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PROCEEDINGS OF THE 2019 CALIFORNIA WATER LAW SYMPOSIUM PANEL ORGANIZED BY GGU SCHOOL OF LAW: SGMA AND INTERCONNECTED GROUNDWATERSURFACE WATER

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PROCEEDINGS OF THE 2019
CALIFORNIA WATER LAW
SYMPOSIUM PANEL ORGANIZED BY
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INTERCONNECTED GROUNDWATER-
SURFACE WATER

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I. INTRODUCTION¹

California's Sustainable Groundwater Management Act ("SGMA") has been the topic of many discussions since its enactment in 2014.² The overarching goal of SGMA is to achieve sustainable groundwater basins through management plans "without causing undesirable results."³ Considering the importance and magnitude of this task, it comes as no surprise that SGMA was the theme for the February 2019 California Water Law Symposium, held at the University of California ("UC"), Hastings College of Law in San Francisco. For the Symposium, Golden Gate University School of Law ("GGU") students gathered a panel of experts to explore the relationship between groundwater plans and surface water within the context of SGMA. The GGU panel focused on issues stemming from the hydrological connections — particularly the undesirable results — between surface water and groundwater, impacts on fisheries, and the public trust doctrine.

¹ Written by Jessica B. Jandura and L. Victoria Wang, May 2020 graduates of Golden Gate University School of Law.

² SMGA is a three-bill legislative package signed into law by Governor Brown on September 16, 2014. Assemb. B. 1739, 2014-2015, Reg. Sess. (Cal. 2014); SB 1168, 2014-2015, Reg. Sess. (Cal. 2014); SB 1319, 2014-2015, Reg. Sess. (Cal. 2014).

³ Assemb. B. 1739, § 10721 (Cal. 2014).

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The panel's moderator was Kevin O'Brien, a partner at Downey Brand LLP, where he litigates water cases in state and federal courts and handles major water-related administrative hearings. The panel was comprised of four distinguished attorneys with extensive experience in water law. Richard Frank is a Professor and Director of the California Environmental Law & Policy Center at UC Davis Law School. Andy Sawyer is Assistant Chief Counsel at the California State Water Resources Control Board ("State Water Board"), where he manages the activities of the Office of Chief Counsel involving the State Water Board's water rights and drinking water programs. Alletta Belin specializes in tribal water rights, water law, and other natural resource issues, and was most recently a Visiting Fellow at Stanford's Water in the West Program. Finally, Paul Kibel is a Professor at GGU's School of Law, the Director of the GGU Center on Urban Environmental Law, as well as the Water and Natural Resource Counsel at the Water and Power Law Group PC.

Kevin O'Brien first provided a technical overview of the hydrological connections between surface water and groundwater. Richard Frank then reviewed the appropriative and riparian water rights that make up SGMA's legal landscape, before Andy Sawyer explained SGMA's basic structure and how it addresses interconnected surface water and groundwater. Next, Alletta Belin introduced a methodology for avoiding "undesirable results" under SGMA. Paul Kibel followed and identified impacts on fisheries from changes in surface-water flow and temperatures relative to the groundwater pumping plans.

Lastly, Richard Frank concluded by leading a discussion on the recent Environmental Law Foundation ("ELF") decision by the California Court of Appeal concerning groundwater pumping and the public trust doctrine.⁴ Panelists commented on the California Appellate Court's ruling that SGMA does not displace the public trust doctrine and that this doctrine encompasses groundwater pumping adversely affecting navigable waters.

II. SGMA AND INTERCONNECTED GROUNDWATER-SURFACE WATER

Kevin O'Brien: Back in the dawn of the science of hydrogeology, in the late 1800s/early 1900s, there was this notion that groundwater and surface water essentially existed separately from the environment. If you look at the law of California — and others on the panel are going to talk about this — you'll see this demarcation between so-called percolating

⁴ *Environmental Law Foundation v. State Water Resources Control Bd.*, 26 Cal.App.5th 844 (2018).

groundwater and surface water. We really do have two separate bodies of law addressing those two types of water.

But, as our understanding of hydrogeology has evolved, it's become more and more clear that surface water and groundwater are most often interconnected; the pumping of groundwater often affects flows of surface streams, and sometimes diversions from surface streams affect groundwater conditions, groundwater levels, and eventually groundwater quality.

California, I think it's been said, is one of the few states that hasn't really integrated the law of groundwater and surface water, and there's truth to that. But I think SGMA is an important step toward moving more in the direction of integration.

So, in thinking about some of the underlying science: we have streams and we have subterranean groundwater basins. We have different conditions that can occur depending on the physical situation. A common situation, particularly up in the Sacramento Valley where I do a lot of my work, is the gaining-stream phenomenon. That's when you have water from the aquifers and groundwater basins bordering a stream such as the Sacramento River, depending on groundwater conditions, and they can actually be feeding water into the stream system, and that can be an important source of supply for that stream.

Conversely, we can have situations of the so-called losing stream, where basically the flow in the surface watercourse, such as the Sacramento River, can actually be discharging water to the neighboring groundwater basins. And that can be a very important source of recharge for the groundwater basins.

You can also have a situation where there's disconnection between the surface stream and the groundwater basins, typically because of pumping that has occurred in groundwater basins. This is fairly common in the San Joaquin Valley, where, in some areas, the groundwater basins have been pumped fairly substantially. So, you don't have quite the same type of surface water-groundwater connection that you might have in places like the Sacramento Valley, the Salinas Valley, and some of the valleys that neighbor.

That's just a conceptual overview. I realize it's pretty basic, but it sets the stage for the discussion we're going to have now. I'm going to turn it over to Rick to give a brief overview of the California water rights.

Richard Frank: Thank you very much, Kevin. Let's start with surface water rights. We have a focus in this conference on groundwater, and that's because there are some important parallels between the law in California on surface water rights and groundwater rights. Two basic

types of surface water rights are recognized under California law: riparian water rights and appropriative water rights.

Riparian water rights are prevalent in the eastern United States, where precipitation is more abundant. Appropriative water right systems are utilized in virtually all of the more arid western states. California, to complicate matters, recognizes both systems. It has a hybrid system; it's one of only three states in the country that recognizes both appropriative and riparian water rights.

Now, to a little bit of history: in *Irwin v. Phillips*,⁵ one of the first water rights cases in California, the California Supreme Court recognized appropriative water rights as essential to the then-dominant economy in California, mining. Thirty years later, in 1884, the California Supreme Court and the federal district court resolved the first environmental controversy in California state history when it enjoined hydraulic mining due to its adverse environmental effects.

Two years later in *Lux v. Haggin*,⁶ despite the hopes and expectations of some appropriative water rights holders, the Supreme Court affirmed the continuing viability and legitimacy of riparian water rights.

