of the 1914 ballot arguments in favor of and against the Water Commission Act. The opponents of the measure claimed that it would "place under the control of a political commission all of the waters of the state, both of surface and underground stream or flow." However, exaggerated characterizations of the scope of a ballot measure, made in an unsuccessful effort to defeat it, are not persuasive.

[11] "The riparian doctrine confers upon the owner of land contiguous to a watercourse the right to the reasonable and beneficial use of water on his land." (*People v. Shirokow*, *supra*, 26 Cal.3d at p. 307.) "All riparians on a stream system are vested with a common ownership such that in times of water shortage all riparians must reduce their usage proportionately. [Citations.]" (*United States v. State Water Resources Control Bd.* (1986) 182 Cal.App.3d 82, 101.) The diversion of water for other than riparian or overlying uses is subject to the appropriation doctrine under which the appropriator's right to the water is subordinate to those of riparian users and earlier appropriators. (*Id.* at pp. 101–102.)

Eaton (1896) 111 Cal. 639, 644; *Pomeroy, supra,* 124 Cal. at pp. 630–637; *Vineland Irr. Dist. v. Azusa Irr. Co.* (1899) 126 Cal. 486, 494–495; *Katz v. Walkinshaw* (1903) 141 Cal. 116, 125–126 (*Katz*); *Hunter, supra,* 156 Cal. at pp. 607–608.) Under the case law, groundwater was presumed to be percolating; the burden of showing that it flowed instead in a defined subterranean stream rested with the party asserting rights in such a stream. (See *Hanson v. McCue*, at p. 308; *Pomeroy,* at pp. 628, 633–634; *Arroyo D. and W. Co. v. Baldwin* (1909) 155 Cal. 280, 284.)[12]

3. The *Pomeroy* Case

Among all of the pre-1913 cases, *Pomeroy* contains the most extended and detailed discussion of how to classify groundwater as either water flowing in a subterranean stream or percolating in the soil. It also utilizes language identical to that later adopted by the Legislature in section 42 of the Water Commission Act. The specific phrase, "subterranean streams flowing through known and definite channels," appeared for the first time in *Pomeroy* and the *Pomeroy* court emphasized that "the main question in the case" was "the proper definition of a subterranean stream." (*Pomeroy, supra,* 124 Cal. at p. 632.) *Pomeroy* accordingly provides the best available evidence of the original legislative intent of the phrasing now found in section 1200.

The central issue in *Pomeroy* was the valuation of lands condemned by the City of Los Angeles under its eminent domain powers. (*Pomeroy, supra,* 124 Cal. at p. 604.) The lands were to be used for the purpose of constructing a tunnel and filtration galleries to divert water flowing underneath the bed of the Los Angeles River at its narrow outlet

[12] The rule recognizing absolute ownership of percolating groundwater was abrogated by the California Supreme Court's 1903 decision in *Katz, supra,* 141 Cal. at pages 128–129, 132–134. *Katz* rejected the doctrine that "each landowner owns absolutely the percolating waters in his land, with the right to extract, sell, and dispose of them as he chooses, regardless of the results to his neighbor," and held instead that percolating groundwater in California was subject to the same common law restrictions on use as surface water and subterranean streams. (*Id.* at pp. 121, 133–136.) As a result of the *Katz* decision, it was no longer necessary for the courts to determine at common law whether groundwater in dispute between litigants was percolating groundwater or groundwater flowing in subterranean streams. (*McClintock v. Hudson* (1903) 141 Cal. 275, 281.)

from the San Fernando Valley, to supply the city's inhabitants. (*Id.* at pp. 604–607.) The city asserted that the groundwater on defendant's property was part of the river's underflow for which the city would not have to pay compensation. (*Id.* at pp. 607, 617.) The defendants maintained that the groundwater was percolating groundwater which they owned and for which compensation must be made in the jury's award. (*Id.* at p. 617.) After being instructed in detail about how to distinguish percolating groundwater from water flowing in a subterranean stream, the jury made no award for the value of the water. (*Id.* at pp. 616–617.) On appeal in the Supreme Court, the defendants challenged several of the jury instructions on this issue. (*Id.* at pp. 630–636.) The court affirmed the judgment and upheld the trial court's instructions. (*Id.* at pp. 630–636, 650.)

Pomeroy rejected the defendants' claim that "all water passing through sand, gravel, and [boulders] is percolating water" and instead endorsed the view that a subterranean stream can exist "when the material through which the water forces itself fills a well-defined channel with impervious sides and bed." (*Pomeroy, supra,* 124 Cal. at p. 631.) Later in the opinion, the court observed that such a channel could be formed by the "*comparatively* impervious mountain sides" creating the opening through which the disputed water passed out of the San Fernando Valley. (*Id.* at p. 632, italics added.)

