Big Sky County Water and Sewer District No. 363

Source Capacity Plan 2022 Update

September 2022

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WESTERN GROUNDWATER SERVICES

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1. INTRODUCTION

Big Sky County Water and Sewer District No. 363 (District) owns and operates Public Water System (PWS) MT0002385, serving most of Meadow Village and Mountain Village in the Big Sky Resort community (**Figure 1**). This Source Capacity Plan 2022 Update (Plan) is the third such plan prepared with the purpose of evaluating water demand, supply capacity, and source capacity improvements.[1] The goal of the plan is to identify necessary improvements that enable the District to maintain a reliable, high-quality, potable water supply within the service area.

This Plan is limited to source capacity for the public water system. It does not include an evaluation of horizontal infrastructure (pipes, booster pumps, tanks, etc.) and does not evaluate the adequacy or reliability of the system to achieve fire flows.

This Plan is also limited to the data on which it is based. Continued monitoring of supply adequacy and growth of the public water system is necessary into the future. Given the rapid growth of the Big Sky area, updates of this Plan should be prepared at five year intervals. A demand projection spreadsheet has been prepared as part of the work and can be used to assess how changes will impact supply capacity at intervals of 1-year.

1.1 SUMMARY OF FINDINGS

1.1.1 Growth Rates

- At the end of 2021, the District had permitted water supply services to 5,381.54 SFE (Single Family Equivalent). There were 3,303.54 SFE permits in Meadow Village and 2,078.00 SFE permits in Mountain Village. Using data for 2015 through 2021, there was a total SFE growth rate of 3.9%. Meadow Village was growing at a rate of 4.7% and Mountain Village at a rate of 2.6%.

1.1.2 Source Capacity

- The existing source capacity for Meadow Village includes five wells, designated MV-1 thru MV-5. The total capacity available from these wells is 975 gallons per minute (gpm). The existing source capacity for Mountain Village is supplied from seven wells, MTN-1 thru MTN-7. The effective capacity of these wells is 990 gpm.

- The DEQ source capacity standard requires groundwater supply systems to achieve the maximum day demand with the largest well out of service. Because Mountain Village can supply Meadow Village, the largest well is determined to be MTN-6 with installed capacity of 450 gpm. Consequently, the available capacity compliant with the DEQ standard for Meadow Village remains 975 gpm. For Mountain Village the available capacity is 540 gpm.

1.1.3 Water Demand

- Meadow Village in 2021 had an average daily use of 362,000 gallons per day (gpd). The maximum day use was 850,000 gpd and the peaking factor was 2.35. The unit water use rate for the average day was 114 gpd/SFE. The maximum day unit water use rate was 267 gpd/SFE.

1 Western Groundwater Services, LLC (2009) Water System Source Capacity Plan, Report to District, 6/9/2009; Western Groundwater Services, LLC (2015) Water System Source Capacity Plan Update, Report to District, 8/11/2015.

