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Water Rights Implications of Water Quality Protection in California

Introduction

Protection of watershed health through water pollution control is a moral responsibility as well as being mandated by state and federal law. However, efforts made in order to control water pollution could interfere with valid water rights. This document examines the intersection of these areas of law and the status of law at the moment. In order to fully understand this intersection this document will examine the statement of the problem, the basic classifications of water under California law, legal responsibilities under water quality law, the basics of water rights, and the intersection in law of water quality and quantity.

Statement of the problem

There is a growing awareness of the impact of land use practices on watershed health. Paving, construction of buildings, logging, and grazing all have effects on water quality and quantity. Decreased permeability coupled with disturbed soil surfaces leads to increased run off and erosion causing an introduction of pollutants to waterways. The most effective means of controlling this form of water pollution are "source controls." Source controls involve controlling potential pollution as close to the point of generation as possible. In the case of dealing with water pollution the most effective control methods are earthworks intended to slow, spread, and sink water.

These earthworks increase infiltration which in turn attenuates flood waters, decreases soil erosion, reduces down cutting, increases local vegetative health, contributes to groundwater recharge, and improves habitat for endangered species. However, these earthworks designed to address water quality issues could raise water quantity issues. Earthworks in specific locations can have an effect of reducing immediate water availability for a neighboring landowner or water right holder. This reduction could then impair the exercise of a valid water right. Whether or not the construction of a water pollution control earthwork requires a valid water right is the ultimate question at issue.

Relevant Types of Water under California Law

Groundwater - Water present in the subsurface soil either percolating downward, or present in confined or unconfined aquifers, is considered groundwater under California law. Groundwater withdrawal is not subject to State regulation; but it is regulated in 28 California counties and by 167 municipal water suppliers. In general ground water withdrawal is governed by the correlative rights doctrine. Correlative rights mean that each overlying landowner is entitled to withdraw reasonable amounts of groundwater given such a withdrawal does not impact a neighboring landowner's ability to make use

of the same source. If conflict does arise a court can order all users to withdraw only their specified allocation.

Surface Waters – The traditional definition of surface waters are lakes and ponds or waters flowing on the surface of the ground in a "natural watercourse." A natural watercourse defined as having "definite channel with beds, sides, or banks."[i] While some jurisdictions require that a watercourse contain flowing water for a substantial period each year to be considered natural, California and other western states recognize normally dry stream beds as natural. Under this definition streams, creeks, rivers (even those that flow only seasonally), and lakes are all surface water. The right to use surface waters is governed by the State Water Resources Control Board (SWRCB), Division of Water Rights.

In addition to traditional surface waters, the California Water Code (CWC) also gives the State jurisdictions over "subterranean streams flowing through known and definite channels." Subterranean streams are underground waters that have a direct and discernable hydrological connection with a surface water body. For example many of the communities along the Russian river rely upon wells that extract water from alluvial sediment along the river's edge. Even though this water was pumped from a well, because of its close hydrologic connection with the river the water is considered surface water and withdrawal is subject to State regulation.

Diffuse Surface Waters - Diffuse surface water are waters that travel over the ground as a result of rain or snowmelt, but before it flows into a natural watercourse. This water is also referred to as stormwater. While a growing body of law exists mandating the control of stormwater the right to capture and use this source of water is unclear. Diffuse surface water has been examined by the courts only in the context of controlling stormwater so as not to cause harm to neighboring property and current California law provides no guidance on the capture and use of diffuse surface water.

Water Quality

Landowners have a legal responsibility to control the quality and quantity of water leaving their property. The quantity responsibility includes the duty to exercise reasonable care not to harm others through land use practices that alter the natural run-off from a parcel. In terms of quality responsibility landowners have a duty to comply with federal, state and local water quality laws.