Turning its attention to the proper definition of a subterranean stream, the *Pomeroy* court quoted in full from and endorsed as a correct statement of the law the following discussion found in Clesson S. Kinney's 1894 volume, A Treatise on the Law of Irrigation (hereafter Kinney on Irrigation): " 'Subterranean or underground water courses are, as their names indicate, those water currents that flow under the surface of the earth. A large portion of the great plains and valleys of the mountainous regions of the west is underlaid by a stratum of water-bearing sand and gravel, and fed by the water from the mountain drainage. This water-bearing stratum is of great thickness, the water is moving freely through it, is practically inexhaustible, and, if it can be brought to the surface, will irrigate a large portion of the country overlying it. In and near the mountains many streams have a bed which was originally a rocky canyon, but has been filled up with [boulders] and coarse gravel. In this debris a large portion or all of the

water sinks from sight, to reappear only when some rocky reef crosses the channel and forces the water to the surface. The movement of this water through the porous gravel, owing to the declivity of the stream, is often quite rapid, and a considerable volume may thus pass down the channel hidden from sight.

" 'These watercourses are divided into two distinct classes—those whose channels are known or defined, and those unknown and undefined. It is necessary to bear this distinction in mind in our discussion, as they are governed by entirely different principles of law. And in this connection it will be well to say that *the word "defined" means a contracted and bounded channel, though the course of the stream may be undefined by human knowledge; and the word "known" refers to knowledge of the course of the stream by reasonable inference*. Regarding the laws governing these two classes, it must be known that if underground currents of water flow in well-defined and known channels, the course of which can be distinctly traced, they are governed by the same rules of law that govern streams flowing upon the surface of the earth.

" 'The owner of land under which a stream flows can, therefore, maintain an action for the diversion of it if such diversion takes place under the same circumstances as would enable him to recover if the stream had been wholly above ground. But for this purpose the underground water must flow in known and well-defined channels . . . in order that the riparian owner or appropriator may invoke the same rules as are applied to surface streams, or otherwise the presumption will be that they have their sources in the ordinary percolations through the soil. This rule practically disposes of the second class of subterranean waters—those whose channels are unknown and undefined—although there are undoubtedly a great many underground streams whose waters flow in confined channels but whose courses are not known, and, following the above rule, these are all classed with percolating waters.' " (*Pomeroy*, *supra*, 124 Cal. at pp. 633–634, quoting Kinney on Irrigation, *supra*, § 48, pp. 69–70, italics added.)[13]

[13] Section 49 of Kinney on Irrigation, which was not quoted in *Pomeroy*, states the following rationale for distinguishing between known subterranean streams and percolating waters and those whose sources are unknown: "Where there is nothing to show that the waters of a spring or well are supplied by any defined flowing stream the

The *Pomeroy* court goes on to apply these definitions and distinctions to the case before it: "In this case the boundaries of the channel and the existence and course of the underground stream were unknown and undefined except so far as they could be inferred, but there was a great amount of evidence from which a reasonable inference could be drawn that the channel was bounded and defined by the sloping sides of the Cahuenga and Verdugo hills meeting under ground, and that there was a subsurface flow corresponding with the surface flow from west to east out through the gap. Without any excavation beneath the surface, or other test or experiment, all this could be inferred from the topography of the country, the amount of rainfall and the gradually augmenting volume of the surface stream in its approach to the narrowest point in the pass. And the court was certainly justified in submitting to the jury the question whether the subsurface flow was a part of the stream unless the mere fact that it was forcing its way through sand and gravel and [boulders] deprived it of the character of a stream. [¶] Upon this point we are satisfied that the view of the superior court was the reasonable and just view and not opposed to anything that has ever been decided in this court." (*Pomeroy*, *supra*, 124 Cal. at p. 634.)

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presumption will be that they have their source in the ordinary percolations of water through the soil. Percolating waters, and those whose sources are unknown, belong to the realty in which it is found. The reason for this rule is that, as percolations spread themselves in every direction through the earth[,] it is impossible to avoid disturbing them without relinquishing the necessary enjoyment of the land the law does not therefore forbid their disturbance." (Kinney on Irrigation, *supra*, § 49, pp. 70–71, fns. omitted.) As stated in *Wheatley v. Baugh* (1855) 25 Pa. 528, 532: "When the filtrations are gathered into sufficient volume to have an appreciable value, and to flow in a clearly defined channel, it is generally possible to see it, and to avoid diverting it without serious detriment to the owner of the land through which it flows. But percolations spread in every direction through the earth, and it is impossible to avoid disturbing them without relinquishing the necessary enjoyment of the land. . . . [¶] . . . No man could dig a cellar, or a well, or build a house on his own land, because these operations necessarily interrupt the filtrations through the earth."

