



State of Idaho

DEPARTMENT OF WATER RESOURCES

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BRAD LITTLE
Governor

GARY SPACKMAN
Director

October 29, 2020

RICH URQUIDI
DIRECTOR OF PUBLIC WORKS
CITY OF MOUNTAIN HOME
PO BOX 10
MOUNTAIN HOME ID 83647

Re: Response to Request to Remove Condition of Transfer No. 78273

Dear Mr. Urquidi,

The Idaho Department of Water Resources ("IDWR") received your letter requesting removal of a condition on water rights 61-2167, 61-2188, 61-2210, 61-7151, 61-7172F, and 61-7439 ("City's water rights"). The condition you asked IDWR to remove requires the City of Mountain Home ("City") to submit an annual report with volume diversion data. The intent of the reporting requirement is for the City to demonstrate that all of the water diverted under the City's water rights is for municipal-type irrigation use. After review of the City's 2015-2019 reports, IDWR believes the annual reporting of the data is still required to demonstrate compliance with the City's water rights. I offer this letter as further explanation regarding why IDWR is not granting your request to remove the condition from the City's water rights at this time.

The condition you asked to be removed states:

Starting January 15, 2016, and continuing every January 15 until notified by the department, the right holder shall submit a report annually to the department demonstrating that the water diverted under rights 61-2167, 61-2188, 61-2210, 61-7151, 61-7172F, and 61-7439 is necessary to satisfy demands for municipal type irrigation use during the authorized period of use. The annual report shall include the maximum weekly volume diverted for all purposes during both the irrigation season and the non-irrigation season. The annual report shall also include the total volume diverted for all purposes during both the irrigation season and non-irrigation season. After specific notification by the department, the right holder shall provide to the department any data used to compile the report.

I will refer to this condition as the "annual volume reporting condition." IDWR added the annual volume reporting condition to the City's water rights when it approved Transfer of Water Right Transfer No. 78723 ("Transfer 78723") on September 22, 2014.

Transfer 78723 proposed a nature of use change from irrigation use to municipal use. Idaho Code § 42-222 requires IDWR to ensure processing of a transfer application will not result in enlargement of the water right(s). Because municipal water use potentially includes fully consumptive components, such as certain industrial and commercial uses, IDWR generally assumes that a water right for municipal use may be fully consumptive now or may become fully consumptive in the future. In a transfer to change the nature of use of a water right to municipal use, limiting the municipal use volume to the historic consumptive use volume ensures the water right is not enlarged through the transfer process.

During processing of Transfer 78723, the City requested to maintain the City's water rights' authorized diversion volume for the proposed municipal use rather than being limited to the historic consumptive use volume. This request was contrary to IDWR's usual practice, which is in place to avoid enlargement. To alleviate the concern of enlargement, the City provided information to demonstrate the intended use of the water rights was municipal-type irrigation use. IDWR reviewed the information and approved the nature of use change from irrigation to municipal use without limiting the municipal use volume to the historic consumptive use. IDWR placed the annual volume reporting condition on the City's water rights to ensure the new use would not result in enlarged consumptive use compared to the historic irrigation use. Along with the annual volume reporting condition, IDWR also placed a condition on the City's water rights requiring periodic submittal of an analysis documenting the number of acres irrigated under the municipal-type irrigation water rights. The purpose of the analysis is to confirm the number of acres under municipal-type irrigation, which is additional assurance that the use for municipal-type irrigation is not being converted to more consumptive municipal uses over time.

The nature of use change in Transfer 78723 resulted in authorization for diversion of up to 4305.7 acre-feet (AF) annually for municipal-type irrigation use. This volume of water is the historic diversion volume associated with the irrigation use authorized under the water rights prior to Transfer 78723. Historically, when the rights were used for irrigation, the 4305.7 AF per year was not fully consumed. As explained above, municipal use is considered fully consumptive. If any of the 4305.7 AF per year of water authorized under these rights is used for municipal uses other than municipal-type irrigation use, the amount of water consumed may exceed the amount of water historically consumed, which would be an enlargement of the City's water rights.

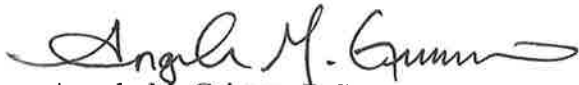
The enclosed memo is an analysis of the reporting requirements and data submittals by the City for the last five years (2015-2019). This analysis shows that the diversion volume of water for all uses fluctuates annually. Although there is a significant change in total volume of water diverted annually, there appears to be minimal change when observing the percent of total annual volume diverted utilized for irrigation use. The past five years of data have been important in establishing a base-line trend reflecting the City's water use; however, it is essential to distinguish if future increases in demand and development of land use will alter current trends. For this to be determined, it is necessary for the City to continue reporting the maximum weekly volume and the total volume diverted for all purposes during both the irrigation season and non-irrigation season, so that annual trends may continue to be analyzed.