In 1914, the California Water Commission — the predecessor to the modern State Water Board — set up a prospective-only permit system for appropriative water rights. In 1928, California voters exercised their initiative process to create what is now Article 10, section 2 of the California Constitution, providing a doctrine mandating reasonable use and the prohibition on waste of water, which applies to all water resources in the State of California, including both surface and groundwater.

Riparian rights are those based on landowners' continuity to the water resource. Riparian rights are to be exercised on riparian property adjoining a lake, river, or stream. Notably, riparian rights are correlative. That means only riparian rights holders to a water source have equal rights among themselves to the available water, and in times of shortage must share that shortage on an equitable basis. Another key point is that even today, and throughout California's history, no permit has been or is required from the State Water Board to exercise riparian water rights.

Turning to appropriative water rights, which in terms of volume and political authority, is a more prevalent and more dominant side of surface water rights in California. There are three key elements to securing an appropriative water right to surface water: (1) an intent to divert; (2) an actual diversion; and (3) a commitment of the water diverted from the lake, river, or stream to a beneficial use.

⁵ *Irwin v. Phillips*, 5 Cal. 140 (1855).

⁶ *Lux v. Haggin*, 69 Cal. 255 (1886).

Unlike riparian water rights, appropriative rights are based on a priority system, which is based on temporal considerations: first in time, first in right. Those who secure and put to a beneficial use gain an appropriative water right first, which is then senior to those of subsequent appropriators. And there are a number of beneficial uses that I don't have time to go through, suffice it to say that courts have found there are a variety of beneficial uses to which appropriative water rights can be put.

To further the layers of complexity, there are two categories of appropriative water rights in California: so-called pre-1914 water rights, which are not subject to the water board permit system, and post-1914 appropriative water rights, from when the permit system first took effect, and which continue to this day.

Then we have Water Code section 102,⁷ which codifies the key principles related to all water in the State of California — that the water is property of the public; it is incapable of private ownership, but nonetheless there are private property rights to water and water rights short of ownership.

Now let's turn to the matter at hand — groundwater law. The first unique point, and an underlying theme of this panel, is that in California we have separate systems of groundwater law and surface water law. California law follows the legal fiction that groundwater and surface water are separate, whereas in fact as Kevin indicated, those resources are often interconnected. In California groundwater law there are two categories: (1) water flowing in subterranean streams and (2) percolating groundwater. Subterranean streams are treated the same way as surface water, and any diversion of subterranean stream flows are subject to a permit from the Water Board.

Most groundwater in California, however, is classified as percolating groundwater and has never, at least until now, required a permit from the State of California. Both hydrologists and water-lovers, I would submit, know this fiction is not really true. In many cases, in many parts of the State of California groundwater and surface water are interconnected. Diverting or pumping one can affect the other. So, the question is: should those resources be treated in a consistent and consolidated way?

With respect to rights in groundwater, owners of land overlying a groundwater basin, a groundwater aquifer, have so-called overlying rights to pump water from the groundwater basin for use on the overlying

⁷ Cal. Wat. Code § 102 (West 1943): "All water within the state is the property of the people of the state, but the right to the use of water may be acquired by appropriation in the manner provided by law."

lands. And, similar to the riparian water-rights system for surface-water flows, among overlying groundwater users, rights are correlative. That is, they are common, and they are subject to what the California Supreme Court over 100 years ago referred to as the “common supply or common source” doctrine⁸ — those overlying users share the safe yield of the basin.

Safe yield is defined in the cases as the amount of groundwater that can be pumped annually without causing an undesirable effect. You see some historical antecedents to the statutory right to use groundwater on non-overlying parcels. If there is a surplus of groundwater beyond the needs of the overlying owner, the water can be pumped and diverted for use away from the basin, but that water is subject to appropriative water rights, analogous to surface appropriative groundwater rights.

And here’s the key to how these groundwater rights work among themselves: among appropriators (that is people or companies moving the water off-stream) the “first in time, first in right” method of seniority applies. In disputes over groundwater between overlying pumpers, owners, and appropriators, overlying groundwater pumpers have priority. Until at least 2014, neither the State Water Board nor any other agency has historically been required at the state level to issue permits to authorize the pumping of percolating groundwater.

So, I leave you and my fellow panelists with two questions — first, how sensible is this system in the greater scheme of things? Second, one of the reasons we went through all this background and history is that, with respect to SGMA, the legislature carefully and repeatedly said that SGMA is not intended to affect or change California groundwater law. But the question is, given that legislative intent, is that in fact accurate — does SGMA change California groundwater law?

Andy Sawyer: I have two points in response to Rick’s first question about how sensible the system is. The law is not quite as irrational as he indicated. In the interest of time, we had to escape a detailed discussion of *Hudson v. Daley*,⁹ a 1909 case about the common source rule, saying that where groundwaters and surface waters interconnected, the water rights interconnect, so that a senior appropriator to surface water is senior to a junior appropriator to groundwater. I know of no case where that has actually been followed, but the law is not quite as irrational as you might think.

The other thing I’d like to point out is some of the problems we have in surface water are worse as applied to groundwater. The ratio of

⁸ *Hudson v. Daley*, 156 Cal. 617, 627 (1909).

⁹ *Id.*

appropriative-to-riparian rights is very high with surface waters. The ratio of appropriative water rights to overlying rights is very low in groundwater, making it much harder to manage groundwater by appropriation. And you also have timing issues. With surface waters, you need flow at the right time; you need the flows, or traditionally, you needed the flows when you irrigated. In some rivers it's days between when a diversion or release occurs way up in the watershed and when the effect gets to the delta. For some groundwater diversions, it's years or decades between when the pumping starts and when it has an effect downstream. That can make these things very hard to deal with in groundwater.

Paul Kibel: I wanted to respond to Rick's question with a bit of a historical perspective. We might take the position that this demarcation between surface water law and groundwater law doesn't make sense today given what we know, but I think historically there are reasons why it made sense. In the year 1900, we didn't have the ability to know where deep aquifers were located or the means to pump these deeper aquifers. So back then groundwater accounted for a relatively small percentage of the overall portfolio of fresh water, and most of it was pumped under what I call in my water law classes "Little House on the Prairie"¹⁰ scenarios: you dug a shallow well, and you took the water in the shallow well.

Back then we didn't have these larger groundwater basin disputes. So, the way I view it, initially, we really didn't pay a lot of attention to groundwater law because we didn't need to — we weren't using much of it and there weren't that many disputes. The problem we find is that those are not the conditions we face today. We've inherited a system of water law that is built on a historical basis that does not reflect current conditions.

Richard Frank: There's one point I'd like to add. I view this issue as largely an issue of politics. I practiced in Colorado for five years before coming back to California, and in Colorado in the '60s there was the recognition that groundwater pumping basically needs to interact with the stream, the river, or whatever it is, because they were having a lot of environmental impacts.

