



FRIENDS OF THE EEL RIVER

Working for the recovery of our Wild & Scenic River, its fisheries and communities.

Friday, April 18, 2014

Katharine Carter, North Coast Regional Water Quality Control Board
5550 Skylane Blvd, Suite A
Santa Rosa, CA 95403
Via email to: Katharine.Carter@waterboards.ca.gov

Re: Comments on the Public Review Draft 2012 Integrated Report

Dear Regional Water Quality Control Board and Staff,

Please accept the following comments on the Public Review Draft 2012 Integrated Report, submitted on behalf of the board, staff, and supporters of Friends of the Eel River. Friends of the Eel River works for the protection and recovery of the Wild and Scenic Eel River's fisheries, ecosystems, and communities.

Friends of the Eel River strongly supports listing the segments of the Eel River and its tributaries which are clearly impaired by dry-season low flows as an additional category in the 303(d) list of impaired water bodies. Based on the evidence that state and federal agencies have developed, these units should include at least the South Fork Eel, Van Duzen River, Middle Mainstem and Upper Mainstem Eel, not just the Upper Mainstem Eel unit noted in the staff report.

In these units, as in the watershed as a whole, historic land use, including pervasive logging that altered stand composition across the region, vastly increased sedimentation and altered hydrology and soils is exacerbated in many areas by unregulated dry-season diversions related to marijuana cultivation. Consequently, the major Eel River tributaries of South Fork, Van Duzen, Upper Main and Middle Main suffer from low flows that often produce temperatures lethal to listed fish species. These issues are particularly pronounced in the Outlet Creek portion of the Upper Main River, several South Fork drainages, and Van Duzen River.

Listed and sensitive aquatic species are already negatively impacted by existing impaired water quality which has resulted in the existing CWA 303(d) listings for the subject North Coast streams for sediment and temperature impairments. These impairments have reduced habitat quantity and quality in many North Coast streams and led to listings under the ESA, California ESA, and as California Species of Special Concern. Sensitive aquatic species in the Eel River watershed affected by impaired flows include, but are not limited to, those listed in the following table.

ARCATA OFFICE

Scott Greacen, Executive Director • scott@eelriver.org
PO Box 4945, Arcata, CA 95518 • 707.822.3342

PETALUMA OFFICE

David Keller, Bay Area Director • dkeller@eelriver.org
1327 I Street, Petaluma, CA 94952 • 707.763.9336

Common Name	Species	Listing Status
Coho salmon	<i>Oncorhynchus kisutch</i>	FT, ST (SONCC), SE (CCC)
Chinook salmon	<i>O. tshawytscha</i>	FT
Steelhead trout	<i>O. mykiss</i>	FT
Coastal cutthroat trout	<i>O. clarki clarki</i>	SSC
Southern torrent salamander	<i>Rhyacotriton variegatus</i>	SSC
Western pond turtle	<i>Emys marmorata</i>	SSC
Northern red-legged frog	<i>Rana aurora</i>	SSC
Foothill yellow-legged frog	<i>R. boylei</i>	SSC

Diminished streamflows from altered hydrography, increased rates and numbers of diversions, and other impacts are inextricably linked to other water quality parameters the NCRWQCB is tasked to protect. With lower than normal low flows, dissolved oxygen levels are reduced and temperature are increased. Because of sediment impairment and/or a lack of adequate riparian area, the streams are exposed to more solar insolation and gain heat.

Water extraction via surface water diversions reduces natural streamflow thereby reducing the capacity to assimilate heat and pollutants. This process not only delays recovery of the impaired values, it creates additional impairments to beneficial values such as DO, Nuisance, and Aesthetics. Thus streamflow is not only linked to current 303(d) listings for dissolved oxygen, temperature, sediment, and nuisance conditions such as excessive algae growth, but also prevents recovery of the beneficial uses the NCRWQCB is tasked to protect.

Impacts of Water Diversions on Fish and Wildlife

Diversions for domestic, agricultural, and other uses are usually highest during the North Coast's long dry season. The coincidence of normal low stream flows with highest water demand can reduce aquatic habitat quality and quantity by reducing flow, pool depth, and the wetted channel perimeter, as well as dewatering riffles. The loss of pool depth from sediment deposition and water diversions combined with low flow and warm temperature leads to instream conditions that reduce growth and survival of juvenile salmonids. Additionally, dewatering of riffles results in a loss of benthic macroinvertebrate food sources for juvenile salmonids during summer rearing.