The City cites cost as a reason for the request to remove the annual volume reporting condition. In an attempt to alleviate some of the cost, IDWR will, on a trial basis in 2021, accept the raw data (with proper units) in Excel format rather than in a formal report. Ashley Ritter, Associate Engineer with IDWR, will contact you to discuss future data submittal requirements. IDWR may review a future request to remove the annual volume reporting condition, provided future data analysis supports it.

As mentioned above, Transfer 78273 also required the City to submit an analysis, based on current aerial imagery, of the number of acres irrigated under the municipal-type irrigation use authorized by Transfer 78273. This analysis is to be submitted every five years, or more or less frequently if deemed necessary by IDWR. The City has not submitted this analysis. As being an additional measure of the use occurring, IDWR requests the City submit this analysis within the next two (2) years. This analysis, along with a few additional years of annual volume data, may serve as the basis for IDWR's future consideration of adjustment or removal of the reporting requirements.

Please call me at (208) 287-4951 if you have any questions or would like to discuss this matter further.

Regards,

A handwritten signature in black ink, appearing to read "Angela M. Grimm", with a stylized flourish at the end.

Angela M. Grimm, P.G.

Water Rights Section Manager

Cc. Jordan Crane, Keller Associates (via email)

Enclosures: Water Rights 61-2167, 61-2188, 61-2210, 61-7151, 61-7172F and 61-7439
Annual Reporting Requirements Review memo

MEMORANDUM

To: Water Right File: 61-2167, 61-2188, 61-2210, 61-7151, 61-7172F and 61-7439
From: Ashley Ritter
Date: August 5, 2020
Re: Annual Reporting Requirements Review

Intro

On January 16, 2020, the Idaho Department of Water Resources (IDWR) received *The City of Mountain Home Water Rights - 2019 Annual Report* for the above mentioned water rights. The report was submitted by Jordan Crane, Project Engineer, with Keller Associates, Inc. on behalf of the water rights owner, the City of Mountain Home (City). An annual report submittal is required as part of the conditions of approval for Transfer 78273, demonstrating that the water diverted under water rights 61-2167, 61-2188, 61-2210, 61-7151, 61-7172F and 61-7439 is necessary to satisfy demands for municipal type irrigation use during the period of use (see water right files for specific condition verbiage and condition number). The annual report shall include the maximum weekly volume and the total volume diverted for all purposes, during both the irrigation season and non-irrigation season.

A separate condition of approval of Transfer 78273 requires that every five (5) years, or more or less frequently if deemed necessary by the department, the right holder shall submit an analysis, based on current aerial photography, of the number of acres irrigated for municipal type irrigation within the authorized place of use that are not already covered by Mountain Home Irrigation District or other surface water rights.

Review of 2019 Annual Report

2019 Reported Data:

1. Irrigation season maximum week (April 1-October 31) 247.5 acre-feet (AF), 80,654,000 gallons rounded.
2. Non-irrigation season maximum week (January 1- March 31, November 1- December 31) 38.5 AF, 12,541,000 gallons rounded.
3. Total water pumped during irrigation season (April 1- October 31) 4,162.7 AF, 1,356,429,000 gallons rounded.
4. Total water pumped during non-irrigation season (January 1- March 31, November 1- December 31) 541.9 AF, 176,575,000 gallons rounded.

IDWR Data Analysis

Municipal water rights, for evaluation purposes, are considered to be 100% consumptive. When an irrigation water right is transferred and the nature of use is changed from irrigation to municipal, the irrigation water right is normally reduced to its historic consumptive use volume to prevent injury and enlargement. The City applied for a transfer proposing to irrigate at least 1061.2 acres of municipal type irrigation (lawn, garden, parks, open space and/or land application of wastewater) each year.

Transfer 78273 was approved, authorizing the City to transfer 1061.2 acres of irrigation use (4305.7 AF) to “municipal” use (intended for municipal irrigation use) without the usual reduction of water rights to their historic consumptive use volumes. IDWR has performed an analysis to aid in determining if the City is utilizing the transferred water rights for municipal type irrigation purposes and not converting former irrigation rights to other municipal uses, such as industrial or commercial use.

