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SUPERIOR COURT FOR THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF HUMBOLDT

FRIENDS OF THE EEL RIVER, a public benefit corporation,

Petitioner,

vs.

COUNTY OF HUMBOLDT, a state entity; BOARD OF SUPERVISORS OF THE COUNTY OF HUMBOLDT, a public entity,

Respondents.

Case No. CV2201593

PETITIONER'S OPENING BRIEF

Date: August 1, 2025
Time: 10:30 am
Dept.: Dept. 4
Judge: Hon. Timothy Canning

Action Filed: October 27, 2022

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I. INTRODUCTION.

Under the Public Trust Doctrine, Respondents County of Humboldt and its Board of Supervisors have a ***continuous*** duty to consider any adverse effects to the Eel River's public trust resources and, wherever feasible, to protect those resources. Despite this duty, the County has never considered the effects of groundwater pumping from the aquifer that interconnects with the Lower Eel River during the irrigation season prior to the beginning of the rainy season. From mid-August to the start of the rainy season in October or November, the Lower Eel River between Fortuna and Fernbridge includes an important stretch of habitat where Chinook salmon gather in pools associated with a series of shallow riffle areas in the river and wait to begin their migration to the upper watershed to spawn. During this time, groundwater wells deplete flows in the Lower Eel River in this critical stretch. The reduction in surface flows have contributed to obvious deleterious effects, including the complete absence of water in the Lower Eel River channel for a quarter mile or more in 2014 and severely depleted flows in both 2015 and 2021. This adverse effect on flows has an adverse effect on fish by further reducing flows over shallow riffle areas, degrading conditions in the river pools where Chinook salmon are congregating. In 2015, fish with impaired eyesight and brain hemorrhages were collected from degraded pools in this stretch of the river.

These adverse effects on flows and fish trigger the County's common law duty to address these impacts to the public trust and to apply its discretion to protect trust uses wherever feasible. The County has never considered the adverse effects to the public trust of existing wells pumping groundwater from the Lower Eel River aquifer during the irrigation season prior to the start of the rainy season. The Groundwater Sustainability Plan ("GSP") prepared by the County in 2022 pursuant to the Sustainable Groundwater Management Act ("SGMA"), Water Code § 10720 *et seq*. did not address adverse effects to the Lower Eel River's public trust resources during the dry season. Instead, the GSP focused only on effects during the rainy season after fish have begun to migrate into the upper Eel River watershed. Nor has the County addressed dry season groundwater pumping in the Lower Eel River at the critical riffle areas in any of the public trust analyses it began preparing for new well permits in May 2023, subsequent to the filing of this lawsuit.

The Public Trust Doctrine is not seasonal. It applies as much or more to the dry season as the wet season. The County's public trust duty does not apply only when the Eel River is flush with water after the start of the rainy season or only during normal or wet rain years. Trustee agencies' duties are year-round. Accordingly, Petitioner FOER brings this writ action to secure an order from this Court mandating that the County carry out its duty to consider adverse effects to the Lower Eel River's public trust resources during the dry season resulting from existing groundwater pumping and, as

feasible, to protect those trust resources.

II. FACTUAL BACKGROUND.

A. The Lower Eel River.

The Eel River is the third largest watershed entirely in California, draining approximately 3,684 square miles. The Eel's five forks flow from headwaters high in the Coast Range mountains of Lake, Mendocino, Trinity, and Humboldt Counties. The Middle Fork, North Fork, and South Fork join the mainstem as it runs northwesterly to the Pacific through steep, forested valleys.

It is only in the river's final miles that it reaches the broad valley between the Wildcat Hills on the south and Table Bluff on the north. There, the mainstem Eel is joined by its final tributary, the Van Duzen River, at the top of the Lower Eel River Valley. From the confluence with the Van Duzen River, the Eel River flows for about seven miles past the City of Fortuna to Fernbridge. From Fernbridge, the river flows west in the Eel River Estuary and to the Pacific Ocean.

The Lower Eel River Groundwater Basin extends from Scotia on the mainstem Eel River and Carlotta on the Van Duzen River to the Pacific Ocean. (AR1100.) The groundwater basin consists of two layers – an upper alluvial aquifer and the deeper Carlotta Aquifer. (AR122-123.) Generally the two aquifer layers are separated by a relatively thick and continuous layer of less permeable silt and clay known as an "aquitard." (AR123.)

The alluvial aquifer is a water bearing zone consisting of loose sand, gravels and soils that were deposited over time by river flows. (*See* AR122.) The alluvial aquifer is in direct contact and interconnected with the Lower Eel River. (AR122; AR132 ["The Eel River is in close hydraulic connection with the alluvial aquifer"]; AR143.) "Initial comparisons of surface water to groundwater levels in adjacent wells indicate a relatively rapid aquifer response to increased river stage heights." (AR122; *See also* AR-EXP005128.) "High hydraulic conductivity means that groundwater in the alluvial aquifer can flow easily both to and from the river…." (AR-EXP005133.)

The alluvial aquifer is the most productive and hence most utilized of the two aquifers. (AR122; AR-EXP005127.) Approximately 13,430 acres of irrigated lands draw water from the alluvial aquifer. (AR1085. *See* AR1099.) Each year, about 14,800 acre-feet of groundwater are pumped on average from the alluvial aquifer. (AR125.) The vast majority of groundwater pumping – approximately 12,600 acre-feet – from the alluvial aquifer is for irrigating agricultural lands. (AR124-125.) This irrigation pumping is concentrated during the approximately six months or less irrigation season, beginning in May and continuing until harvests occur or the first substantial rains of the

season, usually in October or November. (AR125; AR-EXP015114:10-23.)[1] The rate of groundwater pumping from the lower Eel River Basin from August through November does not vary from day to day. (AR-EXP015112:4-7.) "[T]he pumping rate on a daily basis is the same irrespective of the climatic issues other than if in September you start to get early rains." (AR-EXP015115:15-20.) Groundwater pumping from the lower Eel River Basin from August through November has not changed significantly from 2000 through the present. (*See* AR-EXP015113:3-10.) During dry years, however, the irrigation season will extend further into late September. (AR-EXP000013 [Tables 4 and 5]; AR-EXP015113:21-23; AR-EXP015115:1-8.)

Although annual average rainfall within the Eel River watershed is about 55 inches, 90 percent of the rain falls between October and April. Flows in the river reflect this precipitation pattern. "Mean monthly flows recorded at the USGS gauging station in Scotia range from a high discharge in February of nearly 20,000 cubic feet per second (cfs) to a mean low flow in September of 140 cfs." (AR143.) However, not every year sees normal precipitation.

The County has identified water year classifications for the Lower Eel River. (AR000158.) A water year is the 12-month period from October 1 through September 30. (AR157.) Using rain data collected within the watershed and applying an equation that also factors in the precipitation from the previous water year, the water year type calculation generates an Index Rank of from 1 to 30. (AR158-159.) An Index Rank of 22 to 30 is categorized as a "wet" water year. (AR159.) An Index Rank of 16 to 21 is categorized as an "above normal" water year. (*Id*.) An Index Rank of 10 to 15 is categorized as a "below normal" water year. (*Id*.) An Index Rank of 5 to 9 is categorized as a "dry" water year. (*Id*.) And an Index Rank of 1 to 4 is categorized as a "critical water year." (*Id*.)

Since 1992, the Lower Eel River has endured five dry water years (in 1994, 2001, 2008, 2015 and 2020) and four critical water years (in 1992, 2009, 2014, and in 2021). (AR159-160.) Over the last three decades, the first 15 years (from 1992 to 2007) saw only three dry or critical years, while the second half of the period saw six. (AR158; AR160.) Drier climatic conditions and more frequent droughts are the expected trends for the Eel River watershed in the coming years and decades. (AR-EXP002012-2013.)

Median flows on the Eel River at the USGS Scotia gage are below 130 cfs in August through October. (AR-EXP000010.) During critical dry and dry water years, however, surface flows measured at Scotia are much lower. In August 2014, a critical water year, the maximum mean daily surface flow at Scotia was 44.7 cfs, while the minimum was only 26.4 cfs. (AR-EXP011884. *See* AR-EXP012753

[1] Citations to the deposition transcripts shall use the format "Bates page #:line(s)."

["In Water Year 2014, streamflow was below 41.5 cfs for 46 days, and below 68 cfs for 67 days"].) For the first part of September, 2014, mean daily flows at Scotia were as low as 33.7 cfs. (AR-EXP011884.) Likewise, in 2015, a dry water year, August flows ranged from as low as 32 cfs to no more than 62.5 cfs, while September flows ranged from 29.3 to no higher than 89.5 cfs. (*Id.*) The same pattern repeats in 2021, a dry water year, with minimum mean daily flows at 26 to 28 cfs and never exceeding a maximum rate of 50 cfs (August) and 72.6 cfs (September). Since 2000, there have been 10 summers when streamflow at the Scotia gage dropped below 68 cfs for over 30 days. (AR-EXP002012.) Five of those summers occurred since 2014. (AR-EXP002013.) In 2014, 2015 and 2021, streamflow at the Scotia gage dropped below 41.5 cfs for over 30 days. (*Id.*) These low-flow conditions have been exacerbated by human impacts to the watershed, including sedimentation, streamflow diversions, and climate change. (*See* AR101; AR154.) "Analysis of precipitation and streamflow data for the North Coast and in the Eel basin particularly suggests that the length and severity of low flow periods in the Eel River have increased more than can be explained by variations in rainfall." (AR101.)