So, the State of Colorado in the '60s adopted basically new water laws and integrated groundwater with surface water. After that, you had to go to the State to obtain a permit to pump a well. During that period,

¹⁰ *Little House on the Prairie* was a popular book series by author Laura Ingells Wilder (published 1932-1943) that served as the basis for a popular television series from 1974-1982. The book series and television series tell the stories of a settler family in rural Minnesota in the 1880s and 1890s. These settlers obtained their water supply from a shallow well with a bucket attached to a rope pulley that was operated by hand.

there was a number of Colorado Supreme Court cases where that was challenged unsuccessfully, and that's the direction Colorado went. I think in California, with the underlying politics, it creates hesitation to take that issue on. SGMA is kind of a workaround, and we'll see how it works out.

Alletta Belin: I was just going to add that I think separating the two water rights systems — surface water and groundwater — is a terrible basic structure. But I view SGMA as potentially a major step forward in linking groundwater and surface water rights and management. I think there's a lot of potential for SGMA to help weave together a better over-all structure for water management in California.

Andy Sawyer: Rick gave you a description of California water law, but in most of the state, we've been pumping groundwater as if there is no legal limit on pumping. This slide, *infra*, shows in blue the groundwater basins in California. Overlaid on that are the special districts and adjudicated basins where we're actually managing or making a serious attempt to manage groundwater. And where we have been managing groundwater, we have been managing it almost — with few exceptions — with a disregard for the effects on surface water.¹¹

In response mostly to the problem of groundwater overdrafts and other related issues, the legislature, in 2014, enacted SGMA, the Sustainable Groundwater Management Act.¹² It provides authority to local agencies to form groundwater sustainability agencies to manage groundwater basins; to adopt groundwater sustainability plans; and to try and enforce those plans on those who manage groundwater for their basins.

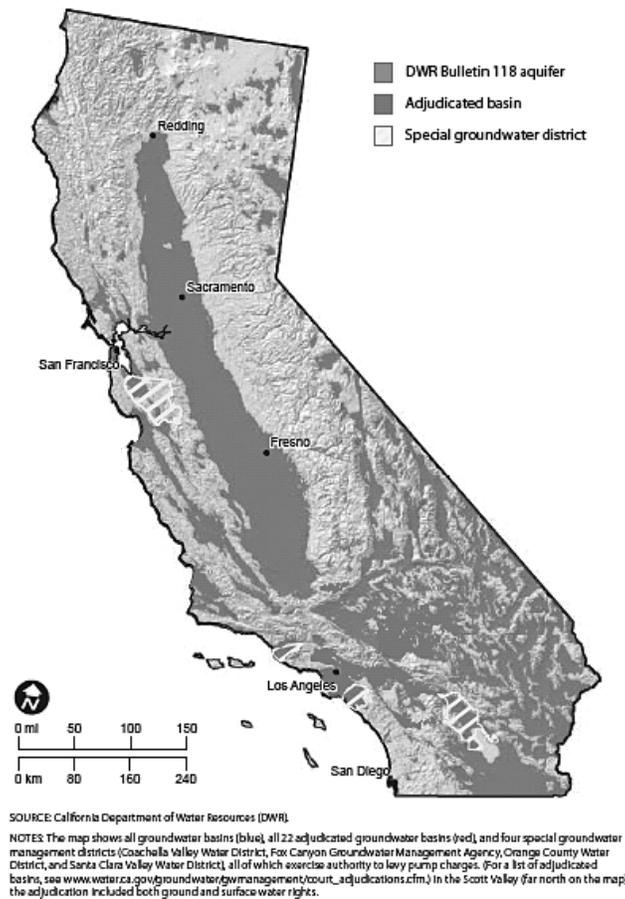
And for high-priority basins, those shown in orange and yellow on the slide, *supra*, the Sustainable Groundwater Act *requires* sustainable groundwater management.

What is sustainable groundwater management? Well, basically managing the groundwater to avoid the six deadly sins, otherwise known as undesirable effects. We're going to talk, of course, about the last of these, undesirable effect number six: significant and unreasonable adverse effects on beneficial uses and interconnected surface waters as a result of groundwater pumping.

The section sets deadlines for local agencies to act in medium or high-priority basins. There was a 2017 deadline to form groundwater sustainability agencies for all these medium and high basins. With the exception of a few isolated areas where there's not a lot of pumping, that

¹¹ Source PPIC © 2011.

¹² Assemb. B. 1739, 2014-2015, Reg. Sess. (Cal. 2014), SB 1168, 2014-2015, Reg. Sess. (Cal. 2014); SB 1319, 2014-2015, Reg. Sess. (Cal. 2014). SGMA is codified in Cal. Wat. Code § 10720 et seq. (West 2018).



has been accomplished. There are, however in some cases, lots of agencies in the same basin that now have to work together.

The plans need to be adopted by 2020 for critically overdraft basins. As I'll explain later, that is not particularly relevant for our topic of interconnected surface waters. The high-priority basins have to adopt plans by 2022, and those plans have to implement sustainable groundwater management within 20 years of adoption. Now, how do we make sure the local agencies are going to meet these deadlines? Strictly speaking, these are all optional. They don't have to form plan agencies, they don't have to develop plans.

We've got something they fear much more, and that is if they don't do the job, we will. If they fail to adopt a plan; if the Department of Water Resources says the plan is inadequate; if the Department says it is not being adequately implemented — then the State Water Board can declare the basin probationary, giving the local agency a chance to adopt

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its own plan to prevent long-term overdraft or to avoid unreasonable impacts on beneficial uses of interconnected surface waters.

After the statute was enacted, we heard local agencies basically say “no problem here, we’re already managing our groundwater sustainably.” Now, why would that be? They don’t have a problem? In fact, they don’t have an overdraft problem for the most part. Groundwater goes down, and the aquifer comes back the next winter. But that of course is depleting interconnected surface waters, and in fact the magnitude of the depletion is enormous.

For example, the Sacramento River has gone from a gaining reach where close to a million acre-feet was coming from the groundwater into the stream, where now it’s a losing reach of approximately 400,000 acre-feet per year. Well over a million acre-feet have been lost in the flow of the Sacramento River due to the groundwater pumping in the Sacramento River watershed — that’s on the scale of the overdraft occurring in the San Joaquin and Tulare Basins. And of course, overdraft is when you’re going beyond taking all you can take from the surface water, and now you’re taking down the groundwater.

So, the impact is enormous. But why would local agencies think they have no problems? Part of it, arguably, could be that State Water Board intervention is delayed. The State Water Board can come in much earlier on these critical overdraft, long-term overdraft issues. But the State Board can’t come in until 2025 for issues of depletions of interconnected surface waters.

2025 is coming up soon enough. A bigger issue is that SGMA says for all these undesirable effects, the plan *may but need not* address impacts that were already occurring in 2015. So, that’s why I said that it’s probably not an issue for these critically overdrafted basins. Because when it’s critically overdrafted, basically the groundwater is low enough that the way the water comes out of the stream isn’t affected. Once the basin’s disconnected, it stays disconnected all year, instead of coming back every year. Basically, the water is coming out as fast as it can flow from its source, and moving down to the groundwater.