First, landowners have a duty to refrain from alterations of diffuse surface flow that could harm other landowners and water right holders. The California Supreme Court has held that control of diffuse surface waters is governed by the reasonable use doctrine.[ii] Under reasonable use, landowners are required to act reasonably in any alteration of natural surface flow. If alleged harm is caused by activities that increase or redirect diffuse surface water, the court will balance the gravity of harm against the utility of the conduct. However, if the conduct and uses of both parties is reasonable and necessary the burden of harm will fall upon the party who altered the natural flow. Depending on the outcome

of the determination the court may rule to enjoin the activity of one landowner, require compensation, or both.

In addition to the duty towards other landowners, each landowner has a duty to protect water quality under federal, state, and local regulations. These include the Endangered Species Act (ESA), the Federal Clean Water Act (CWA), specifically Total Maximum Daily Load (TMDL) requirements and Anti-Degradation standards, the California Porter-Cologne Water Quality Act (PCA), regional water quality board basin plans, and some county general plans (Sonoma County General Plan, Water Resource element).

The ESA is often implicated in many water quality discussions. While not explicitly concerned with water quality, the ESA strives to protect listed species and their habitat. Many listed species rely upon high water quality as necessary habitat. As a result many water quality standards are written to address the water quality needs of listed species. These water quality standards and the prohibition of "taking" any listed species can affect individual landowners.

The CWA, passed in 1972, aims to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The CWA is essentially focused upon two categories of water pollution; point source (i.e., a discrete pipe discharging into a river) and non-point source (i.e., soil erosion or stormwater runoff). Point source pollution is controlled through regulation of listed discharges by the National Pollution Discharge Elimination System (NPDES). This type of regulation usually does not affect individual land owners, although there is a growing movement to treat stormwater concentrated by culverts or other channelization methods as discharges from a point source requiring a NPDES permit. In contrast, non-point source pollution is controlled by examining the receiving body's water quality. The two most relevant sections for landowners concerning non-point source pollution are TMDL requirements and anti-degradation standards.

Under §303 of the CWA, all states are required create a list of "impaired waters," those waters lacking sufficient quality to meet designated uses. After identifying impaired waters, States are required to create a TMDL or "pollution budget" for each pollutant and each water way. This pollution budget then dictates which activities are permitted given their water quality impact. Landowners within a "listed" watershed may have to curtail activities that would cause a violation of TMDL standards. In conjunction, anti-degradation regulations prohibit any activity that threatens to degrade existing water quality.[iii] Anti-degradation standards could also curtail certain land use practices.

The Porter-Cologne Act (PCA) is the state equivalent of the Federal CWA. The PCA and its implementing regulation set forth the same requirements to control non-point source pollution. While the requirements to control non-point source pollution are identical between the CWA and the PCA, the numerical limitations placed on pollutants are stricter in the PCA. Again as with the CWA, the PCA requires landowners to take control of any discharges from their properties.

In addition to the state and federal requirements, there are specific water quality requirements mandated by one of nine regional water quality boards. These boards are charged with addressing water quality issues relevant to the region. Region 1 encompasses the North Coast Region of California. The pollutant of most concern in the North Coast Region is anthropogenic (human caused) sediment. Excess sedimentation reduces the quantity and quality of salmonid spawning habitat as well as changing the hydrologic profile of a river, affecting interactions between surface and groundwater and river stability. The North Coast Board is currently considering an amendment to the Basin Plan that would require all landowners to control all anthropogenic sediment discharges. This requirement will mandate that landowners take all reasonable and feasible measures to control erosion and sediment discharges.

Finally, County Plans may affect a landowner's water responsibilities. Sonoma County is the first county in the state to adopt a stand alone Water Resource element to the general plan. This element urges County officials to consider the implications of planning decisions on the hydrological system of Sonoma County. While this element does not currently affect individual landowners, the overarching scope of the document could have an impact on cumulative efforts. There is currently momentum building for other counties to adopt this type of local control of water resources.

Water Rights

Addressing water quality problems can result in alterations of local hydrology and affect existing surface flows. This in turn could impair existing water rights. This next section explains the basics of water rights in California.