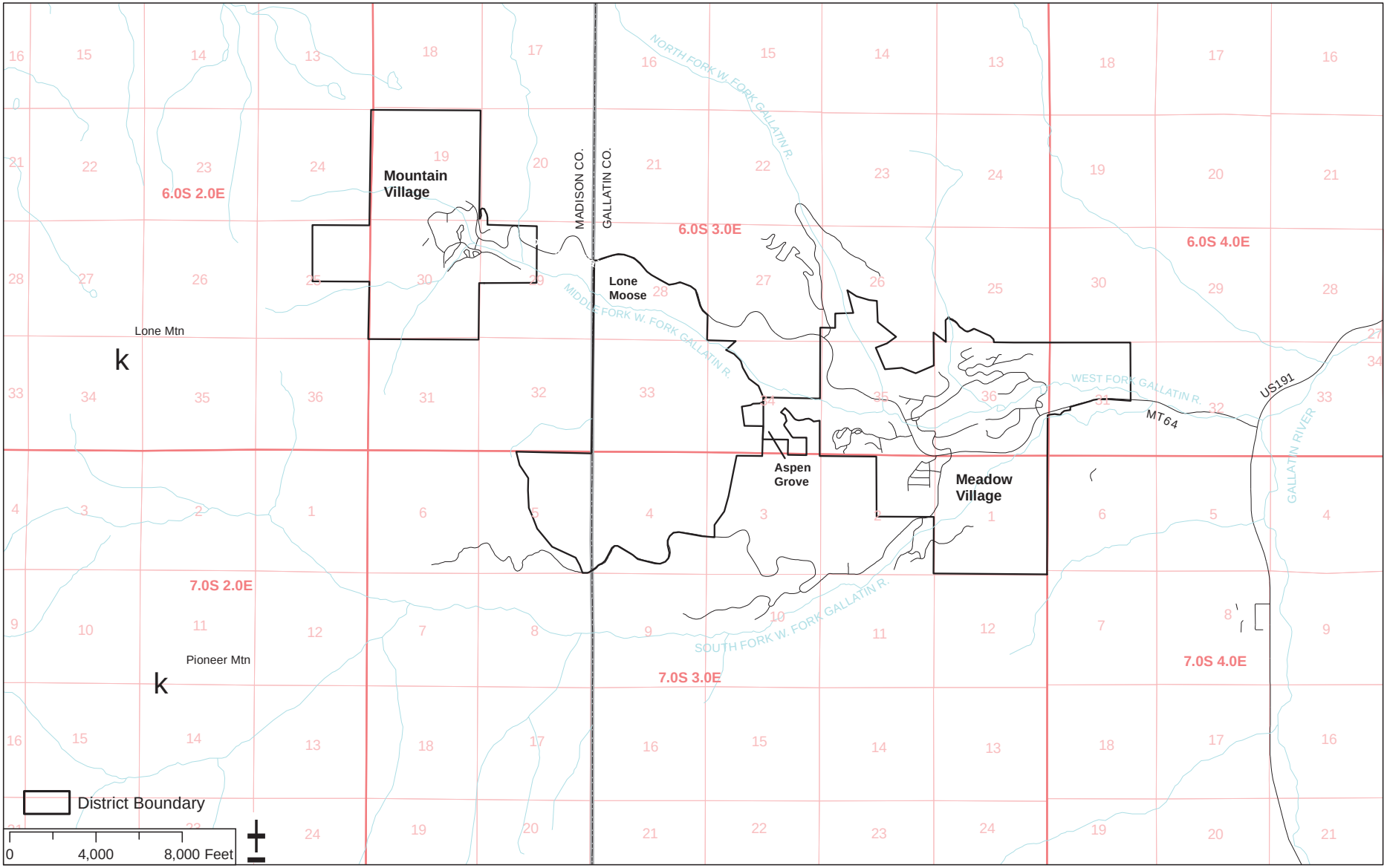

Figure 1. Service Area Map

- Mountain Village (excluding water sold to Yellowstone Club) in 2021 had an average day use of 246,000 gpd, and a maximum day use of 469,000 gpd. The peaking factor was 1.91. Mountain Village usage has declined substantially due to effective leak repairs and conservation measures. The unit water use rates were 127 gpd/SFE for average day and 241 gpd/SFE for maximum day.

1.1.4 Source Capacity Limits

- Meadow Village source capacity will become insufficient by about year 2030. The existing supply is estimated to accommodate 1,858 SFEs resulting in 5,162 SFEs for Meadow Village . There are 930 additional SFEs already committed for Meadow Village. 928 additional SFEs could be added to fully utilize the existing source capacity.

- Mountain Village (including Lone Moose and Aspen Grove) source capacity will become insufficient by about year 2038. The existing supply is estimated to accommodate 1,132 SFEs resulting in 3,210 SFEs for Mountain Village. These SFEs are already committed for service.

- Additional supply for Mountain Village can be obtained by treating wells MTN-3, MTN-5, and MTN-6, resulting in available capacity of 660 gpm. This treatment will accommodate about 740 additional SFEs, of which 413 SFEs are already committed.

1.1.5 Water Rights

- Existing water rights owned by the District can be used to permit additional source capacity beyond the present supply. Meadow Village water rights for alluvial aquifer wells have additional volume of about 366 acre-feet that can be used to permit new source capacity. Mountain Village water rights for bedrock aquifer wells have additional volume of about 561 acre-feet that can be used to permit additional capacity. It may be necessary to file for new beneficial use to increase the maximum rate of withdrawal, however, these filings would not add new volume, and therefore would not create new depletion of surface water beyond the existing water rights.

1.1.6 Water Conservation

- The District can realize significant water use reductions, mostly in Meadow Village, by restricting irrigation use of potable water to no more than 500 square-feet. A non-mandatory incentive program would be used to reduce irrigation use of developed properties, and a mandatory requirement would be imposed on undeveloped properties. These conservation measures can be implemented in-house..

1.1.7 Groundwater Development

- There is limited opportunity for new groundwater development in Meadow Village. The Meadow Village aquifer in the vicinity of the District's existing wells may have additional capacity for one or two new vertical wells with combined total capacity of 200- to 400-gpm.

- There is limited opportunity for new groundwater development in Mountain Village as determined from 10 test wells that were constructed from 2019 to 2021. There appears to be additional groundwater capacity that could be developed in the vicinity of the Thunder Wolf chairlift. However, iron and manganese treatment of the water is likely to be necessary and water right permitting may be difficult due to proximity of the well sites to the Middle Fork channel.

1.1.8 Other Source Capacity Development Options

- Development of surface water from the Gallatin River mainstem is a source of supply that is accessible to the District. Surface water could be developed with offset of depletions by discharge of treated effluent. Permitting of this source for either water rights or discharge is considered difficult and may not be feasible.

- Direct potable reuse of treated effluent as a source of supply to the public water system may be a viable source of supply. This water use also provides discharge of treated effluent. There are governmental and societal difficulties anticipated for this source development.

1.1.9 Preferred Alternatives and Costs

- The preferred alternatives for improvements to the public water system include: 1) conservation by restriction of irrigation ($0); 2) test well drilling in the Meadow Village aquifer ($110,000); 3) well water level sensor installations ($270,000); and 5) preliminary engineering report for direct potable reuse ($50,000). The total budget estimate for these alternatives is approximately $430,000.

1.1.10 Meadow Village Capacity Improvements and Timelines

- The District should implement conservation measures to reduce irrigation use in 2022. Reduced irrigation could save about 400 gpm by 2042 and enables the District to defer the need for new capacity development by about 5-years. Meadow Village test wells are not required until about 2030, with new production wells being constructed and put into service by 2035, assuming 250 gpm of new capacity (125 gpm per well). Direct potable reuse of 150 gpm is required by 2040. These timelines and estimated capacities would enable Meadow Village to meet demand through 2042.

2. GROWTH RATE PROJECTION

The District defines a Single Family Equivalent (SFE) as the unit of measure for services. Each connection is assigned an SFE quantity based on living space and associated water uses. On average over all account types, there are 2.00 SFE per account.[2] Considering only residential accounts, the average is 1.8 SFE per account. SFE data were used to establish unit water use rates (quantity of water per SFE) and also to estimate growth rate within the service area. The data used for these analyses were limited to the period from 2015 to 2021, as these years are expected to provide the most relevance to current conditions.

The District provides wastewater-only services to the Spanish Peaks subdivision. These SFEs were excluded from the data used for growth rate analysis. The Spanish Peaks subdivision is within the Meadow Village service area.

The District data include a tabulation of net SFE added for each permit, and are recorded by account and date. These data were summed over all accounts annually to obtain total SFE values (excluding Spanish Peaks subdivision).[3] SFEs were tabulated according to subdivisions and each subdivision was assigned to either Mountain- or Meadow-Village. Growth rate estimates were made based on the annual totals (**Figure 2**).