Year	Total Volume Diverted: 1/1 to 12/31 (AF)	Total Volume Diverted During Irrigation Season (AF) 4/01 to 10/31	Total Volume Diverted during Non-Irrigation Season (Municipal Use Occurring during Non-Irrigation Season) : (AF) Diverted 1/1 to 3/30 and 11/01 to 12/31	Average Weekly Municipal Use Volume (AF) (During Non-Irrigation Season): 1/1 to 3/30 and 11/01 to 12/31	Municipal Use Occurring During Irrigation Season: (AF), Based on Average Weekly Municipal Use Volume for 31 Weeks	Total Annual Municipal Use (not used for Irrigation purposes) (AF)	Total Annual Irrigation Use (AF)	Volume (AF) Authorized by Municipal Irrigation Rights	Municipal Use: Percent of Total Volume Diverted During Irrigation Season	Irrigation Use: Percent of Total Volume Diverted During Irrigation Season	Municipal Use: Percent of Total Volume Diverted Annually	Irrigation Use: Percent of Total Volume Diverted Annually	% Municipal Irrigation Rights Used	Maximum Average Flow Rate During Irrigation Season (cfs)
2015	5,830	5,213	617	28	873	1,490	4,340	4305.7	17%	83%	26%	74%	101%	18.8
2016	5,518	4,925	593	27	830	1,423	4,095	4305.7	17%	83%	26%	74%	95%	19.1
2017	4,632	4,044	588	27	840	1,428	3,204	4305.7	21%	79%	31%	69%	74%	15.9
2018	5,315	4,751	564	26	798	1,362	3,953	4305.7	17%	83%	26%	74%	92%	20.3
2019	4,705	4,163	542	25	780	1,322	3,383	4305.7	19%	81%	28%	72%	79%	19.8

Note: "Irrigation Use" refers to Municipal type Irrigation use

Table 1. City of Mountain Home Municipal Water Use¹

A summary of the City’s municipal water use (Table 1) was used to determine the total “municipal type” irrigation use on an annual basis, and thus the annual percent of municipal irrigation rights being used (data used to compile summary is within a separate excel spreadsheet titled City of Mnt Home Data). A full explanation of Table 1 and how values were calculated can be found within the excel spreadsheet. For this analysis the information in yellow will be explained.

Note: “Irrigation use” as referenced in Table 1 or referenced in any explanation within this memo is referring to “municipal type” irrigation use. “Municipal Use” refers to all municipal uses excluding “municipal type” irrigation.

Explanation of Yellow Components in Table 1:

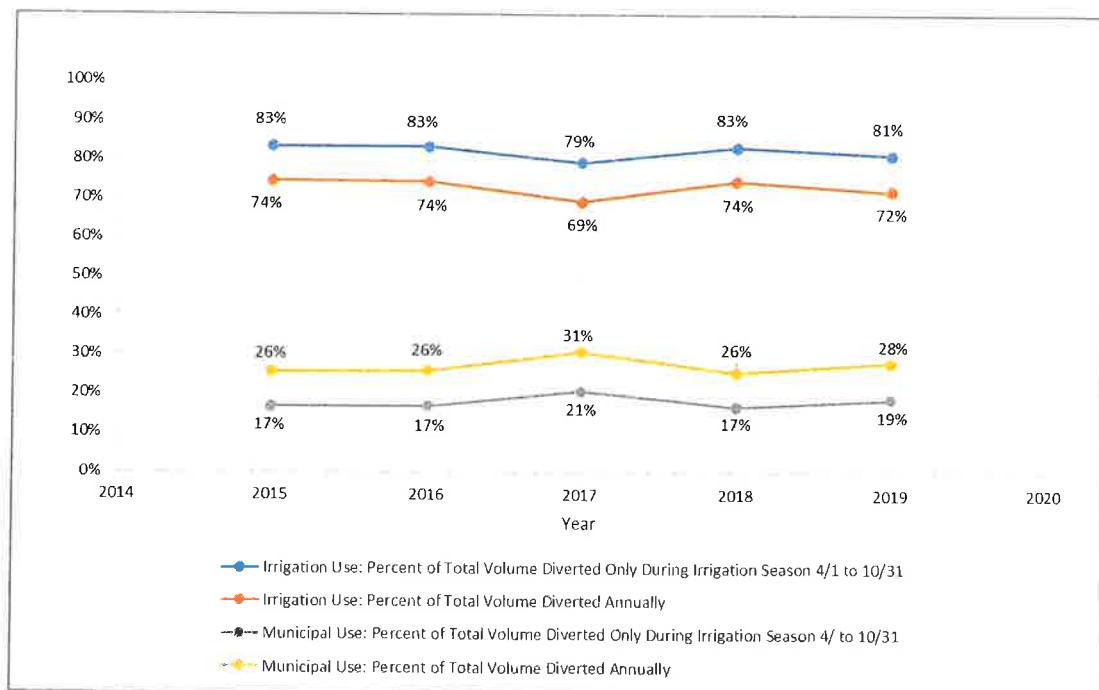
- **Volume Authorized by Municipal Irrigation Rights:** This is the total annual volume authorized for municipal type irrigation use associated with water rights involved in Transfer 78273 (water rights: 61-2167, 61-2188, 61-2210, 61-7151, 61-7172F, and 61-7439)
- **Municipal Use: Percent of Total Volume Diverted During Irrigation Season:** This percent value represents the portion of the total volume ONLY diverted during the irrigation season (4/01 through 10/31) allocated for Municipal (non-irrigation) use.
- **Irrigation Use: Percent of Total Volume Diverted During Irrigation Season:** This percent value represents the portion of the total volume ONLY diverted