But when you’re dealing with interconnected water, the rate at which the water flows out is essentially a function of the slope. So, the farther you drive down the groundwater while it’s still interconnected, the faster it comes in. It’s the same if it’s a gaining reach and the groundwater is higher. If it’s much higher, it’s flowing more rapidly into the river. So, local agencies may think: “no problem, the groundwater’s recovering.” But what is in fact happening is that if you pump more groundwater, you’re taking more out of the stream. They could be over-

looking that simple fact or thinking they can avoid it. That's not entirely clear.

So, I wanted to point out that an important feature of the Sustainable Groundwater Management Act is that it preserves independent authority. While some basins are exempt from the Sustainable Groundwater Management Act, and plans don't have to deal with pre-2015 impacts, the independent authority the State applies but more broadly. For independent authority such as the prohibition of waste and unreasonable use, that independent authority is still there.

But I do want to emphasize, some of these agencies that think we don't have a problem within interconnected surface water may be whistling in the dark. They may be thinking there's no problem in the groundwater basin — we can pump a little more because it'll recover the next winter — but that, in fact, is a reduction in interconnected surface waters, which could end up requiring something be done to prevent those increased depletions.

The other point I wanted to emphasize is that sometimes there are delayed effects — and we have not even seen the full effect of the existing level of groundwater extraction. So, there may be a problem of depletion of interconnected surface waters even if the local agency limits pumping to existing levels. For that, I have two questions for my fellow panelists. One is, how important is SGMA here, if we exempt pre-2015 impacts on interconnected surface waters? And the other is, given the complexities — and it's much more complex than I've indicated — is SGMA even going to do the job as applied to post-2015 withdrawals?

Paul Kibel: I'll take a shot at the first question. I think your question relates to the provisions in SGMA that deal with pre-2015 impacts, and I'm going to, respectfully as always, disagree with what I think is Andy's take is on the scope of limits it imposes, and I'm going to give you three reasons why.

First, this provision of SGMA is sometimes referred to as the grandfather clause. The concept of grandfathering is from land-use and it deals with whether existing land uses are lawful even if contrary to changes in the zoning code. The concept of grandfathering has no application to the law in SGMA. SGMA is not dealing with land uses or even rights to water at all. So, I think the idea of transferring the concept of grandfathering, a land-use concept, to SGMA makes no sense.

My second point is that some people have referred to that SGMA provision as a baseline condition, which is a concept that comes from

environmental impact assessment laws like CEQA¹³ and NEPA.¹⁴ The concept of baseline conditions in environmental impact assessment laws means you're looking at a proposed project with new impacts and comparing the proposed project impact to baseline environmental conditions. That's not what SGMA does. SGMA is not looking at a new proposed project and comparing it to baseline conditions. In fact, SGMA is looking at baseline conditions and trying to determine whether there are undesirable results, the deadly sins, happening now as a result of those baseline conditions, and then adopting a plan to address the problems with baseline conditions. So, the idea of using the CEQA/NEPA concept of baseline condition in SGMA also doesn't make any sense to me, because SGMA is not an environmental impact assessment law.

The third point, which I think is actually the better one, is if you look at the actual provisions of SGMA, Groundwater Sustainability Agencies ("GSAs") are required to do water budgets and hydrologic models that describe the inflow and outflow into the basin and its connection with surface waters. To suggest that as long as those inflows or outflows are pre-2015¹⁵ then you don't have to do them in the SGMA water budgets or hydrologic models that are part of Groundwater Sustainability Plans ("GSPs") makes no sense. That would simply result in water budgets and hydrologic models that are inaccurate and incomplete.

And since one of the undesirable results GSPs are trying to avoid in SGMA is the impacts of groundwater pumping on beneficial uses of surface waters, and that includes fisheries — I'll soon talk about that — GSPs must adopt SGMA thresholds to address groundwater pumping impacts on surface water flows and fisheries. If GSAs were to interpret that language about pre-2015 impacts as saying it gives GSPs a pass on doing what SGMA explicitly requires you to do, that GSPs need not develop quantitative thresholds and monitoring plans to prevent adverse impacts of groundwater pumping on fisheries so long those adverse impact on fisheries began before 2015, I don't think that is a coherent reading of SGMA. That reading would eliminate the obligation to include the very measures in GSPs needed to prevent the undesirable result of avoiding significant adverse impacts on interconnected surface flows.

Alletta Belin: I'll get into this more in my talk, but — if groundwater pumping is in violation of federal or state laws, SGMA doesn't

¹³ The California Environmental Quality Act, Cal. Pub. Resources Code § 21000 et seq. (1979).

¹⁴ The National Environmental Policy Act, 42 U.S.C § 4321 et seq. (1970).

¹⁵ See SGMA § 10720.2, subd. (b)(4)(b): "The [groundwater sustainability] plan may, but is not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015."

immunize that; it doesn't make that go away. And as I said I'll get into that more, but certainly I agree about the delayed impacts issue. And I don't think Maurice Hall¹⁶ is here, but he has said there was 400,000 acre-feet per year of delayed impacts from groundwater pumping on Sacramento River flows that haven't even kicked in yet,¹⁷ which underscores how big the problem of delayed impacts on surface water flows from groundwater pumping is.

Kevin O'Brien: I wanted to underscore that last point, because Andy did allude to it. However, the point about how the baseline provision often gets interpreted by the courts: I think we have this physical situation where the impacts of pumping that occurred before 2015 may not show up in the surface stream until many years after 2015. And I personally think it would be very difficult to ignore those impacts. So, I think one way or another these issues are going to have to get dealt with in the SGMA process.

Alletta Belin: So, I will pick up where Andy left off: as has been said, sustainability under SGMA means avoiding the six undesirable results. Groundwater sustainability agencies have to adopt a groundwater sustainability plan that will, within a 20-year time period, avoid all of those six undesirable results, including the one about impacts to beneficial uses of surface water. When I looked at that, and particularly undesirable result number six, I thought what does that mean? How does a GSA or anyone else know what is a significant and unreasonable adverse impact on surface water use? That's a pretty important issue, and there's nothing in the Department of Water Resources' ("DWR") emergency regulations really addressing that; there's nothing in the best management practices pamphlets addressing that.

So, I decided to address that issue when I was at Stanford's Water in the West Program last year in the spring. My goal was to write a plain-English guide to help GSAs and others understand how to avoid undesirable result number six. I reached out to a lot of people in this audience, fellow panel members, people that knew a lot more about this than I did and got a lot of good input, and I incorporated that. The guide was issued last summer.¹⁸

¹⁶ Maurice Hall is the Environmental Defense Fund's ("EDF") Associate Vice President of Water for the Ecosystems Program.