Simply put a water right is a grant from the State to a party to put to use a given quantity of water. Water rights are required to appropriate any surface water of the state. A water right is a property right but it is different is significant ways from a traditional property right. Rather than giving a party exclusive ownership of a tangible item, a water right grants a party the right to *use* a given quantity of water. That water must be put to beneficial use (defined below) and can not be simply stored away like money in the bank.

California uses what is known as a "hybrid" system of water rights which utilizes both of the traditional means of administering water rights; riparian and appropriative. The important features and differences of these systems are outlined below.

Riparian rights

A riparian (touching water) right is the right to take and use water on that riparian land by virtue of that land crossing or abutting a body of surface water (lake, river, or stream). California's use of the riparian doctrine is not defined in any State Statute. Rather, the doctrine has come into force through a series of court decisions and was confirmed in the California State Constitution, section 3, Article XIV.

Parcels through which a river or stream flows or abuts have riparian rights if those rights are still attached to the land. A parcel of land loses its riparian right when severed from land bordering the stream by conveyance unless the right is reserved for the severed parcel. The riparian right also may be destroyed when purportedly transferred apart from the land by grant, contract, or condemnation. Once lost, a riparian right cannot be restored. Water taken under a claim of riparian right may be used only on riparian lands.[iv] Riparian water can be stored on site for 30 days or less (regulatory storage) without requiring an appropriative right to store.

While a property owner may have a riparian parcel they do not automatically have the right to remove whatever amount of water they wish. First, all riparian rights are correlative with the right of each other riparian owner. Correlative rights permit extraction of only a reasonable share of the *natural* flow of water. Natural flows do not include return flows derived from use of ground water, water seasonally stored and later released, or water diverted from another watershed. In addition appropriative claims to surface water can limit the availability of natural flow for riparian right holders.

State has placed administrative limits on new riparian rights. Because the state uses both riparian and appropriative rights, the SWRCB will only authorize new riparian claims if that authorization will not impact any existing riparian or prior appropriative claims. While this may appear unfair, the possibility of new riparian claims becoming active would threaten the value of appropriative rights.

No permit is required for riparian use; however diversions made under claim of riparian right are required to file a Statement of Water Diversion and Use with the SWRCB.[v] It is this requirement that places riparian rights within the jurisdiction of the SWRCB.

Appropriative Rights

Appropriative water rights are granted on the principle of, "First in time, first in right." This system grants current users the license to apply an allocated amount of water to any piece of property as long the water is continued to be put to a beneficial use. Beneficial use are defined by regional water quality boards and traditionally cover municipal, domestic, and agricultural uses although more modern definitions of beneficial use cover broader uses such as protection of wildlife and other ecological functions. Failure to use water allocated in an appropriative right results in loss of the right.

Prior appropriation rights differ significantly from their riparian counterparts. Rather than vesting as a virtue of holding riparian property, appropriative rights are validated by continued beneficial use based upon seniority of use. Between riparian owners priority of use establishes no priority of right; i.e., one cannot claim superior right merely because water was used first. Between appropriative users, rights are classified by a system of seniority. As opposed to riparian rights in which all riparian user's rights are correlative, the most senior appropriator is entitled to take her entire appropriation before the next most senior appropriator can successfully lay claim to her water right. Under this system

there are years when a junior right holder may not be entitled to take any water, even though they hold a valid right. Second, riparian rights are neither created by use nor lost by nonuse. An appropriative right is secured only through the continuous and ongoing use of water and can be lost either through abandonment or non-use. Lastly, appropriative rights can be used to apply water to non-riparian lands, while riparian rights cannot be the justification for application of water to a non-riparian parcel of land.