D. Parties' Conflicting Analyses of Section 1200

As an initial matter, the Board claims that NGWC cannot challenge whether the *Garrapata* test reflects a correct interpretation of section 1200 on this appeal because NGWC failed to exhaust its administrative remedies. The Board maintains that both sides explicitly accepted the *Garrapata* framework in their arguments and presentation of evidence before the Board, but merely disputed whether certain elements of the test were satisfied as applied to the groundwater pumped by NGWC's wells. (See *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656, 686–687 [exhaustion of administrative remedies doctrine bars party from offering its own property appraisal methodology for the first time on appeal].) NGWC insists that it did not exhaust its administrative remedies because: (1) it expressly argued to the Board that the *Garrapata* test must be qualified in specified respects, and (2) the arguments and evidence on which it relies on appeal are in substance identical to those it advanced in the administrative proceedings. With the possible exception of one argument, discussed below, that NGWC raised for first time in the trial court, we agree with NGWC (and the trial court) that there was no failure to exhaust administrative remedies. We will therefore consider NGWC's arguments on their merits.

With one exception, NGWC does not disagree that the wording of the Board's four-part test, as far as it goes, is consistent with *Pomeroy*. Thus, NGWC does not disagree that under *Pomeroy* the existence of a "subterranean stream[ ] flowing through a known and definite channel" requires that a subsurface channel be present, that the course of the channel be known or capable of being determined by reasonable inference, and that groundwater be flowing in the channel. NGWC also agrees that the channel must have a bed and banks, although it disagrees that a bed and banks composed of "relatively impermeable" materials would suffice under *Pomeroy*. In essence, NGWC argues that the *Garrapata* test omits important limiting factors that are found in or implicit in the

pre-1913 case law. Without these limitations, NGWC maintains that the test is over inclusive and therefore overstates the Board's statutory jurisdiction.[14]

1. Meaning of "Contracted"

First, NGWC argues that *Pomeroy*'s definition of a "defined" channel as a "contracted and bounded" channel means that the width of the channel must be narrowing rather than widening as the groundwater flows through it. According to NGWC, this was clearly the case in *Pomeroy* where the court was concerned with a relatively narrow outlet from the San Fernando Valley. In contrast, the channel posited by the Board in this case is not "contracted" at Elk Prairie, but widens at that location.

NGWC places too much weight on the word "contracted." *Pomeroy* quoted the phrase "contracted and bounded" from Kinney on Irrigation. (*Pomeroy*, *supra*, 124 Cal. at pp. 633–634.) The phrase apparently derived from two earlier Irish cases. (See Kinney on Irrigation, *supra*, § 48, p. 69, fn. 1; *Black v. Ballymena Township Cmmrs.* (1885) 17 I.L.R. 459; *Ewart v. Belfast Poor-Law Guardians* (1881) 9 I.L.R. 172.) A few cases from other jurisdictions have also quoted this formulation, citing Kinney on Irrigation. (See *Huber v. Merkel* (1903) 117 Wis. 355, 360; *Deadwood Cent. R. Co. v. Barker* (S.D. 1901) 86 N.W. 619, 621.) None of these authorities, including *Pomeroy*, support NGWC's thesis that unless the channel through which the groundwater is flowing is narrowing or contracting the water is not flowing in a "definite" channel. Aside from the bare use of the word "contracted" none of the authorities discusses or endorses any such restriction in classifying groundwater. In context, the word "contracted" appears to mean simply that the channel constrains and controls the flow of the groundwater compared to how the water would behave if the channel did not exist. There is no indication in *Pomeroy* or any of the other pre-1913 authorities that determining whether a subterranean channel is narrowing, widening, or maintaining the same width is essential to the classification of the groundwater flowing in it.

[14] This court has also reviewed and considered amicus curiae briefs submitted by the California Water Association and the Northern California Water Association addressed to the Board's jurisdiction.

2. Meaning of "Bounded"

Second, NGWC argues that the bed and banks of a subterranean channel must be more than "relatively impermeable."[15] In NGWC's view, the proper test under *Pomeroy* is whether the bed and banks present a "significant boundary to groundwater flow." In NGWC's formulation, the *relative* permeability of the materials composing the bed and banks is a potentially relevant but never dispositive factor in that determination. The critical question, according to NGWC, is whether the bed and banks are *sufficiently impermeable* that they " 'prevent the transmission of all but relatively minor quantities through the channel boundary' " (quoting language actually used by the Board in its *Garrapata* decision). NGWC argues that the second element of the test, as so modified, has not been established. According to NGWC's expert, the majority of the groundwater in the alluvium under Wells 4 and 5 originates in the Franciscan formation north of Elk Prairie and then flows south *across* the interface between the Franciscan rock and the alluvium. If so, then the channel boundary between the bedrock and alluvium at Elk Prairie is not an effective barrier to the transmission of groundwater.