2 Calculated from the District "Sewer Users Billing Master" data file.

3 Calculated from the District "Permits" data file.

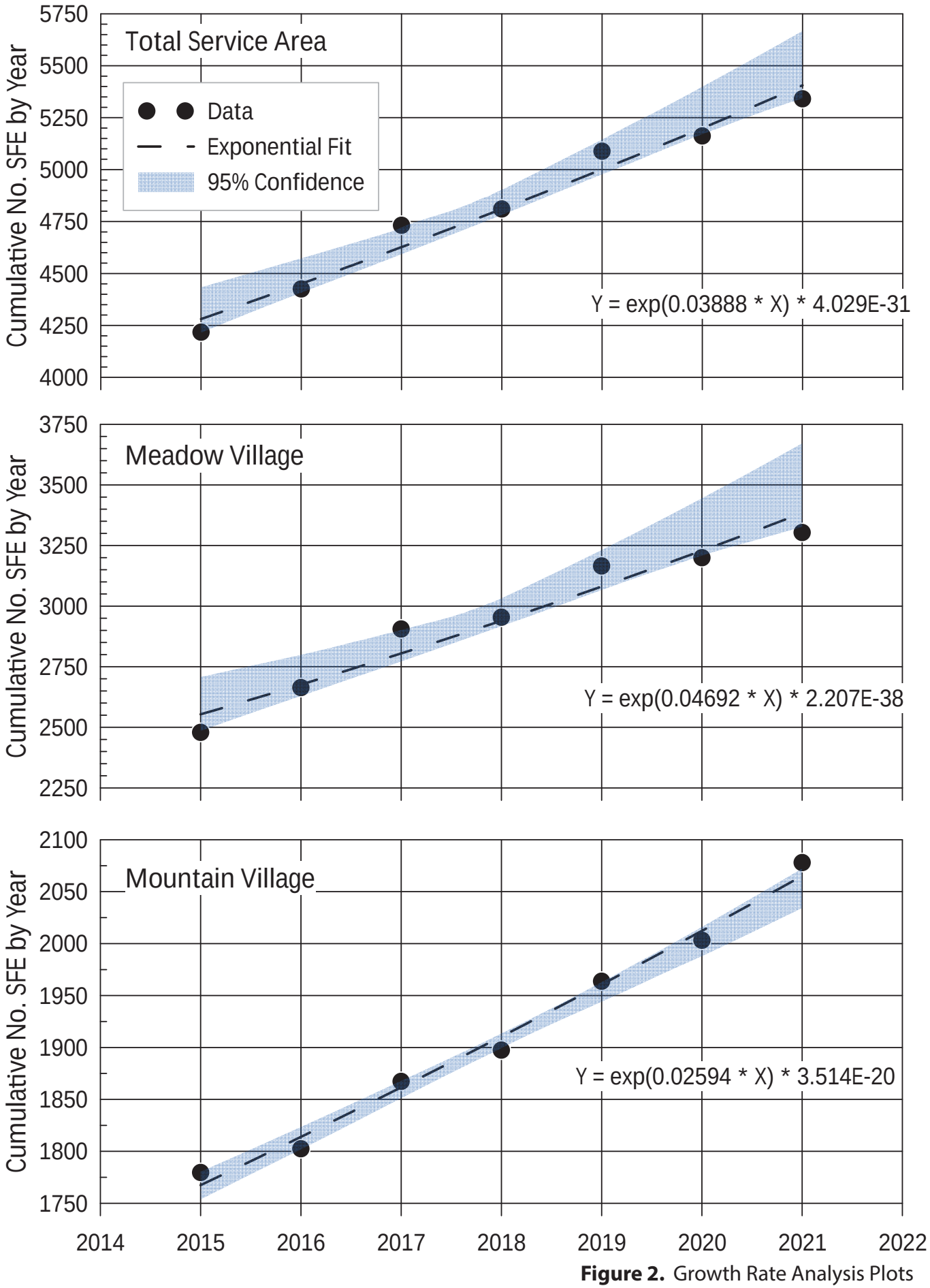

Figure 2. Growth Rate Analysis Plots

Growth rates were calculated by fitting an exponential function (steady growth model) to the SFE data. Total annual growth rate was estimated at 3.9%. A slightly higher growth rate was estimated for Meadow Village, at 4.7%, and a slightly lower growth rate was estimated for Mountain Village, at 2.6%.

At the end of 2021, there were a total of 5,381.54 SFE permitted, with 3,303.54 (61%) in Meadow Village, and 2,078.00 (39%) in Mountain Village. The distribution of SFEs by use was approximately 79% residential and 21% commercial.

There is about an 18-month lag time for the construction to occur before the new SFE is actually using water. With consideration of lag time, at the end of 2021 there were an estimated 3,183 SFE in Meadow Village, 1,983 SFE in Mountain Village, and a total for the service area of 5,166. This lag time is factored into determining the unit water use rates.

For the purpose of source capacity planning, this version of the Plan is using a 20-year growth period ending in 2042. SFE forecasts were based on the steady-growth models fit to the SFE data for the period 2015 through 2021 (**Figure 3**). In year 2042, Meadow Village is estimated at 9,065 SFE and Mountain Village at 3,561 SFE.[4]

As shown, the 75% confidence limits expand beyond the data used to fit the model, which ended in 2021. The low end of the confidence limit, if it were to occur, would reflect a reduction in growth rate. The high end is controlled by the District and therefore is not unavoidable. It would only occur if the District was able to determine adequate service capacity was available to accommodate the SFEs. SFE forecasts are also provided at five year intervals in **Table 1**.

Table 1. SFE Forecasts

Year	Meadow Village	Mountain Village	District Total
2025	4,083	2,291	6,374
2030	5,162	2,608	7,770
2035	6,527	2,969	9,497
2040	8,253	3,381	11,634
2042	9,065	3,561	12,626

2.1 Undeveloped SFEs with Committed Service

Undeveloped SFEs with committed service are summarized in **Table 2**. A discussion of these SFE allocations is provided below.

Based on county parcel data within the District service area there are 161 vacant lots in Madison County (Mountain Village) and 180 vacant lots in Gallatin County (Meadow Village). These lots occur in platted subdivisions and have committed service from the District. On average, there are about 2.0 SFE per lot, resulting in an estimated 322 SFE that are committed for Mountain Village and 360 SFE that are committed for Meadow Village.

