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By U.S. Mail & E-mail

August 16, 2022

Virginia Bass, Chair
Mike Wilson, Vice Chair
Rex Bohn
Michelle Bushnell
Steve Madrone
Kathy Hayes, Clerk of the Board
Board of Supervisors for Humboldt County
825 5th Street, Room 111
Eureka, CA 95501
khayes@co.humboldt.ca.us

Scott A. Miles, Interim County Counsel
Office of the County Counsel
825 5th Street, Room 110
Eureka, CA 95501
CountyCounsel@co.humboldt.ca.us

Re: Notice of Humboldt County's Failure to Comply With its Duty to Consider and Protect the Public Trust Uses of the Lower Eel River From Adverse Effects of Groundwater Extractions During Late Summer of Low Water Years

Dear Chair Bass, members of the Board, Ms. Hayes and Mr. Miles:

In lieu of any formal process provided by the County of Humboldt to address the County's compliance with its duties to take the Public Trust Doctrine into account in its planning and decisions affecting the allocation of water resources, and to protect public trust uses whenever feasible, Friends of the Eel River ("FOER") is providing this notice to you of the County's violation of its public trust duties by failing to consider and protect public trust uses of the Lower Eel River. Specifically, FOER seeks immediate action by the County to comply with its Public Trust Doctrine duties by employing its regulatory authority over groundwater wells in the Eel River Valley Groundwater Water Basin to restrict groundwater extractions to the extent feasible to prevent any reduction in surface flows resulting from such groundwater pumping below levels that adversely affect public trust uses, including habitat for endangered and threatened salmonids, boating, and swimming. Absent an enforceable agreement by the County committing to address the impacts to the public trust described below, FOER intends to file a lawsuit seeking a court order mandating that the County comply with its public trust duties.

Since 1998, the County has exercised its authority to regulate the construction, modification and removal of groundwater wells. However, once drilled and constructed, the County's permitting requirements do not place any oversight or restrictions on the operation of

such groundwater wells, including no limits on the rate and quantity of groundwater that can be extracted.

In recent years, the Eel River has experienced historically unprecedented drought conditions and low river flows. These conditions have had significant adverse impacts on surface flow conditions in the Lower Eel River. Although the Lower Eel River's surface flows are naturally reduced during the summer and early fall months, historically, the surface flows have almost never been reduced to nothing. Based on flow records maintained by the United States Geological Survey ("USGS") since 1910, the only time the Lower Eel River recorded the elimination of surface flows downstream of its confluence with the Van Duzen River, was in 1912. That one-time occurrence did not repeat again until 2014. During the summer and early fall of that year, the river's surface flows ceased at one or more shallow riffle areas located between the mouth of the Van Duzen River and Fernbridge.

Those two incidents, spaced out over a hundred-year period, have now given way to a pattern of surface flow disruptions in the Lower Eel River the occurrence of which is accelerating. In August and September 2021, surface flows in the Lower Eel River once again ceased for a stretch of the river upstream of Fernbridge. On August 30, 2021, biologists for the California Department of Fish & Wildlife documented at least three riffle areas near the Sandy Prairie Gravel Bar Extraction Project where flows in the river were insufficient to allow any feasible path for adult salmon to ascend the river. It is FOER's understanding that the riffle disruption observed by DFW persisted until September 15, 2021, when the operator of the Extraction Project, at the request of DFW, dug several channels through the depleted riffle areas to connect fish runs through this area. According to the Humboldt County Groundwater Sustainability Agency's ("County GSA") proposed Eel River Valley Groundwater Sustainability Plan ("GSP"), "[a]nalysis 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." GSP, p. 24.