B. Salmon Depend Upon Late Summer and Early Fall Flows in the Lower Eel River.

The public trust resource at the center of this action is that portion of the Lower Eel River between the Eel River's confluence with the Van Duzen River and Fernbridge. (Answer, ¶ 29.) Beneficial uses of this stretch of the Lower Eel River include boating, rafting, contact and non-contact water recreation, fishing, cold freshwater habitat, wildlife habitat, habitat for rare, threatened and endangered species, migration of aquatic organisms, spawning, reproduction and early development habitat of fish, Native American culture, municipal water supply, and agricultural water supply. (*Id.*; AR12-13.) The lower reaches of the Eel River are habitat for threatened species of salmonids (including Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), and steelhead (*Oncorhynchus mykiss*). (AR-EXP002013.) The lower Eel River is designated by the National Marine Fisheries Service as critical habitat for Chinook salmon, coho salmon, and steelhead. (AR153.) Eel River salmon populations are at approximately 5% or less of their historic abundances. (AR-EXP012757.) "For example, Chinook salmon populations are estimated to have ranged from 100,000 to 800,000 in the Eel River. Recent counts from the mainstem SONAR [of] 3,844 to 8,199 (Kajtaniak, Nordstrom, and Davis 2025) are a tiny fraction of these historic abundances." (*Id.*)

Between the Van Duzen and Fernbridge, there are about a dozen shallow "riffles" in the Eel River. (AR-EXP003491-001-024.) Seven of these riffle locations have been identified by the County as "critical riffles." (AR-EXP000275; AR148; AR208.) At these riffle locations, the river level becomes shallower and water flows increase in speed. The County labeled the seven "critical riffles"

as ME-1 through ME-7. (AR-EXP000275) ME-1 is located near the confluence of the Eel and Van Duzen Rivers. (AR208.) ME-3 is upstream and ME-4 is downstream of the "12th Street Pool," a large pool, and the furthest upstream pool, where Chinook salmon hold awaiting the start of the rains and their migration to the upper watershed. (AR-EXP000275; AR-EXP003491-001-005.) ME-7 is located near Fernbridge. (AR-EXP000275.) When flows in the river drop, these riffle sections are where surface flows become shallower, diminish, and, especially over the last decade, risk disconnecting the river. Pools generally are found on the downstream end of a riffle. (*See* AR-EXP003491-001-005.)

These riffle areas and the associated pools are critical features to the life history and health of Chinook salmon, as well as juvenile salmonids. Chinook salmon begin moving into the Eel River Estuary in mid-August. (AR82; AR-EXP01536:7-13; AR-EXP015442:1-8.) A portion of each year's migrating population, or cohort, will continue moving upstream of Fernbridge in August, September, and October into the area of critical riffles and hold in the associated pools. (AR-EXP002018; AR-EXP012747; AR-EXP003491-001-020 [Salmon begin entering the Lower Eel River between Fernbridge and Fortuna in mid-August]; AR-EXP003491-001-014 [observing an estimated 1,800 Chinook in staging pools as of October 13 in 2012 despite low flows preventing further migration beyond the 12th Street Pool]; AR-EXP015371 :7-16 [estimating significant portion of migrating Chinook population in any given year holds in Lower Eel River between Fernbridge and Fortuna]; AR-EXP015435:2-7 [estimating at least 100 to 200 Chinook staging between Fernbridge and Fortuna beginning in August].)[2] Chinook salmon wait in these pools for the first rains and the resulting increase in flows and lower water temperatures in the river. (AR-EXP002018.) "Fish are known to migrate up to, and stage in, these reaches during low flow conditions prior to any significant fall or winter rain and hold." (AR-EXP012751; AR-EXP012750 ["[M]id-September *is* a time when adult Chinook salmon are known to ascend to hold in the lower Eel River upstream of Fernbridge, and is also when juvenile salmonids use this reach of the river"] [emphasis in original].)

Chinook salmon generally move upstream from the staging area to the upper watershed in October and November, but in no case before the onset of fall rains. (AR-EXP012747.) "Adult Chinook salmon begin entering the Eel River estuary in August or early September and wait, often gathering in pools, until conditions are suitable for migrating upstream to spawning areas." (AR82; AR207; AR-EXP015364:8-21, AR-EXP015365:1-19, AR-EXP015366:9-18. *See, e.g.* AR-EXP003491-001-019 ["Distribution of Chinook salmon was limited to the 12th Street Pool and below

[2] Respondents' expert Dr. Hanson's opinions were based entirely on a desktop review of documents, not having visited the Lower Eel River since the 1980s and then only as brief views from the roadside during a recreational trip. (AR-EXP015430:21 – AR-EXP015433:5.)

during early dive counts because flows were insufficient for movement over shallow riffles" in September and first half of October 2013].) "[T]he disbursal [sic] of Chinook salmon in the holding area above Fernbridge is not a rain dependent behavior" (AR-EXP015366:3-4.)

Chinook salmon do not generally swim upstream past a riffle when its surface water depth is less than 0.4 feet. (AR207.) They will be inhibited from swimming through a riffle with a surface water depth of 0.5 to 0.6 feet. (*Id.*) Only once a riffle's water depth is at 0.7 feet are Chinook salmon able to continue their journey upstream beyond the Lower Eel River. (*Id.*) Only when the first rains begin in the watershed and surface flows at Scotia reach 130 cfs will Chinook salmon begin to swim past the critical riffle areas and move into the upper watershed above the confluence with the Van Duzen River. (AR207; AR-EXP002016 ["Adult Chinook *only* begin their upstream migration after rain events raise the level of the river"]; AR-EXP012751.)

The pools associated with the critical riffle areas also play an important role as refugia for juvenile Chinook, Coho and steelhead salmon attempting to avoid the higher water temperatures that occur upstream during the heat of the summer. (AR-EXP002016; AR-EXP002018; AR-EXP012750; AR-EXP015347:13-19; AR7835 ["Protection of spawning migration during low flow conditions through the lower river is a critical component to summer steelhead survival"].)

Other native species also depend on these pools in the critical riffle areas. (AR7833-7834 [California Department of Fish and Wildlife ("CDFW")] ["In the depleted reach CESA listed Steelhead, Chinook Salmon, and green sturgeon … commonly hold in the remaining suitable portions of the lower Eel River"].) "Green sturgeon are known to inhabit the lower Eel River and have been frequently observed upstream of Fernbridge in the 12th Street pool adjacent to Riverwalk during fall salmon surveys." (AR152; *See also* AR-EXP012747 [documenting sturgeon in pools during September and October of 2015].) Pacific lamprey also have been observed using this stretch of the Eel River in the early fall months. (AR-EXP003491-001-018-19; AR-EXP012756.)

During August through October, or until fall rains begin, "salmon and steelhead depend on critical thermal refugia and often survive on a 'metabolic knifes edge' - e.g. a condition under which very small changes in metabolic stressors (such as water temperature and dissolved oxygen) can make the difference between survival and mortality or increased prevalence of disease." (AR-EXP002013.) Pools associated with the seven critical riffle areas are important thermal refugia. (*Id.*)

Habitat conditions for Chinook salmon and juvenile salmonids in the staging pools are contingent on adequate flows in the Lower Eel River. "[E]arly fall fish passage can be affected by seasonal low flows, which inhibit migration and result in fish concentrating in relatively few pools upstream of the intertidal area." (AR152.) "Adult Chinook that are holding prior to migration depend

on adequate flows to prevent water quality from deteriorating and to reduce disease prevalence and concentration." (AR-EXP002016.) "Three critical measurable metrics of water quality and habitat during this time of year are water temperature, dissolved oxygen and hydraulic connectivity of habitats." (AR-EXP002016-17.) Direct groundwater flows into holding pools during the late summer are a key cooling mechanism that, if reduced, can exacerbate temperature conditions in pools where Chinook and other salmonids are sheltering. (AR-EXP002023.) Decreased flows in the riffle areas and associated pools lowers water velocity, increasing residence time and transit times of water. This increases biological interaction by bacteria and microbes, reducing dissolved oxygen available for fish in the pools. (AR-EXP002024.) As a river goes subsurface, the greater percentage of flows occurring in the river's gravel bed will lower oxygen levels. (*Id*.) Shallower pools with more crowded fish populations also deplete oxygen levels and lead to disease outbreaks in holding fish. (AR-EXP002025; AR-EXP015361:11-24 ["You see lower dissolved oxygen as flow declines"]; AR-EXP015369:3-15.) When surface flow approaches disconnectivity or becomes disconnected, "the risk of impacts to salmonid habitat and water quality are typically highest." (AR-EXP002025.) "Often the low flow period just above disconnectivity is where rapid deterioration of ecological condition occurs." (*Id*.)

C. The Lower Eel River is Interconnected With the Alluvial Groundwater Basin.

In preparing the County's Groundwater Sustainability Plan ("GSP") pursuant to the SGMA, the County's consultants used an integrated groundwater-surface water model to estimate the volume of surface water depletion in the Eel River caused solely by groundwater extraction from the alluvial aquifer. (*See* AR-EXP015106:8-13; AR-EXP015108:5-9.) A model was used because depletion of surface waters caused by groundwater use cannot be measured directly. (AR206; AR-EXP000200.) "[T]he integrated groundwater-surface water model that was developed for the Basin … can be used to estimate the volume of surface water depletion caused by groundwater extraction in the Basin…." (AR206.)

Estimated annual groundwater pumping in the lower Eel River Basin was an input into the integrated groundwater-surface water model. (AR-EXP000178.) The model simulated monthly average changes in Eel River flow rates due solely to groundwater pumping at the critical riffle areas. (AR207 ["The model is robust for estimating monthly average river flows and changes in flows caused by pumping"]; AR208.) For each critical riffle area, the model first calculated the average flows at that location under existing groundwater pumping conditions. (AR208; AR-EXP000201-202.) The model then calculated the monthly average flows at each location for a no pumping scenario – where all of the groundwater pumps were turned off. (AR208.) The difference in those two outputs indicated the expected change in monthly average flow in the river at those locations due to

groundwater pumping. (*Id*.)

The modelling results show that "[t]he greatest changes in flow rates due to groundwater pumping occur in the summer irrigation season when the river flows are decreasing." (AR-EXP000202.) The change in flow rates due to groundwater extraction varies for each critical riffle area, with the lowest changes in flow rate at the top of the Van Duzen-Fernbridge reach (ME-1) and generally increasing at each location moving down the river (ME-2 through ME-7). (*Id*. *See* AR-EXP015119:9-16.) "Under current groundwater extraction conditions, the value of the maximum September through November flow change ranged from 6.6 cfs at the upper reach near the confluence of the Van Duzen River to 14.6 cfs just below Fernbridge." (AR-EXP000202; AR-EXP000203-206.)

For the period of 2000 through 2020, the model estimated that under current groundwater pumping conditions, a maximum monthly average of 15 cfs of flow was depleted at riffle ME-7 from September through November. (AR-EXP000206; AR-EXP015122:13-23.) At ME-6, the maximum monthly average depletion from groundwater pumping for those months was 16 cfs. (AR-EXP000206.) Upstream, the maximum monthly average depletions for those months at both ME-5 and ME-4 was 13 cfs. (AR-EXP000205.) Working up to the top of the reach, the maximum monthly average depletions for those months at ME-3, ME-2, and ME-1 were, respectively, 11 cfs, 9 cfs, and 7 cfs. (AR-EXP000203-204. *See* AR-EXP015142:21-25; AR-EXP015122:13-23.)