¹⁷ See Maurice Hall, *SUSTAINABLE GROUNDWATER MANAGEMENT: Can California successfully integrate groundwater and surface water under SGMA?*, MAVEN'S NOTEBOOK (May 6, 2018), <https://mavensnotebook.com/2018/05/16/sustainable-groundwater-management-can-california-successfully-integrate-groundwater-and-surface-water-under-sgma/>.

¹⁸ Alletta Belin, *Guide to Compliance with California's Sustainable Groundwater Management Act: How to Avoid the "Undesirable Result" of "Significant and Unreasonable Adverse Im-*

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It follows a very simple paradigm or format of red light/yellow light/green light. I tried to identify red light circumstances where there's a very high risk of having undesirable result number six. With yellow light, you may have problems there, so you probably need to do more analysis and look further into it. With green light, you're probably good to go, *for now*, but maybe not in the future.

In doing this, I was guided by two overarching principles that I think are most important for understanding and addressing this issue. The first one is existing legal frameworks — laws, regulations, court decisions — federal and state — which provide the clearest guidance on what constitutes undesirable result number six. The second overarching principle is that a groundwater use that causes or contributes to a violation of state or federal legal requirements, when looking into beneficial uses of surface water, almost certainly constitutes undesirable result number six. So, the guide just goes through the very circumstances I think are most likely to give rise to this problem. I'll cover just a few of them today.

So, I'll start with the Endangered Species Act — there is of course a federal act¹⁹ and a state act.²⁰ But focusing for a minute on the federal one — the two most pertinent provisions are section nine, which prohibits persons from unlawful take of listed species; and section seven, which technically only applies to federal agencies. It requires that they avoid jeopardizing the continued existence of listed species and/or adversely modifying the habitat that has been found to be critical for the species. Even though that provision doesn't technically apply to GSAs because they aren't federal agencies, in my opinion, if you have those circumstances — if you see jeopardy, if you see modification of critical habitat due to groundwater pumping — the GSA has a serious problem. And if it's causing that modification for certain, that definitely is a red-light problem in my opinion.

Another category that I looked at regards the in-stream flow of water. The issue is where groundwater pumping interferes with achieving minimum flow requirements. That is also a serious problem that needs to be addressed. In some cases, the Department of Fish and Wildlife has proposed in-stream flow requirements, but they have not been formally adopted. I put that in the yellow light category; you better keep a close eye on that, because that's a problem in the making.

pacts on Beneficial Uses of Surface Waters" Stanford Water in the West (2018) <https://purl.stanford.edu/kx058kk6484>.

¹⁹ Endangered Species Act 16 U.S.C. § 1531 et seq. (1973).

²⁰ Cal. Fish & G Code § 2050 et seq. (1984).

Another category where impacts on surface water might be impermissible under SGMA is rivers that have been designated as protected under either federal law or under state law. If the evidence shows that groundwater pumping is impairing the flows of a river stretch that has been designated as “wild and scenic” it is likely to be a serious problem — but not necessarily. If it’s only reducing water flows a little bit during high-flow times of the year or something, it may not be a problem. But the most important guidance would be the statutory language of the designation and any related plans, legislative history, or other documents that talk about the values of the river that designation is intended to protect. Also, the extent of the impairment caused by the groundwater pumping would be a relevant factor to be considered.

Another category of potential problems with undesirable result number six are violations where pumping causes or contributes to violations of other legally protected surface water rights or resources. And, of course, first among this is senior surface water rights. By now you’ve heard about the overall California water rights scheme. It’s a relatively small group of surface water rights that would be considered senior to groundwater the pumping rights of overlying landowners.

In that category, the foremost one I’d flag is federal reserved water rights, that were mentioned earlier. They would apply to Indian reservations and federal reservations like the National Parks, and other special protected areas. Tribal treaties and fishing rights would also fall in that category, and potentially the adjudicated state-based pueblo water rights in the southern part of the state. So, there aren’t a lot of senior surface water rights, but they’re something that needs to be considered.

The next point here is about adverse effects on groundwater-dependent ecosystems protected by the public trust. But that is going to be covered by another panelist, so I’m not going to get into that.

So, I have just a few more observations in trying to help GSAs to fully understand how to carry out and comply with this aspect of SGMA. In many instances, for the first round of developing the initial groundwater management plan, the GSA just may not have enough data to understand what’s going on. I think that is likely to happen in a lot of places, and so it will take time to acquire that data. The obligations of the GSAs are likely to evolve over time. They may evolve because more data is needed and will be acquired; or they may evolve because of delayed effects on surface water from groundwater pumping, or for other reasons.

The second issue is that, in many instances, even if groundwater pumping is a factor contributing to the problems with the surface water, there may well be other contributing factors as well. That really empha-

sizes the need for outreach among the various responsible parties — GSAs and others — to collaborate and coordinate and help to deal with that, because there’s no easy answer to allocating responsibility. So, collaboration and coordination are definitely called for.

Regarding what Andy was talking about, as to maintaining groundwater levels at January 1, 2015, levels: in 2017, Maurice Hall and Christina Babbitt at the Environmental Defense Fund did a really nice paper on that general topic.²¹ They recommended — as a first order of compliance for avoidance of undesirable result number six — to maintain groundwater levels at that level. GSAs should ensure that groundwater levels don’t drop below it. I think following that rule is a great start, but it is not the end of the story for all the reasons that we’ve already been discussing — especially due to the likelihood of delayed impacts.

Paul Kibel: As many of the previous presentations today have indicated, I think some of the core considerations that led to SGMA’s adoption were related to over-pumping and overdraft. And certainly, that’s been the bulk of the focus, and I think that’s understandable. But when we look at SGMA, there are also provisions that deal with other undesirable results — they’ve been called the six deadly sins and I like that phrase. One of those undesirable results, number six, deals with adverse impacts on interconnected surface streams.

To date, much of the concern about interconnected surface streams has centered on people who have surface water rights, whether appropriative or riparian, and how groundwater pumping might affect the availability of water for appropriative and riparian water rights users. But reduced flows in surface waters from groundwater pumping can also have in-stream impacts, and I’m going to focus specifically on those impacts related to fisheries, focusing primarily on salmon and steelhead trout.

The first thing I’ll mention is that I serve as the director of the Center on Urban Environmental Law (“CUEL”), at Golden Gate University Law School. Last August we released a report called *Rivers that Depend on Aquifers*,²² which focused on aspects of SGMA that relate to impacts on fisheries, which is obviously closely related to this topic. So,

²¹ Christina Babbitt & Maurice Hall et al., *Addressing Regional Surface Water Depletions in California: A Proposed Approach for Compliance with the Sustainable Groundwater Management Act*, The Environmental Defense Fund (2018), https://www.edf.org/sites/default/files/documents/edf_california_sgma_surface_water.pdf.

²² PAUL STANTON KIBEL & JULIE GANTENBEIN, *RIVERS THAT DEPEND ON AQUIFERS: DRAFTING SGMA GROUNDWATER PLANS WITH FISHERIES IN MIND* (2018) <https://ggucuel.org/wp-content/uploads/CUEL-SGMA-FISHERIES-GUIDEBOOK.pdf>.

much of what I'm covering here are highlights of material that was given a little more in-depth treatment in that guidebook.

