A Publicly Owned Treatment Work's Ownership of Recycled Water: A New Frontier In Water Rights

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Advances in wastewater treatment methods have produced higher quality treated effluent, at a greatly reduced rate. Wastewater treatment generally consists of the application of technology to improve the quality of wastewater, resulting in what is often called: recycled water. Wastewater treatment often involves the collection of wastewater at a central facility, where the wastewater will be subjected to a series of treatment processes.

The physical process is an initial treatment method consisting of holding wastewater in tanks or ponds to allow for sedimentation and aeration. Sedimentation describes a course screening process that allows heavier solids to settle, leaving a more clarified effluent above for further treatment. During this process, oxygen is forcibly added to the wastewater for aeration. During the physical treatment process, wastewater may also be passed through disc or sand filters to further separate solids.

The physical process does not address bacterial levels. Improving water quality is addressed during the chemical treatment stage. Chlorine is the most common chemical used to kill bacteria. Some treatment facilities, such as the RIX plant in San Bernardino, employ ultraviolet rays for disinfection, or the destruction of pathogenic organisms.

The physical phase is usually referred to as “primary” treatment, and the biological wastewater treatment portion is customarily called the “secondary" phase. The use of the term “tertiary” treatment refers to additional treatment following secondary treatment. This may refer to the use of additional disc or sand filtration to further separate suspended solids. Turbidity levels can also be achieved through sand filtration. Tertiary treatment can also refer to additional processes to address nitrogen or phosphorus levels, to provide but a few examples.

The pretreatment of recycled water, the monitoring for viruses, can result in the safe development of this resource. Increased demand for water, the struggle to address the problem

of water shortages, especially in the arid west, have turned attention towards the development of recycled water as a resource for future growth, for municipal, agricultural, residential, and environmental uses. Recycled water that used to be discharged into waterways is now considered to be a coveted resource that is considered to be ripe for sale.

As an example, wastewater treatment facilities can produce high quality recycled water achieving these levels:

- No metals;
- Averages 490 mg/L TDS;
- Total coliform on discharge of less than 2.2 mpn;
- Averages 5.5 mg/L TIN;
- Averages 3 mg/L TOC;
- Turbidity at 0.1 NTU.

The costs for treating to such levels may hover around $7,000 per day, a number that has to be compared to the value of this developed resource. Presuming that such a facility discharges some 40,000 acre-feet a year ("AFY"), and leaves some 18,000 AFY available for sale, that amount of recycled water could be quite lucrative. To put the value of this resource into perspective, Metropolitan Water District of Southern California sells untreated replenishment water at $238 per acre-foot. The value of the 18,000 AFY of recycled water under our example would be over $4.3 million.

The seminal issue in developing recycled water is who has rights to the water? A proponent that is seeking to develop such a resource must have the legal rights to use the source as opposed to the water supplier, and, as a corollary, the proponent must also have the legal right to withdraw the recharge water as against downstream water rights holders. This article focuses on the statutory and case law addressing the rights between the publicly owned treatment works ("POTW") producer and discharger of recycled water into a natural watercourse, as against downstream water rights holders. The water rights struggle between these parties will explain the current hurdles a POTW faces in claiming an exclusive right to recycled water in California. Our examination will also broaden to analyze how other states have addressed this issue, and proposes an alternative approach-a POTW's exclusive right to recycled water as a "new source of supply."

Authority

We begin with a review of two relevant California *Water Code* provisions: *Water Code* §§ 13510 and 1210. *Water Code* § 13510 provides the right to develop recycled water as a

resource. *Water Code* § 1210 specifies that the owner of a recycled water treatment plant has a statutory right to recycled water.

> "It is hereby declared that the people of the state have a primary interest in the development of facilities to reclaim water containing waste to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the state." (*Water Code* § 13510.)
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> "The owner of a waste water treatment plant operated for the purpose of treating wastes from a sanitary sewer system shall hold the exclusive right to the treated waste water as against anyone who has supplied the water discharged into the waste water collection and treatment system, including a person using water under a water service contract, unless otherwise provided by agreement."
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> Nothing in this article shall affect the treatment plant owner's obligation to any **legal user** of the discharged treated waste water." (*Water Code* §1210; emphasis added.)