4 These projections are based on the data and model used. Use of other data and models can result in different projections.

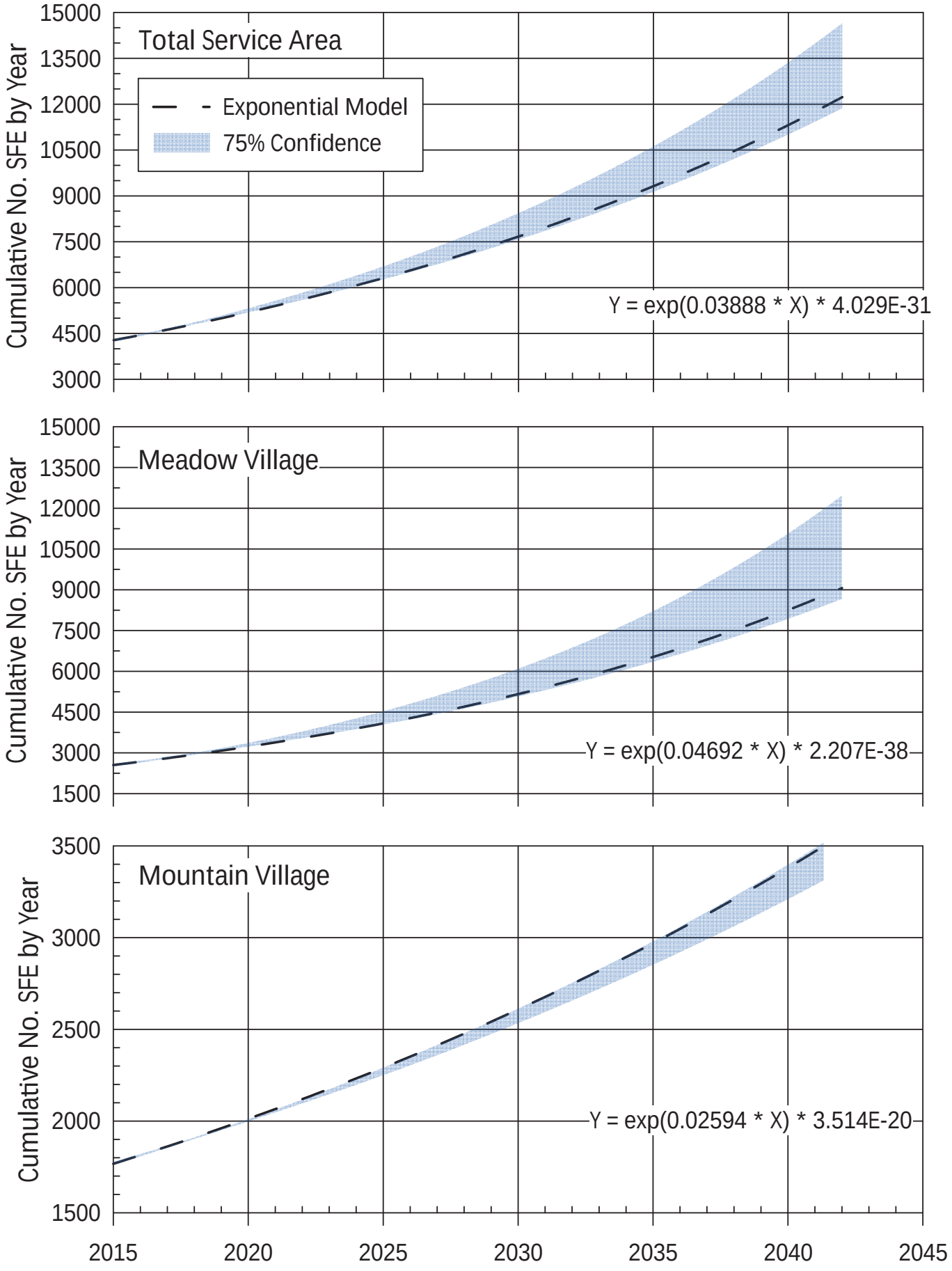

Figure 3. Growth Projection Plots

Lone Moose Meadows condominiums also are only partially developed and have additional SFEs with committed service. The agreement for services with the District (August 1, 2003) identifies a total of 76.80 SFEs corresponding to 48 units. Presently, there are 40.85 SFEs in service, leaving 35.96 SFEs that will connect when the 48 units are completed. There are 28 units in service at this time and 20 units that can be constructed in the future. The additional SFEs for Lone Moose will add to the Mountain Village total.

There is an agreement (March 29, 2001) for sewer services to Lone Moose that provides for the equivalent of 900 SFEs of discharge to the District's wastewater treatment plant, but does not commit the District to providing potable water supply. The agreement specifies that Lone Moose will be able to discharge 38.3 million gallons of sewage per year to the treatment plant and actually does not designate SFEs.

Big Sky Resort, LLC has an SFE pool presently estimated at 600 SFE. These SFE are allocated to Mountain Village and provide water and sewer service commitments. Town Center Phase II LLC has 569.44 SFEs allocated for both water and sewer services. These SFEs apply to Meadow Village. Big Sky Community Housing Trust, Inc. has 587 SFEs for water and sewer services. These SFEs are primarily allocated to Mountain Village.

Table 2. Undeveloped SFEs with Committed Service

Description	Water SFEs	Sewer SFEs
Meadow Village		
Platted Subdivisions	360	360
Town Center Phase II	570	570
TOTAL	930	930
Mountain Village		
Platted Subdivisions	322	322
Lone Moose Condominiums	36	36
Lone Moose Sewer Only	0	900 (approx.)[A]
Big Sky Resort LLC	600	600
Big Sky Comm. Housing Trust Inc.	587	587
TOTAL	1545	2445
[A] Equivalent SFEs are shown; committed service is for 38.3 Mgal/yr.		

3. WATER SUPPLY SOURCES

This section documents the water supply sources and how they are used in the water system. The information is presented with respect to Meadow Village and Mountain Village. Well logs for the supply wells are provided in **Appendix A**.

