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| <input type="checkbox"/> EO      | <input checked="" type="checkbox"/> W/Mgmt | M. St. J. | <input type="checkbox"/> Admin |
| <input type="checkbox"/> REG     | <input type="checkbox"/> Timber            |           | <input type="checkbox"/> Other |
| <input type="checkbox"/> Gen/MSD | <input type="checkbox"/> Other             |           | <input type="checkbox"/> Other |

*Via first class mail and facsimile*

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**Re: Notice of the Availability of Draft Document, Public Comment Period, Public Workshops, and Public Hearing for the North Coast 2008 Integrated Report for the 305(B) Water Quality Assessment and the 303(d) List of Impaired Waters**

Dear Mr. St. John:

I provide these comments in response to the North Coast Regional Water Quality Control Board's (NCRWQCB) "Notice of the Availability of Draft Document, Public Comment Period, Public Workshops, and Public Hearing for the North Coast 2008 Integrated Report for the 305(b) Water Quality Assessment and the 303(d) List of Impaired Waters" (Jan. 16, 2009). My comments focus on the need to develop and implement a comprehensive groundwater policy in order to attain the TMDL for dissolved oxygen and temperature which is presently in effect for the Shasta River, and to meet water quality objectives in the Basin. I similarly advocated for a comprehensive groundwater policy in my comments on the Shasta Watershed-Wide Permitting Program Draft Environmental Impact Report prepared by the California Department of Fish and Game (Oct. 2008).

I own a ranch located near Grenada, which borders approximately 2 miles of the Shasta River. I have been in the area for over 33 years. I have become increasingly concerned regarding the impacts of increased groundwater pumping on surface flow in the Shasta River, and the corollary effects on senior water rights holders and beneficial uses.

I have reviewed the "Staff Report for the 2008 Integrated Report for the Clean Water Act Section 305(b) Surface Water Quality Assessment and the 303(d) List of Impaired Waters" (Feb. 2, 2009) (Staff Report). The Staff Report states its purpose is to fulfill requirements under Clean Water Act (CWA) sections 305(b) and 303(d):

"Under CWA Section 305(b), states are required to report biennially to the United States Environmental Protection Agency (USEPA) on the water quality conditions of their surface waters.... Under CWA Section 303(d), states are required to review, makes [sic] changes as necessary, and submit to the USEPA a list identifying waterbodies not meeting water quality standards and identifying the water parameter

(i.e., pollutant) not being met. Placement on this list generally triggers development of a pollution control plan called a total maximum daily load (TMDL) for each waterbody/pollutant pair on the list.”

Staff Report, p. 5.

The Staff Report recommends that the Shasta River Hydrologic Area continue to be listed on the Section 303(d) list for organic enrichment/low dissolved oxygen and temperature. *See id.*, p. 38. I support this recommendation. Staff also reports that this impairment is being addressed by a USEPA approved TMDL. *See* NCRWQCB, “2008 California List of Water Quality Limited Segments Being Addressed by USEPA Approved TMDLs.”

According to the “Staff Report for the Action Plan for the Shasta River Watershed Temperature and Dissolved Oxygen Total Maximum Daily Loads” (June 28, 2006) (Staff TMDL Report), available at [http://www.swrcb.ca.gov/northcoast/water\\_issues/programs/tmdls/shasta\\_river/staff\\_report.shtml](http://www.swrcb.ca.gov/northcoast/water_issues/programs/tmdls/shasta_river/staff_report.shtml), beneficial uses of the Shasta River are degraded by poor water quality:

“Elevated water temperatures and low dissolved oxygen in the Shasta River and its tributaries have resulted in the impairment of designated beneficial uses of water and the non-attainment of water quality objectives. The primary adverse impacts of elevated water temperature and low dissolved oxygen in the Shasta River and its tributaries are associated with cold water fish.... Elevated water temperatures and low dissolved oxygen levels may also affect recreational use, subsistence fishing, and commercial and sport fishing uses. Additionally, elevated water temperatures may be linked to the impairment of the municipal and domestic water supply beneficial use of Lake Shastina.”

Staff TMDL Report, p. 1-1.

The Staff TMDL Report describes implementation actions “needed to meet dissolved oxygen and temperature TMDL, achieve water quality standards, and protect and restore the beneficial uses of water in the Shasta River watershed.” *Id.*, p. 8-1. One of the objectives on the implementation plan is to “Encourage efficient water use in the Shasta River watershed to increase dedicated cold water flow in the Shasta River.” *Id.* This is necessary because:

“TMDLs for both water temperature and dissolved oxygen show that decrease flows in the Shasta River mainstem and select tributaries are detrimentally affecting the beneficial uses of the coldwater fishery. Surface water diversions in the Shasta River watershed has one of the most significant effects on stream temperatures and dissolved oxygen levels.”

