

Malad Valley
Ground Water Management Area

Draft Management Plan

I. INTRODUCTION

Malad Valley is located in Southeast Idaho. For purposes of this plan, the term “Malad Valley” refers to the entire Malad River drainage basin within the state of Idaho. The largest community in Malad Valley is Malad City (population of 2,095 in 2010). Malad Valley is primarily located within Oneida County, but includes small portions of Power, Franklin, and Bannock Counties.

Malad Valley is surrounded by low elevation mountain ranges: Samaria Mountains to the southwest (7,000-7,200 ft elevation), Pleasantview Hills to the west (6,500 – 7,200 ft elevation), Elkhorn Mountains to the north (8,000 – 9,000 ft elevation), Oxford Mountains to the northeast (8,000 – 9,300 ft elevation) and the Malad Range to the east (6,000 – 7,000 ft elevation). The average annual precipitation for Malad City is 13 inches.

Malad Valley encompasses over 500 square miles and includes many springs and streams. Idaho Department of Water Resources (“IDWR”) water right records include over 150 surface water irrigation rights. Some of these water rights are statutory claims filed pursuant to Idaho Code § 42-243 and have never been investigated by IDWR or adjudicated by a court. Other water rights have been reviewed and decreed in minor stream adjudications taking place in the late 1800s and early 1900s. Malad Valley has never been part of a general adjudication of water rights.

Much of the surface water available in Malad Valley is captured and stored in reservoirs. Devil Creek Reservoir has a capacity of about 4,500 acre-feet. Deep Creek Reservoirs have a combined capacity of about 6,000 acre-feet. Daniels Reservoir has a capacity of about 8,700 acre-feet. Pleasantview Reservoirs have a combined capacity of about 1,250 acre-feet.

As of April 1, 2016, IDWR records include approximately 450 ground water irrigation rights in Malad Valley, authorizing more than 300 cfs of diversion. Some of these ground water rights overlap and are supplemental to surface water rights.

On January 16, 2015, the Oneida County Board of Commissioners sent a letter to the Director (“Director”) of IDWR asking him to establish a temporary moratorium on issuing new ground water rights in Malad Valley. IDWR reviewed the hydrologic data for the valley and found that a temporary moratorium was warranted. On November 4, 2015, the Director issued an *Order Designating Malad Valley GWMA and Establishing Temporary Moratorium* (“Order”). The Order created the Malad Valley Ground Water Management Area and called for the creation of a ground water management plan.

In December 2015, an advisory committee (“Committee”) was assembled, comprised of water users and public officials. The primary role of the Committee was to make recommendations to the Director regarding the structure and terms of the management plan. The Committee met four times between February 2016 and June 2017. Notice of each meeting was posted at the IDWR Eastern Region office and on the Department’s website and all meetings were open to the public.

II. GOALS

This Management Plan, if properly implemented, will:

- A. Increase the hydrologic data set for Malad Valley, through the monitoring of ground water levels, stream flows, and annual diversion volumes.
- B. Protect existing water rights and water uses within Malad Valley.
- C. Stabilize aquifer levels and restore artesian pressures in the regional aquifer.
- D. Create a framework to identify and curtail unauthorized water uses.
- E. Organize the water users in Malad Valley in a way that they are able to address water issues locally.

III. RELEVANT LEGAL PROVISIONS

Ground Water Management

Idaho Code § 42-226 declares all ground water within the state to be the property of the state and confirms the state's power to supervise the appropriation and allocation of ground water within its boundaries.

Idaho Code § 42-231 states:

[I]t shall be the duty of the [Director] to conduct investigations, surveys and studies relative to the extent, nature and location of the ground water resources of this state It shall likewise be the duty of the [Director] to control the appropriation and use of the ground water of this state . . . and to do all things reasonably necessary or appropriate to protect the people of the state from depletion of ground water resources contrary to the public policy expressed in this act.

Idaho Code § 42-233b authorizes the Director to create a ground water management area if he determines an area "may be approaching the conditions of a critical ground water area."