3.1 Meadow Village

The Meadow Village system includes the entire Meadow Village area and the Hidden Village subdivision. The District primarily operates wells MV-1, MV-2, and MV-3 in Meadow Village (**Figure 4**, **Table 3**). Wells MV-4 and MV-5 are not presently needed on a regular basis for the current demand, however, both wells will be used more frequently as demand increases. The Meadow Village total source capacity is 975-gpm. Production rates for wells MV-1, MV-2, and MV-3 were determined from meter data. The rates for MV-4 and

Figure 4. Meadow Village Wells and Tanks

MV-5 are based long-term pumping rates observed in the SCADA system by District staff.

Table 3. Meadow Village Well Capacities

Well ID	Instantaneous Rate (gpm)	Annual Volume (afy)
MV-1 (F, L, S)	250	403
MV-2 (F, S)	230	371
MV-3 (F, S)	95	153
MV-4 (F, S)	200	323
MV-5 (F, S)	200	323
Total	975	1,573
gpm – gallons per minute; F – flow meter installed; L – water level sensor installed; S – monitored through the Supervisory Control and Data Acquisition (SCADA) system.		

The DEQ source capacity standard for groundwater is maximum day demand with the largest well out of service. Because Meadow Village can be supplied from Mountain Village, the largest well on the system is presently MTN-6 located in Mountain Village (a future split of the Mountain Village system would result in well MTN-1 being designated the largest well). Therefore, the Meadow Village system is credited with the total well capacity of 975 gpm to achieve the maximum day demand.

There are six additional wells in Meadow Village that are not in use, but have been approved for use in the public water system. The Hidden Village (HV #1, HV #2) and Aspen Grove (AG #1, AG #2, AG #3) wells have been used for supply in the past. The Blue Grouse (BG) well is approved as a public water well, but it has not been approved as a completed well and does not have a water right. These wells are not considered in this Plan as water supply sources. The associated water rights, however, are planned for use with additional diversions consisting of either new or existing wells (as discussed in a section below). The District could consider abandoning these wells to avoid maintenance costs.

The Meadow Village water system includes three operating storage tanks with a total storage volume of 1.3M gallons. These include the Hidden Village (1M gal) and Sweet Grass tanks (250K and 50K gal). These tanks are filled directly from the Meadow Village distribution system. The Aspen Grove tank (260K gal) is filled from the Mountain Village pipeline and provides storage within the Aspen Grove subdivision.

Meadow Village wells MV-1 through MV-5 are equipped with ultra-violet (UV) disinfection treatment to achieve 99.99% virus inactivation (also referred to as 4-log), meeting the requirements for full-time microbial treatment of groundwater. UV treatment is operated only when wells MV-4 and MV-5 are in operation. Under this condition, which corresponds to peak demand, the five Meadow wells (MV-1 thru MV-5) are treated with UV disinfection. Off-peak supply is provided from wells MV-1 through MV-3 without UV disinfection as these wells are approved for use without treatment requirements. There are dual treatment trains to provide redundancy. Each train is rated for 995 gallons per minute. The UV facility is located at the west end of Spotted Elk Road in Meadow Village

3.2 Mountain Village

The Mountain Village system includes the entire Big Sky Resort area, Lone Moose condominiums, and Aspen Grove subdivision, and also sells water to Yellowstone Club. The District routinely operates wells MTN-1, MTN-2, MTN-4, and MTN-7 in Mountain Village (**Figure 5**, **Table 4**). Wells MTN-5 and MTN-6 are rarely used due to poor aesthetic quality caused by naturally occurring hydrogen sulfide gas odor. Well MTN-3 is not

Figure 5. Mountain Village Wells, Tanks and Booster Stations

being presently used due to recurring coliform detections. As discussed below, wells MTN-3, MTN-5, and MTN-6 can be treated to enable regular use of these sources. The Lone Moose wells LM-1 and LM-2 provide supply only to Lone Moose condominiums (**Figure 6**).

The presently installed pumping capacities are based on observed rates of discharge from the wells obtained from SCADA and prior testing.[5] The effective rates are based on the actual well usage for the current system, where well MTN-6 is only being used as the largest well and otherwise is not used to supply water to the system -- it could be used in an emergency. The recommended pumping rates are adjusted rates based on recent pumping tests for wells MTN-3[6], MTN-5, MTN-6[7], and wells LM-1 and LM-2[8] and apply only when these wells are put into regular service. Annual volumes are the volume of water produced by continuous operation of the well except for wells MTN-5, MTN-6, LM-1 and LM-2. These wells are in flow limiting aquifers and the volumes are based on aquifer modeling of drawdown over a five year period.

Additional hydraulic analysis of MTN-5 was completed based on pumping during snowmaking in the 2021 – 2022 ski season (**Appendix B**). This analysis generally confirmed the design rate of 110 gpm (a rate of 98 gpm was estimated), and that a larger annual volume of 140 acre-feet per year may be feasible.

Table 4. Mountain Village Well Capacities

Well ID	Installed Rate (gpm)	Effective Rate (gpm)	Recommended Rate (gpm)	Annual Volume (afy)
MTN-1 (F[A])	250	250	250	403
MTN-2 (F[A])	95	95	95	153
MTN-3 (F[A])	115	0	150	242
MTN-4[B] (F, S)	100	100	100	161
MTN-7[C] (F, S)	205	55	55	89
MTN-5 (F)	180	0	110	140
MTN-6 (F)	450	450	110	60
LM-1, LM-2 (F, S)	100	40	40	25
Total	1495	990	910	1274

gpm – gallons per minute; afy – acre feet per year; F – flow meter installed; L – water level sensor installed; S – monitored through the Supervisory Control and Data Acquisition (SCADA) system.
[A] Flow metering of these wells occurs as a combined total through the Hill booster station flow meter. The Cascade booster station also is equipped with a discharge flow meter.
[B] MTN-4 and MTN-7 rates are for sustained simultaneous pumping.
[C] MTN-7 production up to 150 gpm (7-day average) is dedicated to Yellowstone Club.
Mountain Village Subsystems

5 Morrison-Maierle, Inc. (1986) Aquifer Tests with Report of Results, Mountain Village Wells No. 1, 2, and 3, prepared for Lone Mountain Springs Water Company, February 28, 1986. The Hill booster clear well was accurately measured at 10.66 by 22.72 feet horizontal area, and volume of 1811.62 gallons per foot as part of this work.