According to the Board, the critical question in deciding whether a definite subterranean channel exists is whether groundwater, once it enters the channel, will be confined to it. This, in turn, is a function of the permeability of the materials filling the channel compared to those forming the channel's bed and banks, as well as of the gradient or slope at which the groundwater is descending toward sea level. The Board cites the testimony of NGWC's expert that the flow of water across the interface between

[15] Although not specified in the shorthand statement of the four-part test quoted earlier, the Board compared the permeability of the materials contained within the channel, in this case the alluvial aquifer materials beneath Elk Prairie, with the permeability of the materials forming the bed and banks, in this case the Franciscan bedrock. DFG's expert found, based on various measurements, that the alluvium was two and one-half to three orders of magnitude more permeable than the bedrock. The Board accepted this finding. According to the Board, this means in lay terms that for every drop of water that passes through the bedrock 300 to 1,000 drops would flow through the alluvial aquifer. To the extent that NGWC disputes the Board's factual findings concerning the relative impermeability of the bedrock, they are supported by substantial evidence.

the bedrock and the alluvium on the north side of Elk Prairie is a one-way flow; water flows into the alluvium but no water flows back out into the bedrock. The Board also notes, and NGWC implicitly concedes, that no natural, geologic boundary is 100 percent impermeable.

In our view, the Board's position is more consistent with *Pomeroy* and other pre-1913 case law than is NGWC's. These cases focus not on the source of the water gathered in a subterranean stream, but on the physical coherence of the stream *once it is formed*: " 'Where percolating waters collect or are gathered in a stream running in a defined channel, no distinction exists between waters so running under the surface or upon the surface of land.' (*Cross v. Kitts* [(1886)] 69 Cal. 217.) Water passing through the soil, not in a stream, but by way of filtration, is not distinctive from the soil itself; the water forms one of its component parts. In this condition it is not the subject of appropriation. When, however, it gathers in sufficient volume, whether by percolation or otherwise, to form a running stream, it no longer partakes of the nature of the soil, but has become separate and distinct therefrom and constitutes a stream of flowing water subject to appropriation." (*de Wolfskill v. Smith* (1907) 5 Cal.App. 175, 181.) As stated in one of the jury instructions approved in *Pomeroy*: " 'If such [underground] watercourse exists, it is immaterial, so far as the watercourse is concerned, from or through what lands the waters flow in reaching the channel, or whether they reach the same by percolation or by clearly defined streams.' " (*Pomeroy*, *supra*, 124 Cal. at p. 624.)

Thus, nothing in the pre-1913 case law suggests that the one-way seepage of water into a subterranean (or surface) stream through bedrock fissures or fractures, as posited by NGWC's expert, negates the existence of a "known and definite" subterranean channel, any more than the infiltration or seepage of water into a surface stream negates its character as a defined surface channel.[16]

[16] The pre-1913 cases recognize, either implicitly or explicitly, that water in known, subterranean channels implicated the same legal rights as that in surface streams because both behaved in an essentially similar fashion, i.e., crossing through adjacent properties in well-defined and ascertainable courses. (See, e.g., *Hanson v. McCue*, *supra*, 42 Cal. at p. 308.) As stated in the same section of Kinney on Irrigation from which the

The type of comparative analysis required by the Board's test is certainly consistent with *Pomeroy*, which described the mountain sides forming the bed and banks of the alluvial channel in issue there as "comparatively impervious." (*Pomeroy*, *supra*, 124 Cal. at p. 632.) Just as the bed and banks of surface streams necessarily permit some seepage of water, an absolute standard that subterranean channels be watertight would be entirely unrealistic. As stated in one of the jury instructions approved in *Pomeroy*, the bed of a subterranean watercourse " 'may consist of any material which keeps the waters from penetrating below a certain depth and such banks or sides may consist of any material which has the effect of confining the waters within circumscribed limits.' " (*Id.* at p. 623.) We find nothing in *Pomeroy* nor any evidence in the administrative record suggesting that a subsurface channel boundary that is two and one-half or three orders of magnitude less permeable to water than the materials it contains is insufficient for those purposes.

While the Board's "relatively impermeable bed and banks" requirement might profit from greater specificity, we cannot say that NGWC's "significant boundary" formulation is an improvement, or that it is more consistent with the pre-1913 case law. It fails most notably to draw any distinction between the various means by which groundwater may enter the channel and the degree to which the channel contains and confines the water once it has entered.

