

**ATTACHMENT NO. 1
TO PETITION FOR TEMPORARY URGENCY CHANGE
PERMIT NO. 2452
HELD BY MONTAGUE WATER CONSERVATION DISTRICT**

BACKGROUND

The Montague Water Conservation District (“MWCD”) is an irrigation district that owns and operates Dwinnell Reservoir, a reservoir on the Shasta River impounded by Dwinnell Dam (otherwise known as Lake Shastina, referred to herein as “Dwinnell Reservoir”). MWCD holds two appropriative water rights permits for the diversion of water to storage in Dwinnell Reservoir, Permit Nos. 2452 and 2453. Permit No. 2452 authorizes the diversion of up to 35,000 acre-feet of water per year from the Shasta River to storage in Dwinnell Reservoir from October 1 to June 15. The purpose of use is irrigation, to be provided to customers located within MWCD’s place of use (19,500 acres, as shown on map on file with Division of Water Rights) from April 1 to October 1. Permit No. 2453 authorizes the diversion of up to 14,000 acre-feet from Parks Creek to storage in Dwinnell Reservoir from October 1 to June 15. Water diverted from Parks Creek is commingled with water from the Shasta River in Dwinnell Reservoir and Permit No. 2453 has the same purpose and place of use as Permit No. 2452. This petition seeks a temporary urgency change to Permit No. 2452 only and not to Permit 2453 because the small quantity of water involved in the change can be accounted for under Permit No. 2452 since there was a relatively small amount of water available for diversion and diverted to Dwinnell Reservoir from Parks Creek under Permit No. 2453 this year.

MWCD releases water from Dwinnell Reservoir to the Shasta River for prior rights holders located downstream. These prior rights existed before Dwinnell Dam was built. Because the construction of the Dam affected these pre-existing water rights, MWCD entered into an agreement with the prior rights holders to provide them with water from Dwinnell Reservoir upon demand in lieu of their decreed rights up to a cumulative total of 3,382 acre feet per year.

MWCD recently entered into a settlement agreement with the Karuk Tribe and Klamath Riverkeeper to resolve litigation related to alleged violations of the federal Endangered Species Act (“Settlement Agreement”). Under the Settlement Agreement, during a dry year like this year, MWCD must provide 2,250 acre-feet per year for interim instream flow releases from Dwinnell Reservoir and maintain 2,000 acre-feet in storage for a minimum pool and beneficial uses needed after October 1. Above all, MWCD must continue to meet prior rights holders’ demands.

In addition to the water rights for storage in Dwinnell Reservoir, MWCD holds Permit No. 2581, which authorizes the year-round diversion of up to 2.3 cubic-feet-per-second (“cfs”) from the Little Shasta River for municipal use within the City of Montague (“City” or “City of Montague”). The City of Montague obtains its municipal water supply from the Little Shasta River under Permit No. 2581 when water is available for diversion. Typically, water is not available under Permit No. 2581 from approximately April to mid-November due to its relatively low priority under the Shasta River Decree. During the time when water is unavailable for

diversion under Permit No. 2581, MWCD has provided water from Dwinnell Reservoir to the City of Montague in the past through its Main Canal, when it is releasing water to the Main Canal for delivery to irrigation customers.

This summer, due to the drought and to obligations to release water from the limited quantity stored in Dwinnell Reservoir to the Shasta River for prior rights and instream uses under the Settlement Agreement, MWCD likely will not have sufficient water supplies from Dwinnell Reservoir to release water to the Main Canal for delivery to irrigation customers. Meanwhile, the City of Montague is facing a water supply shortage and will require water delivered from Dwinnell Reservoir to meet its demand this summer and fall. It is inefficient to use the Main Canal to deliver water to the City when MWCD is not releasing irrigation water to the Main Canal. The water conserved by the requested change will be used for the City's municipal supply this year. The temporary urgency changes proposed in this petition are needed to authorize MWCD's delivery of stored water through the Shasta River instead of the Main Canal for municipal use within the City of Montague this year.