In preparing the GSP, the County did not use the model to estimate depletions from groundwater pumping at the seven critical riffle areas during August for the period 2000 through 2020. (AR-EXP015123:10-13.) Subsequent to the GSP, the County's consultant applied the model to estimate the monthly average flow depletion of monthly average flows in August 2014 and August 2015 at critical riffle ME-7 due to the existing groundwater pumping conditions. (AR-EXP005526-5527; AR-EXP015125:20 - 15126:7.) Applying the model, the consultant estimated a monthly average from 14.4 cfs to 14.8 cfs of flow was depleted at riffle ME-7 in August 2014. (AR-EXP005527; AR-EXP015126:14-18.) For the following August, 2015, the consultant estimated a similar monthly average from 14.4 cfs to 14.7 cfs of flow was depleted at ME-7. (*Id*.)

D. During Recent Drought Periods, Surface Flows in the Lower Eel River Have Been Dramatically Reduced or Eliminated.

Until the last eleven years, there have been few, if any, reports of the Lower Eel River between Fortuna and Fernbridge losing its surface flows and disconnecting. However, beginning in 2014, several troubling instances of low flows and discontinuity in this stretch of the river have occurred.

Beginning some time prior to August 29, 2014 and continuing through at least September 11, 2014, an approximately quarter mile stretch of the Eel River extending downstream from the 12th

Street Pool was disconnected from the upstream and downstream segments. (AR-EXP000010; AR7993-7997; AR-EXP002000-2001 [on or about September 11, 2014, witness "observed a roughly 1,000 feet stretch of the Eel River where there was no surface flow for the entire width of the river"]; AR-EXP002003-2006; AR-EXP000160 [article noting no surface flows on September 4, 2014].) Surface flows at the Scotia gage were also very low during this disconnection. For example, the mean daily flow rate at the USGS Scotia gage on September 4, 2014 was 35.9 cfs and on September 11, 2025 it was 34.9 cfs. (AR-EXP000010.)

In September, October and the first week of November 2015, very low flow of water in the Lower Eel River resulted in delayed migration of Chinook salmon from the estuary below Fernbridge to the lower river and then from the lower river further upstream. (AR-EXP000010.) During this three month period, mean daily surface flow rates at the USGS Scotia gage were significantly less than 100 cfs. (*Id.*) In September 2015, surface flows ranged from 29.3 to 89.5 cfs. (*Id.*) Flows at Scotia for October 2105 ranged from 43.2 to 60.5 cfs. (*Id*.) And mean daily flows for November 2015 at Scotia ranged from 72.3 to 84.7 cfs. (*Id*.)

From August 30, 2021 through September 15, 2021, the lack of surface flows at critical riffles blocked access by salmonids from Fernbridge to the 12th Street Hole. (AR-EXP000011.) During this period, Dr. Gabe Rossi observed insufficient riffle crest depths for the passage of Chinook and juvenile salmonids at several riffles near Fernbridge. (AR-EXP002029.) He also observed abundant algae, declining dissolved oxygen, warm water temperatures, and low water levels in the pools. (*Id*.) On August 30, 2021, CDFW performed a field evaluation to identify impediments to fish passage for early migrating adult salmonids and develop recommendations for improving passage conditions. (AR-EXP001949-1950; AR-EXP001953-1957; AR-EXP000011.) On that date, flows in this section of the river were being dispersed, resulting in "no feasible path for adult salmonids to ascend." (AR-EXP001950.] The mean daily flow rate at the USGS Scotia gage on August 30 was 28.6 cfs. (AR-EXP000011.) On August 26, 2021, flow measurements at critical riffle areas ME-4 and ME-6 completed on behalf of the GSP were 8.8 and 14.0 cfs, respectively. (*Id*.) On September 15, 2021, CDFW oversaw the alteration of two critical riffles at the Sandy Prairie Gravel Bar Extraction Project. (AR-EXP001946.) CDFW's objective was to create a feasible route for adult salmonids entering the critical riffles to ascend the river and reach preferred prespawning holding habitat in the "12th Street Hole." (*Id*.) On September 15, 2021, the mean daily flow rate at the USGS Scotia gage was 28.1 cfs. (AR-EXP000011.) Subsequently, CDFW tied the flow depletions from groundwater to the observed critically low flows at the 12th Street pool in 2021:

On September 15, 2021, Department staff conducted emergency work in the Eel River

> near Fortuna to allow adult Chinook Salmon to pass out of the estuary upstream to the 12th Street hole near the river lodge where water quality was suitable for staging prior to further migration (CDFW 2021a, 2021b). Streamflows through this reach were at near record lows similar to other recent drought years: 2013, 2014, 2015, and 2020. Streamflow monitoring to support the GSP documented nearly 18 cubic feet per second of water disappearing from the Eel River between the USGS Scotia gage and Fernbridge (Thomas Gast and Associates 2022). The GSP has not noted any geologic anomalies that could account for the loss of streamflow. The observed depletion of streamflow closely matches the loss of streamflow predicted by the Hydrologic model (GDH 2022).

(AR7829.)

E. Further Depletions of Flows by 9 to 15 cfs at Critical Riffle Areas in the Lower Eel River During Low Flow Months Has an Adverse Effect on Flows and Chinook Salmon, Especially During Dry and Critical Dry Water Years.

The GSP modeling is substantial evidence that groundwater pumping adversely affects flows in the Lower Eel River during the late summer and early fall low flow period. (AR-EXP000203-206.) These effects are most pronounced during dry and critical water years, when flows in the river already are reduced and little, if any surface flow is present at the critical riffles. When observed flows at the riffles are, for example, as low as 8.8 and 14.0 cfs, as measured at riffles ME-4 and ME-6 on August 26, 2021 (AR-EXP000011), removing 9 to 15 cfs of flow at those locations will further adversely reduce flows at those locations. (AR-EXP011884 ["streamflow depletions due to groundwater pumping are depleting a majority of river flow during the dry season of critical year-types, when river flows are 30 cfs or less"]; AR-EXP015099:11-16 ["Groundwater production has some effect on interconnected surface waters in the lower Eel River"]; AR7811 [National Marine Fisheries Service ("NMFS")] ["This modelled reduction in flow near ME-7 is attributed to groundwater use and may be removing a majority of the flow in the Eel River during the summer and early fall, leading to disconnected and dry reaches, like what occurred in September of 2014 when a large stretch of the Eel River went dry"].)

Groundwater pumping's direct adverse effects on flows in the Lower Eel River entail adverse effects on threatened Chinook salmon holding in the Lower Eel River during dry and critical water years. Fisheries biologist Dr. Rossi states that "groundwater pumping which had *any measurable effect on surface flow* during the periods of very low flow in summers of 2014, 2015, and 2021 would have likely led to adverse effects on adult or juvenile salmonids trapped in the lower Eel River (between the Van Duzen and Fernbridge)." (AR-EXP002030 [emphasis in original].)

Low flow conditions in the Lower Eel River already are stressful to adult salmon and rearing juvenile salmon holding in the critical riffles area. Such conditions "make the system even more sensitive to smaller increments of flow alteration than a stream ecosystem under normative

conditions." (AR-EXP002031. *See also* AR7811 [NMFS].[3]) As Dr. Rossi explains:

> so we have a condition where flows are critically low, habitat is limiting, water quality conditions are exceeding thresholds that cause stress to animals, …So if you put these three things together, you have animals present, you have critically low flows, you have already conditions that are exceeding stress from flow dependent parameters, if you then decrease flow beyond that point because you're already in a condition of stress and where you have the potential to cause harm, I think any incremental change after that would have some effect.

(AR-EXP015379:15 - 15380:9. *See also id*., AR-EXP015378:7 - 15379:4.) These incremental impacts from groundwater pumping occur during dry and critical water years when surface flows in the critical riffles area are reduced. Thus, in 2015, where flows were reduced but not reported to be disconnected, significant flow-related impacts to fish were observed, to which depletions from groundwater pumping contributed. (AR-EXP012748; AR-EXP015386:16-19.) Pre-spawning salmon with damage to their eyes, brain and spinal cord hemorrhages were collected from the low flowing Lower Eel River in early Fall that year. (*Id*.) Dr. Rossi's assessment of the 2015 events explains that:

> (1) the obvious inhospitable environmental conditions in 2015 (low flow, warm temperatures, algal accretion and low dissolved oxygen…); (2) the direct linkage between groundwater extraction and surface flow (Kamman testimony 2025); and (3) the linkage between surface flow and these environmental conditions…, it is reasonable to conclude that any reductions in surface flow from groundwater pumping during an extremely low flow event would have negatively affected holding Chinook salmon and rearing juvenile salmonids already under metabolic stress.

(AR-EXP012749. *See also* AR-EXP015356:6-13 [explaining the "chain of inference, which demonstrates that groundwater extraction affects surface flow, that animals are present and are under stress already, and so building on those observations, if those things are true, I conclude given that animals are already experiencing significant stress that then decreasing flow would lead to adverse effects"]; AR-EXP002031; AR-EXP015372:21 - 15372:1 ["the effect of drought and the seasonal variability and precipitation, sediment accretion in the lower river, evapotranspiration, and surface water diversions, those effects create a cumulative stress that would then make animals more at risk to small changes in flow from groundwater pumping"]. *See also* AR-EXP012743-44.)

When the river disconnects, as it did in 2014, the impacts of groundwater pumping increase:

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[3] As NMFS explains, "Ensuring that a proportion of the surface waters remain in all GSP waterways throughout the entire year is vital to support water quality, ameliorate disease, and ensure pool and riffle sequences remain wetted and connected to each other to accommodate passage of all life stages of listed species. The GSP fails to reconcile the historic impacts of groundwater use within the Van Duzen and Eel Rivers, which the GSP indicate are already experiencing unreasonable conditions and contributing to reductions in the viability of sensitive species listed under the ESA or managed under the MSA [the Magnuson Stevens Fishery Conservation and Management Act]." (AR7811-7812.)

> mid-September *is* a time when adult Chinook salmon are known to ascend to hold in the lower Eel River upstream of Fernbridge, and is also when juvenile salmonids use this reach of the river. Therefore, a dry reach would absolutely present an impairment to any fish that were occupying that habitat (or adjacent habitat) prior to the reach going dry, or to fish that are attempting to move between pools after this reach went dry.