A critical source of surface flows in the Lower Eel River is the shallow alluvial aquifer that underlays the coastal plain through which the Lower Eel River flows. The alluvial aquifer also is the primary water source of agricultural wells in the Eel River Valley Groundwater Basin. At present, it is estimated that about 350 wells are extracting groundwater for purposes of irrigating from about 12,000 acres to almost 15,000 acres of land. The higher withdrawal volume occurs during the driest, critical water years. The County GSA estimates that the amount of groundwater being pumped per acre increases from 0.9 acre-feet per acre in a below normal water year to 1.0 and 1.2 acre-feet per acre in dry and critical years, respectively. Thus, in a critical water, the County GSA estimates that irrigators in the Lower Eel River extract about 14,848 acre-feet of water from the Eel River Valley Groundwater Basin. As recently as 2019, DWR estimated that irrigators pump about 41,000 acre-feet per year from the Groundwater Basin.

The Groundwater Basin's alluvial aquifer is strongly connected to Eel River surface waters. In preparing the GSP, the County GSA relied on hydraulic modeling that provides the

County GSA's quantification of the volume of water removed from the Lower Eel River by groundwater pumping for irrigated lands. GSP, p. 5. According to the modeling, the simulated flow rates during the fall at the shallow riffles located between the confluence of the Van Duzen River and Fernbridge are now typically below the minimum fish passage flows of 130 cfs identified by the GSP. Moreover, these flow rates are monthly averages. As a result, there likely are periods of time less than one month in duration where the river surface flows are reduced even further or, on some occasions eliminated.

The modeling also presents maximum, average, and minimum changes in monthly average stream flow due to groundwater extraction at the riffle locations in the Lower Eel River. The modeling results indicate that the maximum reduction in streamflow under current conditions due to pumping ranges from 9 to 12 percent. For example, the GSP modeling indicates that groundwater pumping likely would reduce flow in the Eel River in the riffle area just upstream of Fernbridge by up to 14 cfs in the summer months. According to NMFS, "[t]he historical record at the Scotia gage indicates that minimum flows range from 15-27cfs in August." In its comments on the GSP, NMFS states that "[t]his modeled reduction in flow near [Fernbridge] 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...."

The 2021-2022 wet season has now come to a close. Precipitation to date in Humboldt County for the 2021-2022 water year is about 67% percent of normal (https://ggweather.com/seasonal_rain.htm). Likewise, Eel River stream flows measured at the USGS's stream flow gage at Scotia, California, indicate that surface flows at that upstream location on August 10, 2022 (134 cfs) are well below the median (144 cfs) and average (158 cfs) flow rates for this time of year (https://waterdata.usgs.gov/ca/nwis/uv/?site_no=11477000&agency_cd=USGS). Rather than any diminution in the quantity of groundwater being extracted from the shallow alluvial aquifer connected to the Lower Eel River, these conditions are leading to more groundwater extraction. As a result, FOER is informed and believes that there is a high risk that the Lower Eel River's surface flows will be either eliminated again or reduced to levels injurious to fish. Without ensured reductions in summer and early fall groundwater extractions, these conditions are certain to recur in the future.

The Lower Eel River is critical habitat for several species of salmon designated as threatened or endangered, including Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), and steelhead (*Oncorhynchus mykiss*). The National Marine Fisheries Service also has designated the river as essential fish habitat for Pacific Coast salmon. Chinook migrate up the Eel River in late summer and fall. Adult Coho salmon migrate upstream from mid-fall to early winter. Steelhead migrate upstream on the Eel River beginning in the fall. Thus, during the late summer and early fall months, reductions in flows over the shallow riffle zones found in the river between Fernbridge and the confluence of the Van Duzen can inhibit migrations of salmonids when those areas are too shallow or there is no surface flow. Where water depth at these riffle areas is 0.4 feet or less, adult Chinook salmon migration will be

blocked. Depths of 0.5 to 0.6 feet in these riffle areas will inhibit adult Chinook salmon migration.

In addition to these fish impacts, during the summer and fall months, kayaking, paddleboarding and other boating activities occur on the Lower Eel River. The use of boats, kayaks and paddleboards is disrupted in areas of the river where water depth is decreased or eliminated.