3. Relevance of Flow Direction

Third, NGWC points out that section 1200 and *Pomeroy* both refer to subterranean streams flowing *through* a known and definite channel. (§ 1200; *Pomeroy*, *supra*, 124 Cal. at p. 632.) NGWC construes this to mean that the groundwater flow must be

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Pomeroy court quoted at length: "No distinction exists between waters running under the surface, in defined channels, and those running in distinct channels upon the surface. The distinction is made between all waters running in distinct channels, whether upon the surface or subterranean, and those oozing or percolating through the soil in varying quantities and uncertain directions." (Kinney on Irrigation, *supra*, § 48, pp. 69–70, fn. 2, citing *Strait v. Brown* (1881) 16 Nev. 317.)

parallel to the channel or, if not precisely parallel to it, then at least flowing in the same general direction at all times. NGWC maintains that the water pumped by Wells 4 and 5 flunks this essential test because its flow direction underneath Elk Prairie is perpendicular to the alluvial channel forming the bed and banks of the asserted subterranean stream. In NGWC's view, the north-south flow direction is caused by the significant amounts of groundwater entering the alluvial channel through fractures in the bedrock north of Elk Prairie. According to NGWC, this north-south stream is flowing *across* the defined alluvial channel, not *through* it as contemplated by section 1200. NGWC rejects as inconsistent with the available data any theory that the groundwater underneath Elk Prairie is merely "channelized" groundwater moving in a westerly direction along the alluvial channel that has been deflected south by the damning effect of a subsurface geological formation.

DFG's expert presented an alternative theory to account for the flow direction at Elk Prairie. He cited evidence (which was disputed as insufficient by NGWC) that groundwater is flowing from east to west through the subsurface channel just upstream of Elk Prairie, before it encounters a relatively impermeable clay layer under Elk Prairie which deflects it toward the south. He also believed that the proximity of the San Andreas fault zone immediately to the west of Elk Prairie could contribute to the bend in subsurface flow direction toward the North Fork. DFG's expert rejected as speculative and unsupported NGWC's theory that the bedrock north of Elk Prairie could be a significant source of groundwater flow into the alluvium that would account for its north-south flow direction at Elk Prairie.

In its decision in this case, the Board held specifically as follows: "The fourth element in [the *Garrapata* test] does not require that the flow direction within the subterranean streamflow be parallel to the channel. . . . Further, any directional deviation of the subterranean stream from parallel to the channel is irrelevant to the issue of whether [NGWC's] wells are taking water from a subterranean stream in a known and definite channel. Nothing in Water Code section 1200 or . . . in the [relevant] case law requires that a subterranean stream exactly follow the course of the channel. Therefore,

the test is satisfied as long as the water is flowing within the channel." The Board asserted that this analysis was consistent with the behavior of surface streams: "In a surface stream, the flow may deviate or even reverse at points from the general direction of flow as water enters from a tributary, flows around a barrier, or moves along the bottom of the stream. Likewise, such deviations may occur in a subterranean stream."

Subject to certain qualifications, we agree with the Board's position. Nothing in the relevant case law requires that a subterranean stream *precisely* follow the course of the channel. As in surface streams, flow direction need not be parallel to the banks of the channel at all locations along its length. The presence of local obstructions or seasonal variations in flow volume, among other conditions, may affect flow direction. Thus, a directional deviation of the subterranean stream from parallel to the channel at the point of diversion would, in general, be irrelevant to the issue of whether the Board would have jurisdiction over appropriations from the stream, as the Board stated in Order WRO 2003-0004.

At the same time, the further statement in the Board's decision that the *Garrapata* test "is satisfied as long as the water is flowing within the channel" is gratuitous, and may invite an overbroad application of the *Garrapata* test in future cases. Construed together, the words of the subterranean stream clause clearly contemplate that the stream flows in the same general direction as the channel. The following sentence from *Pomeroy* is illustrative: " '[T]here are undoubtedly a great many underground streams whose waters flow in confined channels but whose courses are not known, and, following the above rule, these are all classed with percolating waters.' " (*Pomeroy*, *supra*, 124 Cal. at p. 634, quoting Kinney on Irrigation, *supra*, § 48, p. 70.) Thus, as stated in Kinney on Irrigation, and as the Supreme Court recognized in *Pomeroy*, a subsurface stream only avoids classification as percolating water if the course of the *stream* is known and definite. That the course of the channel through which it flows is known and definite matters only insofar as that course defines the course of the stream, and allows the latter to be ascertained. This point is underlined by the critical passage in *Pomeroy* in which the court, using Kinney on Irrigation, defined the key terms later borrowed for section 1200:

" '[T]he word "defined" means a contracted and bounded channel, though the *course of the stream* may be undefined by human knowledge; and the word "known" refers to *knowledge of the course of the stream* by reasonable inference.' " (*Pomeroy,* at p. 633, italics added.)[17]

Thus, the subterranean stream clause of section 1200 cannot properly be construed to grant jurisdiction over a groundwater stream that wanders independently of the banks of the putative channel. Such a reading would be inconsistent with *Pomeroy* and with the original legal rationale for treating water flowing in definite underground streams differently from percolating groundwater. Where, as in this case, the flow direction of the underground stream is perpendicular or nearly perpendicular to the banks of the asserted channel, some explanation is required for the stream's extreme deviation from the general course of the channel. Contrary to NGWC's position, such a deviation (or even a reverse flow) at the point of diversion does not negate the existence of a subterranean stream flowing through a known and definite channel *if* such a flow direction can be satisfactorily explained by localized conditions that obstruct or divert the stream from its path along the channel.