PROPOSED CHANGES

As described in further detail below, MWCD proposes the following temporary urgency changes to Permits No. 2452:

- Add new point of re-diversion on the Shasta River near City of Montague;
- Authorize direct diversion at times after October 1 at the new point of re-diversion for municipal use until water is available under Permit No. 2581;
- Add municipal purpose of use and place of use within the City of Montague;
- Add fish and wildlife purpose of use and place of use in the Shasta River between Dwinnell Dam and the proposed new point of re-diversion.

If this petition is approved, MWCD can more efficiently deliver stored water to the City using the Shasta River as a conduit and, after October 1, directly divert the quantity needed for municipal use at the new point of re-diversion instead of diverting that quantity to storage in Dwinnell Reservoir. An incidental benefit of the changes proposed will be that water released from storage or regulation in Dwinnell Reservoir would remain in the Shasta River for approximately 24.5 river miles to the proposed new point of re-diversion. As described in more detail below, the water released for delivery to the City is not legally available for diversion by other appropriators or riparians that divert water from the Shasta River in between Dwinnell Dam and the proposed new point of re-diversion, even without the change to add an instream purpose of use; nonetheless, MWCD wishes to recognize the beneficial fish and wildlife use that the change will provide, if the petition is approved.

The City and MWCD are working with state and federal agencies to permit and construct a point of diversion on the Shasta River near the City of Montague. The proposed location is shown on the maps attached to this petition. (See Exhibit 1.) The diversion structure will have a fish screen that meets California Department of Fish and Wildlife ("CDFW") and National Marine Fisheries Service ("NMFS") requirements and be appropriately sized for the proposed diversion volume. Water diverted at the proposed new point of diversion will be pumped through a pump station using a 75 horse-power pump to the City's small regulating reservoir by a 15,000 foot long

pipeline. The re-diversion point is expected to be used only when MWCD is not releasing water to the Main Canal for irrigation and water from Little Shasta River is unavailable due to priority. MWCD proposes to release up to 1.5 cfs from Dwinnell Reservoir to the new re-diversion point at times (not continuously) from July 1 to December 27.

The proposed delivery of water through the Shasta River is needed when water is not available for diversion from the Little Shasta River under Permit No. 2581 and when MWCD is not releasing water to the Main Canal for irrigation. This circumstance is anticipated to occur starting now, though the City estimates it has sufficient supply until July 1. Therefore, this petition requests an effective date of July 1 for the temporary change and the term to last 180 days until December 27. MWCD will continue to have the ability to deliver water to the City through the Main Canal, if necessary (due to delays in construction of the proposed point of rediversion, restrictions on releases from Dwinnell Reservoir to the Shasta River, or for any other reason).

Before October 1, the water released to the Shasta River under this petition will be water previously diverted to storage in Dwinnell Reservoir. Fisheries agencies have raised concerns that at certain times this summer, the water temperature in Dwinnell Reservoir could reach levels that cause adverse effects to fish if additional water for the City is released to the Shasta River instead of the Main Canal. The potential for an unreasonable effect on fish and wildlife to occur as a result of this petition is discussed below. In the event that stored water from Dwinnell Reservoir is not available to meet the City's municipal demand at certain times this summer, whether due to a temperature restriction imposed on its release to the Shasta River or for any other reason, the City will need another source of municipal supply. As part of the larger emergency relief response to the City's water supply shortage, but outside the scope of this petition, the City and MWCD are proposing to construct a well to provide groundwater as the other source of supply to the City when water is not available from Dwinnell Reservoir. The funding agreement for the emergency relief response will require that the proposed groundwater well be used for municipal purposes only and will only fund infrastructure for delivery of municipal water. The proposed groundwater well is described further below, related to the fisheries agencies' concerns regarding temperature, for informational purposes only. No action by the Division of Water Rights is anticipated to be needed to extract groundwater or to deliver it to the City through the Shasta River as proposed. In any event, the City's other water supply source is not part of the approvals sought by this petition.

After October 1, the water released to the Shasta River under this petition will be either stored water or regulated water (i.e., water MWCD is authorized to divert under Permit No. 2452 and that is released after being regulated in Dwinnell Reservoir) for re-diversion at the proposed new point of re-diversion. After October 1, water temperatures are expected to be suitable for fish and will not cause the concerns raised by fisheries agencies described above.