Idaho Code § 42-233b further provides:

When a ground water management area is designated by the director of the department of water resources, or at any time thereafter during the existence of the designation, the director may approve a ground water management plan for the area. The ground water management plan shall provide for managing the effects of ground water withdrawals on the aquifer from which withdrawals are made and on any other hydraulically connected sources of water.

Water Measurement Districts

Idaho Code §701(1) states:

The appropriators or users of any public waters of the state of Idaho shall maintain to the satisfaction of the [Director] 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.

Idaho Code § 42-701(7) states: “All domestic uses, as defined in section 42-111, Idaho Code, and all stock watering uses, as defined in section 42-1401A, Idaho Code, shall be exempt from the measuring device installation and maintenance, measuring and reporting requirements of this section.”

Idaho Code § 42-705 authorizes the Director to create a Water Measurement District to facilitate the measurement of water diversions within the state. Measurements within a district are to be conducted by hydrographers hired by the district.

Artesian Wells

Idaho Code § 42-1604 defines the term “Artesian Well” as “any well . . . which encounters pressurized ground water or low temperature geothermal resource under sufficient head to rise above the elevation at which it was first encountered whether or not the fluid flows at land surface. If the fluid level stands above land surface, the well is a flowing artesian well.”

Idaho Code § 42-1601(1) states:

Any person owning or controlling a flowing artesian well, which is not capped, equipped or furnished with such mechanical appliance as will readily control the flow of water from such well, shall be guilty of a misdemeanor and such well is hereby declared to be a common nuisance . . . provided, however, that in cases where the waters of artesian wells are reservoiried and controlled . . . and where the pressure of water in a reservoir automatically causes wells to cease to flow, such mechanical contrivances may be dispensed with by obtaining the consent of the director of the department of water resources.

Idaho Code § 42-1605 explains that a “[v]iolation of the artesian well statutes could result in a misdemeanor and a fine of up to \$1,000. Each day upon which such violation occurs shall constitute a separate violation.”

Idaho Code § 42-1607 instructs the Director to initiate a program to inventory the artesian wells within the state. The Director should plug “abandoned artesian wells or artesian wells where the

owner cannot be ascertained.” Further, for any wells not meeting the minimum well construction standards (found in IDAPA 37.03.09), the owner must have the well repaired at the cost of the owner. If repairs are not made within one year, the Director may order the owner to plug the well or may plug the well with IDWR funds and seek reimbursement from the well owner.

Bear River Compact

Article IV, Paragraph C states:

When the flow of water in an interstate tributary across a state boundary line is insufficient to satisfy water rights on such tributary in a lower state, any water user may file a petition with the commission alleging that by reason of diversions in an upstream state he is being deprived of water to which he is justly entitled and that by reason thereof a water emergency exists, and requesting distribution of water under the direction of the commission. If the commission finds that a water emergency exists and that interstate control of water of such tributary is necessary, it shall put into effect water delivery schedules based on priority of rights and prepared without regard to the state boundary line. The state officials in charge of water distribution on interstate tributaries may appoint and fix the compensation and expenses of a joint water commissioner for each tributary. The proportion of the compensation and expenses to be paid by each state shall be determined by the ratio between the number of acres therein which are irrigated by diversions from such tributary, and the total number of acres irrigated from such tributary.

Article V states:

A. Water rights in the Lower Division acquired under the laws of Idaho and Utah covering water applied to beneficial use prior to January 1, 1976, are hereby recognized and shall be administered in accordance with state law based on priority of rights as provided in article IV, paragraph A3. Rights to water first applied to beneficial use on or after January 1, 1976, shall be satisfied from the respective allocations made to Idaho and Utah in this paragraph and the water allocated to each state shall be administered in accordance with state law. Subject to the foregoing provisions, the remaining water in the Lower Division, including ground water tributary to the Bear River, is hereby apportioned for use in Idaho and Utah as follows:

- (1) Idaho shall have the first right to the use of such remaining water resulting in an annual depletion of not more than 125,000 acre-feet.
- (2) Utah shall have the second right to the use of such remaining water resulting in an annual depletion of not more than 275,000 acre-feet.
- (3) Idaho and Utah shall each have an additional right to deplete annually on an equal basis, 75,000 acre-feet of the remaining water after the rights provided by subparagraphs (1) and (2) above have been satisfied.
- (4) Any remaining water in the Lower Division after the allocations provided for in subparagraphs (1), (2), and (3) above have been satisfied shall be divided; thirty (30) percent to Idaho and seventy (70) percent to Utah.