Now, we've had a number of presentations today that have helped to explain the hydrologic connection between groundwater and surface water in general. So, first of all I wanted to focus on how some of those interactions specifically relate to fisheries, and really three aspects in particular that I would urge you to keep in mind. The primary thing to understand about these waters is that the fisheries are dependent on them.

We know that under SGMA undesirable use number six relates to beneficial uses of surface water. So, I just wanted to direct your attention to Department of Water Resources Bulletin No. 118, which actually provides a list of what is recognized as beneficial uses.²³ In particular, there are three beneficial uses on the list in Bulletin No. 118 that relate specifically to fisheries. The first is that beneficial uses include water that supports "cold water ecosystems, including but not limited to preservation or enhancement of fish."²⁴ Beneficial uses include "high-quality aquatic habitats suitable for the reproduction and early development of fish."²⁵ Early development can be understood as spawning and downstream migration, at least when we're talking about salmon and steelhead trout. And under Department of Water Resources Bulletin No. 118, beneficial uses also include "habitats necessary for migration or other temporary activities by aquatic organisms" such as anadromous fish.²⁶

So, why this is relevant? Because when you read the provisions of SGMA dealing with avoidance of undesirable use number six, if you understand the definition of beneficial uses, you will see SGMA requires avoidance of adverse impacts on fisheries because fisheries are clearly recognized as beneficial uses.

Also, one of the things I wanted to talk about a little bit was this concept of gaining or losing streams, and to try to refine that slightly. We have this basic notion that it depends on the respective elevation of groundwater and surface water: when the groundwater is higher, the stream is said to be gaining because it's gaining water from the groundwater; when groundwater is lower and they are interconnected, it is said to be a losing stream — water from the surface water is discharging into the aquifer.

²³ See *California's Groundwater*, State of California, The Resources Agency, Department of Water Resources, Bulletin 118, 101 (October 2003) https://water.ca.gov/LegacyFiles/groundwater/bulletin118/docs/Bulletin_118_Update_2003.pdf.

²⁴ *Id.* at 239.

²⁵ *Id.* at 240.

²⁶ *Id.* at 239.

What I want you to keep in mind is that this is not static, either geographically or temporally. Along a given stream or creek we may have certain portions of that stream or creek, certain reaches, that are gaining, and you may have certain portions that are losing. So, it is a complex interaction. It is not simply a matter of asking: “is this a gaining or is this a losing stream?” It may be both a gaining and a losing stream on different reaches of the water course.

Secondly, whether a stream is gaining or losing overall or in particular reaches can change temporally. It can change during times of the year, based on when it is dry or when it is raining or when there is pumping. And it can change during drought years. If there is less recharge and more pumping going on during a period of drought, a stream can flip from a gaining stream to a losing stream.

I mention this because it relates to the provisions of SGMA that deal with the development of hydrologic models and water budgets. We need to develop robust hydrologic models and water budgets that capture the reality that the concept of gaining streams and losing streams is not static geographically or temporally. Models and budgets need to be robust enough that they track how that works across the length, the different reaches of the water course. Why do we need to do that? Because if we don't do that, we do not have the basic information to avoid undesirable result number six. So, that's how the two pieces fit together.

Another thing to keep in mind is that in general when we are dealing with problems of overdraft or over-pumping, the particular lateral location of a groundwater well over an aquifer usually doesn't matter that much. If we are just dealing overall with extractions and recharge, where the particular well is located — that is not that critical a question when we are dealing with overdraft. But the particular location of wells can be a very critical question when we are dealing with interconnected surface waters because of what are called cones of depression. When you have a well that is in close proximity to where the surface waters are, you can actually draw down the elevation of the groundwater table in the very area where it is interacting with the surface water, and that will change it from a gaining stream to a losing stream.

I am also going to suggest that if we really want to deal with undesirable result number six, we need hydrologic models and we need water budgets that are robust enough that they capture these changes. Because part of what might go into a plan for trying to avoid adverse undesirable result number six needs to look at the relocation of wells, so that cones of depression don't have these impacts on surface streams.

Okay, so now I'm going to get a bit more fish-specific. What are the particular impacts on surface waters that matter if you are a steelhead

trout or if you are a salmon? These are impacts that don't really matter very much to the question of overdraft.

The first is water temperature. At least for cold-water fisheries like trout and salmon, it is best for them if the water temperature remains below 56 degrees. Between 56 and 60 degrees, they start to suffer. And once the temperature starts to move above 60 degrees, they turn from struggling to dying. If you think about it, particularly during hot portions of the year, with climate change and with drought, groundwater tends to be cooler than surface waters. So, it is not just the volume of the water coming in that is tributary from groundwater, it is that it is cold water. So, as we are trying to model the impacts of groundwater pumping on fisheries as a beneficial use of surface flows, the issue of impacts on temperature is important. And that has implications in terms of the hydrologic models that we come up with, in terms of monitoring, and also in terms of thresholds.

Secondly, and this is somewhat related to agriculture, but when we think about fisheries impacts there are certain times of year when the needs of fish for aquatic conditions and flows are more acute. And this is going to be particularly true during periods and for locations where fish are spawning and where there is downstream migration. So, it is very important to keep in mind that we really need to focus on whether the depletions are happening at those times of year when the needs of the fish are more acute.

Next is connectivity. We want to make sure that we are not taking streams and creeks that are tributaries and depleting them so much by nearby groundwater pumping that they become isolated. What I'll run through very quickly — and this is dealt with in more detail in the CUEL report²⁷ — is that there are specific provisions in the SGMA regulations and in the guidance documents that have been put out by DWR that use terms like “shall” and “must”; they say that you shall and you must address issues of time, location, to avoid depletion of the surface water. So, it is not really something that GSAs have discretion to disregard — SGMA actually requires inclusion of this analysis in all GSPs.

A further point that I want to highlight is that we already have very robust models with software technology to model all this. The U.S. Geological Survey has come up with models to show the impacts of groundwater pumping on stream flow, and to respond to Alletta's point, they have really sophisticated regression models, so you can do this with incomplete data sets. So, if the position taken by the GSA is: “we would love to do address the interactions between groundwater pumping and

²⁷ See *supra* note 21.

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fisheries, but we just don't have enough data" — the U.S. Geological Survey has been doing this for 10 years. And in California, we also have models to show how surface water depletion impacts salmon, and these have been used for decades. If you take those two pieces together, it really is feasible to do this. SGMA requires that it be done, and it is important that it be done.

I am out of time, but these are the different types of parameters that are very fisheries-specific, which need to be taken into account when developing SGMA groundwater plans.