6 Western Groundwater Services, LLC (2017) Mountain Village Well No. 3 Rehabilitation Report, report to Big Sky County Water and Sewer District No. 363. (Appendix B)

7 Western Groundwater Services (2018) Mountain Wells #5 and #6 Video Log and Pump Testing Report, prepared for Big Sky County Water and Sewer District No. 363. (Appendix B)

8 Western Groundwater Services (2009) Lone Moose Meadows Well No. 1 Pumping Test Report, prepared for Big Sky County Water and Sewer District No. 363. (Appendix B)

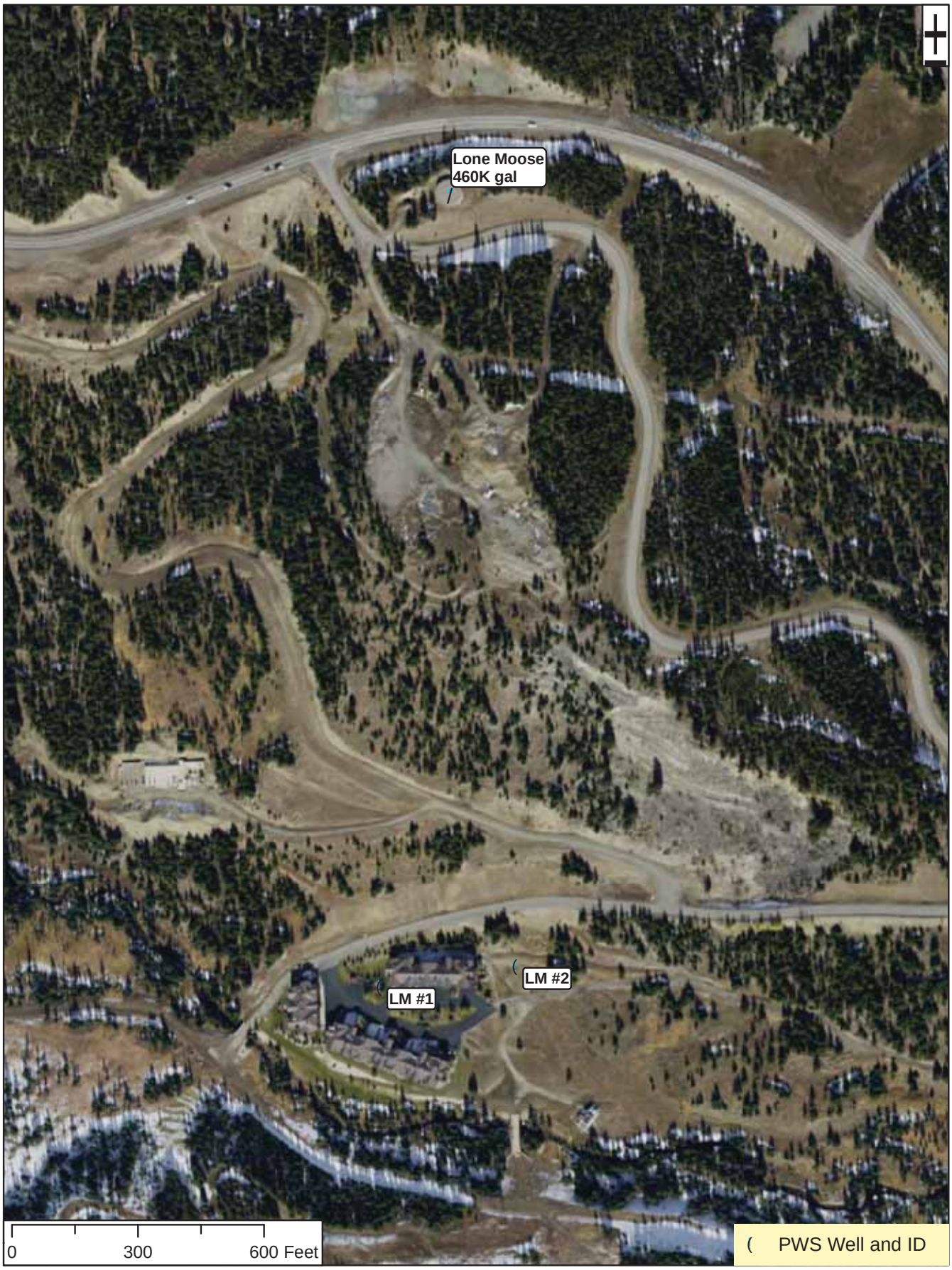

Figure 6. Lone Moose Wells and Tank

3.2.1 Future Split System

In order to make all of the Mountain Village wells functional, water treatment is necessary for wells MTN-3, MTN-5, and MTN-6. This improvement is required to meet water demand beyond approximately year 2038 as discussed in a later section of the report.

Based on the existing piping layout, treatment feasibility requires the Mountain Village system be split into two subsystems (**Figure 7**). The lower Resort Area system would be supplied by wells MTN-1, MTN-2, MTN-4, and MTN-7 and will remain untreated. Wells LM-1 and LM-2 would also provide untreated supply to the Lone Moose condominiums. The Resort Area system would also provide untreated supply to Yellowstone Club. Storage for the Resort Area would use the recently refurbished 500K gallon Mountain Village tank.

The upper Cascade system would be supplied by wells MTN-3, MTN-5, and MTN-6 that would be treated at a new facility located at the Cascade booster station. Treatment would include removal of sulfide odor and 4-log virus disinfection. This system would serve existing and new services that connect to the distribution system above the Cascade booster station. The Cascade system would use the 1.5M gallon Cascade Tank.

There would be interties between the Resort Area and Cascade systems to enable supplemental supply from one to the other. The DEQ standard for maximum day demand with the largest well out of service would designate well MTN-1 as the largest well for both systems. **Table 5** summarizes the wells and capacities for the split systems.