(AR-EXP012750. *See also* AR-EXP012750 ["The loss of surface flow has been shown to negatively affect salmonids in adjacent pools"]; AR-EXP012751 ["the duration of intermittency in drying channels has the strongest effect on survival of fishes in adjacent pools" and "groundwater pumping that might extend or impact the duration of intermittency is likely to affect fish rearing in habitats adjacent to intermittent channels"].)

Climatic patterns in the last couple of decades have led to lower flow conditions in the summer months in the Eel River, particularly in the periods of extended drought. (AR-EXP015093:9-12.) Because dry and critically dry water years are expected to recur in the future, the incremental impacts from groundwater pumping on the Lower Eel River and salmon relying on its waters during low flow periods will continue into the future. (AR-EXP002012-2013.)

F. The GSP did not Evaluate Impacts of Groundwater Pumping Either to Dry Season Surface Flows in the Lower Eel River or to the Fish Present in Pools Prior to the Onset of the Rainy Season.

Although as part of the GSP, the County modeled the flow reductions in the Lower Eel River resulting from existing groundwater pumping, the GSP did not consider the impacts to the Lower Eel River's surface flows or fish during the dry months of the year. Instead, the GSP only considered potential impacts of groundwater pumping on the Lower Eel River's surface flows when the river was flowing at 130 cfs at the critical riffles or Scotia, a flow rate that occurs only during the rainy season.

Having calculated flow depletions in the Lower Eel River from groundwater pumping, the next step in the GSP process was to estimate the reduction in river stage at the critical riffle areas resulting from those flow depletions. (AR208.) Because "[t]he model is less robust for estimating river stage," the GSP prepared rating curves developed at stream monitoring locations associated with the critical riffle areas which were "used to estimate changes in river stage using the modeled changes in river flows." (AR207. *See also* AR-EXP005151.)

However, the GSP only calculated the change in river stages at each of the seven critical riffle areas when ***surface flows were at 130 cfs*** at each of those seven locations. [AR208. *See* AR-EXP015135:17-25; AR-EXP015136:1 - 15137:9 [130 cfs was applied at SW-7, adjacent to ME-1] [*see* AR-EXP015140:23-25]; AR-EXP015140:10 - 15141:11; AR-EXP005179-5180.] The GSP was "particularly focused on the flows that would be induced by precipitation events that would be above a certain flow rate …130 cubic feet per second." (AR-EXP015090:20-23; AR-EXP015091:14-18 ["The

GSP only evaluated impacts once precipitation was sufficient to generate 130 cfs of surface flows at the Scotia [g]age"].)[4] "GSP was not evaluating those lower summer flow periods [of less than 130 cfs at Scotia] … the focus of the GSP was on the higher flow periods for fish passage." (AR-EXP015091:23-25. *See also* AR-EXP015092:1 - AR-EXP015093:3.) The GSP did not address any impacts to salmonids where the Eel River had surface flows of less than 130 cfs at the Scotia gage. (AR154; AR208-209; AR-EXP015345:23-25 [salmon will not migrate upstream beyond the confluence with the Van Duzen if flows at Scotia are less than 130 cfs].) Monthly average surface flows of 130 cfs at the critical riffles do not occur until after the initial rains of the rainy season have begun in the Eel River watershed. (AR-EXP015184:13-18.) As a result, the GSP did not evaluate the impact of groundwater pumping on stream flows during periods when salmon are not migrating into the upper watershed, but are holding in the Lower Eel River from August until the start of the rainy season. (*See* AR-EXP015446:19-24. *See also* AR7811 [National Marine Fisheries Service] [GSP does "not address[] streamflow depletion impacts during summer"]; AR7830 [CDFW] ["[t]he GSPs consideration of 130 cubic feet per second as suitable for upstream migration does not adequately protect fisheries"].[5])

Thus, although it calculated flow depletions by groundwater pumping during the irrigation season, the GSP did not attempt to estimate or evaluate resulting reductions in surface flows when the river was flowing at less than 130 cfs at any of the critical riffle areas or the Scotia gage. Although surface flows at Scotia during August, September, and October are below 130 cfs during dry and critical water years, the GPS did not review or evaluate the effects of flow depletion from groundwater pumping during those low flow conditions. The GSP only evaluated impacts of groundwater pumping

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[4] *See also* AR-EXP015156:20-21 ["In the GSP the evaluation was solely looking at the higher flow rates"]; AR-EXP015184:13-18 ["you would not expect to see flows of that scale [130 cfs] during those summer months"]; AR-EXP015190:19-22 ["Within the GSP, they did not evaluate the lower flow conditions as the GSP identified fish passage as the critical issue when it came to surface water"]; AR-EXP015194:13-16 ["What the County did not do, as we've discussed many times now, is they did not evaluate the GSP, those lower flow scenarios where flow was not at 130 but might be at 50, 30 cfs"]; AR-EXP015261:15-18; AR-EXP015279:7-12; AR-EXP015446:19-24; AR-EXP011875.

[5] As CDFW explains further: "The GSP has selected impacts to the fall pulse flow as the threshold to determine whether groundwater extraction will cause undesirable results to interconnected surface flows. The fall pulse flow is not representative of when state Endangered Steelhead and Chinook Salmon spawning migrations begin nor are impacts to the fall pulse flow likely to limit their ability to migrate. Limitations on Steelhead and Chinook Salmon migration are caused by low flow conditions in the late summer/early fall prior to the onset of fall rains that appear to be exacerbated by groundwater pumping." (AR7830 [CDFW Comment #10].) The County responded by stating, "Response: The requested studies are outside the scope of the GSA's responsibilities under SGMA. The commenter did not present evidence that groundwater pumping is causing adverse impacts to fisheries." (AR449.)

depletions once the river was refreshed with flows from the initial rains of the wet season.

G. After FOER Files This Action, the County Begins Reviewing New Well Permits.

The County regulates the construction, reconstruction, repair, and destruction of water wells under the Humboldt County Code ("HCC"). (Humboldt County Code, Title VI, Div'n 3, Chapter 1, § 631.1 et seq. ["Well Ordinance"] [AR7100-7114]; FAP, at ¶ 24.) The Well Ordinance sets minimum standards for the construction and alteration of wells, and establishes a permitting process to protect the health, safety, and welfare of the people by ensuring that groundwater will not be polluted or contaminated. (HCC, § 631-1 [AR7101].) Any person who intends to dig, bore, drill, deepen, modify, repair, or destroy a well must submit a permit application with information regarding the design, location, and construction of the well. (HCC, § 631-4 [AR7103-7104].) The County, in turn, may deny a permit application if it is not in the "public interest." (HCC, § 631-7 [AR7105].)

The County acknowledges that its authority and responsibility to consider impacts to interconnected surface water exists independently of the Well Ordinance under the common law Public Trust Doctrine. (AR7884-7885 [citing *Environmental Law Foundation v. State Water Resources Control Ed* (2018) 26 Cal.App.5th 844 ("*ELF*")].)

Prior to May 30, 2023, the County had not considered potential impacts on the public trust and public trust uses when issuing any permit pursuant to the Well Ordinance, including any impacts to the public trust uses in the Lower Eel River. (AR7946-7947.)[6] Indeed, even after completion of the GSP, the County does not know the total number of wells for which it has issued permits pursuant to the Well Ordinance within the Lower Eel Groundwater Basin. (AR7927.)

Beginning on May 30, 2023 – seven months after FOER filed this lawsuit – the County for the first time began to consider the effects of new groundwater pumping permits on the public trust values of the Eel River. (AR7895; AR7947-7948; AR7898-7904.) In that first well permit application for which the County considered the public trust, the applicant proposed a new well that would pump about 450 gallons per day of groundwater to be located about 250 feet from Yager Creek, a tributary of the Van Duzen River, upstream of the confluence with the Eel River. (AR7898; *See* AR252.) The

[6] Prior to May 30, 2023, the County had considered the Public Trust for a number of proposed wells associated with proposed cannabis operations in the Eel River watershed pursuant to the County's cannabis ordinances. (AR7937; AR7947.) However, no wells associated with any proposed cannabis operations are present in the Lower Eel River valley. (AR7918.) As a result, even for cannabis operations, the County has not considered any impacts of groundwater pumping on public trust values in the Lower Eel River during the dry season. Moreover, the County's evaluation of those cannabis water diversions relied on the State Board's retention of the State Board's public trust authority in issuing a water diversion permit, rather than any evaluation by the County of the well impacts to any public trust resource. (*See* AR7305.)

County required the well either to be relocated to 750 feet from Yager Creek or draw water from below the alluvial aquifer as a condition of approval. (AR7899; AR7903.) The public trust analysis relied on the GSP for its cumulative impact analysis. Because the GSP does not evaluate impacts to the Lower Eel River where flows at the critical riffles are less than 130 cfs, the Public Trust analysis also did not consider impacts for those lower flows. (AR7911.)

From May 30, 2023 through July 8, 2024, the County reviewed about 53 new individual well permit applications. (AR7381-AR007787.) Few of the wells authorized by those permits were located in the Lower Eel River below the confluence with the Van Duzen River. Only twelve of the applications could plausibly be associated with the Lower Eel River Basin; however, five of those are projects on the Van Duzen well upstream of the Eel River.[7] Two of these approvals were subject to conditions unrelated to low river flows.[8] No other permits in the basin were subject to conditions.

Of the remaining seven applications, two are for properties located on upslope areas above Loleta, where diversions are unlikely to affect flows around the critical riffles area, and one for a similar property above Fortuna.[9] Two permits were granted for wells on the north side of the Eel downstream of Fernbridge, one a new domestic well and the other a replacement agricultural well.[10] The final two applications were for a property at Centerville (AR7448-7461 [EH-WWELLA-23-000028]), on the extreme southwest corner of the Lower Eel Groundwater Basin, and for a property on the southern margin of the basin west of Ferndale. (AR7758-7767 [EH-WWELLA-24-000025].) No applications appear to have been submitted for properties closer to the critical riffles area. In each of those instances reviewing a proposed well at disparate locations in the Lower Eel River Groundwater Basin, the County did not address effects to the public trust during dry or critical dry water years or when flows at Scotia or the critical riffle areas were less than 130 cfs.

