



August 31, 2018

Mr. Patrick Fuss  
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Re: Scoping comments 2018 Healdsburg Wastewater Treatment Upgrade Project SEIR

Russian Riverkeeper (RRK) is submitting the comments below and attachments for the "Scoping process for the proposed 2018 Healdsburg Wastewater Upgrade Project SEIR" (Project) that is outlined in the August 1, 2018 Notice of Preparation of Supplemental Environmental Impact Report (NOP). RRK supports the regulated application of treated wastewater (also known as recycled water, RW) provided it does not reduce ground or surface water quality. However, the proposed Project will create significant new impacts that are not studied, analyzed or mitigated and therefore we believe a full EIR must be prepared to comply with the California Environmental Quality Act (CEQA). We believe that continuing to tier off the 2005 FEIR and 2014 and 2016 Addendums is a violation of CEQA requirements for the reasons outlined below.

### **Potential New Impacts that Require Preparation of an EIR rather than SEIR**

#### **1) Proposed Expansion area has significant differences from areas studied in prior CEQA documents and thus does not meet the conditions described in CEQA guidelines Section 15162**

The assertion that geology, hydrology, drainage, slopes and sensitive natural resources between the Middle Reach valley and higher elevations in the Mill Creek, Palmer Creek and Story Creek sub-watersheds are only "minor" in nature and thus "only minor additions and changes would be necessary to make the previous EIR adequate" is completely unsupported by any specific studies or evidence. Before such conclusions can be reached, additional studies and analysis must be conducted. It is currently unknown how pollutants contained within Healdsburg's Recycled Water will migrate through groundwater given the differing topography, microclimates, and soil profiles in these projected expansion areas. The impact this will have upon drinking water and the



catastrophic effects when contaminants such as metals, organic compounds or other currently unregulated “emerging contaminants “ become concentrated in nearby wells, will most certainly adversely affect land owners health, their properties and their land uses. These contaminants, possible concentration levels, and adverse effects must be fully evaluated and understood.

## **2) The expansion of recycled water uses beyond those inadequately addressed in the 2005 FEIR and subsequent addendums**

Orchards, cannabis, irrigated pasture, direct livestock watering, frost protection and other agricultural uses occurring in the vicinity of the WWTP demand that a full scale EIR be undertaken. Current projections (2046: Healdsburg Recycled Water Feasibility Study) show that within 3 years an additional 100 million gallons a year of recycled water will flow out of the treatment plant and be dispersed upon terrestrial and inadvertently aquatic ecosystems. It is imperative that all new agricultural uses outside of the 2005 FEIR be studied and evaluated in order to establish hydraulic, nitrogen and salinity agronomic rate thresholds particularly in light of groundwater/surface water interactions. All studies must evaluate agronomic rates under the proposed expansion areas various landscape/ hydrologic conditions such as site specific geology, slopes, soil types, soil permeability and moisture retention abilities (under various weather conditions).

As an example, consider a Cannabis operation. The application of RW on Cannabis is not currently allowed. Usage thresholds for cannabis have yet to be determined and established. Recent investigations on Cannabis growing on a Mill Creek Watershed farm estimated water use from 2,000 – 4,500 gals per day. Currently, this amount of RW is self-hauled and results in numerous daily deliveries over a private dirt road causing increased damage, potential for erosion, and dust. With no best management practices (BMP) established for cannabis cultivation irrigated with RW, ground water supply and surface water sources for both residents and habitat are at immediate risk to contamination with the uncontrolled recycled water use. These and many other issues associated with the various new RW uses require that a full EIR be conducted.