The Board recognized the need in this case to explain the north-south flow direction of the stream under Elk Prairie in Order WRO 2003-0004 by citing in a footnote to the testimony of DFG's expert on this point. In its subsequent petition for reconsideration of Order WRO 2003-0004, NGWC attacked the expert's opinions on this point as being unsupported and misleading. The Board's order denying reconsideration discussed the DFG expert testimony at some length and responded to NGWC's contentions in relevant part as follows: "[NGWC] wants the [footnote] to state that it is just a report of the opinion of the DFG witness, and impliedly wants it not to be a finding of the [Board]. Further, [NGWC] argues that the entire footnote ignores [NGWC's] rebuttal testimony. [NGWC] asserts that its rebuttal testimony was successful in

[17] The very rationale for treating subterranean streams differently than percolating water—that the landowner would know where he could excavate and build on his land without disturbing the stream—depends on the premise that the stream generally follows the known and definite course of the channel. See footnote 13, *ante*.

demonstrating that the opinions of the DFG expert regarding flow direction are not supported by the available data and are contrary to basic principles of groundwater hydrology. The [Board] disagrees with this assertion. [¶] . . . [¶] [The footnote] points out that the record does contain substantial evidence in the form of testimony and exhibits presented by a qualified expert witness that explains why the groundwater is flowing from north to south at [NGWC's] production wells. First, due to the subsurface conditions beneath Elk Prairie, one would not expect the groundwater to flow parallel to the channel at that location. . . . At the location of the wells, the less-permeable clay sediments in the alluvium near the wells tend to force the subterranean streamflow into the more permeable parts of the alluvium, making it easier for the groundwater to flow around, rather than through, the clay sediments. Second, the presence of clay deposits influences the groundwater gradient beneath [NGWC's] property by causing the groundwater to flow in a more southerly direction in that area. . . . [¶] [W]ater in the channel flows in a gradient from a higher to a lower elevation within the channel. Based on the evidence, the observed deviation of the groundwater flow direction at the wells from a predominantly east to west direction of the channel is consistent with a general downstream flow of the subterranean stream. . . . [¶] . . . The evidence in the record demonstrates that water is in fact flowing generally downstream within the channel under Elk Prairie, following a hydraulic gradient and following the path of least resistance."

An administrative agency must "render findings sufficient both to enable the parties to determine whether and on what basis they should seek review and, in the event of review, to apprise a reviewing court of the basis for the board's action." (*Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 514.) But such findings need not be stated with the formality and precision required in judicial proceedings. (*Alford v. Pierno* (1972) 27 Cal.App.3d 682, 691.) They are to be liberally construed to support rather than defeat the decision under review. (*Fair Employment Practice Com. v. State Personnel Bd.* (1981) 117 Cal.App.3d 322, 329.) Nor must the court remand if it determines that necessary findings may be reasonably implied. (*Alford v. Pierno*, at p. 691.) We must uphold the decision of an administrative agency

challenged pursuant to section 1094.5 if "the agency 'in truth found those facts which as a matter of law are essential to sustain its . . . [decision].' " (*Topanga Assn. for a Scenic Community v. County of Los Angeles* (1989) 214 Cal.App.3d 1348, 1356, quoting *McMillan v. American Gen. Fin. Corp*. (1976) 60 Cal.App.3d 175, 184.)

Construing Order WRO 2003-0004 and the Board's ensuing order denying reconsideration together, we believe the Board did make adequate findings explaining the perpendicular flow direction of the stream underneath NGWC's wells. The Board found the flow direction at that site was caused by clay sediments under Elk Prairie that deflected the water toward the south. This explanation is consistent with and supportive of the Board's ultimate statutory finding that the groundwater in issue comes from a subterranean stream flowing through a known and definite channel.

NGWC also contends that the Board failed to make a finding as to the source of the groundwater under its wells. However, it is inherent in the theory advanced by DFG's expert—that the flow direction turns in a southerly direction at Elk Prairie due to subsurface geologic conditions—that the alluvium to the east is a major source of the groundwater being pumped. This finding, and the evidence supporting it, was explicitly discussed in the Board's order denying reconsideration.