Appropriative water rights to divert from the Shasta River were adjudicated by the Siskiyou County Superior Court pursuant to provisions in the Water Commission Act, resulting in a Judgment and Decree entered in Case No. 7035 on December 29, 1932. MWCD's water right under Permit No. 2452 for the diversion of water to storage in Dwinnell Reservoir is recognized in Decree paragraph 287. The Shasta River Decree is implemented by the Scott Valley and

Shasta Valley Watermaster District. MWCD has discussed the proposed change with the Watermaster District and Division of Water Rights staff. The Division will notify the Watermaster District and either the Division or the Watermaster District will notify the Siskiyou County Superior Court upon approving this petition to temporarily change Permit No. 2452.

If this temporary urgency change proves to be an effective means to deliver water to the City, MWCD intends to work with the Division of Water Rights and the Watermaster District to pursue permanent changes to its water rights to authorize the future delivery of municipal water to the City through the Shasta River at times when MWCD is not releasing water from Dwinnell Reservoir to the Main Canal for irrigation and water from the Little Shasta River under Permit 2581 is not available. Therefore, it is anticipated that there will be long-term benefit to constructing the proposed point of re-diversion and connection to the City's regulating reservoir, which will include operational flexibility and efficient means to put scarce water resources to reasonable beneficial use, provided the long-term changes to MWCD's water rights are approved in the future.

STATEMENT OF URGENT NEED

MWCD has an urgent need to temporary change Permit No. 2452 to authorize the use of water from Dwinnell Reservoir in the City of Montague for municipal use, using the proposed new point of re-diversion on the Shasta River. As described above, currently there is a low volume of water in storage in Dwinnell Reservoir, a portion of which is needed by the City of Montague to meet essential health and safety needs of its residents and this petition is necessary to deliver this water to the City in the most efficient way feasible.

The other water supply available to the City, water diverted from the Little Shasta River under Permit No. 2581, is currently unavailable due to the drought and the relative low priority of that right. It is expected to continue to be unavailable until December. MWCD has provided water to the City of Montague through the Main Canal in the past whenever water is not available for diversion from the Little Shasta River under Permit No. 2581 and while water is being released from Dwinnell Reservoir to the Main Canal for delivery to irrigation customers. The City of Montague has tried to find alternative sources of water for the period from April to mid-November for decades, including groundwater and alternative water supplies, without success.

The City of Montague and the MWCD Board began discussing and enlisting help from federal, state and local officials to address the City's water supply shortage in March when it became apparent that the City faced a critical water shortage. Meetings were held in April including the Governor's Office of Emergency Services ("OES"), the City, MWCD Board, other federal, state and local public agency representatives and interested stakeholders to discuss solutions to the City's water supply shortage. A consensus was reached by this group that the best option is to supply water stored in Dwinnell Reservoir to the City using the Shasta River as a conduit. This temporary urgency change petition seeks the authorization necessary to deliver water diverted under Permit No. 2452 to the City in the proposed manner.

From Petition Approval to October 1

Given the drought and current low storage volume in Dwinnell Reservoir, MWCD likely will be unable to deliver irrigation water to its customers through the Main Canal this summer. It is extremely inefficient to use the Main Canal to deliver water to the City when MWCD is not delivering irrigation water through the Main Canal at the same time. Not only do certain stretches of the Main Canal have higher loss rates than others, which MWCD proposes to address in the future through a long-term conservation project, but also the lack of wetted canal and conveyance typically provided by irrigation water moving through the Main Canal means additional water would need to be released to reach the City's intake off the Main Canal. For example, when releasing water for the City without concurrent irrigation deliveries using MWCD's current infrastructure, MWCD must release a three day long "pulse" of water to the City via 27 miles of dry canal through the Main Canal and its laterals. The volume of water needed to fill the City's 10 acre foot reservoir is about 180-200 acre feet per pulse. These pulses are needed every 10-14 days to refill the City's reservoir. Thus, approximately 400-500 acre feet would need to be released per month over the next six months (totaling 2,400-3,000 acre feet) if this petition is not approved. There is insufficient storage volume in Dwinnell Reservoir to meet this demand, even with the mandatory conservation measures implemented by the City, which are expected to significantly reduce municipal demand and thereby the number of pulses needed to fill the reservoir. In summary, this year, the City will need water from Dwinnell Reservoir at times when MWCD is not delivering irrigation water to customers through the Main Canal. The small amount of stored water in Dwinnell Reservoir is essential for the City's municipal use this year, given the ongoing critically dry conditions and shortage of water from the City's other source, but there will only be sufficient quantity if it is delivered to the City using the Shasta River as a conduit, as proposed under this petition.