These low water year impacts to trust uses are exacerbated by groundwater pumping from wells permitted by the County. Indeed, in some critical water years, the groundwater pumping may be the straw that breaks the camel's back, eliminating the remaining surface flows in shallow areas of the Lower Eel River or reducing surface flow depths to levels which block fish passage and other activities. The groundwater pumping also extends the duration of these critically low surface flow conditions.

The County has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible. *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 446; *Env't'l Law Foundation v. State Water Resources Control Bd.* ("ELF") (2018) 26 Cal.App.5th 844, 868. Because the groundwater extraction from wells over which the County has police power authority is adversely affecting the Lower Eel River and its public trust uses, the groundwater extraction is subject to the Public Trust Doctrine. *ELF*, 26 Cal.App.5th at 858-62. Nevertheless, with the exception perhaps of the modeling efforts in the GSP, the County has not taken any action to review the impacts to the public trust resulting from groundwater pumping from wells and its reduction of surface flows in the Lower Eel River. The County has not taken any steps to apply its authority to create a monitoring, reporting, regulatory and management program that would reduce or otherwise control the pumping of groundwater in a manner that eliminates or reduces, wherever feasible, the impacts from groundwater extraction on the public trust values of the Lower Eel River. Because of these omissions, the County is violating its affirmative duty to consider the public trust and protect it whenever feasible.

FOER hereby requests the County to take immediate steps to create and implement a program by which the County can utilize its police powers to limit the volume, rate, and timing of groundwater being extracted through wells located in the Lower Eel River Valley so as to eliminate the adverse effects of groundwater pumping on the public trust uses of the Lower Eel River. Should the County refuse to take such steps or further delay such steps, FOER is prepared to file a petition for writ of mandate in Superior Court seeking the issuance of a writ of mandate compelling the County to develop by a date certain a management plan addressing how the County will establish its authority to restrict groundwater pumping and implement such restrictions on groundwater pumping from the Eel River Valley Groundwater Basin in a manner that ensures the Lower Eel River's trust uses are not diminished or adversely effected. The Petition also would seek an order requiring the County to cease accepting applications for the issuance of well drilling permits for new wells and expansions of any existing wells for

Re: Notice of Intent to File Suit
To Enforce the Public Trust Doctrine
August 16, 2022
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groundwater extractions from the Eel River Valley Groundwater Basin until such time as the County complies with its public trust duties.

If the County is interested in discussing FOER's concerns and wishes to explore possible resolutions that could obviate the need for FOER to file the lawsuit described above, the County should contact FOER's counsel Michael Lozeau ((415) 596-5318; michael@lozeaudrury.com) or FOER Executive Director Alicia Hamann ((707) 382-8859; alicia@eelriver.org) as soon as possible.

Sincerely,



Michael R. Lozeau
Lozeau Drury LLP
Attorneys for Friends of the Eel River

PROOF OF SERVICE

I, Toyer Gear, 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 above-entitled action. My business address is 1939 Harrison Street, Suite 150, Oakland, California, 94612.

On August 16, 2022, I served a copy of the foregoing document entitled:

Notice of Humboldt County's Failure to Comply With its Duty to Consider and Protect the Public Trust Uses of the Lower Eel River From Adverse Effects of Groundwater Extractions During Late Summer of Low Water Years

on the following parties:

Virginia Bass, Chair
Mike Wilson, Vice Chair
Rex Bohn
Michelle Bushnell
Steve Madrone
Kathy Hayes, Clerk of the Board
Board of Supervisors for Humboldt County
825 5th Street, Room 111
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Scott A. Miles, Interim County Counsel
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CountyCouncil@co.humboldt.ca.us

<input checked="" type="checkbox"/>	BY MAIL. By placing the document listed above in a sealed envelope with postage thereon fully prepaid for First Class mail, in the United States mail at Oakland, California addressed as set forth above.
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<input type="checkbox"/>	BY FACSIMILE TRANSMISSION. By sending the documents via facsimile transmission to the fax telephone number identified above.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed August 16, 2022 at Pittsburg, California.



Toyer Gear