*Id.*, p. 8-12.

The Staff TMDL Report states that applications for surface water diversions are no longer accepted, and that water rights were apportioned by a statutory adjudication that resulted in a judgment and decree approved by the Superior Court of the State of California. *See id.*, p. 8-12. However, “Riparian rights and *groundwater pumping* are not subject to the decree. Also, the decree contains no requirements for the protection of instream beneficial uses or consideration of the public trust doctrine.” *Id.* (*emphasis added*).

The Staff TMDL Report summarizes implementation actions relative to water use and increasing instream flow that were presented by the California Department of Fish and Game (DFG) in the Shasta RCD Draft Incidental Take Permit Application and Coho Recovery Strategy. *See id.*, p. 8-13. According to the Staff TMDL Report, “These programs when implemented will help attain the TMDL and meet water quality objectives in the Basin Plan.” *Id.* Two implementation actions regarding regulation of groundwater are identified:

“Prepare a comprehensive groundwater study to determine the current status of groundwater in the Shasta Valley and its relationship to surface flows. Coho Recovery Strategy (WM-10a) (CDFG 2004(b).” *Id.*, p. 8.14.

“Contemplate the impacts of readjudication of both surface and groundwater. Shasta Restoration Plan (I B-9) (Shasta CRMP 1997).” *Id.*

I strongly support implementation of these actions and believe they, followed by development and adoption of a comprehensive program for regulating groundwater, are necessary to attain the TMDL and meet water quality objectives in the Shasta River Basin.

I further support the NCRWQCB’s request for involvement by the State Water Control Board:

“If the measures summarized in Table 8.4 fail to be implemented or effective, the Regional Water Board will consider other actions for flow related impacts on water quality. The SWRCB Division of Water Rights is the agency primarily responsible for water right administration.... It may be appropriate for the State Water Board to consider various options in the water rights context to respond to the over allocation, including but not limited to, seeking modification of the decree, proceedings under the public trust doctrine, and/or proceedings under the waste and unreasonable use provisions of the California Constitution and the California Water Code. The doctrine of reasonable use “limits all rights to the use of water to quantities necessary for beneficial use, but prohibits waste or unreasonable use or unreasonable methods of use or diversion” (SWRCB 199). The Regional Water Board may request that the

SWRCB consider riparian rights and groundwater use in reviewing the adjudications and other proceedings.”

*Id.*, p. 8-17.

As the Staff TMDL Report acknowledges, there is existing information which shows the interconnection between surface water and groundwater within the Basin *See, e.g.*, Technical Memorandum from Mike Deas, Watercourse Engineering, Inc., to Matt St. John, NCRWQCB (Feb. 1, 2006). DFG has stated, “Groundwater dynamics exert a strong influence on the volume and quality of surface flow in the Shasta River and its tributaries.” DFG, Shasta Watershed-Wide Permitting Program Draft Environmental Impact Report, p. 3.2-8.

There is also evidence that increased groundwater pumping diminishes groundwater inputs and surface water flow, which in turn contributes to impairment of temperature and dissolved oxygen. For example, according to Staff’s responses to comments, “It is clear from the available information that cold tributaries, groundwater inputs, and riparian shade have a cooling effect in some reaches. The combination of these and other process determines the temperature of the river.” *See* “Revision of Draft TMDLs Shasta R. Temperature & DO,” p. 73. DFG has stated:

“Increased use of groundwater during dry conditions in order to curb the consumptive use of surface water, as proposed by the Program, could decrease ground water discharge into the Shasta River and its tributaries. A reduction in groundwater discharge could decrease baseflow volumes and could contribute to increased temperatures. Groundwater and subsurface flow contribute cool water, directly and indirectly (e.g., by means of spring and seep maintenance) to surface stream channels in the Program Area....During low flow conditions, if groundwater is pumped in the proximity of a flowing stream or a subsurface channel such that subterranean flow is impacted than that groundwater extraction could result in a decrease in instream flow and, concomitantly, an increase in water temperatures in the nearby stream.”

DFG, Shasta Watershed-Wide Permitting Program Draft Environmental Impact Report, p. 3.2-42.

Thus, while there may be no additional surface water diversions permitted for Shasta River, unregulated groundwater withdrawal may continue to reduce groundwater inputs and draw down instream flow to the detriment of water quality and beneficial uses of the river. Given this information, the need for a groundwater study and comprehensive program for regulating groundwater pumping are clear.

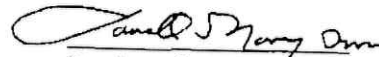
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CONCLUSION

I urge the NCRWQCB to implement actions related to groundwater regulation within the Shasta River Basin as necessary to attain the TMDL for temperature and dissolved oxygen and protect and restore the beneficial uses of the river.

Thank you for considering these comments.

Respectfully submitted,



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