This year, MWCD is facing unprecedented low storage volume in Dwinnell Reservoir. MWCD is authorized to divert a total of up to 49,000 acre-feet to storage in Dwinnell Reservoir from October 1 to June 15 under Permit Nos. 2452 and 2453. On average, MWCD typically diverts 35,000 acre-feet to storage each year. The storage level in Dwinnell Reservoir at the end of April was 5,800 acre-feet. (See Exhibit 2.) For reference, the lowest previous storage volume in Dwinnell Reservoir on April 1 was 13,800 acre-feet in 1977. Although MWCD is authorized to divert water to storage until June 15, inflows to Dwinnell Reservoir have been less than 10 cfs recently, and inflows are expected to drop to zero by mid-May. May snowpack surveys in Scott River are at 0% of normal, including a site near headwaters of Shasta River. Therefore, the storage volume is unlikely to increase this year.

There are several demands on the low volume in Dwinnell Reservoir this year. As noted above, MWCD delivers up to 3,382 acre-feet to prior rights holders each year. Remaining for this year's irrigation season, approximately 2,000 acre-feet is expected to be required to be released out of storage for prior rights holders. In addition, MWCD must release interim instream flows under the Settlement Agreement, described above, and there is approximately 250 acre-feet remaining to be released under that obligation this water year. MWCD is also obligated under the Settlement Agreement to hold 2,000 acre-feet in storage as a minimum pool for both the City's supply and interim instream flows after October 1. Given these demands, without the proposed changes, MWCD calculates it cannot supply water to the City of Montague throughout

the summer under current infrastructure and storage volume. Therefore, without the proposed changes, MWCD likely will be unable to provide water to the City of Montague beyond mid-July or early August, depending on effectiveness of the City's water conservation efforts and the actual storage volume available in Dwinnell Reservoir.

After October 1 until End of Petition Approval Term

After October 1, it is anticipated that water will continue to be unavailable from the Little Shasta River under Permit No. 2581 until at least December this year. In that event, if this petition is approved, after October 1 MWCD could supply the City by continuing to release stored water for re-diversion by the City or, once inflows to Dwinnell Reservoir begin, by re-diverting water released from Dwinnell Reservoir after a period of regulation for direct diversion at the proposed point of re-diversion. After October 1, MWCD also will continue to have obligations to release water for prior rights and under the Settlement Agreement, as described above. The City will continue to have an urgent need to use water under Permit No. 2452 as long as water is unavailable from the Little Shasta River.

Drought Conditions and Water Conservation Efforts

This year, California is experiencing unprecedented critically dry hydrological conditions in the third straight year of below average rainfall and snowmelt runoff. Calendar year 2013 was the driest year in recorded history for many parts of California, and water year 2014 is the driest to date. On January 17, 2014, Governor Brown declared a drought state of emergency ("January Declaration"), recognizing that the state's water reservoirs have very low water levels and major river systems have significantly reduced surface water flows. The January Declaration ordered the State Water Board to expedite the processing of water transfers, to accelerate funding for water supply enhancement projects, and to take actions necessary to make water immediately available, and, under the states' Drinking Water Program, to provide assistance to address drinking water shortages and identify emergency interconnections among public water systems. This petition implicates all of these provisions. On April 25, 2014, Governor Brown issued another Drought Declaration ("April Declaration"), which recognized that California's water supplies continue to be severely depleted and that additional expedited actions are needed. The April Declaration ordered the State Water Board to "immediately and expeditiously process requests to move water to areas of need" and to "provide appropriate assistance to public agencies... in establishing temporary water supply connections to mitigate effects of the drought" in coordination with other state agencies. The California Department of Public Health ("CDPH"), the Office of Emergency Services ("OES") and the Office of Planning and Research are assisting the City of Montague in implementing solutions to its vulnerability to acute drinking water shortage, as called for in the April Declaration.