Table 5. Well Capacities for Resort Area and Cascade Systems (Future)

	Resort Area	Cascade
Well ID	Rate (gpm)	Rate (gpm)
MTN-1	250	
MTN-2	95	
MTN-3		150
MTN-4	100	
MTN-7	55	
MTN-5		110
MTN-6		110
LM-1, LM-2	40	
Total	540	370
Total (DEQ)[A]	290	370
[A] Assumes the largest well MTN-1 is out of service.		

3.2.2 Mountain Village Booster Pumping Stations

The existing Mountain Village system uses two booster pumping stations to lift water to the elevation of the 1.5M gallon Cascade tank (Hill and Cascade boosters). Most of this water then returns to the Resort Area part of the system via a series of pressure reducing valves. Splitting of the Mountain Village system into the Resort Area and Cascade systems eliminates the additional pumping of Resort Area water (including Lone Moose, Aspen Grove, and Yellowstone Club) with a cost savings from reduced electrical power use. The Hill booster pumping capacity is presently 750 gpm, while the Cascade booster has a maximum rate of about

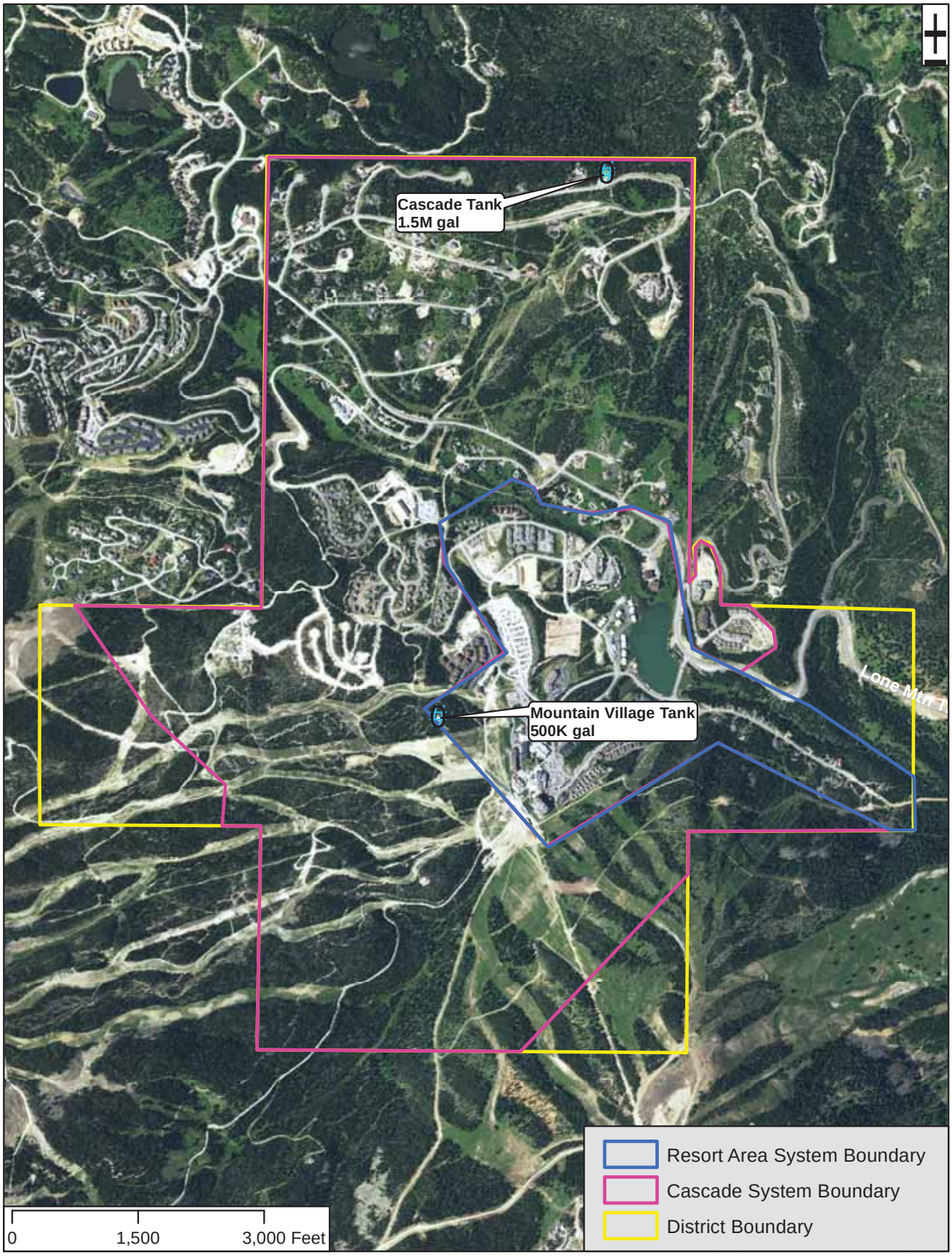

Figure 7. Resort Area and Cascade Systems (Future)

850 gpm. These rates are sufficient for the existing water use beyond the present planning period of 2042.

3.2.2.1 Cascade Meter Evaluation July 2022

Flow metering data for the Cascade booster station were confirmed by installing a portable ultrasonic flow meter at the booster station for the period from July 7 to July 18, 2022.[9] The lay length for the ultrasonic meter was not ideal, but generally acceptable (three diameters upstream and two diameters downstream). The setup and calibration of the meter were underestimating sonic velocity, suggesting some deviation from an ideal configuration (sonic velocity was manually corrected based on the values of a water temperature chart provided by the manufacturer).

Over the period of seven days, the ultrasonic meter consistently measured slightly lower flow than was measured by the permanently installed meter of the booster station. The deviation ranged from 5.1% to 7.2%, or about 18,500- to 39,000-gallons per day. Daily pumped volume ranged from 326,000- to 512,000-gallons. The maximum daily flow rates measured by the ultrasonic meter were 11- to 26-gpm below the reported maximum from the SCADA system. The ultrasonic meter data do not indicate there is a significant error in the Cascade meter. The ultrasonic meter in this application is not considered to be more accurate than the Cascade meter--either one could be found to be closer to the actual flow rate.