¹ A condition of approval for Transfer 78273 includes that the period of use for municipal type irrigation may be extended to a beginning date of 3/15 and an ending date of 11/15 provided that beneficial use of the water can be shown and other elements of the right are not exceeded. The excel spreadsheet titled City of Mnt Home Data includes an analysis with the irrigation season as 4/01 through 10/31 and also a separate analysis with the irrigation season as 3/15 through 11/15. To IDWR's knowledge the City is utilizing an irrigation season of 4/01 through 10/31.

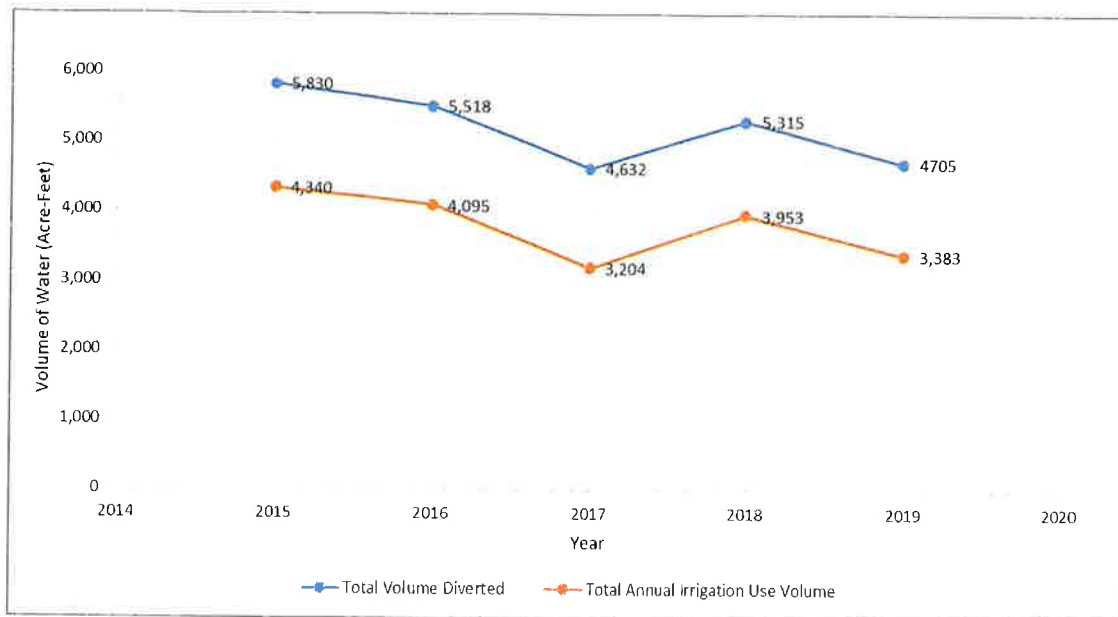
during the irrigation season (4/01 through 10/31) allocated for “municipal type” irrigation use.

- **Municipal Use: Percent of Total Volume Diverted-** This percent value represents the portion of the total annual volume (1/1 to 12/31) diverted allocated for municipal “non-irrigation” use.
- **Irrigation Use: Percent of Total Volume Diverted-** This percent value represents the portion of the total annual volume (1/1 to 12/31) diverted allocated for “municipal type” irrigation use.
- **% Municipal Irrigation Rights Used:** Calculated by dividing the Total Municipal Irrigation Use volume by the Volume Authorized by Municipal Irrigation Rights.