NGWC contends in the alternative that any findings made by the Board concerning flow direction and water source are not supported by the evidence. While acknowledging that "complex, conflicting evidence" on the issue was presented by NGWC and DFG experts, NGWC merely asserts in conclusory fashion that "the opinions on source and flow direction offered by [the DFG expert] were demonstrated to be incorrect by cross-examination of him and by rebuttal evidence submitted by [NGWC]." We disagree. Based on our review of the record, both sides drew reasonable but conflicting inferences from the very limited data points available. Our task on appeal is not to decide whether different findings would have been more reasonable, but to determine whether any substantial evidence in the administrative record supports the Board's findings. (Code Civ. Proc., § 1094.5, subd. (c); *Northern Inyo Hosp. v. Fair Emp. Practice Com.* (1974) 38 Cal.App.3d 14, 24.) In our view, the testimony and

opinions of the DFG expert concerning flow direction and water source do constitute substantial evidence supporting the Board's findings on those issues.

4. NGWC's Proposed Alternative Approach

Finally, NGWC proposes that the four-part *Garrapata* test be scrapped altogether in favor of a classification of groundwater found in a 1911 treatise authored by Samuel C. Wiel, Water Rights in the Western States. According to NGWC, three classes of underground water are recognized in the case law: (1) percolating water, (2) the underflow of surface streams, and (3) "definite known underground streams." NGWC maintains that *Pomeroy* and other cases involving water flowing in alluvial channels are underflow cases. On the other hand, groundwater flowing in "definite known underground streams," according to NGWC, is limited exclusively to water flowing through open spaces—fissures, voids, and tunnels—in bedrock formations. Wiel states that "definite known underground streams" are "of rare occurrence, and the presumption is against their presence in any given case." (2 Wiel, Water Rights in the Western States (3d ed. 1911) ch. 43, § 1077, pp. 1011–1012.) On this theory, water flowing in the alluvium underneath Elk Prairie could not be subject to the Board's jurisdiction under section 1200 unless it was part of the underflow of the North Fork. Since the Board made no finding that Wells 4 and 5 are drawing on river underflow, NGWC argues that it erred in asserting jurisdiction.

As an initial matter, we note that NGWC did not advance its proposed alternative methodology during the administrative proceedings. NGWC therefore arguably failed to exhaust its administrative remedies as to this specific argument. (See *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco*, *supra*, 102 Cal.App.4th at pp. 686–687; *Park Area Neighbors v. Town of Fairfax* (1994) 29 Cal.App.4th 1442, 1447–1449.) However, because the argument is closely related to NGWC's other objections to the *Garrapata* test, we will address it on the merits.

We find no indication in Wiel's discussion of "definite known underground streams" that he considered these to occur exclusively in bedrock formations. To the contrary, Wiel mentions that a stream underflow may become an underground stream

during the dry season when water seeps down the alluvial channel without flowing on the surface. (2 Wiel, Water Rights in the Western States, *supra*, ch. 43, § 1077, p. 1012.) Moreover, there is no indication in *Pomeroy* or other pre-1913 cases that the phrase "subterranean stream flowing through a known and definite channel" referred exclusively to underflows of a surface stream or water flowing through channels in bedrock. Rather, the pre-1913 case law suggests that underflows of surface streams were simply a subcategory of definite underground streams, not a distinct, stand-alone category recognized as such in the cases. The case law does not support NGWC's claim that the subterranean stream language in the statute categorically excludes water flowing in an alluvial channel unless it is the underflow of a surface stream.[18]

Two final caveats are in order concerning our approval of the Board's methodology in this case. First, NGWC and amici curiae are concerned with language in the Board's decision suggesting that water moving within a wide alluvial valley, whatever its form or direction, constitutes a subterranean stream. In particular, the Board appears to read *Hunter, supra*, 156 Cal. 603 as holding that all groundwater flowing in the San Fernando Valley is part of a single subterranean stream. We reject any such expansive view of the Board's jurisdiction. Such a view would be directly at odds with *Pomeroy*,[19] and no case has cited *Hunter* as authority for so sweeping a proposition.

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[18] In *Pomeroy*, the court approved a jury instruction stating that if the jury found the water moving underground was " 'in the same general direction as the surface stream and in connection with it,' " then the water should be considered part of the watercourse. (*Pomeroy*, *supra*, 124 Cal. at p. 624.) The *Pomeroy* court thus may have considered underflow to be a *sufficient* condition to establish the existence of a subterranean stream, but not necessarily an *essential* condition.