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[7] The memorandum at AR7381-AR7387 and application EH-WWELLA-23-000045 (AR7405-AR7414) [EH-WWELLA-23-000045] are multiple permits for the Carlotta Mill project near Yager Creek. Applications EH-WWELLA-23-000066 (AR7530-7543), EH-WWELLA-23-000063 (AR7587-7601), EH-WWELLA-23-000021 (AR7425-7438), and EH-WWELLA-24-000036 (AR7743-7757) are located near Hydesville or Carlotta on the Van Duzen upstream of the Eel River.

[8] The Carlotta Mill project (AR7381-AR7387; AR7405-AR7414) and EH-WWELLA-23-000063 (AR007587-7601) are required to be set back from Yager Creek and Wilson Creek, respectively.

[9] *See* EH-WWELLA-22-000007 (AR7571-7574) and EH-WWELLA-24-000014 (AR7686-7695) (both on hillslopes above Loleta) and EH-WWELLA-23-000065 (AR007602-7615) (Fortuna).

[10] The memorandum at AR7388-7395 concerns a domestic well just west of Fernbridge, while EH-WWELLA-24-000007 (AR7618-7628) concerns a replacement agricultural well on the north side of the Eel River, west of Loleta.

H. The County Has Never Considered the Public Trust Impacts During the Dry Season of Existing Wells Operating in the Lower Eel River Basin Prior to May 30, 2023.

The County has not analyzed potential impacts to public trust resources for any specific existing well in the Lower Eel River Groundwater Basin permitted prior to May 30, 2023. (AR7946-7947.) Cumulatively, the only consideration of the public trust regarding wells pumping in the Lower Eel River alluvial aquifer prior to May 2023 would be the wet weather analysis conducted for the GSP. (*Supra*, pp. 13-19.) The County has never considered impacts of groundwater pumping by existing wells that were operating prior to May 30, 2023 to the public trust in the Lower Eel River during the annual low flow season, including dry and critical dry water years. (AR7946-7947; *Supra*, pp. 17-18.) The County has never required an existing Well Ordinance permit recipient with a well in the Lower Eel River to report pumping rates for the purpose of protecting "Public Trust values" in the Eel River. (AR7869.) The County does not currently and, in the past, has never required existing Well Ordinance permit recipients with wells in the Lower Eel River to reduce pumping based on potential impacts to the Lower Eel River, including prior to or during the low flow months of dry or critical dry water years. (AR7870.)

III. LEGAL BACKGROUND.

A. The Common Law Public Trust Doctrine.

"When California became a state in 1850 it succeeded to sovereign ownership of various tidelands and submerged lands under the terms of common law trust doctrine." (*San Francisco Baykeeper, Inc. v. State Lands Com.* (2015) 242 Cal.App.4th 202, 232 [citation omitted] [*Baykeeper I*"].) Traceable to Roman law, the Public Trust Doctrine rests on several related principles:

> First, that the public rights of commerce, navigation, fishery, and recreation are so intrinsically important and vital to free citizens that their unfettered availability to all is essential in a democratic society. 'An allied principle holds that certain interests are so particularly the gifts of nature's bounty that they ought to be reserved for the whole of the populace.... Finally, there is often a recognition, albeit one that has been irregularly perceived in legal doctrine, that certain uses have a peculiarly public nature that makes their adaptation to private use inappropriate.'

(*Baykeeper I,* 242 Cal.App.4th at 232–33 [citation omitted].) "The doctrine is expansive." (*ELF*, 26 Cal.App.5th at 857.) "The range of public trust uses is broad, encompassing not just navigation, commerce, and fishing, but also the public right to hunt, bathe or swim." (*Baykeeper I,* 242 Cal.App.4th at 233.) "Furthermore, the concept of a public use is flexible, accommodating changing public needs." (*Id.*, citing *Nat'l Audubon Soc'y v. Superior Ct.* (1983) 33 Cal.3d 419, 434.) For example, an increasingly important public use is the preservation of trust lands "in their natural state, so that they may serve as ecological units for scientific study, as open space, and as environments

which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area." (*Baykeeper I*, 242 Cal.App.4th at 233, citing *Nat'l Audubon*, 33 Cal.3d at 434–435; *ELF*, 26 Cal.App.5th at 857.) "The general right and ownership of wild animals, the most important constituent of which are fish, is in the people of the state." (*Golden Feather Cmty. Assn. v. Thermalito Irrigation Dist.* (1989) 209 Cal.App.3d 1276, 1282.)

B. Trustee Agencies, Like the County, Have a Continuous Duty to Consider the Public Trust and Protect Public Trust Uses Wherever Feasible.

"[The public trust doctrine is more than a state's raw power to act; it imposes an affirmative duty on the state to act on behalf of the people to protect their interest in navigable water." (*ELF*, 26 Cal.App.5th at 857.) "[T]he state or trustee has 'an affirmative duty to take the public trust into account in the planning and allocation of trust resources, and to protect public trust uses whenever feasible." (*Baykeeper I*, 242 Cal.App.4th at 233–34, citing *Nat'l Audubon*, 33 Cal.3d at 446.) "[T]he public trust doctrine … places a *duty* upon the government to protect those resources." (*Ctr. for Biological Diversity, Inc. v. FPL Grp., Inc.* (2008) 166 Cal.App.4th 1349, 1365 [emphasis in original] [*CBD v. FPL*"].) Particular to the County's authority over the construction and operation of water wells, counties have a duty to protect public trust uses from adverse effects resulting from groundwater pumping by wells permitted or otherwise governed by a county. (*ELF*, 26 Cal.App.5th at 867–68.) The courts have recognized their authority to determine "the existence, *vel non*, of the [agency]'s authority and duty under the public trust doctrine to take *some* action regarding groundwater extractions, where those extractions harm public trust uses in public trust waters." (*Id.* at 852 n. 2.) "Precisely *what* that action would be is an issue that is left for another day." (*Id*.)

The agency's duty is not seasonal or limited to considering effects during the rainy season. On the contrary, the duty is continuous: "the core of the public trust doctrine is the state's authority as sovereign to exercise a continuous supervision and control over the navigable waters of the state and the lands underlying those waters." (*Nat'l Audubon*, 33 Cal.3d at 425; *Id*. at 445 ("The state as sovereign retains continuing supervisory control over its navigable waters and the lands beneath those waters"].) And the dry season or drought conditions are the time periods where the trustee agencies' consideration of effects on the public trust are of the highest importance. (*See, e.g. Siskiyou Cnty. Farm Bureau v. Dep't of Fish & Wildlife* (2015) 237 Cal.App.4th 411, 447 ["Quite obviously, a severe drought, which has the effect of further damaging the habitat of an endangered fish species, must be part of the factual matrix considered in determining what is a reasonable use of the water…"].)

C. Evidence of Any Impact to the Trust, Without Regard to Significance, Triggers the County's Duty to Consider Addressing Any Such Impact to the Public Trust.

Any adverse impact to a public trust resource triggers the trustee agency's duty to consider the effect on the trust and, wherever feasible, preserve the public trust. The significance of an adverse impact is not relevant to triggering the agency's duty to consider the trust. The significance of the impact would, however, be part of the Agency's subsequent consideration and relevant to the agency's mandated determination of the extent of feasible actions, if any, necessary to protect the trust. As the Court of Appeal has instructed in regard to trust impacts associated with groundwater pumping:

> [T]he trial court found a duty to consider ***any adverse impacts*** groundwater extraction would have on a public trust resource, the Scott River. The duty, the court found, was not to regulate but ***to consider the impact*** on the public trust resource and, where feasible, to preserve the public interest in the Scott River, a navigable waterway. The trial court's narrow rulings are fully supported by *National Audubon*.

(*ELF*, 26 Cal.App.5th at 864 [emphasis added].) Other cases hold that the duty to consider the trust is triggered by threats to the trust. Thus, in *Baykeeper I*, a sand miner's application to remove materials from the trust, in that case sand from the bottom of San Francisco Bay, was sufficient to trigger the State Land Commission's ("SLC") duty to consider the trust. Even before any impacts had occurred, the "application for 10–year sand mining leases on sovereign lands did trigger the SLC's affirmative duty under *National Audubon,* 'to take the public trust into account ... and to protect public trust uses whenever feasible.'" (242 Cal.App.4th at 240 [citation omitted].)

D. Trustee Agencies' Duty to Consider the Public Trust Extends to Past Permitting Decisions Over Which They Have Continuing Authority.

A trustee agency's "legal authority under the public trust doctrine to exercise supervision" over water users in order to protect fish and wildlife is not conditioned on any legislative enactment or "a recital of authority" because its public trust authority "*exists* as a matter of law itself." (*United States v. State Water Res. Control Bd.* (1986) 182 Cal.App.3d 82, 150 [emphasis in original].) In exercising the sovereign power and duty to consider and protect wherever feasible the public trust, the state is not confined by past decisions "which may be incorrect in light of current knowledge or inconsistent with current needs." (*Nat'l Audubon*, 33 Cal.3d at 447. *See also Siskiyou Cnty. Farm Bureau*, 237 Cal.App.4th at 447 ["Past practices, no matter how long-standing, do not change current reality"]; *US v. SWRCB*, 182 Cal.App.3d at 150 [the State Water Resources Control Board "has continuing jurisdiction over appropriation permits and is free to reexamine a previous allocation decision"].) This is especially true where the trustee agency did not consider any public trust effects in its prior decisions. (33 Cal.3d at 447 ["The case for reconsidering a particular decision, however, is even stronger when that decision failed to weigh and consider public trust uses"].) Where an agency relies

on a related agency decision making process as the purported mechanism for considering impacts to the public trust, that proceeding must affirmatively address the agency's public trust obligation. (*Baykeeper I*, 242 Cal.App.4th at 242.)

IV. PROCEDURAL BACKGROUND.

On August 16, 2022, FOER sent notice of its intent to sue the County for its failure to comply with its public trust duties to consider and address the effects of groundwater pumping on the Lower Eel River and its threatened fish species. (AR7851-7856. *See* Answer, ¶ 8 (Feb. 28, 2024).) The County did not respond to FOER's notice. Petitioner filed this action on October 27, 2022. In response to the County's demurrer, on October 2, 2023, Petitioner filed its First Amended Petition for Writ of Mandate. The County subsequently filed a motion for judgment on the pleadings which the Court denied on January 30, 2024. On February 28, 2024, the County filed its answer to the FAP.