1. That Means a POTW Owns the Recycled Water-Right?

Water Code §1210 establishes a POTW's rights to the recycled water with respect to the supplier of the waste. Clearly, a POTW has a superior right to the recycled water against those who discharge to the sewer system, and includes anyone who is using the recycled water under a service contract, unless there is a contrary agreement. But *Water Code* §1210 does not address the issue of who prevails in a water rights dispute between the POTW discharger into a natural watercourse, and downstream entities that have legal interests in flows from the same natural watercourse.

A review of legislative history would take one to the Governor's Commission to Review California Water Rights Law. The Governor's Commission recommended a petition process to apply, such that permission of the water board must be obtained before the discharge is affected. (*Water Code* §1211.) Section 1211 requires that the State Water Resources Control Board ("SWRCB") review each proposed change of point of discharge, place of use, or purpose of use from a waste water treatment plant. This means that the right to recycled water is to be reviewed by the SWRCB in the same manner as a permit or license to appropriate water. Pursuant to this process, downstream users with competing interests could lay claim to a POTW's recycled water discharge based on their own rights.

In order to appreciate the problem and to then consider a solution, the concept of a "legal user" has to be examined. One has to look to precedent for guidance to define this classification. Section 1210, dealing with the right to treated recycled water, incorporates the concept of no harm to a legal user of water. *Water Code* §§1702, 1706, 1727, 1736 and 1810 expand the "no injury or no harm" concept to include harm to fish, wildlife, or other in stream beneficial uses. Legal users also include downstream riparian and appropriative right holders entitled to return flows. SWRCB proceedings when approving a change in the point of discharge for recycled water, will apply its prior water rights decisions that include these legal user classifications. Currently, there is no procedure in place at SWRCB for a POTW to appropriate its own discharge. So, the rights of other downstream users are relevant in determining who has the right to recycled water discharged from a POTW into a natural watercourse. Riparian and appropriative rights to a natural watercourse also require examination.

A. Rights of Downstream Riparian and Appropriative Interests

Riparian rights, although senior, only attach to a stream's natural flow. (*Bloss v. Rahilly* (1940) 16 Cal. 2d 70, 104.) Riparian rights will not attach to water that has been imported into the watershed. (*E. Clemens Horst Co. v. New Blue Point Mining Co.* (1918) 177 Cal. 631.)

Appropriative rights attach to any water flowing in a stream, subject to any terms and conditions on the rights. (*Water Code* §1201.) Superiority among appropriative rights holders is dictated by the dates of each respective water rights application (*i.e.* post-1914 appropriations), or the date when the appropriations were commenced (*i.e.* pre-1914 appropriations). All post-1914 rights must be acquired through a SWRCB permit. (*People v. Shirokow* (1980) 26 Cal. 3d 301.) A riparian water rights holder can also appropriate water, thereby becoming an appropriator of downstream flows.

B. Reasonableness Doctrine Applies to a POTW

A POTW's right to use water is limited to the amount which is reasonably required for the beneficial uses to be served. (Cal. Const., art. X, section 2.) What is reasonable depends on the circumstances. A diversion may be deemed unreasonable on the basis of its impacts on fish, wildlife, or other instream beneficial use. (*Environmental Defense Fund, Inc. v. East Bay Municipal Utility District* (1986) 26 Cal. 3d 183, 191, 194, 200.)

2. But is a POTW's Recycled Water Natural to the Watercourse thereby Subject to Competing Rights, or is it "Foreign Water"?

What constitutes "foreign water" was discussed in C*ity of Los Angeles v. San Fernando* (1975) 14 Cal. 3d 199. Foreign water refers to water that is imported from a different watershed, and to water that comes from an in-basin source that is not hydrologically connected with the banking site. (*San Fernando, infra*, 14 Cal. 3d at 261, n. 51.) In the context of our discussion, this definition may be applied to preclude a downstream appropriator from claiming rights to return flows from a POTW's discharge.