Richard Frank: All right, I've been asked to spend a few minutes talking about a recent published California Court of Appeal opinion ("*Scott River* case") that I think is directly relevant and significant to this conference.²⁸ This is the most recent published case on groundwater law — on the public trust doctrine in California — and I dare say it is the first reported decisions on this Sustainable Groundwater Management Act. It is also one of the few modern decisions that expressly deals with the issue of this panel, that is interconnected groundwater resources.

In the interest of full disclosure, I should state at the outset I'm one of the counsel representing the petitioners in this case. I am joined by a lot of folks who have a stake in this space: Kevin's law firm represented a couple of parties in the case; the State Water Board is a party represented by Andy and others; and one of the jurists on the Court of Appeals panel that issued the opinion is in the audience and he'll be speaking on a different subject, a related subject, later in the symposium. So, it is an intimidating group.

First, I'll begin with a quick overview of the public trust doctrine in California. In its essence, it provides that certain natural resources are incapable of private ownership and are held in trust for the benefit of current and future generations. There is an affirmative obligation associated with the public trust doctrine in California. Government managers or trustees of public trust resources have an affirmative obligation to manage those resources with the goal of their long-term protection and preservation. So, I would argue that the public trust doctrine incorporates principles of sustainable development, which are core principles of SGMA as well, in addition to principles of intergenerational equity.

Traditionally, public trust uses were deemed to be the traditional trilogy of commerce, navigation, and fisheries. But relevant to this conference in particular, and over the last 50 years or so, public trust purposes and uses have expanded to include environmental preservation, ecological study, open space, and recreation. Natural resources subject

²⁸ *Environmental Law Foundation v. SWRCB*, 26 Cal.App.5th 844 (2018).

to the public trust, again, are traditionally tied to submerged land off our coastal areas, along the banks of navigable lakes and rivers, and California's fish and wildlife resources. Within the last 50 years or so, certainly in the last quarter century, those resources have expanded considerably.

Most relevant for our purposes, 36 years ago, the California Supreme Court in the iconic Mono Lake decision, *National Audubon Society v. Superior Court*,²⁹ expressly held that the public trust doctrine applies in California to water as a consumptive resource, and that the State Water Resource Control Board must consider the public trust doctrine as it allocates scarce water resources among competing users. It rejected the notion advanced by several parties in the litigation that the public trust doctrine was somehow subsumed into public water rights law administered by the Water Board.

The key factual claim in *National Audubon*, directly relevant to the *Scott River* case that we'll be talking about in a moment, is that the City of Los Angeles obtained permits from the Water Board to divert non-navigable streams in the eastern Sierras that, if left undiverted, would have flowed into Mono Lake. The allegation was that those diversions were lowering the level of Mono Lake and causing all manner of degree of environmental harm to the Mono Lake ecosystem. That is the factual context in which the California Supreme Court reached its decision.

The *Scott River* case arises in Siskiyou County, in northernmost California right along the Oregon border. The Scott River is located in Siskiyou County. It is an important tributary, perhaps the most important tributary to the Klamath River. The Scott River, when healthy, has numerous attributes. It is an important recreational resource for rafting, canoeing, and the like. It is also, when healthy, an important source of salmon habitat. Migrating salmon move up the Klamath and up the Scott to propagate, then migrate back downstream into the ocean.

The problem is that as a result of increased groundwater pumping in the Scott River Valley adjacent to the river — groundwater pumping has increased considerably in the last 10 to 20 years — the Scott River and interconnected streams adjoining groundwater resources have been dewatered substantially with the predictably deleterious impacts on public recreational opportunities and devastating the salmon population of the Scott River. Exacerbating the problem, or some would say causing the problem, Siskiyou County took the position that issuing groundwater wells to any farmer or rancher that wanted one was a ministerial act of the County that required no discretion and no judgment on the part of Siskiyou County.

²⁹ *National Audubon Society v. Superior Court*, 33 Cal.3d 419 (1983).

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My clients, the Environmental Law Foundation and the [Pacific Coast] Federation of Fishermen Association, which is a fisheries organization and the fisheries thinktank, joined together to file suit in the Sacramento County Superior Court back in 2010. At the time, the respondents on the other side of the lawsuit were Siskiyou County and the State Water Resources Control Board.

The key factual claims made in the complaint were undisputed by the time the case got a judgment in the trial court and went up on appeal: (1) the Scott River is a navigable river in California; (2) there is an established hydrologic connection between the surface level of the Scott River and the groundwater resources of the Scott River Valley; and (3) the Scott River has experienced dramatically reduced flows as a result of expanded and unregulated groundwater pumping through the Scott Valley, resulting in the deleterious impacts that I've already summarized.

The key legal claims made by petitioners were: (a) that the State Water Board and the County both have the authority under the public trust doctrine to protect the trust resources of the Scott River region; (b) that both agencies had previously fought lawsuits filed administratively where they disclaimed the authority or obligation to do so regarding the groundwater resources; and (c) that the court should issue an order requiring that Scott River Valley groundwater be managed consistently with the public trust doctrine. And I should say that, very importantly, over the course of the litigation at the trial court the State Water Board realigned itself, and — from the standpoint of the fisheries — happily, we were all able to unite in one position, and only Siskiyou County was on the other side of the lawsuit.

Cutting to the proverbial chase, last August the California Court of Appeals in Sacramento issued its decision in this case after 10 years of litigation. It first dispensed with a threshold issue of justiciability that is only of interest to some of the academics and law students, I imagine. Getting to the merits of the matter, the court held that the public trust doctrine is in fact applicable to extraction of California groundwater that adversely affects the navigable waterways, such as the Scott River.

It then dealt with a defense that Siskiyou County had raised relatively late in the litigation: that with the legislature's passage of SGMA in 2014, that statute had effectively displaced and subsumed the public trust doctrine as it might arguably otherwise relate to groundwater — that SGMA had occupied the field and there was no place in California water law remaining for the public trust doctrine with respect to the state groundwater resources. The Court of Appeal had little trouble rejecting that claim in direct reliance on *National Audubon Society* from a quarter century earlier.

Last but certainly not least, the court said that both the Water Board and local governments, including Siskiyou County, have an affirmative duty and obligation to protect the public trust values in groundwaters, at least as they affect interrelated surface water flows. The County's petition for review at the California Supreme Court was denied in late November of last year, and their decision is final. So, that's the decision.

The question I would then pose to my fellow panelists is: now that we're in the post-*Scott River* litigation era, exactly how does the public trust doctrine interrelate with the requirements of SGMA as it relates to interconnected groundwater?

Andy Sawyer: I'll start with a slight disagreement. I don't think there was a realignment, I think there was a misunderstanding. Our position [at the State Water Board] was always that we had the authority, but we felt we didn't have to do anything because we had prosecutorial discretion.

In response to the questions, I think they interrelate in two ways, which I alluded to in my presentation. One is the baseline. SGMA says a groundwater sustainability plan *may but is not required* to deal with pre-2015 impacts. These of course are all pre-2015 impacts; the lawsuit was filed well before then. So, SGMA doesn't require the groundwater sustainability agency to deal with them. But if they have an independent obligation to deal with the impairment of interconnected surface waters, that language "may" allows them to use the SGMA plan to deal with the issue.