B. Water allocated under the above subparagraphs shall be charged against the state in which it is used regardless of the location of the point of diversion.

C. Water depletions permitted under provisions of subparagraphs (1), (2), (3), and (4) above, shall be calculated and administered by a commission-approved procedure.

Article XI states:

Applications for appropriation, for change of point of diversion, place and nature of use, and for exchange of Bear River water shall be considered and acted upon in accordance with the law of the state in which the point of diversion is located, but no such application shall be approved if the effect thereof will be to deprive any water user in another state of water to which he is entitled, nor shall any such application be approved if the effect thereof will be an increase in the depletion of the flow of the Bear River and its tributaries beyond the limits authorized in each state in articles IV, V and VI of this compact. The official of each state in charge of water administration shall, at intervals and in the format established by the commission, report on the status of use of the respective allocations.

IV. MEASUREMENT AND MONITORING

A. Water Measurement District

The Committee recommends creating a water measurement district as described in Chapter 7, Title 42, Idaho Code (the proposed Malad Valley Water Measurement District hereinafter referred to as the "District"). The District should include water users who divert from any water source (surface water or ground water) within Malad Valley.

The Committee also recommends that all water users in the District be required to install IDWR-approved measuring devices, except water users with small diversions (those uses with a total combined diversion rate less than or equal to 0.24 cfs or total combined irrigation less than or equal to 5 acres). IDWR should issue an order requiring installation of approved measuring devices and giving water users two years to install the devices. Water users who do not comply with the measuring device orders should be curtailed by the District or IDWR.

Once the District is formed, water users in the District shall hire a hydrographer, whose general duties are set forth in Idaho Code § 42-709 and whose specific duties should include:

1. Inventory all diversions of water within the District (except those uses meeting the definition of "domestic purposes" set forth in Idaho Code § 42-111).
2. Measure and monitor water uses in the District and prepare annual reports.
3. Identify any diversions lacking adequate measuring devices.
4. Identify any diversions exceeding the amounts listed on recorded water rights.

B. Ground Water Level Monitoring

The Committee recommends that IDWR and the District work together to create a ground water level monitoring network. As part of that process, IDWR should contact property owners in the area of ideal monitoring well sites to identify potential monitoring wells and to execute any

agreements needed to collect data. Monitoring wells in the valley should be measured four times per year. The cost of the ground water monitoring program (collecting and recording data) should be borne by IDWR. The cost of transducers or other equipment to be installed in the monitoring wells should be borne by the District.

C. Stream Gages

Much of the surface water in Malad Valley is captured and stored in reservoirs. During the spring runoff, however, some water flows out of the Malad Valley into Utah in the Malad River channel. An inactive USGS stream gage site exists near the Idaho-Utah border. The site (#10125500, Malad River at Woodruff) was operated by the USGS between 1938 and 1982. The amount of surface water exiting the Malad Valley through the Malad River channel is a key data point for understanding the hydrology of the basin. The District should construct a stream gage and monitor the flows in the Malad River on a continuous basis. If the District can demonstrate the ability to collect and record accurate data for the border site, the District can continue to collect information at the site. If, however, the data collected by the District is inaccurate or deficient, the District shall contract with the USGS to operate the stream gage. The cost of the Malad River stream gage, whether operated by the District or by the USGS, should be borne by the District.

D. Spring Flow Measurements

There are many springs throughout Malad Valley. At this time, it is not clear which springs will provide key information for developing a water budget for the basin. Some springs in the valley are measured during the irrigation season through direct diversions into canals. The District will work with IDWR to determine which spring sites are most useful in understanding the hydrology of the basin. As time and resources allow in the future, the District will develop measurement sites at the key spring sites throughout Malad Valley. The cost of measuring and monitoring spring sites should be borne by the District.