Water Code section 1202(d) states that unappropriated water includes "…[w]ater which having been appropriated or used flows back into a stream, lake or other body of water." Where natural flow has been returned to its stream after use, the downstream water rights holders using the return flows have been able to prevent the discharger from reclaiming the water. (*Scott v. Fruit Grower's Supply Co.* (1927) 202 Cal. 47.) In the *Scott* case, Fruit Grower's Supply Company, an upper riparian owner, diverted water from Bagwell Springs for irrigation use on their property-Long Ranch. Within twenty-four to forty-eight hours after the diversion, the water flowing off Long Ranch traveled naturally to a stream, running past plaintiffs' riparian lands. The *Scott* Court held that the water flowing off of Long Ranch, many hours following Fruit Grower's Supply Company's use, was then subject to appropriation by lower proprietors for their irrigation use. The *Scott* Court noted that even if Fruit Grower's Supply Company could prove its appropriative rights, it would still not prevail over lower water rights interests, as an upper

landowner with appropriative rights to water could not change the point of diversion to the injury of others. (*Id.* at 55.)

However, if the source of the water is foreign, then the importer of foreign water has no obligation to continue releasing the water into the watercourse for the benefit of downstream users, and may reclaim it. (*Stevens v. Oakdale Irrigation District* (1939) 13 Cal. 2d 343.) The *Stevens* Court held that an irrigation district, that appropriated water that seeped, spilled, and drained into the Lone Tree Creek from the distinct Stanislaus River watershed, could recapture this water from the creek and apply it to beneficial use, at the expense of the downstream appropriative water rights holders. (*Id*. at 345-46, 351-52.) The importer of foreign water can, therefore, recapture return water, and instead of releasing it downstream, may dispose of it under contract. (*Haun v. De Vaurs* (1950) 97 Cal.App. 2d 841.) Those holding riparian rights cannot claim foreign water that is discharged into a stream. (*Stevinson Water Dist. v. Roduner* (1950) 36 Cal. 2d 264; *E. Clemens Horst Co., supra*, 77 Cal. 631.) Again, riparian water rights holders are limited to "…the natural flow of the watercourse" (*Bloss, supra*, 16 Cal. 2d 70, 104.)

So, does the body of case law distinguishing return flows from foreign water address the issue of whether a POTW may claim ownership to recycled water, to then contract for its sale? That argument can be made based on the authority cited above. The rights of downstream users to compel discharge of water depends on whether the source of the recycled water is foreign, imported, or of some other non-local or native origin. Where recycled water is developed from a foreign source, as in the case of a POTW's importation of waste to a treatment facility for the develop of recycled water, thereby creating a source of water distinct from that particular watershed, downstream riparian and appropriative water rights holders would have no legal right to the return flows from these supplies. This would also mean that these downstream water rights holders could not enjoin a POTW's recapture of its recycled water discharge for sale. This authority would also seem to apply in a section 1211 hearing before the SWRCB, where downstream water rights holders and environmental interests (on behalf of fish and wildlife) are objecting to any modification in the point or rate of discharge. (See, *Stevens, supra; Scott, supra*.)

How Other States Have Addressed This Issue

Arizona addressed the ownership of recycled water in the case of *Arizona Public Service Co. v. Long* (1989) 160 Ariz. 429, 773 P. 2d 988. In *Long*, the Arizona Supreme Court held that producers of effluent are entitled to put effluent to any reasonable use. (*Long ,infra,* 773 P. 2d 988.) The *Long* decision involved a challenge to Phoenix-area cities' ability to sell effluent to utilities that were planning construction of the Palo Verde nuclear power plant. Two ranching

companies claimed appropriative rights to surface water flows that largely consisted of these cities' effluent discharges. The ranching companies argued that their water rights would be interfered with should the cities be allowed to contract to sell their effluent. (*Id.* at 991.)

The Arizona Supreme Court rejected the ranching companies' arguments holding that cites could sell their effluent and were not legally obligated to continue discharging water for the benefit of downstream uses. The Court's rationale was that the effluent was neither *surface water* nor *ground water*, although the legislature could in the future bring it within its statutory scheme by adopting effluent regulation[s]. (*Id.* at 995.) Until that occurred, the cities were free to put their effluent to any reasonable use that the cities saw fit, including the right to sell effluent. (*Id.* at 994-995.) Finally, the Court held that the cities had not previously abandoned their effluent by placing such into the river, pursuant to Arizona's abandonment statutes. (*Id.* at. 996-997.)

The New Mexico Supreme Court also held in *Reynolds v. City of Roswell* (1982) 99 N.M. 84, 654 P. 2d 537, that a discharger could stop discharging effluent into a stream, despite protests by the State Engineer. The case involved the City's application to the State Engineer, pursuant to a New Mexico statute, for a permit to supplement existing water rights and to change the place of use.