The City of Montague and MWCD have implemented their local water shortage contingency plans and taken action to reduce water use, as called upon to do in the January and April Declarations. As described further below, MWCD and the City have declared a drought emergency and taken steps to reduce water use. (See Exhibits 3 and 4.)

The MWCD Board notified irrigation water users in February of the low water supply conditions and the fact that there could be no irrigation water available this year. (See February newsletter

in Exhibit 3.) MWCD typically determines quotas and irrigation water cost based on storage in Dwinnell Reservoir on April 1. This year, it was apparent that there would not be enough water for typical operations, either for irrigation deliveries *or* for the City if delivered through the Main Canal. (See formula and calculation provided in letter to landowners and water users in Exhibit 3.) The MWCD Board decided in mid-April to provide a single rotation of up to 1,500 acre-feet of irrigation water at \$125 per acre-foot to raise revenue for the District's pressing financial needs and to provide some drought relief to landowners, many of whom have had to stop irrigating pasture and sell livestock. (See April 14 meeting minutes and letter to landowners and water users in Exhibit 3.) Water released for irrigation purposes was used to fill ponds for long term livestock watering purposes, prevent stand loss of pasture and provide limited livestock feed. Many district irrigators are facing with the hard decisions of reducing herd sizes and eliminating herds due to lack available feed and costs for re-placement feed supplies. The irrigation cycle eased that condition for many users. Even with the irrigation cycle, MWCD district users were supplied the least volume of water compared to any irrigation district or user in the watershed this year. In addition, the Board's decision was based on the fact that a portion of that small quantity sold would be lost to evaporation and groundwater recharge by late summer if it remained in Dwinnell Reservoir, and the irrigation water released to the Main Canal was used to convey water to the City of Montague at the same time. At the end of April, MWCD cut-off irrigation deliveries early to hold reserves for the City, Settlement Agreement obligations and prior rights. (See April 25 meeting minutes in Exhibit 3.) The City would have had an urgent need to receive water deliveries through the Shasta River and not the Main Canal even if the irrigation water sold in April had remained in Dwinnell Reservoir, and the sale provided District irrigators and the City with critically needed water and ensured that scarce water supplies were put to reasonable beneficial use.

The City Council declared a local emergency due to drought conditions on April 10 and enacted mandatory water restrictions with financial penalties on April 11. (See Exhibit 4.) The City is not irrigating the City park or recreation areas this year and has severely restricted residents' outdoor water use. The City estimates that its municipal demand with the emergency conservation measures in place is approximately 40 acre-feet per month, and that it currently will run out of water by July or August even with the emergency water conservation measures in place. There are 1,400 residents in the City of Montague facing no drinking water or operable sewage. If the point of re-diversion and pipeline to the City's reservoir is not completed in time, there are contingency plans to truck water from the City of Yreka's water source and to provide bottled drinking water.

If the temporary urgency change petition is approved and the proposed point of re-diversion for the City is added to the Shasta River, then it appears likely that there will be sufficient water in Dwinnell Reservoir for MWCD to provide water to the City until flows resume in the Little Shasta River. This petition meets the requirement for "urgent need" under Water Code section 1435(b)(1) because it is necessary to provide critical drinking water supply, meet the municipal demand and protect the health and safety of the residents of the City of Montague.

NO INJURY TO ANY OTHER LAWFUL USER OF WATER

This petition would temporarily authorize MWCD to deliver water previously diverted to storage in Dwinnell Reservoir to the City of Montague for municipal use, using the Shasta River as a