The Petition alleges two categories of Public Trust duties which the County was violating as of October 2022. First, the County is failing to comply with its continuous duty to consider the adverse effects on the public trust resources of the Lower Eel River of groundwater pumping from existing wells during low water periods, i.e. the dry season, and, wherever feasible, take steps to protect those trust resources. (FAP, ¶¶ 53; 54.) Second, the County is failing to comply with its continuous public trust duty to consider adverse effects on the public trust when issuing any new permits to construct wells which could affect the Lower Eel River during low flow periods. (*Id*. [alleging, *inter alia*, "a pattern and practice of issuing new well drilling permits, without any analysis of the impacts those potential groundwater extractions could have on the Lower Eel River during low flow periods"]. As of May 30, 2023, the County began, for the first time, conducting pro forma reviews of new well permit applications considering each proposed wells' effects, if any, on public trust resources in the Eel River watershed. (*See supra*, pp. 19-20.) However, the County persists in its refusal to consider the public trust effects of groundwater pumping from existing wells on the Lower Eel River during the dry season prior to the onset of the first rains in the watershed. This failure to comply with its public trust duties is especially consequential in dry and critical dry water years, where in recent years surface flows in the Lower Eel River at the critical riffles have been severely depleted or nonexistent.

V. STANDARD OF REVIEW FOR A TRADITIONAL MANDAMUS CLAIM TO ENFORCE AN AGENCY'S FAILURE TO COMPLY WITH ITS PUBLIC TRUST DUTIES.

"[A]ny member of the general public ... has standing to raise a claim of harm to the public trust[.]" (*CBD v. FPL*, 166 Cal.App.4th at 1364; *Nat'l Audubon,* 33 Cal.3d at 431, fn. 11.) Code of Civil Procedure ("CCP") section 1085's traditional mandamus procedure governs a claim for violation

of the Public Trust Doctrine. Section 1085 provides that "[a] writ of mandate may be issued by any court to any inferior tribunal, corporation, board, or person, to compel the performance of an act which the law specially enjoins, as a duty resulting from an office, trust, or station…." (CCP § 1085(a).)

> Our view of the law then was, and yet is, that if an official duty is to be performed on the happening of an event, the officer cannot arbitrarily or capriciously refuse to perform it, after the event has happened, on the plea that he is not satisfied that it has happened. If the fact exists, and is established by sufficient proofs, it is his legal duty to be satisfied, and to act accordingly.

(*Stockton & Visalia R. Co. v. City of Stockton* (1876) 51 Cal. 328, 339. *See also Drummey v. State Bd. of Funeral Directors & Embalmers* (1939) 13 Cal.2d 75, 83 ["it is … well settled that where a statute requires an officer to do a prescribed act upon a prescribed contingency, his functions are ministerial, and upon the happening of the contingency the writ may be issued to control his action"]. Where a duty's existence "depended upon the determination of prerequisite facts; but where such facts exist and are established by sufficient proof the duty is mandatory and its performance may be compelled." (*Carter v. Green* (1929) 97 Cal.App. 564, 567. *See also Tulare Water Co. v. State Water Comm'n* (1921) 187 Cal. 533, 538 [superseded by statute on other grounds].) "While a party may not invoke mandamus to force a public entity to exercise discretionary powers in any particular manner, if the entity refuses to act, mandate is available to compel the exercise of those discretionary powers in some way." (*Ellena v. Dep't of Ins.* (2014) 230 Cal.App.4th 198, 205, quoting *Ballard v. Anderson* (1971) 4 Cal.3d 873, 884.) "[W]here there is an unresolved question regarding whether the public trust doctrine applies in a particular context[,]" a traditional mandamus claim may be brought. (*See Monterey Coastkeeper v. Cent. Coast Reg'l Water Quality Control Bd.*, 76 Cal.App.5th 1, 22 n. 5.)

To prevail on a cause of action for writ of mandamus, the petitioner must establish facts showing that "(1) [respondent] has a clear duty; (2) [petitioner] has a beneficial interest in [respondent]'s performance of that duty;[11] (3) [respondent] has the ability to perform the duty; (4) [respondent] has failed to perform the duty or has abused its discretion in performing the duty; and (5) [petitioner] has no other plain, speedy or adequate remedy. (*Elmore v. Imperial Irrigation Dist.* (1984) 159 Cal.App.3d 185, 193 [abrogation recognized on other grounds by *Griset v. Fair Pol. Pracs. Comm'n* (2001) 25 Cal.4th 688, 697–98]; CCP, §§ 1085, 1086; *Payne v. Superior Court* (1976) 17 Cal.3d 908, 925 ["Generally, a writ will lie when there is no plain, speedy, and adequate alternative remedy; the respondent has a duty to perform; and the petitioner has a clear and beneficial right to

[11] Where a petition for writ does not seek to enforce a public right, normally a petitioner also would have to establish their beneficial interest in the enforcement of the duty. However, as discussed below, Petitioner FOER has public interest standing to enforce trust duties and, as a result, does not need to demonstrate any beneficial interest. (*See infra*, pp. 33-34.)

performance"].)

"There is no set 'procedural matrix' for determining state compliance with the public trust doctrine." (*Baykeeper I*, 242 Cal.App.4th at 234, citing *Citizens for East Shore Parks* (2018) 202 Cal.App.4th 549, 576–577.)

> However, any action which will adversely affect traditional public rights in trust lands is a matter of general public interest and should therefore be made only if there has been full consideration of the state's public interest in the matter; such actions should not be taken in some fragmentary and publicly invisible way. Only with such a safeguard can there be any assurance that the public interest will get adequate public attention.

(*Baykeeper I*, 242 Cal.App.4th at 234 [citations omitted].)

VI. ARGUMENT

Petitioner has provided sufficient proof for issuance of a writ of mandate. First, the County has a clear duty to consider the effects of existing groundwater pumping for the Lower Eel River alluvial aquifer public trust and to take feasible steps as necessary to protect the public trust in the Lower Eel River from harm. The uncontroverted evidence shows that existing wells (constructed or permitted to be constructed prior to May 30, 2023) pumping water from the Lower Eel River alluvial aquifer have and will have an adverse effect on the Lower Eel River during low flow months, especially in dry and critical water years. Adverse effects include reducing flows and surface levels in the critical riffle areas between Fortuna and Fernbridge, as well as contributing to harm to Chinook salmon and other fish holding in pools in the late summer and early fall.

Second, the County, utilizing its police powers and inherent public trust authority has the ability to perform its duty to consider existing groundwater wells' impacts on the Lower Eel River and a full range of authority to address appropriate, feasible responses necessary to protect the trust.

Third, the County has failed to perform its public trust duty. The County has never considered these adverse effects on the public trust. In preparing the GSP, the County did not comply with this duty because that effort, by design, does not address the effects of any of the hundreds of existing wells at river flows below 130 cfs at Scotia and the critical riffle areas. Nor does the County's effort begun on May 30, 2023 to review the public trust effects of new individual proposed wells at disparate locations throughout the Eel River watershed address existing wells' effect on the stretch of the Lower Eel River where the critical riffles are located during low flow periods.

Fourth, Petitioner has no other plain, speedy or adequate remedy. No other process afforded by the County or State affords Petitioner any adequate remedy. There is no practical way for Petitioner to be aware of pending well permit applications and no way to comment on those permits or any underlying public trust evaluation. Moreover, those new permits do not address the existing wells and

well permits and their cumulative effect on the public trust resources of the Lower Eel River. As for the GSP, FOER and wildlife trustee agencies advocated for the County to use that process to address late summer and early fall dry season impacts to flows and fish in the Lower Eel River. Nevertheless, the County opted to not include any analysis where flows in the river at the critical riffles were less than 130 cfs. The fact that DWR approved the GSP as sufficient to comply with the SGMA without addressing impacts of groundwater pumping to the Lower Eel prior to the onset of the rainy season, despite the comments of FOER and the trustee wildlife agencies demonstrates the inadequacy of that process to rectify the County's long-standing violation of its trust duties.

A. The County Has a Duty to Consider Effects on the Lower Eel River's Public Trust Resources From Existing Wells Pumping From the Lower Eel River Alluvial Aquifer.

The County's duty to consider the public trust and evaluate necessary protections is triggered when evidence of any adverse impact or a threat of an adverse impact is identified. (*Supra*, p. 23; *ELF*, 26 Cal.App.5th at 864; *Baykeeper I*, 242 Cal.App.4th at 240.) The County's adoption of a new procedure to review potential impacts to the public trust from any new well permit applications effectively concedes a duty to consider the trust even for potential impacts. (*Supra*, p. 19.) The County's public trust oversight duty is continuous. (*Nat'l Audubon*, 33 Cal.3d at 425, 445.) It applies at all times, during dry seasons as well as wet. (*Supra*, p. 22.) The continuous duty also applies to past decisions or omissions of the County. The same duty applied to the County for the unknown number of well permits the County issued from 1990 through May 2023 without any consideration of the public trust. (*Supra*, p. 19; *Nat'l Audubon*, 33 Cal.3d at 447. *See also Siskiyou Cnty. Farm Bureau*, 237 Cal.App.4th at 447.) Even prior to the County's establishment of its well permitting program, its trustee duties existed as a matter of law over any wells that predated the permitting requirement. (*US v. SWRCB*, 182 Cal.App.3d at 150.)

Petitioner has presented evidence showing adverse effects on flows of the Lower Eel River during the summer months as well as adverse effects on fish threatened with extinction attempting to await the rainy season under already stressful conditions in that stretch of the river.

1. Existing wells pumping water from the Lower Eel River alluvial aquifer have an adverse effect on flows in the Lower Eel River.

Groundwater pumping lowers flows in the Lower Eel River in the stretch containing the critical riffles. The flow reductions are themselves an adverse effect on the public trust in the Lower Eel River. The flow decreases lead to further adverse effects to fish species already listed as threatened with extinction and, especially during dry and critical dry water years, already subject to stressful conditions due to low surface flows in the late summer and early fall.

The evidence establishes that the Lower Eel River and its alluvial aquifer are interconnected and in direct contact. (*Supra*, p. 7; AR122; AR132; AR143.) This means that water flows easily between the Lower Eel River and the alluvial aquifer. (*Supra*, p. 7; AR-EXP005133.) The irrigation season occurs through the summer months up to the first rains of the season or a particular grower's harvest date. The rate of groundwater pumping during the dry season is constant. (*Supra*, pp. 7-8; AR-EXP015112:4-7.) Likewise, the rate of pumping is the same even during a dry or critical dry water year. (AR-EXP015115:15-20.)

