

July 22, 2014

**Notice of Consideration for Coverage Under Order No. R1-2009-0045,
General NPDES Permit No. CA0024902,
Waste Discharge Requirements for
Low Threat Discharges to Surface Waters in the North Coast Region**

for the

**Montague Water Conservation District
Groundwater Discharge to Shasta River**

**Siskiyou County
WDID No. 1A14072RSIS**

On July 21, 2014, the North Coast Regional Water Quality Control Board (Regional Water Board) received a Notice of Intent (NOI) from Gary Black, on behalf of the Montague Water Conservation District (Applicant), requesting enrollment under Order No. R1-2009-0045, General NPDES Permit No. CA0024902, Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region (hereinafter Low Threat Permit) for the Montague Water Conservation District Groundwater Discharge to the Shasta River (Project).

Project Description

The Montague Water Conservation District (MWCD) is applying for coverage under the Low Threat Permit to discharge high quality groundwater from water supply wells operated by MWCD to the Shasta River, a water of the United States (U.S.).

The NOI includes the results of groundwater monitoring data collected on July 8, 2014 to characterize the quality of the water proposed for discharge. All of the data submitted indicates that the proposed discharge meets the water quality objectives in the Low Threat Permit and demonstrates that the temperature, dissolved oxygen, pH and turbidity of the groundwater will improve existing conditions in the Shasta River. The temperature of the groundwater (12.8 - 12.9⁰C) satisfies the goal of having a source of low temperature water to discharge. MWCD is expecting to receive results for additional pollutants soon. These additional monitoring results will be posted on the Regional Water Board website upon receipt. The Project has been designed to prevent erosion and the discharge of pollutants that exceed water quality objectives. Provided that the remaining water quality results meet the conditions identified in the Low Threat Permit, the Project would meet all of the required conditions for approval.

The proposed project site is located near the community of Lake Shastina at the base of Dwinnell Reservoir adjacent to the Shasta River, in Siskiyou County, California, and is located within the Shasta Valley Hydrologic Area of the Klamath River Hydrologic Unit.

In light of the current extreme drought conditions, MWCD has proposed this emergency project to discharge groundwater to the Shasta River to meet the project objectives of supplying water to the City of Montague (City), improving water quality, and supporting cold water fishery habitats, especially coho salmon. MWCD has obligations to supply municipal water to the City. In addition, the California Department of Fish and Wildlife (CDFW) has identified that the reach of the Shasta River between Dwinnell Dam and Parks Creek is critical for coho salmon that use the stream reach throughout the year. Over-summering habitats are the most limiting and critical habitat need for coho salmon. The objective of using the Flying L Wells or a newly constructed groundwater source to improve instream conditions, primarily to aid over-summering habitats for coho salmon, has become a major objective of this project and is a major component of MWCD's long term conservation strategy.

MWCD owns and operates Dwinnell Reservoir, as well as three groundwater wells known as the Flying L Wells located near Dwinnell Dam. MWCD releases water from Dwinnell Reservoir to the Shasta River that is diverted downstream for irrigation and municipal water supply. MWCD historically has used the Flying L Wells to supplement water released for irrigation and/or municipal purposes. The wells can produce a combined flow of 6.5 cubic feet per second (cfs). An additional well capable of providing up to 1.5 cfs may be constructed for municipal purposes only. The four wells would have a combined flow capacity of 8.0 cfs.

Due to the location of these wells near the base of Dwinnell Dam and the need for cold water inputs in the upper Shasta River to meet water quality and cold water fishery enhancement objectives, MWCD, conservation partners, and fishery agencies have long considered piping groundwater from the Flying L Wells to MWCD's Cross Canal (the conveyance channel for direct releases of water from Dwinnell Reservoir to the Shasta River) to aid water quality and quantity objectives identified in the California Coho Recovery Plan, National Oceanic and Atmospheric Administration's (NOAA) Southern Oregon- Northern California Coho (SONCC) Recovery Plan, and the Regional Water Board's Shasta River Watershed Temperature and Dissolved Oxygen Total Maximum Daily Load (TMDL). NOAA and CDFW have requested that this emergency project incorporate the Flying L Wells and/or a new ground water fed water source to improve water temperatures during the summer months when releases from Dwinnell can exceed suitable water temperatures, especially when the reservoir is low. NOAA has requested that groundwater be used when providing water to the City when releases from Dwinnell exceed 16^o C.

The intent of releasing groundwater to the Cross Canal, rather than stored water from Dwinnell Reservoir, is to use the colder groundwater to improve and maintain cold water habitats in the upper Shasta River, especially for CESA/ESA listed (threatened) coho salmon that utilize the upper reaches of the Shasta River year round. MWCD's long term objective is to release up to 8.0 cfs to the Shasta River to enhance instream values for cold water dependent species and water quality objectives. Long term conservation strategies

for release of up to 8.0 cfs of groundwater are currently being developed with CDFW and NOAA, including blending groundwater and water stored in Dwinnell Reservoir.