### **3) ESA issues -Water Quality and Habitat Impacts to ESA listed Coho Salmonids**

The proposed expansion area has far more sensitive natural resources. A prime example is Endangered Coho Salmon that over-summer in low flow conditions with low dilution in the proposed expansion area. The information we are submitting to support this fact is focused on Dry Creek which averages 90 cubic feet per second of flow during the summer months. Mill Creek has an average flow of less than 10cfs demonstrating that impacts cited in the attached reports would be even higher due to the much lower base flow of Mill Creek and its tributaries. In addition Dry Creek is a wide alluvial valley with more opportunity for residual pollutant attenuation, however, Mill Creek is a steep narrow canyon landscape with an often rocky stream impervious bed which would more efficiently send any excess irrigation water or spills or leaks directly to Mill Creek compared to Dry Creek, thus impacts cited in the Dry Creek reports would be much more significant. Consider the effects of minute changes in salinity and the high probability that this would occur as a result of over irrigation with treated wastewater. This would have a significant effect on the Coho's habitat and thus would result in a "significant impact". It should be noted that Mill Creek watershed is defined a "Critical Habitat Area" by State Water Resources Control Board Emergency Regulations and noted as such on Sonoma County's Ground Water Availability map.

The attached study by UC Davis professor Swee Teh focused on Dry Creek, which has far higher flows and therefore higher dilution than Mill Creek- currently one of the most critical streams for reestablishing a wild population of native Coho Salmon...while there could be a beneficial effect to stream flows by replacing summer well pumping with treated water as proposed, a larger potential negative impact could occur and must be analyzed accordingly to determine whether and what mitigations are required to ensure protection of water quality to protect sensitive Coho habitat. Given that there are links between food web complexity and ecosystem stability and that various trophic levels are affected by chemical contaminants beginning at the base of the food chain during uptake of specific contaminants by phytoplankton with subsequent uptake by grazers (e.g. zooplankton), it is imperative that studies evaluate how sensitive these Coho prey are to changes in salinity and exposure to other RW contaminants which would occur as a result of over-irrigation, spills or leaks.



Biologically active concentrations of some compounds have been observed in RW following advanced tertiary treatment. Consequently, if RW is to be applied near critical salmonid habitat "it is recommended that a subset of "emerging" contaminants be considered as chemicals of concern. Possible candidates that have demonstrated effects in wildlife at or near predicted environmental concentrations would include steroid hormones (estrone, testosterone, progesterone, E2 and EE2), alkylphenolethoxylates, antilipidemic agents (diclofenac-like compound),  $\alpha$ -adrenergic antagonists (propranolol), UV sunscreen agents (2-benzophenone), and fluoxetine. Seasonal (at least wet/dry season) evaluation should be considered for analytical chemistry (at least for steroid estrogens) to identify a worst-case exposure scenario. In addition, biological evaluation (at least in vivo estrogenic screening with environmentally relevant detection limits) of effluent should also be considered. For Risk Characterization analyses, it is recommended that deterministic screening for ecological risk be carried out using salmonid threshold or "No Observed Effect Concentration" values for priority "legacy" pollutants as well as the "emerging" contaminants" (Schlenk, Daniel. Evaluation of Santa Rosa Draft EIR. April 2008)

#### **4) Use for Frost Control would violate state Anti-Degradation Policy**

Other significant new information and potential impacts from use of recycled water for frost control which clearly is not used for meeting irrigation needs and therefore by definition and time of use (when soil is often saturated) fails to meet the agronomic rate requirement that equates to complying with the state's Anti-Degradation Policy.

Frost Control is not an irrigation use and thus RW cannot be applied at required agronomic rates to meet the legal requirements of the State Recycled Water Irrigation General Permit (State RW Permit). The State RW Permit requires water only be applied to agricultural lands at agronomic rates for the crop being irrigated in order to comply with California's Anti-degradation Policy as a way to protect high quality groundwater that provides water to residential wells. The residual pollutants that remain in Healdsburg's treated water such as Nitrates, Total Dissolved Solids and Constituents of Emerging Concern (CEC's) are a threat to polluting our neighbor's wells if recycled water is used. The use of water for frost control is not intended for irrigating crops and only used to protect crops from freezing so it is not an irrigation use nor is it applied at agronomic rates. In essence, it fails to comply with the State RW Permit and therefore must be prohibited and removed from consideration unless



Healdsburg intends to seek permit coverage under a Master RW Permit which the City had prior to enrolling in the State RW Permit. The substantial risk for groundwater contamination is the reason that agronomic rates are used as the main protective element of the State Recycled Water General Permit.