The Municipal Irrigation Rights Used percentage relates the volume of water calculated as being attributed directly to “municipal type” irrigation use in relation to the volume allowed by the municipal irrigation rights involved in Transfer 78273. If this number is reported at or greater than 100% then the City is utilizing the entire volume authorized for “municipal type” irrigation use. Anything less than 100% indicates that the City may not be utilizing the entire volume authorized, but does not indicate whether or not the volume allowed by the municipal irrigation rights is being used for other municipal type uses (non-irrigation uses). It is important to look at “municipal type” irrigation use vs. municipal “non-irrigation” use annually in attempt to evaluate if there are any major changes in use occurring.



Graph 1: Illustrates the relationship of irrigation use vs municipal use based on total annual volume diverted and volume diverted only during the irrigation season (4/1 to 10/31).



Graph 2: Illustrates the relationship between the total annual volume diverted for all uses vs. the total annual volume diverted for irrigation use.

As illustrated in Graph's 1 and 2 shown above, the annual water diverted (for all uses) has fluctuated from 2015 to 2019. The greatest annual diversion of water occurred in 2015 (5830 AF), with the smallest annual diversion occurring in 2017 (4632 AF). There was an approximate 1200 AF difference regarding volume of water diverted when comparing 2015 to 2017. Observing the percent volume attributed to irrigation use (orange line on graph 1) in 2015, 74% of the total volume diverted was used for irrigation, and in 2017, 69% was used.

There was a significant decrease in total volume of water diverted (1200 AF) when comparing 2015 to 2017, however, there was only a 5% decrease in actual irrigation use. If the percent volume diverted for irrigation use significantly decreases annually while total diversion volumes increase or stay relatively the same, this may be an indication that "municipal type" irrigation rights are possibly being utilized for purposes other than irrigation. While there are no current indications that misuse is occurring, it is important for the City to continue to report the maximum weekly volume and the total volume diverted for all purposes during both the irrigation season and non-irrigation season so that annual trends may continue to be analyzed.

Conclusions

1. *The City of Mountain Home Water Rights - 2019 Annual Report* for water rights 61-2167, 61-2188, 61-2210, 61-7151, 61-7172F and 61-7439 has been reviewed. The volume reporting requirements included in approved Transfer 78273 have been satisfied.
2. IDWR's analysis indicates that in 2015 the City utilized 4340 AF for "municipal type" irrigation use exceeding the 4305.7 AF authorized by municipal irrigation

rights involved in Transfer 78273. This equates to approximately 101% (Table 1) of municipal irrigation rights utilized by the City. Anything less than 100% indicates that the City may not be utilizing the entire volume authorized, but does not indicate whether or not the remaining volume (portion not used for irrigation) allowed by the municipal irrigation rights is being utilized for other municipal type uses (non-irrigation uses).

3. The greatest annual diversion of water occurred in 2015 (5830 AF), with the smallest annual diversion occurring in 2017 (4632 AF), with a difference of approximately 1200 AF. Observing the percent volume attributed to irrigation use (orange line on graph 1) in 2015, 74% of the total volume diverted was used for irrigation, and in 2017, 69% was used. This indicates that although there was a significant decrease (1200 AF) of total volume of water diverted, there was only a 5% decrease in actual irrigation use.
4. If the percent volume diverted for irrigation use significantly decreases while total diversion volumes increase or stay relatively the same, this may be an indication that "municipal type" irrigation rights are possibly being utilized for purposes other than irrigation.
5. It is important for the City to continue to report the maximum weekly volume and the total volume diverted for all purposes during both the irrigation season and non-irrigation season, so that annual trends may continue to be analyzed. The past five (years) of data have been important in establishing a base-line trend reflecting the City's water use, however it is essential to distinguish if future increases in demand and development of land use will alter current trends. For this to be determined it is necessary for the City to continue reporting data to IDWR.
6. Transfer 78273 was approved September 22, 2014. A condition of approval requires that every five (5) years, or more or less frequently if deemed necessary by the department the right holder shall submit an analysis, based on current aerial photography, of the number of acres irrigated for municipal type irrigation within the authorized place of use that are not already covered by Mountain Home Irrigation District or other surface water rights. Based on the approval date an acre analysis would be submitted at the end of 2019 (if submitted every 5 years). An acre analysis was not included with the 2019 Annual Report. Results of the data analysis suggest that it is not critical to have the acre analysis submitted by the City to IDWR immediately, but it would be helpful with future analyses (suggested to submit with 2020 or 2021 report).