California's Hybrid System

California's use of both riparian and prior appropriation systems would seem to be incompatible. The largest concern is for holders of appropriative rights. Because prior appropriation rights are entitled to specified quantities of water only when water is available there is obvious concern that a new riparian owner could lay claim to water reducing the availability for prior appropriation rights. However this concern has been addressed by the SWRCB. While riparian owners do not have to obtain a license to divert water onto riparian property they are required to file a Statement to Divert and Use Water. This requirement places limitation on riparian rights when the exercise of such right would preclude a valid appropriative right.

Therefore under the California system any withdrawal of surface water requires approval from the SWRCB. Withdrawal of groundwater is not subject to this approval, unless again that groundwater is actually a "subterranean streams flowing through known and definite channels." These subterranean streams are usually those subsurface waters located in alluvial sediment near rivers. (See Surface Water Definition Above)

The Intersection of Quantity and Quality Law

The nexus between water quality and water quantity is not often examined. Even though all water quality standards are given as a function of the level of pollution per volume of water, water quality and quantity are regulated separately and are not often considered in tandem. This fact is demonstrated by the fact that the most commonly suggested and effective forms of water quality protection are source control earthworks that intercept, detain, and infiltrate water. These earthworks could result in decreased immediate local surface flows, which could affect water availability for those with rights to surface water. The law has not clearly addressed this issue of whether control of diffuse surface water requires an appropriative right.

To begin California law fails to make a distinction between diffuse surface water and traditional surface water flowing in a natural watercourse. California Water Code (CWC) §1200, which defines waters subject to appropriation reads, "Whenever the terms stream, lake or other body of water, or water occurs in relation to applications to appropriate water or permits of licenses issued pursuant to such applications, such term refers only to surface water, and to subterranean streams flowing through known and definite channels." However, this definition fails to determine whether there exists a distinction between traditional surface and diffuse surface waters. As the Code Commissioners' Note points out, "The use of the expression 'surface water' in the present law was

somewhat unfortunate as that term is frequently used to denote diffused surface water not collected into channels or definite bodies of water."[vi]

Case law on the topic is equally unhelpful. Some courts have held that surface waters must, "be something more than a mere surface drainage . . . occasioned by unusual freshets or other extraordinary causes . . . [or] the mere surface water from rain or melting snow."[vii] However, most cases involving diffuse surface water are not entirely relevant as they have dealt with the harm caused by the shunting of stormwater off of a landowner's property, not the collection and use of diffuse surface water. In one such case the Court ruled, "Water diffused over the surface of land, or contained in depressions therein, and resulting from rain, snow, or which rises to the surface in springs, is known as 'surface water.' It is thus distinguishable from water flowing in a fixed channel, so as to constitute a watercourse, or water collected in an identifiable body, such as a river or lake."[viii] Whether this statement creates distinction between diffuse and traditional surface waters is a matter of interpretation.

Is an appropriative right required to intercept "diffuse surface water?"

Under common law, diffuse surface water belonged to the landowner on which it was found and thus the landowner could do as she wishes with the water. Some jurisdictions have taken the exact opposite approach and held that all diffuse surface waters are surface waters of the state, subject to state control, and thus requiring an appropriative right to capture and use. Unfortunately, California has not clearly articulated which rule it applies to diffuse surface water.

Recent interviews conducted with staff members of the SWRCB, Water Rights Division, have yielded differing opinions as to whether the interception, infiltration, and retention of diffuse surface waters require an appropriative right. One line of thought concludes interception of water constitutes a diversion, and thus requires an appropriative right. Except in cases of stormwater retention where water is held for a limited time, this interpretation holds that the interception of the water and storage underground for more than 30 days (regulatory storage) constitutes a diversion.[ix] This interpretation is supported by a plain language reading of CWC §1200. (Language above on p. 6)