And that was the Water Board's primary claim all along. There was no doubt public trust uses were impaired; there was no doubt we had authority. The mechanics of how you apply it to these very large number of groundwater pumpers — some of whom are in an adjudicated basin and some not — are extraordinarily complicated.

If a local agency wants to solve a public trust doctrine problem or is under order to do so, they can use SGMA to do it. Also, their independent authority is not impaired. So, the Water Board's public trust authority — and I think this also relates to waste and unreasonable use; to pump groundwater so much that it's having these kind of impairments is waste or unreasonable use — the Water Board's independent authority applies.

I think largely these problems are going to be addressed independent of SGMA, in part because of that 2015 baseline.

Paul Kibel: I'll offer two thoughts related to Rick's question, which I think is a great question. The first is that I actually think the tale of what happened in the *National Audubon* case is a roadmap for how to integrate the public trust doctrine with SGMA. If you recall, in *National*

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Audubon, the California Supreme Court said yes, the State Water Board administers an appropriate water rights permit system. But in undertaking its permitting activities, the Court clarified that the public trust overlays the State Water Board administrative permitting activities, and that is what Court sent the Water Board back to do.

I think similarly you could read the Court of Appeal's decision in the *Scott River* case to say, under SGMA, we're going to be developing groundwater sustainability plans. But in developing and implementing those SGMA plans, what GSAs do under SGMA is overlaid by the public trust. We can argue about what that overlay means, but I think that is a coherent reading.

In terms of what that overlay means, I would look to that language in *National Audubon* about fully protecting public trust resources and uses *whenever feasible*. So, if it is feasible to do a water budget and a hydrologic model in a GSP that captures the impacts of groundwater pumping on surface water flows and fisheries, the public trust requires GSAs to do it. And if it is feasible for GSPs to develop new threshold standards under SGMA that address those impacts of groundwater pumping on fisheries and put restrictions in place to avoid those impacts, I would argue that the public trust requires GSAs to do it. There certainly will be some discretion afforded GSAs as to the substance of such water budgets, hydrologic models and thresholds, but the public trust would prohibit GSAs and GSPs from simply disregarding these matters.

The second comment I have is that when you look at the language in SGMA that talks about not requiring analysis of the impacts created by pumping, I would really focus on the word "impact." SGMA doesn't exclude impacts from pumping practices that may have begun before pre-2015 pumping, and SGMA doesn't say pumping practices that began before 2015 can continue. I think a more coherent way to read that language is that SGMA does not require agencies to address impacts that are *wholly* in the past.

So, if all of the impacts occurred before 2015 and are no longer occurring, then yes, SGMA is not a statute that requires analysis of how to remedy these wholly past impacts. But if there are impacts that began before 2015 but are *ongoing* and are *continuing*, you can interpret that language to say there is nothing in SGMA that could somehow take away the obligation that's inherent in all the other SGMA provisions for water budgets, hydrologic models to address those ongoing and continuing impacts.

So, focusing on *past* versus *ongoing* impacts is a way to interpret that language in a way that is consistent with the underlying purposes and other provisions in SGMA.

III. QUESTIONS FROM THE AUDIENCE

Kevin O'Brien: We're bumping up against our lunch break, but I've been told we have time for a couple questions. So, does anyone have any questions? Yes, sir?

Audience Member: I wanted to know to what degree, given what has been said, the public trust doctrine could apply and should be thought about by southern California water managers in areas of the state that long ago were depleted because of groundwater pumping — is there any power in the public trust doctrine to go back to those places and say, “we used to have fish habitat and that habitat needs to be restored?”

Andy Sawyer: I think that is why there is the 2015 baseline, but I may be too close to this because I actually drafted that language. Believe me, the alternative was much worse. The previous draft defined undesirable effects to exclude prior impacts, which means SGMA couldn't even be used even if we wanted to go for pre-2015 impacts.

But some impacts simply cannot be reversed. For example, with subsidence it is physically impossible. Reversal is physically possible, but it is not going to happen to have these basins that were disconnected 70 years ago stop pumping so the groundwater levels come up hundreds of feet to reestablish the connection. You can argue about whether or not that is feasible, but it is certain the economic impacts would be enormous, and there would be zero chance SGMA would have been enacted if there was a requirement to restore those conditions.

But, if you have an agency that wants to deal with pre-2014 conditions — for example, in Siskiyou County, you have a lawsuit that says you have to, so why not use SGMA to do it, instead of other much more cumbersome and less-effective ways of implementing public trust.

Audience Member: But the question I have is whether Rick outfoxed you by having the Scott River case succeed in court? And the public trust doctrine doesn't have a baseline, as was mentioned earlier.

Richard Frank: Public trust doctrine does not have a baseline, I agree with that.

Andy Sawyer: First of all, I put in the 2015 baseline because that is the best I could get. Outfoxed? As for the question of whether SGMA preempts: who do you think drafted that statute? No, there is specific language in there saying independent authority is reserved.

So no, the way I read the case, if the public trust applies, then we have the authority to deal with these impacts. What the Water Board was really nervous about was a mandatory duty where anybody could sue us anytime saying you haven't solved this problem yet, so I'm going to get

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a court order for you to expend resources that you don't have to solve the problem I have. So, we were certainly not outfoxed. No. We're very happy with the result; it comes out to be very consistent with our beliefs.

Kevin O'Brien: I'm going to take a slightly contrary position on this, because I'm the only one up here that represents water users. In my opinion, the public trust doctrine has been one of the most toothless tigers of the last 25 years. And it will continue to be, because what the public trust doctrine requires in this context is balancing. If I'm representing a county or GSA or some other entity that has responsibility over these resources and is making very difficult decisions balancing consumptive uses versus public trust uses, I don't think it is that hard in most factual contexts — not all, but in most — to build an administrative record and make a determination that it is not feasible under this set of facts to protect public trust uses as *Audubon* requires because of the impacts on other uses.

That is essentially a policy call. If you make the right administrative record, you're going to be — you should be — sustained by the courts. Now, I will admit there are some types of contexts where that is not possible, but in a lot of the contexts we deal with, it's not a clear-cut situation. Ever since *Audubon* came out, I've been hearing about how important the public trust is in terms of actual changes on the ground, and I haven't seen it, and I don't think we're going to see it as a result of the *Scott River* case.

Richard Frank: Let me just offer a couple provocative thoughts: The *Scott River* case is by my own admission an incremental step. The next big question I think that the courts will have to face is: whether the public trust doctrine applies to groundwater in general, even where it is not interconnected. In the meantime, the non-provocative thought I offer: it is my opinion that in the wake of the *Scott River* case, groundwater sustainability agencies are trustee agencies as they go forward.

Kevin O'Brien: Unfortunately, now we're out of time. Please join me in thanking the panel.