The Flying L wells are approximately 0.5 miles east of the Shasta River at their closest point and 5,000-6,000 feet north of MWCD's Cross Canal. MWCD proposes to construct a 7,000 foot buried PVC pipeline to convey the groundwater to the Cross Canal for direct release to the Shasta River. The Cross Canal will provide for oxygenation as well as blending of groundwater with water from Dwinnell Reservoir. Fisheries and water quality agencies have determined that this is the most beneficial method of discharge over time. The proposed groundwater will discharge onto an existing concrete apron that will absorb any impact and not create erosion or scour. The entire length of the Cross Canal (about 850') is armored with large diameter rock eliminating the risk of erosion below the discharge point. The Cross Canal has experienced releases up to 30 cfs from Dwinnell Reservoir with no erosion or scour.

The volume of groundwater discharged could be as low as 0.5 cubic feet per second (cfs) and will not exceed 8 cfs. During periods when the groundwater discharge is needed, Shasta River flows are anticipated to range between 1 and 6 cfs. Depending on time of year and multiple uses of the water stored for release to the Shasta River, the groundwater discharge rate could be 8% to 800% of the Shasta River flow, and will vary depending on the discharge and river flow conditions. The quality of the groundwater discharged has been demonstrated to be high quality water that meets all water quality objectives required by the Regional Water Board's Basin Plan and the California Toxics Rule, as further defined in Attachment B of the Low Threat Permit. This discharge is designed and will be managed to protect and enhance the beneficial uses of the Shasta River in coordination with recovery and water quality agencies. The discharge shall be coordinated with CDFW and NOAA staff to ensure that any changes in flow or water quality related to the groundwater discharge do not adversely impact fisheries in the Shasta River.

On June 3, 2014, the State Water Board, Division of Water Rights approved a Temporary Urgency Change Petition for MWCD's Water Rights Permit 2452 (Application 3544) to enable MCWD to deliver water to the City of Montague in a more efficient manner than previously permitted, in order to conserve limited water during extraordinary drought conditions. The Order provides additional information supporting the need to consider and authorize reasonable solutions for meeting water supply needs during the current drought.

Monitoring and Reporting Requirements

MWCD is required to monitor the well discharge and the receiving waters to demonstrate compliance with the Low Threat Permit. The Low Threat Permit includes a standard monitoring and reporting program (MRP) that was designed for short-term discharges. The Low Threat General Permit allows the Regional Water Board Executive Officer to modify the MRP for a specific discharger and requires that any deviations from the standard MRP be identified in the public notice. The MRP for the MWCD Groundwater

Discharge Project to the Shasta River has been modified to recognize that the discharge will occur over a period of months at a time and that the discharge is high quality groundwater. Monitoring shall be conducted in accordance with Monitoring and Reporting Program No. R1-2014-0048.

Specifically, Table E-2 of the MRP was modified to remove parameter specific monitoring of the groundwater discharge (effluent) for biochemical oxygen demand, total suspended solids, settleable solids, total residual chlorine, pH, temperature, turbidity, specific conductance, and dissolved oxygen and to remove requirements to record visual observations of the discharge. These modifications are appropriate because groundwater characterization data submitted with the NOI demonstrates that groundwater quality is high quality, low temperature water. Also, due to the fact that the discharge will comprise the majority of the flow in the receiving water, it is appropriate to monitor these parameters at the receiving water monitoring location in the Shasta River. The only effluent monitoring requirement is continuous flow monitoring at the weir in the Cross Canal. Receiving water monitoring requirements identified in Table E-3 have been modified to increase temperature monitoring to continuous monitoring during all periods of groundwater discharge and to change the monitoring frequency for pH, turbidity, specific conductance, and dissolved oxygen to continuous monitoring during the first week of discharge to provide data to show the diurnal trends in the receiving water. Visual monitoring has been reduced from daily to monthly due to the stable nature of the discharge location.

The reporting requirements have been modified to recognize that this is a high quality discharge and that it may be difficult to download the temperature data each month. The Discharger is required to notify the Regional Water Board, in writing, at least three days prior to the start of the groundwater discharge each season. During the discharge season, a monitoring report must be submitted following the first full month of discharge and a second monitoring report must be submitted at the end of the discharge season.

General Information

Due to the fact that this project beneficially addresses a drought-related emergency, upon receipt of the remaining water quality characterization data and demonstration that the well water quality meets the requirements of the Low Threat Permit, MWCD will be authorized to begin discharging groundwater from the wells to surface waters under the provisions and restrictions of Order No. R1-2009-0045 prior to the conclusion of the public comment period.

Regional Water Board staff is proposing to regulate this project under General Low Threat Permit and pursuant to section 402 of the Federal Clean Water Act (CWA), implementing regulations adopted by the U.S. Environmental Protection Agency, and chapter 5.5, division 7, of the Porter-Cologne Water Quality Control Act (commencing with section 13370). Staff will consider all phone calls and comments submitted in writing and received within a 30-

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day comment period that begins on the first date of issuance of this letter and ends at 5:00 p.m. on the last day of the comment period. If you have any questions or comments, please contact staff member Cathleen Goodwin at (707) 576-2687 or cathleen.goodwin@waterboards.ca.gov within 30 days of the posting of this notice.

The information contained in this public notice is only a summary of the Applicant's proposed activities. The NOI to enroll under the General Low Threat Discharge Permit is available on the Regional Water Board website at www.waterboards.ca.gov and at the Regional Water Board office. The NOI contains additional details and maps about the proposed project. The related documents and comments received are on file and may be reviewed or copied at the Regional Water Board office, 5550 Skylane Boulevard, Suite A, Santa Rosa, California. Appointments are recommended for document review. Appointments can be made by calling (707) 576-2220.

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