BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF MEASURING DEVICE VARIANCE REQUESTS NO. 2017-300 AND 2018-721 IN THE NAME OF TAYLOR MOUNTAIN WATER & SEWER DISTRICT	**PRELIMINARY ORDER AFFIRMING DENIAL OF VARIANCE REQUEST**

BACKGROUND

On July 20, 2016, the Idaho Department of Water Resources (Department) issued a *Final Order on Reconsideration* (Final Order), requiring the installation of measuring devices for ground water diversions in Water Districts 31, 34, 100, 110, 120, 130 and 140. The Final Order described a process whereby water users could apply for a variance from the measuring device requirement under certain conditions.

Taylor Mountain Water and Sewer District (TMWSD) filed variance requests for two ground water wells. The Department assigned tracking numbers 2017-300 and 2018-721 to the TMWSD variance requests. On July 5, 2018, the Department denied both of TMWSD's variance requests through a letter of denial.

On July 18, 2018, TMWSD timely filed a *Petition for Hearing* (Petition) pursuant to Idaho Code § 42-1701A(3). An administrative hearing was conducted on January 9, 2019 in Idaho Falls, Idaho. TMWSD was represented by attorney Rob Harris at the hearing.

Exhibits 101-117 offered by TMWSD and Exhibits 1-4 offered by the Department were admitted into the administrative record. TMWSD called Randy Kern and Jeff Armstrong as witnesses.

After carefully considering the evidence in the record, the Department finds, concludes, and orders as follows:

FINDINGS OF FACT

1. TMWSD holds two water rights for year-round domestic use. Decreed right 25-7090 authorizes the diversion of 1.0 cubic feet per second (cfs) for domestic use at 65 homes, and a total annual diversion volume of 78 acre-feet (AF). Water permit 25-14440 authorizes the diversion of 0.5 cfs for culinary uses only at 140 homes, with daily withdrawals not to exceed 13,000 gallons per day per home.

2. TMWSD has acquired seven water rights for irrigation use. Decreed rights 25-14287, 25-14301, 25-14304, 25-14313, 25-14383, 25-14385 and 25-14442[1] cumulatively authorize 18.4 acres of irrigation, a diversion rate of 1.802 cfs and a total annual diversion volume of 71.1 AF.

3. TMWSD owns and operates two wells which are used to make diversions under the nine water rights noted above. Both wells are described as authorized points of diversion on all water rights. TMWSD has reported annual ground water diversions to Water District No. 120 from 1999 to 2017. However, the reported diversion volumes are not derived from wellhead flow meter totalizer readings, but are a sum of water use calculated from meter readings at homes equipped with individual service meters, plus estimated uses for non-metered service locations. Ex. 116.

4. A Rockwell brand flow meter of indeterminate age is installed at each of the TMWSD wellheads. The service flow meters installed at individual homes served by TMWSD are Neptune Mach 10 Ultrasonic Meters. Ex. 114. The Rockwell and Neptune meters are not included on the Department's *List of Approved Closed Conduit Flow Meters.*

5. The Rockwell meters have never been tested for accuracy by the Department or by TMWSD. Testimony of Randy Kern. The meter on the north well (Well #1) is operational, but TMWSD has recorded only an occasional totalizer reading. *Id.* The flow meter is installed in a concrete vault with dimensions approximately 4 feet by 6 feet by 12 feet deep. *Id.* There is a sand separator in this vault that is no longer in use and which could be removed. *Id.*

6. The meter on the south well (Well #2) is not operational. Testimony of Randy Kern. The flow meter vault at this location has dimensions approximately 5 feet by 7 feet by 12 feet deep. *Id.* There is no other equipment in this vault.

7. The two wells pump to a common 150,000 gallon storage tank situated on the south end of the service area. Testimony of Randy Kern. From the storage tank, water is distributed by gravity pressure to the service locations. *Id.* Distribution lines are fully interconnected. *Id.* Either well may supply the system on demand, or fill the storage tank. *Id.* Either or both wells and the tank may be isolated from the system. *Id.* Well #2 is the primary source of water during the non-irrigation season. *Id.*

8. All individual home service meters are read at the end of each month from March to October. Testimony of Jeff Armstrong. Meters are not read over the winter. *Id.* In-house culinary use is extrapolated for the entire year based on the average adjusted monthly use accumulated between the months of October and March, which does not include irrigation use. *Id.* The Neptune service meters are not tested for accuracy, but monthly usage is monitored and compared to historic use. *Id.* Service meters are replaced if they stop working. *Id.*

[1] At the time of hearing 25-14442 was recorded in the name of Grimmett. The right has since been conveyed to TMWSD.