[19] In rejecting the property owners' claim that the entire San Fernando basin was a subterranean stream under the trial court's instructions, the *Pomeroy* court cited the following instruction: " '[I]t must be made to appear that the water usually flows in a certain direction and in a regular channel, with banks or sides, though it need not . . . be in a straight line. [¶] Waters, whether under or above ground, having no certain general course or definite limits, such as those merely percolating through the strata of the earth and those diffused over its surface, are not watercourses . . . . [¶] . . . [¶] Water moving by force of gravity in a valley or basin of wide extent . . . and moving generally through the whole or through a large portion of the basin, along through the natural voids or

However, we do not find that the Board's interpretation and application of section 1200 in this case depends in any way on its analysis of *Hunter*.

Second, we reject as inconsistent with section 1200 the trial court's passing suggestion that once the operation of NGWC's wells is shown to have an impact on the North Fork surface flows, the Board's jurisdiction over the wells follows automatically. We find no indication in the record that the Board relied on any such "impact" test in rendering its classification decision.

Subject to the qualifications stated in this opinion, we hold that the four-part *Garrapata* test is consistent with the language and intent of section 1200, that the Board made all findings necessary to determine that the groundwater in issue satisfied the test, and that such findings were supported by substantial evidence.

E. Application of Term 9

NGWC argues in the alternative that even if the Board has permitting jurisdiction over the wells in issue, it has improperly construed the manner in which Term 9 applies to them. According to NGWC, the second sentence of Term 9 ("[t]he total streamflow shall be bypassed whenever it is less than the designated amount for that period") has no application to Wells 4 and 5 unless the company's groundwater pumping actually *reduces* surface streamflows during a period when they were already below one of the seasonal minimums specified in the first sentence of Term 9.[20] The Board, on the other hand, construes Term 9 to mean that all groundwater pumping is automatically prohibited whenever surface water flows fall below the minimums specified.

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interstices of the earth, composed of alluvial or other deposit lying throughout the entire basin . . . do not constitute a watercourse.' " (*Pomeroy*, *supra*, 124 Cal. at pp. 626–627, 631–632.)

[20] This would occur, at least theoretically, if NGWC was pumping Wells 4 and 5 at levels that induced infiltration of surface water from the North Fork. However, NGWC's expert testified that the company's pumping had not historically produced any induced infiltration, and could not be made to do so even under test conditions exceeding normal pumping.

In our view, NGWC waived this issue by failing to timely raise it in 1999 when the Board issued Orders WR-99-09-DWR and WR 99-11. (§ 1126, subd. (b) ["party aggrieved by any decision or order may, not later than 30 days from the date of final action by the board, file a petition for a writ of mandate for review of the decision or order"]; see *Travis v. County of Santa Cruz* (2004) 33 Cal.4th 757, 767 [holding claim of invalid zoning permit conditions to be untimely]; *United States v. State of Cal.* (E.D.Cal. 1981) 529 F.Supp. 303, 312 [dismissing as untimely challenge to state water board decision not filed within 30 days after final decision].) These orders placed conditions on NGWC's request for a change in the point of diversion—the development of water measurement and water supply contingency plans—that were unmistakably premised on Term 9's restrictions being fully applicable to groundwater diversions, not just to surface water diversions that could only occur under extreme pumping scenarios. NGWC could not have misunderstood the nature of the protests lodged against its change petition, nor the reading of Term 9 on which the Board predicated its ensuing orders addressing these concerns. It could not, consistent with section 1126, manifest its acceptance of the conditions and then wait until nearly two years later to challenge the premise on which they were self-evidently based.

In any event, we do not find NGWC's interpretation of Term 9 persuasive on the merits. Generally, we extend considerable deference to an administrative agency's interpretation of its own regulations and language. (*Communities for a Better Environment v. State Water Resources Control Bd.* (2003) 109 Cal.App.4th 1089, 1107; *Bello v. ABA Energy Corp.* (2004) 121 Cal.App.4th 301, 318.) Such interpretation is entitled to great weight unless it is unauthorized, unreasonable, or clearly erroneous. (*Bello v. ABA Energy Corp*, at p. 318.) Although Term 9 is awkwardly worded in light of the change in the point of diversion, the Board's interpretation that the term applies to all diversion points subject to the permit is reasonable in light of Term 9's history and purpose in protecting streamflows and fish life in the North Fork. In contrast, NGWC's proposed interpretation would make Term 9 substantially, if not completely, ineffective in fulfilling these purposes. Accordingly, should the Board determine that it has

jurisdiction over NGWC's wells, it may enforce Term 9 according to its interpretation that the term applies to all diversion points subject to the permit.

We find no error in the trial court's disposition of NGWC's petitions.

III. DISPOSITION

The judgment denying the consolidated petitions is affirmed.

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Margulies, J.

We concur:

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Marchiano, P.J.

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Swager, J.

Trial Court: Mendocino County Superior Court

Trial Judge: Hon. Leonard J. LaCasse

Counsel:

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