V. ADJUDICATION OF WATER RIGHTS

The Committee supports the commencement of a general adjudication of all water rights (including surface water and ground water sources) within Malad Valley. The Committee supports the commencement of a general adjudication of water rights in the Malad Valley, regardless of whether a general adjudication is commenced in other areas of the Bear River drainage. Malad Valley has never been included in a general adjudication of water rights. Consequently, some of the water diverted for use in Malad Valley is not reflected in recorded water rights. It will be difficult for the District hydrographer to track annual diversion volumes in the basin without an accurate list of all points of diversion. It will be difficult to identify and curtail unauthorized water uses in a basin where some of the water rights are unrecorded. An adjudication of water rights will allow the water users to form a water district and will provide a reliable framework for regulating water diversions within the basin.

VI. ARTESIAN WELLS

The Committee recommends completing an inventory of flowing artesian wells in the Malad Valley. In 1999, the Department started an inventory of flowing artesian wells in the valley. The Department, with the assistance of the District hydrographer, should complete the inventory of

flowing artesian wells. The inventory should include all wells that have flowed in the past, even if the wells are not flowing presently. The inventory should include the following information for each well: (1) Latitude/Longitude coordinates, (2) Owner of the underlying property, (3) Well tag number (if one exists), (4) Condition of the well, and (5) Control structures on the well.

Upon completion of the inventory, the Department should commence enforcement activities for those wells not in compliance with Idaho law. Property owners should be given an opportunity to address deficiencies before being subject to civil penalties. Flowing artesian wells which are not controlled by the property owner, after a reasonable time period, should be plugged pursuant to the provisions of Idaho Code § 42-1607.

VII. NEW APPROPRIATIONS

The Temporary Moratorium, issued by the Department on November 4, 2015, should be reissued as a new five-year temporary moratorium to allow for the collection of additional data. The extension of the Temporary Moratorium is based on the good faith efforts of the water users in the Malad Valley. As part of this management plan, the water users agree to organize and fund the collection of key data for the Malad Valley. The data collected will be used to determine whether the temporary moratorium should be extended beyond five years.

The reissued temporary moratorium should include the following exceptions and restrictions:

1. Moratorium does not apply to non-consumptive uses.
2. Moratorium does not apply to domestic and stockwater rights that meet the definition of “domestic purposes” set forth in Idaho Code § 42-111.
3. Moratorium does apply to domestic use from a shared or community well for a multiple ownership subdivision. The in-house, culinary use at a subdivision is essentially non-consumptive and should not be barred by the moratorium. Any outside use (lawn and garden irrigation) must be covered through the transfer of an existing water right or through a new application for permit with an approved mitigation plan.
4. Moratorium does not apply to applications for permit seeking diversion of surface water for storage or recharge uses, during times when excess surface water is available. Such applications should be processed and evaluated under the review criteria set forth in Idaho Code § 42-203A(5).

Before the reissued five-year temporary moratorium expires, the Department should review the data collected within the valley and determine whether the moratorium should be further extended. The Department will work with the advisory committee for the District to analyze the data and evaluate the benefits of continuation of the moratorium.

VIII. PRIORITY ADMINISTRATION OF WATER RIGHTS

This plan, in its current state, does not address curtailment of water rights or require any water users to reduce diversions under existing rights. The absence of reliable diversion data for Malad Valley makes it difficult to know whether annual ground water diversion volumes exceed annual recharge rates for the regional aquifer. In order to understand the hydrology of the basin, all water uses in the basin must be identified and quantified. This will require a general

adjudication of water rights. Further, water users must install adequate measuring devices to track the annual diversion volumes. Once sufficient data is collected to evaluate the water budget for the aquifer, this management plan should be amended to require curtailment of or mitigation from junior ground water users, if curtailment or mitigation is warranted.

IX. ADVISORY COMMITTEE

Upon formation of the District described above, an advisory committee should be formed, in accordance with Idaho Code § 42-707(7), and should be comprised of surface water users and ground water users within the basin. In addition to the responsibilities set forth in Section 42-707(7), the advisory committee for the District should frequently review this plan and work with IDWR to update the plan as needed and to ensure that the provisions of the plan are properly implemented.