RELEVANT LEGAL PROVISIONS AND ORDERS

1. Idaho Code § 42-701 provides in pertinent part:

> Installation and maintenance of controlling works and measuring devices by water appropriators ... (1) The appropriators or users of any public waters of the state of Idaho shall maintain to the satisfaction of the director of the department of water resources suitable headgates and controlling works at the point where the water is diverted. Each device shall be of such construction that it can be locked and kept closed by the watermaster or other officer in charge, and shall also be of such construction as to regulate the flow of water at the diversion point. Each such appropriator shall construct and maintain, when required by the director of the department of water resources, a rating flume or other measuring device at such point as is most practical in such canal, ditch, wellhead or pipeline for the purpose of assisting the watermaster or department in determining the amount of water that may be diverted into said canal, ditch, wellhead or pipeline from the stream, well or other source of public water. Plans for such headgates, rating flumes or other measuring devices shall be approved by the department of water resources.

2. The Final Order provides that:

> Measuring devices acceptable to the Department for wells required to be measured shall be flow meters identified in the Department's *List of Approved Closed Conduit Flow Meters*... These specifications apply to both irrigation and non-irrigation water uses. *Final Order* at 3.
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> Acceptable variances may include the following methods or devices:
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> - Development of a PCC, which is a ratio of power usage to water withdrawal. Acceptance of the PCC method may be provided *only for irrigation diversions that consist of one (1) well and one irrigation discharge point or one distinct flow and demand condition, and water levels do not change significantly during the irrigation season (example: a well diverting water to one center pivot only with no end gun, a well diverting water to one wheel line, or multiple wheel lines as long as the same multiple wheel lines are always on at the same time)*;
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> - Timing diversion with an hour meter (time clock) *for one well that discharges to an open ditch or pond where a) discharge is constant and not controlled by valves, b) ground water levels do not change significantly during the annual season of use, and c) the rate of flow is measured annually by a ground water district hydrographer*;
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> - Measurement with a properly functioning flow meter that was installed *prior to the date of this order, and determined as acceptable by the Department* (meters installed prior to the date of this order and included in the Department's *List of Approved Closed Conduit Flow Meters version 2.9* are deemed acceptable); and

- Measurement with a standard open channel measuring device installed in an open channel or ditch for measuring multiple wells in a well field and the measuring device is read daily, or daily flows are recorded by use of a continuous recorder or data logger." *Id.* at 4.

Variances proposing measurement with an existing flow meter or measuring device must satisfy Department criteria and accuracy tests." *Id.* at 5.

3. The Department's *Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices* requires:

> Any alternate measurement method will require field testing using a portable ultrasonic flow meter or other meter tested and accepted by IDWR (testing meter)... Existing flow meters must be operational and installed consistent with applicable specifications. If the testing margin of error of an installed meter when compared to the testing meter exceeds plus or minus ten percent (±10%) for mechanical type meters, or plus or minus five percent (±5%) for magnetic or ultrasonic type meters, the installed meter must be replaced with a new meter from the approved list. The owner or operator of any diversion system which requires a field measurement must provide a testing section of unobstructed straight pipe 15 pipe diameters in length." Ex. IDWR2 at 2.

ANALYSIS AND CONCLUSIONS OF LAW

The Department denied TMWSD's request for variance because the existing wellhead meter installations do not meet manufacturer recommendations for spacing below the flow meters. Manufacturer recommendations for the Rockwell meter are that elbows, bends, valves, or pressure reducing devices should not be installed within ten pipeline diameters upstream and five pipeline diameters downstream of the meter. Both TMWSD wellhead flow meters appear to be installed with adequate straight pipe upstream of the meter. The meter at Well #1 is bolted directly to a pipe tee on the downstream side; the meter at Well #2 is bolted directly to a valve on the downstream side. Both meters have less than 1 pipe diameter of straight pipe below the meter and are not installed to manufacturer specifications.

TMWSD argues that point of service flow meters are a reliable alternative to approved wellhead flow meters for purposes of quantifying total diversions, and that use of wellhead flow meters would be redundant. TMWSD's request to use point of service flow meters as an alternate method of measurement is not authorized by the Final Order. TMWSD argues that use of the phrase "variances may include the following methods" in the Final Order implies that the Department would consider measurement methods other than the four variance options that are specified. *Final Order* at 4. The order is not ambiguous. The specific alternative measurement methods listed in the Final Order have been demonstrated to result in measurement accuracies which approach or match the accuracy of an approved flow meter.