conduit, or to directly divert regulated water released from Dwinnell Reservoir after October 1 at the same point of re-diversion for municipal use. MWCD proposes to release up to 1.5 cfs for this purpose. The stored or regulated water released to the Shasta River is proposed to be re-diverted by the City through a new point of re-diversion on the Shasta River approximately 24.5 river miles downstream of Dwinnell Dam, near the City. (See Exhibit 1.) The Watermaster implements the Shasta River Decree in the Shasta Valley Watermaster Service Area (“SVWSA”), including this stretch of the River (See Exhibit 5 for a description of Watermaster activities in the SVWSA for the 2012 season.) As noted above, MWCD has discussed the proposed change with the Watermaster District and Division of Water Rights staff. The Division will notify the Watermaster District and either the Division or the Watermaster District will notify the Siskiyou County Superior Court upon approving this petition to temporarily change Permit No. 2452. There are five prior rights holders below Dwinnell Dam with a right of up to a cumulative total of 3,382 acre-feet per year from Dwinnell Reservoir, as described above, two of which divert from the Shasta River and three from the Main Canal. (See p. 15 in Exhibit 5.) Besides prior rights, under the Decree, there are six active points of diversion between Dwinnell Dam and the proposed point of rediversion. (See Exhibit 6.) In addition, although not adjudicated as part of the Decree, MWCD believes there are three riparian diversions between Dwinnell Dam and the proposed point of rediversion.

Any stored water released for delivery to the City under this petition will not be “abandoned water” and will not be available for diversion by other appropriators or riparians that divert water from the Shasta River in between Dwinnell Dam and the proposed new point of re-diversion. (*Stevens v. Oakdale Irr. Dist.* (1939) 13 Cal.2d 343, 350-353; Water Code §§7044, 7075; Shasta Decree Sec. II, ¶4, page 4 (defining natural flow to exclude released stored water and foreign water conveyed to the stream).) Although MWCD is petitioning to add instream use between Dwinnell Dam and the City’s proposed point of diversion, it should be noted that the stored water released for delivery to the City using the Shasta River as a conduit is legally protected and must remain in the River to the City’s point of re-diversion even without the addition of an authorized instream purpose of use. (*Id.*) Because the water to be re-diverted under this petition is not natural flow, the users of water located between Dwinnell Dam and the proposed point of re-diversion will not be injured since the waters will have already been diverted and, after being released from storage in Dwinnell Reservoir, will flow past these users to be re-diverted by the City.

After October 1, MWCD may release water previously diverted to storage in Dwinnell Reservoir or water regulated in Dwinnell Reservoir that MWCD would otherwise have a right to divert to storage during the authorized season of diversion under Permit No. 2452. This petition seeks to authorize the direct diversion of the regulated water at the proposed new point of re-diversion for the City’s municipal use after October 1, in addition to the rediversion of previously stored water. The proposed quantity of water to be directly diverted would remain up to 1.5 cfs. This water would not be available for diversion by others because it is water that MWCD would otherwise have the right to divert upstream and, in fact, that MWCD takes under control in Dwinnell Reservoir and releases, after a period of regulation, with the intent to recapture it downstream. It will be subject to the same or lower (due to shorter residence time) rate of storage loss as it would typically be subject to if it were diverted to storage in Dwinnell Reservoir. In addition, the season of diversion for irrigation under the Decree ends on October 1

and there will be no water users with a right to divert under the Decree between Dwinnell Dam and the proposed new point of re-diversion after that date.

Regarding the proposed temporary change to direct diversion of up to 1.5 cfs for municipal use after October 1, the Division of Water Rights has previously approved petitions to change a storage right to direct diversion where the change does not increase the amount of water taken from a water source at a given time. For example, in Order WR-2009-0061, the Division approved the change from a storage right to a direct diversion right for the City of Santa Cruz to authorize its use, during the winter months, of water from its reservoir at the same time that it is filling the reservoir. The Division explained that the change could be approved provided it is “appropriately conditioned to ensure that the change does not, in fact, result in increased diversions over the amount to which the petitioner would otherwise have been legally entitled and as a practical matter would otherwise have been able to divert, were the permit to have remained unchanged.” (*Id.* at p. 6-7.) The Division explained that the change did not result in the initiation of new right where the season of diversion and authorized quantity did not change, and the change was merely a change in what is done with water after it is diverted from the natural streamflow. (*Id.*) The same type of change is being proposed here. And, similar to that petition, the change here is necessary to put scarce water resources to beneficial use to meet municipal demand, which “promotes important public policies, including the efficient use of waters of the state and protection of public trust uses.” (*Id.* at p. 12.)