However, the other interpretation is that interception does not constitute diversion. Under this interpretation no appropriative right is required because diffuse surface water has not yet become "surface water" subject to state control.[x] This interpretation is supported by several sections of the CWC. §5100 reads, ""Diversion" means taking water by gravity or pumping from a surface stream or subterranean stream flowing through a known and definite channel, or other body of surface water, into a canal, pipeline or other conduit, and includes impoundment of water in a reservoir."[xi] In specific reference to underground storage of water, §1242 of the CWC states, "The storing of water underground, including the *diversion* of streams and the flowing of water on lands necessary to the accomplishment of such storage, constitutes a beneficial use of water if the water so stored is thereafter applied to the beneficial purposes for which the appropriation for storage was made." In addition, the regulation implementing this

section, “Maps accompanying applications for underground storage shall show the location of points of *diversion* or *rediversion* to underground storage . . .” [xii](Emphasis added) Both of these sections suggest that withdrawal from surface water flowing in a natural watercourse is the critical element to establish diversion. Following this line of rationale, the installation of earthworks are a means of restoring the natural surface flow affected by human activity and would not constitute a diversion.

Under either interpretation, the determination as to whether an appropriative right is required is highly dependant on the particular facts and circumstances of the case. The method, type, and amount of water intercepted are critical factors in determining whether an appropriative right is required. For example, both interpretations given by staff of the Water Rights Division concluded that small scale roof top rain harvesting would not require an appropriative right.

Essentially, landowners have a duty not alter the natural surface flow of water on their land. Therefore, projects that ameliorate prior reductions in the soil’s natural capacity to infiltrate and store water are less likely to be scrutinized. For example, settling basins installed near a paved parking lot designed to intercept and infiltration the stormwater generated as a result of decreased soil permeability. Conversely, projects that noticeably reduce or increase run-off from a property are more likely to be raise alarm, particular if the project impairs any water rights or harms neighboring landowners.

Scientifically speaking, the construction of earthworks designed to intercept and infiltrate diffuse surface water does not remove water from the hydrological system. While current surface flows could be altered and some water is lost through evaporation most of the water is only “temporally dislocated.” Rather than simply running off a parcel, intercepted diffuse water now has increased residence time in soil. Water percolating through the ground will eventually contribute to local groundwater, subterranean flows, and surface water flows. These hydrologic facts counter the argument that this water is being “stored” in subsurface soil for more than 30 days. However, poorly draining soils or other underlying geological formations that retard water movement could result in water being held onsite for longer than is allowed under regulatory storage. In any case it will be difficult to determine how long any particular volume water is present on site. It should be stressed that California courts have not addressed the issue of conflict arising over interception of diffuse surface waters, and “temporal dislocation” is a purely scientific argument.

To apply for appropriative right or not?

The determination of whether or not to apply for an appropriative right is up to each individual. While water that infiltrates the ground does not actually leave the hydrologic system, its subsurface relocation could affect surface water patterns that other landowners and water rights holders rely upon to satisfy their needs. Before beginning any project landowners have a responsibility to examine its impact on the surrounding environment. Landowners should concurrently engage in several simple and logical to ensure they are living up to their water responsibilities. These include a thorough site analysis,

consultation with the SWRCB data bases, and an open dialog with surrounding landowners and water users.

1. The first step in determining landowner water responsibilities is to conduct a site analysis in order to understand the implications of the project. This site analysis should examine onsite characteristics, implications to neighboring landowners, impacts on local water availability, and water right holders that could be affected.
Consider the following factors in the site analysis

* Scale
    -Does the project cover a small area, such as a settling pond near a small parking lot? Or is it much larger, capturing diffuse surface water from a substantial area?

* Soil characteristics.
    -Is the soil highly permeable?
    -Does the soil contain high levels of clay making infiltration difficult?
    -Will increased infiltration pose a safety risk by destabilizing slopes? Is there a history of landslides in the area?

* Precipitation
    -How much precipitation is expected to fall in an average year?
    -How much precipitation is expected in a particularly wet year?
    -What form does most of the precipitation come in?
    -What time of year is precipitation most likely?
    - Is the project appropriately sized and constructed to handle large storm events without failing? (Hundred Year Flood)

* Location
    -Is the project located near an adjoining property?
    -Is the project near a surface water?