As part of the GSP, the County has calculated the monthly average surface flow depletions in the critical riffle areas from groundwater pumping from the Lower Eel River alluvial aquifer. (*Supra*, pp. 12-13.) Depending on the month and the riffle location, the average monthly flow depletion calculated by the County ranges from 7 cfs (at ME-1, the highest upstream critical riffle area) to 15 to 16 cfs (at ME-6 and ME-7, respectively, the furthest downstream critical riffle areas). (*Supra*, p. 13; AR-EXP000203-206.) During the late summer and early fall before the onset of the rainy season, these flow reductions in the Lower Eel River from groundwater pumping occur when flows are already dramatically reduced, especially in dry and critical dry water years where flows at the Scotia gage range from about 30 cfs to 60 cfs in the late summer/early fall prior to the rainy season. (*Supra*, pp. 13-15.) Surface flows at the riffles at these times have been measured at 8.8 cfs to 14 cfs in 2021 and 0 cfs in 2014 for a quarter mile stretch. (*See supra*, p. 15, citing AR-EXP000011). There also was no letup in groundwater pumping in 2015 when fish holding in pools in the Lower Eel River in the late summer and early fall exhibited symptoms including blindness and brain and spinal cord hemorrhages. (*Supra*, p. 16; AR-EXP012748; AR-EXP015386:16-19.)

Rather than dispute its own evidence that surface flows are depleted by groundwater pumping in the Lower Eel River, the County's expert suggests that such flow depletions are not significant because there are numerous other causes, both natural and anthropogenic, of flow depletions in the Lower Eel River during the summer months. (AR-EXP005115-5116.) Many of these are current background conditions, including declining precipitation in late September, the amount of coastal fog and changes in stream morphology. (*Id*.) Mr. Brown also points generally to other anthropogenic effects on overall flows in the Eel River, including upstream dams, illegal surface water diversions from cannabis grows, vegetation changes, and road building and surfacing. (AR-EXP005116.) While acknowledging that groundwater pumping in the Lower Eel River Valley has some effect on lowering surface flows in the Lower Eel, Mr. Brown asserts, based solely on the GSP's analysis of rainy season flow levels in the river (i.e. 130 cfs at the critical riffle areas), that such surface flow depletions are not substantial in comparison to these other sources. (AR-EXP005116; AR-

EXP015099:11-16 ["I do agree that it has some impact"].)

Mr. Brown's attempt to append an undefined significance criteria to the standard for triggering a trustee agency's duty to consider the trust is inconsistent with public trust law. "[A]ny adverse impacts" from groundwater extraction must be evaluated by the County pursuant to its public trust duty. (*ELF*, 26 Cal.App.5th at 864; *Supra*, p. 23) The County's duty to address the public trust includes "consider[ing] the impact on the public trust resource. (*ELF*, 26 Cal.App.5th at 864.) It will be up to the County to apply its discretion to evaluate the significance of any adverse impact. (*Id.*) The County's determination of the significance of an adverse impact would then determine the extent and form of all feasible measures to protect the trust from that level of impact. Likewise, the County's determination of the level of adverse effect to the trust would be important to its balancing of public trust uses. (*See Nat'l Audubon*, 33 Cal.3d at 446-477.) However, a trustee agency may not avoid its duty to consider any adverse effects on the public trust by demanding a member of the public provide evidence of a suitably "significant" impact or one greater in extent than other sources. That is not the standard for triggering the County's public trust duty; "any adverse impact" suffices. (*ELF*, 26 Cal.App.5th at 864.) Nor can it enlist an expert to dismiss a trust impact as insignificant to absolve the trustee agency – i.e. the County – from performing its public trust duty. (*See Baykeeper I*, 242 Cal.App.4th at 242 [trustee agency cannot rely on other agencies to comply with its public trust duty].)

The two decisions in *Baykeeper I* and the follow-up ruling in *San Francisco Baykeeper v. State Lands Commission* (2018) 29 Cal.App.5th 562 ["*Baykeeper II*"] highlight this distinction. In *Baykeeper I*, the Court of Appeal found that any depletion of the public trust resource triggered the agency's duty to assess the public trust. (242 Cal.App.4th at 238-239; *Id*. at 234 ["[a]ny action which will adversely affect traditional public rights in trust lands is a matter of general public interest"].) This was in spite of the fact that the Commission had determined pursuant to CEQA that the impacts of the proposed sand mining would not be significant, either alone or cumulatively. (*Baykeeper I*, 242 Cal.App.4th at 219-224.) Only in the subsequent decision, *Baykeeper II*, did the significance or extent of the sandmining proposal's potential impact on the public trust factor into the Court's review. *Baykeeper II* was a challenge to the public trust analysis ordered by *Baykeeper 1*. (29 Cal.App.5th at 566.) The Commission's public trust assessment concluded that the "sand mining activities would not impair public trust uses by either substantially depleting the sand resource or substantially interfering with sand transport and coastal morphology…." (29 Cal.App.5th at 580.) Thus, although the extent of an adverse effect on the public trust is relevant to the trustee agency's substantive assessment of any impairment of the trust, the significance of any impairment plays no part in triggering the agency's duty to assess the public trust in the first place.

Mr. Brown does not dispute that the County has calculated flow depletions in the Lower Eel River resulting from groundwater pumping. (AR-EXP005115 ["groundwater has some effect on ISW in the Lower Eel River"].) Indeed, he opines that the GSP, including the modeling estimating the flow depletions, employs the "[b]est available data." (AR-EXP005117.) The fact that there are other reasons for low base flows entering the Lower Eel River in the summer and early fall of dry years does not lessen the impacts of groundwater pumping on the remaining flows. On the contrary, the existing cumulative impacts only heighten the impacts to the Lower Eel River's flows from the steady, ongoing pumping of groundwater wells in the summer and early fall. (AR-EXP011874 ["there are many cumulative effects that contribute to the low flows entering the Lower Eel River Valley, but the fact remains … that groundwater pumping causes significant streamflow depletions from the Lower Eel River within the valley during very low flow periods…."]. *See supra*, p. 15.)

2. Existing wells pumping water from the Lower Eel River alluvial aquifer have an adverse effect on threatened fish in the Lower Eel River.

Dr. Gabe Rossi's expert report and deposition testimony describes the adverse effects of incremental reductions in flow from groundwater pumping in the critical riffle areas during low flow conditions, in particular during critically dry water years. (*Supra*, pp. 15-17; (AR-EXP015379:15 - 15380:9. *See also* AR-EXP015378:7 - 15379:4.) He describes the adverse effects that resulted in each of the three years where flows in the river were so low, fish passage to the upper watershed was precluded or delayed in late summer and early fall. (*Supra*, pp. 15-17.) Dr. Rossi describes the adverse effects to the threatened Chinook salmon and other fish holding in pools located in the stretch of the Lower Eel River where the critical riffle areas are located. (*Id.*) He further describes how the incremental and cumulative reduction in surface flows through this critical stretch results in increasingly stressful conditions for the fish holding in the pools from reduced size of pools, depletion of oxygen levels, higher pool temperatures, crowding of fish in reduced size pools, and more vulnerability to poaching. (*Supra*, p.16; AR-EXP002019.) As he concludes, "any reductions in surface flow from groundwater pumping during an extremely low flow event would have negatively affected holding Chinook salmon and rearing juvenile salmonids already under metabolic stress." (AR-EXP012749.)

Notably, the County's fisheries expert, Dr. Hanson, does not refute Dr. Rossi's opinions. Instead, Dr. Hanson suggests that the GSP's focus on evaluating impacts to fish passage when flows are at 130 cfs at either Scotia or the critical riffles "appropriately addressed the key life history and crucial factors effecting population health." (AR-EXP015015.) Dr. Hanson admits, in turn, that his opinions on the scope of incremental impacts to fish from groundwater pumping only considered flow

reductions when the river already was flowing at 130 cfs. (AR-EXP015473:25 - 15474:5 ["would you agree that your comment here was only talking about incremental effects of [ground water pumping on flows] greater than 130 cfs? A. The information that I relied on, I think, is within that context."]; AR-EXP015474:23 - 15475:2 ["how would you know if it was a small, incremental effect for less than a 130 cfs? A. I wouldn't have any information from the GSP on that."].) Dr. Hanson also confirmed that he had not seen any data from the GSP or otherwise addressing impacts from groundwater pumping flow reductions to ecological functions in the Lower Eel River. (AR-EXP015525:17 - 15526:11.)

Dr. Hanson agrees that Chinook salmon are present in the critical riffle area stretch of the Lower Eel from August through October or when the first rains begin. Although Dr. Hanson's written reports understate the presence of fish holding in pools in the Lower Eel, his deposition testimony agrees that, at a minimum, several hundred chinook salmon are present in the holding pools. (*Compare* AR-EXP015014-15015 ["Salmonids do not normally inhabit, and are not expected to spend significant time, in the Lower Eel River during the summer and early fall, and particularly not in critically dry water years when habitat conditions are less favorable"] and AR-EXP015434:14 - 15436:1 ["hundred to 200" Chinook salmon would be holding in pools in August and higher numbers in general in September]; AR-EXP0154442:12 - 15443:2 [explaining that "not normally inhabit" means 100 to 200 Chinook salmon in August and a greater unstated number in September, including during dry and critical water years.][12] *see also* AR-EXP015446:10-24.)

Dr. Hanson also agreed in his deposition testimony that reduced flows from groundwater pumping would have adverse effects in the Lower Eel River. (See AR-EXP015463:11-16 [acknowledging could be adverse impacts even if not a significant population level impact]; AR-EXP015464:16-17 ["All mortality can contribute to adverse effects at the population level"]; AR-EXP015479:6 - 15480:15.) However, Dr. Hanson attempted to qualify that opinion, claiming in his deposition testimony that, in considering the significance of fish impacts from reduced flows due to groundwater pumping, he was "only thinking in terms of effects on the entire population of Chinook in the Eel River watershed…" (AR-EXP015449:4-9; AR-EXP015012 ["While there may be some increased stress or mortality, that does not support a finding of a significant population-level impacts"]; AR-EXP015463:11-16 [acknowledging there may be adverse effects on salmonids even if not significant at the population level].)