MWCD has made releases from Dwinnell Dam in the past to enhance instream flows in coordination with CDFW, NMFS and The Nature Conservancy. The monitoring efforts that occurred during these past events are described in the August 6, 2013 Memorandum from The Nature Conservancy, “Monitoring of pulse flows contributed to the Shasta River – April 13.” (Exhibit 7.) This Memorandum is provided here as an example of past monitoring and the results of those efforts for reference. Below is a list of websites that provide real-time information measured by gauges, which measure water diverted under Permit No. 2452, released to the Shasta River through the cross canal, and in the Shasta River near the City of Montague.

List of Relevant Gauges and Links to Real-Time Data

MWCD Dwinnell Storage

http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=DRE

Dwinnell release to Shasta River through cross canal

http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=SRX

Shasta River near Montague

http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=SRM

Shasta River at Grenada Irrigation District

http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=SRG

MWCD proposes to provide real time monitoring at both the point of release and the point of re-diversion to demonstrate the volume of water released and diverted are equivalent. A gauge will be installed at the new point of re-diversion that is capable of measuring and transmitting real

time data, including flow volume and water temperature provided via a Doppler flow-meter with accuracy within 10% for flow and within 0.3°C. In addition to the real-time flow data available on the above websites, MWCD proposes to monitor and report flows to the Division as follows. MWCD proposes to notify the Division prior to releasing water from Dwinnell Reservoir to the Shasta River for the City and to provide such notice three days prior to the release, if feasible, or as soon as possible. MWCD will report flow measurements to the Division on a weekly basis thereafter while releasing water for the City under this petition. MWCD proposes to report temperature data with these same reports, as described further below.

The changes proposed by this petition will not result in initiation of new right because MWCD will ensure that the City is re-diverting only the volume of stored or regulated water that was released through monitoring, as described above. MWCD will continue to meet demands from prior rights holders for water released from Dwinnell Reservoir in addition to providing the water released for the City's re-diversion. As such, prior rights holders will not be injured. For all of the reasons provided above, the change will not cause injury to any other lawful user of water.

NO UNREASONABLE EFFECT UPON FISH, WILDLIFE OR OTHER INSTREAM BENEFICIAL USES

In determining whether the impact of the proposed changes on fish and wildlife is reasonable, the short-term impact to fish and wildlife must be weighed against the long-term impact to all beneficial uses of water if the changes are approved. It is anticipated that the short term impacts to fish and wildlife under the petition would be beneficial, provided that the water temperature of the water released to the Shasta River is suitable. During the summer, releasing water from Dwinnell Reservoir to the Shasta River has the potential to cause short-term adverse effects on fish and wildlife by warming the Shasta River. The petition would ensure that scarce water supplies are put to reasonable, beneficial use by providing an essential municipal supply to the City of Montague.

If the proposed petition is approved, until October 1, MWCD will release previously stored water to the Shasta River that otherwise would remain in Dwinnell Dam or be released to the Main Canal and after October 1, release water that otherwise would be diverted to storage in Dwinnell Reservoir. It is anticipated that the additional water released to the Shasta River under the petition will have a beneficial effect upon fish and wildlife, provided temperatures are suitable. The water will increase instream flows in a critical reach of the Shasta River where coho salmon, a state and federal threatened species, are found rearing during the summer and early fall, while delivering water to the City much more efficiently and with minimal loss. The released water will remain in the Shasta River for approximately 24.5 river miles to the proposed new point of re-diversion.

MWCD has consulted the CDFW and NMFS regarding this proposed temporary urgency change. The fisheries agencies expressed concern with the temperature of the water proposed to be released from Dwinnell Reservoir at times during the summer. CDFW indicated that it would support a release of water only if the temperature of that water did not exceed 18°C and the water remained in the stream between Dwinnell Dam and the proposed new point of re-diversion. As

described above, MWCD proposes to monitor released water to ensure that only the water released from Dwinnell Reservoir is re-diverted by the City. MWCD also proposes to monitor the temperature of water releases to ensure that there is no unreasonable effect on fish and wildlife resources. The temperature trigger of 18°C is conservative such that releases will be ramped down once that trigger is reached as opposed to setting a lower trigger to begin ramping down. MWCD proposes to measure temperature in Dwinnell Reservoir and the cross canal to confirm the temperature trigger is not exceeded prior to releasing water under this petition, and MWCD will provide the temperature measurements to the Division in the notification and weekly monitoring reports described above. MWCD also proposes to consult CDFW regarding a schedule of releases, including timing and gradual ramping up and down of releases to avoid adverse consequences such as creating attraction flows.