**5) Proposed pasture irrigation combined with manure loading will exceed WQ Standards**

Russian Riverkeeper with trained staff from Bishop's Ranch collected several years of water quality monitoring data with laboratory analysis by University of North Carolina at Asheville's VWIN program that conducted analysis according to a Quality Assurance Project Plan to ensure high quality data. As you can see from the results of that survey, the sampling station KC30 received the majority of its runoff from dairy pasture and pastures irrigated with liquid manure. Most of the results exceed the Water Quality criteria used by USEPA of 0.01mg/L of orthophosphate showing that excess nutrients on the pasture lands are already causing significant negative water quality impacts. The proposed use of RW that contains between 1-3mg/L of Phosphorus on pasture Dairy pasture would increase water quality criteria exceedances and negatively affect aquatic life. This new impact must be analyzed in a full EIR should this use remain part of the Project description.

**6) Current violations to end user agreements show oversight and compliance inadequate**

Recent documentation and complaints show that some current users of Healdsburg's treated wastewater licensed under the self-haul trucking program have been hauling water outside approved use areas. Russian Riverkeeper is aware of substantial volumes that are being used outside approved use areas and either the City of Healdsburg is unaware of this or the City is allowing this to occur. This fact demonstrates that adequate controls are not being used to ensure end users comply with user agreements in order to ensure mitigations and requirements are followed. Further study is needed to determine what extra measures are needed to ensure compliance with regulatory requirements to protect water quality. It is clear that user agreement changes, audits of use and some spot checking should be required to ensure all users are in compliance.



## Supplemental

- Please provide all water quality test data on RW effluent quality during storage as well as irrigation season over the last two years by “testing event” ...do not combine results into averages over periods of time. Providing the public this information will enable us to confirm where actual spikes in pollution loads are occurring and thus allow these spikes to be further evaluated.
- Provide the basis for estimates on future treatment plant effluent volumes and daily flow rates in order to evaluate potential project impacts
- As irrigated RW use is projected to increase from 47MG to 151MG over the next 3 years, several full scale laboratory chemical evaluations should be conducted at various times of the year along with an ESA listed species exposure and effects assessment which should be conducted during critical life stage periods.
- Flooding vineyards with RW as a means for frost protection does in no way, shape or form equate to “agronomic rates” and should be prohibited.
- As RW is projected to be applied in significant amounts on pasture lands it is imperative that the City conducts site specific studies on all pasture lands so as to determine rates of attenuation for nutrients at each specific site as all sites differ according to grazing practices, animals, proximity to waterways, soil profiles, compaction of soils, etc.

## **Conclusion**

Currently the only acceptable uses for Healdsburg recycled water are applications to vineyards and residential/commercial landscaping. As orchards, cannabis, irrigated pasture, direct livestock watering, frost protection and other agricultural uses occurring in the vicinity of the WWTP are being considered as future uses for recycled water, RRK implores the City to conduct a full scale EIR. There is no substantial evidence or analysis in past environmental reviews referenced in the NOP to support preparing a SEIR as opposed to a full EIR. The City is tasked with protecting and serving those whom live here. We live and work in Healdsburg. We demand that our quality of life and our environment be





protected. An SEIR as you have proposed will fail to meet the conditions described in CEQA guidelines Section 15162.

Thank you for considering our comments and the attachments. Russian Riverkeeper looks forward to working with the City of Healdsburg in the future

Sincerely,

*Bob Legge*

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Attachments:

Jan 12, 2015 CWC Comments to NCRWQCB  
Fishery Impacts NSCARP Final (Swee Teh's toxicology report)  
Bishop's Ranch VWIN All Data (WQ Excel Sheet)  
Bishop's Ranch VWIN Stations Map  
Current Users 2018 (2046: Healdsburg Recycled Water Feasibility Study)  
Report Middle Reach Irrigation (Greenspan 1<sup>st</sup> report)  
Greenspan on Walker Report