TMWSD's proposal to use multiple point of service meters in lieu of approved wellhead flow meters does not qualify for an approved measurement variance. The Neptune service meters do not appear on the Department's *List of Approved Closed Conduit Flow Meters.* Department standards specify that to be used under an approved variance, each non-approved flow meter must be field tested using an approved testing meter. Field tests must be repeated every three years. It is not practical nor would it be possible to test each of the 158 service meters at TMWSD against a testing meter. Even if the Neptune meter underwent third-party testing and was placed on the Department's approved list, the use of multiple approved devices in a single system still has the potential to introduce cumulative measurement errors in excess of the Department's flow meter accuracy criteria of ± 2%. Cumulative errors could not be detected without individual meter testing, or without redundant system measurement. Measurement error is minimized and measurement accuracy is maximized, by use of approved measuring devices installed at wellheads.

TMWSD also argues their current accounting method meets the spirit of the Final Order and provides a reliable data set which meets the Department's measurement requirements. Pursuant to Idaho Code 42-701(1), the Final Order states that "[I]nstallation of measuring devices will assist the watermasters … in reporting the amount of water withdrawn from each well." *Final Order* at 1. Measuring devices are required to be as close as is practical to the point of diversion to ensure that all water *withdrawn*, or diverted, is being measured. Water diverted is not the same as water delivered. Pipeline leaks, system losses, or other unaccounted uses downstream from the point of diversion all contribute to differences between volume of water diverted and volume of water delivered. "All diversions shall be reported to the Department…". *Id* at 9. TMWSD's delivery and accounting records are comprehensive and represent notable effort, but they are not a true record of volume diverted and do not meet Department measurement and reporting requirements.

TMWSD asserts that the flow meter vaults at both well locations would require extensive reconstruction to accommodate approved flow meters. TMWSD misunderstands the meter spacing requirements to be three feet of straight pipe upstream of the meter and two feet of straight pipe downstream of the meter. The criteria are:

> "Approved full profile magnetic flow meters and spooled ultrasonic flow meters must be installed with a minimum straight pipe length equivalent of three (3) pipe diameters upstream and two (2) pipe diameters downstream measured from the center of the meter spool." *Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices* at pg. 2.

For a 4-inch discharge line, three equivalent pipe diameters is 12 inches. Two equivalent pipe diameters is 8 inches. A 4-inch diameter meter may be installed in 20 inches of straight pipeline. The existing vaults are ample in size for installation of 4-inch diameter approved flow meters. Some unused equipment may need to be removed from the vault at Well #1, and some minor plumbing reconfiguration may be necessary, but the existing vaults will accommodate installation of approved flow meters.

TMWSD's requests for variance indicated that both wellhead flow meters were operational. Evidence in Water District 120 records is not conclusive as to the actual operating status of the meters. Testimony at hearing confirmed that the flow meter on Well #1 is operational, but the flow meter on Well #2 is not operational. Well #1 does not qualify for a conditional variance due to insufficient meter installation spacing. The meter on Well #2 does not qualify for a variance because the meter is not operational.

The Department's denial of TMWSD's variance request to use existing flow meters should be affirmed for both wells. An approved flow meter must be installed at Well #2. A one-year extension of time to install an approved flow meter should be granted at Well #1. In the interim, totalizer readings should be required to be collected from both meters and data reported to Water District No. 120.

ORDER

IT IS HEREBY ORDERED that the Department's denial of TMWSD's request for variance is AFFIRMED for both Well #1 and Well #2.

IT IS FURTHER ORDERED that an approved flow meter shall be installed at Well #2, prior to June 1, 2019. An extension of time to install an approved meter is granted for Well #1. An approved flow meter shall be installed at Well #1 prior to June 1, 2020. Flow meters must be located as near as practical to the wellheads. TMWSD shall notify the Department when each meter has been installed. TMWSD shall collect monthly totalizer readings from meters at both well locations and shall report readings to Water District 120 annually, using report forms supplied by the district.

Dated this day 7th of March, 2019.

Cindy Yenter

Cindy Yenter
Hearing Officer

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 6th day of March, 2019, true and correct copies of the documents described below were served by placing a copy of the same with the United States Postal Service, certified mail with return receipt requested, postage prepaid and properly addressed to the following:

Document Served: Preliminary Order Affirming Denial of Variance Request

CERTIFIED MAIL

Robert Harris
Holden, Kidwell, Hahn & Crapo PLLC
1000 Riverwalk Drive, Suite 200
PO Box 50130
Idaho Falls, ID 83405

Sharla Cox
Administrative Assistant

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "**Preliminary Order**" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

> Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:
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> (a) The petition for reconsideration is disposed of; or
> (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.