If the temperature restriction recommended by CDFW is adopted as a condition of approval of this petition, then it is estimated that MWCD will be unable to release stored water from July through mid-September. Although the City temporarily stores municipal supply in a small regulating reservoir that can provide municipal supply for approximately 10 to 20 days, during those times that MWCD cannot release water from Dwinnell Reservoir for the City, the City will need to find another source of water supply. CDFW has suggested in meetings regarding the larger emergency relief response to the City's water supply shortage that a groundwater well located near Dwinnell Dam could provide the alternative water supply to the City and provide a cooler water supply to the Shasta River in the same stretch that the stored or regulated water from Dwinnell Reservoir is proposed to provide instream beneficial use. Both CDFW and NMFS strongly support this concept. As noted above, the funding agreement for the emergency relief response will require that the proposed groundwater well be used for municipal purposes only. Although outside the scope of this petition, it is noted that under this concept, at times when MWCD is unable to release water to the Shasta River due to a temperature restriction, the well would extract groundwater and convey it through a pipe to a point on the Shasta River below Dwinnell Dam, and the City would re-divert the groundwater at the proposed new point of re-diversion, similar to the conveyance of stored water. Also similar to the stored water, the groundwater would be foreign water conveyed through the Shasta River as a conduit for the City's re-diversion and would not be legally characterized as abandoned water available for diversion by others; thus, it would be protected for instream use between Dwinnell Dam and the point of re-diversion without further legal action. (*Stevens v. Oakdale Irr. Dist.* (1939) 13 Cal.2d 343, 350-353; Water Code §§7044, 7075; Shasta Decree Sec. II, ¶4, page 4 (defining natural flow to exclude released stored water and foreign water conveyed to the stream).)

The proposed location, construction and operation of the groundwater well are outside the scope of this petition, but it is briefly described here because it is CDFW's and NMFS's preferred approach to meet the City's summer demand and enhance instream flows using a groundwater source. Without another municipal water source this summer, the water stored in Dwinnell Reservoir is the City's most feasible local source of water, and any temperature limitation restricting its use may need to be waived or reduced, if necessary, in order to meet the essential health and safety needs of the residents of the City of Montague. Thus, this petition proposes that the Division of Water Rights condition the release of water from Dwinnell Reservoir on a temperature restriction only when no other water supply source is available to meet municipal demand.

The January Declaration ordered the State Water Board to “consider modifying requirements for reservoir releases or diversion limitations, where existing requirements were established to implement a water quality control plan. These changes would enable water to be conserved upstream later in the year to protect cold water pools for salmon and steelhead, maintain water supply, and improve water quality.” The April Declaration ordered the Department of Fish and Wildlife to “work with other state and federal agencies and with landowners in priority watershed to protect threatened and endangered species and species of special concern and maximize the beneficial uses of scarce water supplies, including employment of voluntary agreements to secure instream flows, relocation of members of those species, or through other measures.” These provisions support the proposal stated above to condition the release of water from Dwinnell Reservoir on a temperature restriction only when an alternative water supply source is available to meet municipal demand.

For the reasons provided above, with the proposed temperature condition on releases of water from Dwinnell Reservoir whenever there is an alternate supply available to the City, the change will not cause an unreasonable effect on fish, wildlife or other instream uses.

PUBLIC INTEREST

For all the reasons stated above, the proposed change is in the public interest. MWCD and the City of Montague have implemented water conservation measures, described above. The proposed changes are necessary to utilize scarce water supplies for an essential health and safety purpose, to meet the needs of the residents of the City of Montague who have been found by OES and CDPH to be vulnerable to an acute drinking water shortage.