Like the County's hydrology expert, Dr. Hanson also attempts to inject an undefined significance criteria as a purported condition for triggering the County's duty to consider the public

[12] *See also* AR-EXP015442:1-4 ["do you agree that a number of adult salmonids do migrate into these reaches during the summer months? A. Absolutely."]

trust fish impacts from reduced flows in an already stressed river environment. As discussed above, "any adverse impacts" from groundwater extraction must be evaluated by the County pursuant to its public trust duty. (*ELF*, 26 Cal.App.5th at 864; *Supra*, p. 23.) Determining the significance of the adverse impact and weighing that significance in evaluating all feasible steps to the protect the trust are core aspects of the County's duty to "consider the impact on the public trust resource." (*See id*.) The County cannot erase its duty to consider the trust by retaining a sympathetic expert to loosely assert that an admitted effect is not significant enough to consider.

B. The County has violated its duty to consider the adverse effects on the public trust of groundwater extractions from the Lower Eel River alluvial aquifer during the dry season, in particular during dry and critically dry water years.

There is no dispute that the County has never addressed the impacts of groundwater pumping from the Lower Eel River alluvial aquifer to flows in the Lower Eel River, or to the fish depending on those flows, outside of the rainy season. (*Supra*, pp. 17-19.) The only effort cited by the County's expert where impacts of groundwater pumping from existing wells was considered is the GSP. (*See* AR-EXP005115-5117.) However, the GSP, and each expert reviewing the GSP analysis, agree that the County's analysis of impacts from existing groundwater pumping to Chinook salmon was limited to evaluating impacts when flows in the river at the critical riffles were at a monthly average surface flow of 130 cfs. (*Supra*, pp. 17-18; *See, e.g.* AR208-209; AR-EXP015091:14-18 ["The GSP only evaluated impacts once precipitation was sufficient to generate 130 cfs of surface flows at the Scotia [g]age"]; AR-EXP015156:20-21 ["In the GSP the evaluation was solely looking at the higher flow rates"]. That level of flows, especially at the critical riffles as well as the Scotia gage, only occur once the rainy season has begun and Chinook salmon have left the holding pools in the Lower Eel River and begun their migration to the upper reaches of the Eel River above the confluence with the Van Duzen River. (*Supra*, p. 11; *See, e.g.* AR-EXP015184:13-18 ["you would not expect to see flows of that scale [130 cfs] during those summer months"]; AR-EXP015345:23-25 [salmon will not migrate upstream beyond the confluence with the Van Duzen if flows at Scotia are less than 130 cfs].)

As a result, the County has never calculated the surface flow reductions that have and will continue to occur in the critical riffles area of the Lower Eel River from existing groundwater pumping in the Basin during the non-rainy season as well as dry and critical water years. Nor has the County ever evaluated the adverse impacts of surface flow reductions on threatened Chinook salmon and other fish dependent upon holding pools in the Lower Eel River from August through September of each year prior to the start of the rainy season.

C. The County has the ability to perform its duty to consider the adverse effects of groundwater pumping on the lower Eel River during the dry season utilizing its police powers and inherent public trust authority.

Nothing impedes the County's ability to carry out its public trust duty to consider the adverse effects of groundwater pumping on the public trust resources in the Lower Eel River. As the County acknowledges, it has the authority and responsibility to consider impacts of groundwater pumping to interconnected surface water directly pursuant to the public trust doctrine, regardless of any legislative enactment or exercise of its police powers. (AR7884 ["the County's authority and responsibility to consider impacts to interconnected surface water exist independently under the common law Public Trust Doctrine"].) The County also has acknowledged its authority to reopen previously issued well permits pursuant to its consideration and protection of the public trust. (*See, e.g.* AR7781 [reserving its authority as a condition to reopen recently issued well permit "to consider further actions as necessary and appropriate to protect public trust resources or the public health, safety, and general welfare of the County of Humboldt"].) The County is also invested by the California Constitution with broad police powers that encompass regulating or otherwise addressing groundwater wells. (Cal. Const. art. XI, § 7 [county "may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws"]; *Allegretti & Co. v. Cnty. of Imperial* (2006) 138 Cal.App.4th 1261, 1283 [acknowledging counties' "police power for the purpose of conserving groundwaters and preventing their undue waste"]; *Baldwin v. County of Tehama* (1994) 31 Cal.App.4th 166, 173–174 ["subject of groundwater" is within counties' police powers].) Thus, the County has ample authority to carry out its duty to consider the public trust for existing wells affecting flows and fish in the Lower Eel River and to take feasible measures to protect trust resources.

D. FOER and the public have a beneficial interest as a matter of law in the County complying with its public trust duties relating to the Lower Eel River.

Because FOER seeks to enforce a public right, public interest standing applies. No beneficial interest need be alleged or established to have public interest standing. (*Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 913-16. "[A]ny member of the general public has standing to raise a claim of harm to the public trust." (*Nat'l Audubon,* 33 Cal.3d at 431, fn. 11.) Where public interest standing is available, "[i]t is … unnecessary to determine whether [petitioner organization] or any of its members was beneficially interested in the issuance of the writ." (*Rialto*, 208 Cal.App.4th at 916 n. 6.) "[W]here the question is one of public right and the object of the mandamus is to procure the enforcement of a public duty, the [petitioner] need not show that he has any legal or special interest in the result, since it is sufficient that he is interested as a citizen in having

the laws executed and the duty in question enforced." (*Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 166 ["*Plastic Bag*"] [citing *Bd. of Soc. Welfare v. County of L.A.* (1945) 27 Cal.2d 98, 100-01].) Allegations in a petition for writ are sufficient to establish public interest standing to institute proceedings to enforce a public right. (*See, e.g., Respect Life S. San Francisco v. City of S. San Francisco* (2017) 15 Cal.App.5th 449, 454 [allegations in petition sufficient to establish petitioner's standing].)[13]

E. Absent the issuance of a writ of mandate, FOER has no plain, speedy or adequate remedy to address the County's refusal to comply with its public trust duty.

Absent the issuance of a writ of mandate, FOER has no plain, speedy, or adequate remedy to require the County to comply with its duty to consider the adverse effects of existing groundwater pumping on the Lower Eel River during the low flow season, especially during dry and critical water years, and, wherever feasible, to protect the Eel River's public trust resources.

Prior to filing the Petition, in August 2022, FOER provided notice to the County of its violations of its public trust duties, including its complete failures to 1) consider the public trust when issuing new well permits and 2) consider the adverse effects on the Lower Eel River of groundwater pumping by existing wells. Although seven months after FOER filed its petition (and about five years after the Court of Appeal decision in *ELF*), the County did finally begin conducting a pro forma public trust review of new permits, the County continues to deny any duty to address the public trust for the existing wells depleting flows in the Lower Eel River during the summer and early fall months. The County's intransigence establishes the need for the issuance of a writ from this Court.

The County's Well Ordinance does not provide any process by which previously issued well permits can be reopened or reconsidered absent either a violation or misrepresentation by the permit recipient. (AR7106 [§ 631-9(a)].) Many of the existing wells that contribute to depleting flows in the Lower Eel River were constructed and have been operating since prior to the County's 1990 adoption of its Well Ordinance. (*See, e.g.* AR370-377 [aerial photos of extensive agriculture from 1948 through 1998].) Even for proposed new wells, the Well Ordinance does not provide any notice to the public or any opportunity either to comment on or appeal individual permits to the Board of Supervisors or any court. (AR7103-7104 [§ 631-4] [application procedure]; AR7110-7111 [§ 631-15] [only applicants may appeal and then only for a denial or conditional granting].) And relatively few new well permits or replacement well permits are located or expected in the Lower Eel River Valley, where existing

[13] Even if FOER had to establish a beneficial interest, it has done so. Petitioner FOER and its members have a direct and beneficial interest in ensuring that the County fully complies with its duties under the Public Trust Doctrine. (FAP, ¶¶ 11, 12, 15; Declaration of Alicia Hamann [May 29, 2025].)

wells have been in operation for decades. (*See supra*, pp. 7-8, 19-20.)

Nor does the multi-decade process for reviewing and updating the GSP offer any practical procedure or remedy for FOER to pursue. First, the County already decided in issuing the GSP that it did not need to address the duty identified by FOER. (AR449 [responding to CDFW that addressing groundwater pumping impacts during low flow periods is "outside the scope of the GSA's responsibilities under SGMA"].) The DWR apparently agreed that in order to comply with the SGMA, the GSP did not need to address any adverse impacts outside of the rainy season. (*See, e.g.* AR21 ["GSA adequately responded to comments…"]; AR41-42 [addressing fish passage effects sufficient under SGMA].) SGMA's requirement for GSPs to be reviewed every five years does not provide speedy relief. (AR-EXP015198:25 - 15199:2 [not aware of any notices that update of GSP has started]; AR-EXP015197:19-22 [update not until 2027].) Nor is any relief from that process "plain" or "adequate" given the County's refusal and DWR's acquiescence in not addressing adverse effects on the Lower Eel River outside of the rainy season.

VII. CONCLUSION.

For all of these reasons, the Court should grant FOER's petition for writ of mandate and issue an order declaring that the County is violating its duty to consider the adverse effects to the public trust that are occurring from existing groundwater pumping during the late summer and early fall prior to the start of the rainy season and to protect the trust wherever feasible. The Court should issue a peremptory writ of mandate requiring the County to comply with its public trust duty. Petitioner requests that the Court further order that the County comply with its duty within six months of the service of the writ of mandate.

Respectfully submitted,

Dated: May 30, 2025

LOZEAU DRURY LLP

By: Michael R Lozeau

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PROOF OF SERVICE

I, Toyer Grear, declare as follows:

I am a resident of the State of California, and employed in Oakland, California. I am over the age of 18 years and am not a party to the action. My business address is 1939 Harrison St., Suite 150, Oakland, CA 94612.

On May 30, 2025, I served a true and correct copy of the following document(s):

PETITIONER'S OPENING BRIEF

☒ **BY ELECTRONIC MAIL:** By transmitting via electronic service, the document(s) listed above to the person(s) at the e-mail address(es) set forth below.

on the following parties or attorneys for parties, as shown below:

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I declare under penalty of perjury under the laws of the State of California, that the foregoing is true and correct. Executed on the 30th day of May, 2025 at Oakland, California.

Toyer Grear