    -Will the project alter the historical flows of a water course?
* Water Quality Issues
    -Projects near surface waters listed as impaired under 303 (d) of the CWA (see Water Quality Section) require special attention. Consultation with the SWRCB and the Regional Water Quality Boards can provide the impaired list.

* Neighboring Landowners
    - Consultation with neighboring property owners is essential to fulfilling landowner's responsibilities. Neighbors could be effected by the projects and deserve a chance to comment and make suggestions. Landowners planning projects should be flexible concerning modifications of scale and sitting to accommodate neighbors concerns. This early dialog is critical to avoiding possible confrontation in the future.

* Water Rights Holders

-Landowners have a responsibility to ensure the project will not impair existing water rights. Remember, water rights holders are not necessarily near by. A water right holder at some point far downstream is dependant on surface flow originating at the headwaters. Determining water right holders is possible through consultation with the SWRCB, Water Rights Division. Consultation will allow landowners to see a list of all water right holders in the watershed, the volume of water each is granted, the time year for diversion, and how much water is left unappropriated in the stream system.

2. If this analysis determines the project will mitigate the natural surface flow to estimated preconstruction conditions, then it should be able to progress without an appropriative right. If however the project threatens to substantially alter the current surface flow, harm a neighboring parcel, or impair a water right then pursuit of an appropriative right is appropriate. Before applying for an appropriative right individuals should consider spending some time examining SWRCB Water Rights division databases to determine if a water body contains any unallocated water or whether the stream system is "fully allocated". Contact the SWRCB, Water Rights Division for more information.[xiii]

3. Open and ongoing dialog with neighbors is important in determining the impact of proposed remediation on the surrounding environment and possible impairments of existing water rights. A survey of neighboring and downstream users will illuminate possible sources of conflict and allow for those issues to be discussed and resolved before investment in water quality protection is undertaken.

Conclusion

There are clearly cases where seeking appropriative right is appropriate. If water is being diverted out of any surface water, even small streams, then an appropriative right is necessary. However, as this document has demonstrated the interception and infiltration of diffuse surface water exists in a legal grey area. The determination of whether or not a water quality improvement project would require an appropriative right hinges more on the actual impact of the proposed project on the surrounding environment than on a clear legal position.

Most water quality improvement projects have positive effects. Although they do alter the current surface flow regime, they usually serve to mitigate an already altered hydrology and most often to the benefit of the ecosystem. Increased infiltration attenuates flooding, decreases soil erosion, reduces down cutting, increase local vegetative health, contributes to surface flows and groundwater recharge, and improves habitat for endangered species. Regardless of these positive benefits, if a project threatens a water right holder then it must be seriously reconsidered. Not only could such a project result in legal action by water right holder but could also trigger investigation by the Water Right Division for appropriating water without a right.

In all cases a complete analysis of the project for impacts on the surrounding environment, an open dialog with neighbors and water rights holders, and consultation with the SWRCB will ensure a landowner of making informed choices.

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[i] *Los Angeles Cemetery Association v. City of Los Angeles*, 103 Cal 461 (1894)
[ii] See Note 6
[iii] 40 C.F.R. § 131.12
[iv] *Rancho Santa Marqarita v. Vail*, 11 Cal. 2d 501, 81 P. 2d 533
[v] CWC §5101
[vi] Code Commissioners' Note, CWC §1200
[vii] *South Santa Clara Valley Water Conservation District v. Johnson*, 231 Cal App 2d 388, 393 (1964)
[viii] *Key v. Romley*, 64 C2d 396, 400 (1966)
[ix] Interview with Steven Hererra, Department of Water Rights 11.03.04
[x] Interview with Joan Jurancich, Department of Water Rights, 10.25.04
[xi] CWC §5100
[xii] 23 Cal Adim Codes § 722
[xiii] Division of Water Rights, PO Box 2000, Sacramento, CA, 95812-2000