This case goes back to the City's 1968 acquisition of the Walker Air Force Base land and facilities, which the City then incorporated into its municipal boundaries. The United States government's grant of the land to the City included the Air Base's right to appropriate 2,500 acre feet of underground water for use at the Air Base. The resulting effluent was used to irrigate the Air Base or was sold to local farmers. After the City acquired the Air Base, it operated the Air Base sewage plant for several years. In 1974, the City abandoned the Air Base sewage plant, and piped the sewage to its existing municipal sewage plant. From there, the City sold treated effluent to local farmers, to local golf courses for irrigation, or let some effluent discharge into the Hondo River which then empties into the Pecos River.

When the former Air Base's wells began to weaken, the City applied for a permit to drill supplemental wells so that it could continue to pump its entire appropriative right of 2,500 acre feet of water. Also, as the Air Base had become part of the City, the City applied to incorporate the entire 2,500 acre feet water right into its municipal system by simply changing the place of use from the Air Base sector, to the entire City. The application was opposed by the appellant, Roswell-Artesian Water Users Association, on behalf of its members.

The State Engineer granted the City's permit, but required the City to discharge into the Hondo River a certain ratio of sewage effluent at various locations. The State Engineer imposed this condition even though the State Engineer concluded during the application process that the City's application for a change in the place of use would not impair the rights of others.

The City appealed to the district court, objecting to the conditions prescribed in the State Engineer's Order. The district court approved the City's application and deleted the return flow condition. The State Engineer then appealed; and the Supreme Court of New Mexico affirmed the district court's ruling.

The Supreme Court of New Mexico held that the State Engineer lacked the statutory authority to impose permit conditions when a change in use would not impair the existing rights of others. The Supreme Court of New Mexico also affirmed the concept that is at issue here-that artificial waters, such a treated sewage effluent, are primarily private and subject to the beneficial use of the owner or developer of such waters. (*Id*. at 540.)

Should Recycled Water be Considered a "New Source", Not Subject to Conflicting Rights?

A POTW's ownership of recycled water still hinges on a consideration of the particular source of the recycled water. Clearly, as against those who discharge to the sewer system, the POTW "owns" the water it treats. (*Water Code* section 1210.) Relative to a POTW's rights to develop and own recycled water as against downstream water rights interests, that dispute still hinges on the results of a Petition for Change under section 1211. As part of this Petition process, a POTW could also apply for appropriative rights to their recycled water discharge, but there is no statutory grant of ownership to treated effluent as noted in the *Reynolds, supra,* New Mexico example. As we noted in the *Reynolds* case, *supra*, that holding had to be placed in the context of New Mexico having a statute that defines effluent as "private waters" specifically allowing a discharger to reuse it. (*New Mexico Stat. Ann*, section 72-5-27.) Such statutory language is missing from the California *Water Code* and seems necessary not only to confirm the distinction between return flows and foreign water, but to also confirm the recognized benefit of recycled water and to encourage its continued development and sale.

Forcing a POTW to follow section 1211's Petition process would expose the POTW to appropriation claims from downstream interests, appropriative and environmental. Relegating the POTW to fighting off these claims under a return flows versus foreign water debate, fails to acknowledge the point that recycled water should be considered as private, new water. Consistent with the *Long* decision, recycled water should not be looked at as surface or

groundwater, but should be considered a "new supply" of water, as its viability is exclusively due to the POTW's extensive treatment process.

In that regard, we should consider changes to the *Water Code* to grant a POTW the exclusive right to recycled water, defining recycled water as a "new source of supply," such that there is no later confusion on a water rights level. Currently, the SWRCB, in approving a change in the point of discharge for recycled water, will apply the body of decisions on the definition of a legal user of water from its prior water rights decisions. An analysis of a POTW's right to develop recycled water and enter into contracts for the sale of such is purely dependent on the current body of law, and the lack of clarity in this area of the law may stifle the development and sale of this valuable resource. The use of recycled water is a beneficial use that seems consistent with the Cal. Const., art X, section 2's "reasonableness doctrine." This can all be obviated by statutory language defining recycled water as a "new source," thereby affirming a POTW's right to appropriate its own discharge.

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