Many North Coast water bodies, including Eel River tributaries, are now impaired by reduced flow due to surface water diversions and other hydromodification. According to CDFW staff, the agency was informed of more than 30 potential stream dewaterings in Humboldt and Mendocino Counties during the severe drought year of 2013. CDFW staff also report several instances of juvenile coho mortality due to lack of flow in these streams including in tributaries to South Fork Eel River.

These streams have had a decrease in summer low flows resulting in negative impacts to recreation including sport fishing, river rafting, and swimming. The Humboldt County Department of Public Health now warns the public of toxic algal outbreaks during the low-flow period regardless of water year type.

Impacts From Marijuana Cultivation

In North Coast watersheds, open and obvious marijuana production on private lands has increased dramatically in the past five years. While some producers appear to be able to grow their crops without any substantial watershed or environmental impacts, by limiting their scale, storing winter water, and managing their other land-use impacts, it is clear that many marijuana producers clear

wildlands, grade areas for cultivation, create substandard road systems, and divert large amounts of water for irrigation, especially during the dry summer season. Altering wildlands affects watershed hydrology by increasing peak flows and decreasing infiltration, exacerbating natural low-flow conditions. As a result, local streams and rivers (including some Wild and Scenic Rivers) have low-flow conditions that occur earlier in the season and are more extreme than natural conditions. Illegal marijuana producers also use soil amendments, fertilizers, and other treatments that enter the stream leading to increased nutrients in streams. These streams and rivers can also have higher than normal temperatures, fish and wildlife kills, fewer recreational opportunities, and toxic algal blooms.

According to DFW staff, their analysis of water diversions related to marijuana cultivation in several key Eel River tributaries known to be important areas for salmonid recovery (Outlet Creek in the Upper Mainstem Eel and Redwood and Salmon Creeks in the South Fork Eel) suggests that the known marijuana cultivation in those watersheds is capable of consuming from 100-240% of estimated unimpaired flows.

Minimum Flows are Declining Over Time in North Coast Watersheds

As USGS gage data shows, dry-season low flows in the Eel River have declined over the last several decades. An analysis of North Coast stream flows undertaken for the National Marine Fisheries Service suggests that:

- 1) the dry season is getting longer over time;
- 2) flows are declining in many watersheds, including gaged portions of the Eel River and its tributaries;
- 3) most of the decline in flow appears independent of changes in precipitation.

Conclusion

We are disappointed and troubled that the Regional Board's response to the joint proposal to list North Coast water bodies for low flow is to request the State Water Board develop an additional new process for creating criteria by which to evaluate low-flow impairments. As noted in previous submissions by the California Coastkeeper Alliance et al, the Regional Board clearly has the power and the responsibility under the Clean Water Act to so designate waterbodies impaired by low flows, as has been done in other states.

Corollary to that authority is the Regional Board's responsibility to query and coordinate with sister state and federal agencies to develop the data the Regional Board may find useful and necessary in developing low-flow listings. Given that most of the relevant data are collected by public agencies, it is not appropriate to place the burden of developing datasets on small, poorly-resourced watershed advocacy groups.

Our concern here is that additional delay in addressing the diversions which are the primary factor in causing low flows across the Eel River watershed is likely to lead to substantial additional and ongoing impairment of the beneficial uses of Eel River waterbodies, especially three species of salmonids already listed under the federal Endangered Species Act (ESA).

While we recognize that the primary responsibility for addressing diversions of surface waters lies with DWR and DFW, it is essential that the Regional Water Quality Control Board coordinate effectively with its sister agencies to address the causes of water quality impairment. In the Eel River at least, low flows are not merely a factor exacerbating the impairments of water quality caused by the addition of pollutants, but the direct cause and primary driver of substantial

impairments to water quality and beneficial uses. Without coordinating with its sister agency, the Division of Water Rights, to address reduced flow from diversions and hydromodification as part of the cause of the current 303 (d) listings, the NCRWQCB is not effectively implementing all feasible measures to recover beneficial uses and to reduce impairment and protect listed species. Rather, as the agencies continue to ignore water diversions and other reasons for reduced flows, the streams are becoming more impaired, require additional listings under 303(d), and listed and sensitive species populations are being further reduced.

Thank you for your careful consideration of these comments.

Sincerely yours,

/s/
Scott Greacen
Executive Director