3.3 Flow and Level Monitoring

The five active wells in Meadow Village (MV-1 thru MV-5) are equipped with flow meters connected into the SCADA system. With the exception of well MV-1, these wells do not have water level instruments. One of the improvements identified in this Plan is to install pumping water level sensors in these wells, and to have these data monitored and archived through the SCADA system.

Flow metering of the Mountain Village wells includes MTN-1, MTN-4 and MTN-7. The Hill and Cascade booster stations also are both equipped with discharge flow meters. Flow rate data from these meters are monitored and archived in the SCADA system. Pumping water level data are not available for any of the Mountain Village wells. One of the improvements identified would install water level sensors for each well (MTN-1 thru MTN-7) with monitoring and archive of these data through the SCADA system. The District is in the process of installing meters on wells MTN-5 and MTN-6, and is encouraged to install meters on MTN-2 and MTN-3 as/when feasible in the future.

4. WATER USE AND DEMAND PROJECTION

This section presents water use data collected through the SCADA system. Data were reviewed from 2014 through 2021. Unit water use rates per SFE are developed from these data and then applied to the SFE growth rates to estimate future water demand.

4.1 Meadow Village

Meadow Village is experiencing increasing water use over the past three years (**Figure 8**). Summary statistics for the period from 2014 through 2021 are provided in (**Table 6**). Maximum water use for this

9 The Siemens FUP1010 meter was furnished and installed by Western Groundwater Services, LLC. It was mounted in direct (minimum) mode onto 8-5/8 inch diameter schedule 40 steel pipe, and used Universal D2 transducers. It was battery powered for the duration of testing. Rate and volume readings were recorded to memory at 1-minute intervals. The meter data have been provided to the District in Excel format.

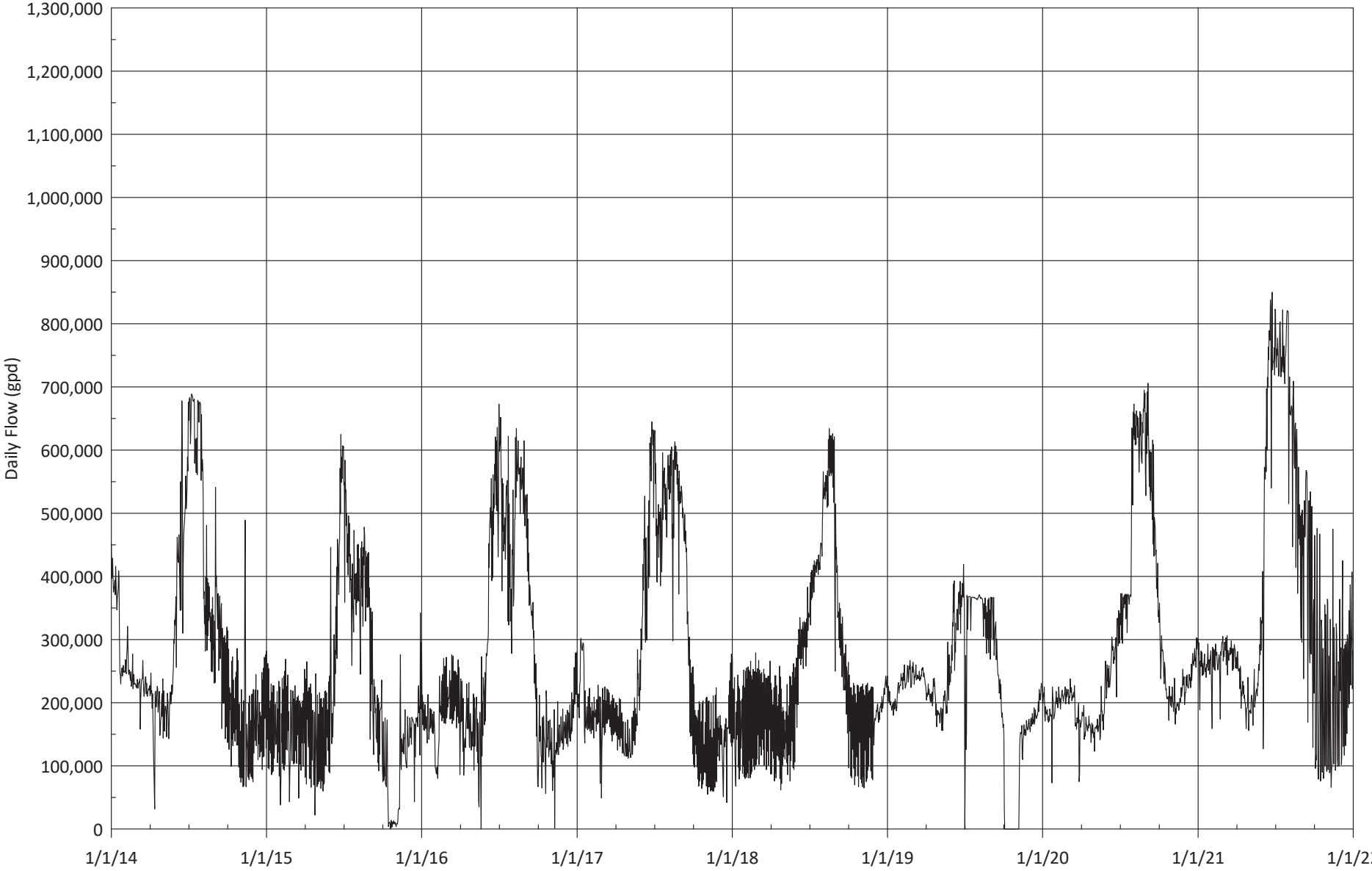

Figure 8. Meadow Village Water Use History

period occurred in year 2021 and totaled 362,000 gpd and 406 afy. This total annual water use is well below the water rights volume of 1,554 afy. Maximum day in 2021 was 850,000 gpd, or equivalently 590 gpm, resulting in an estimated peaking factor of 2.35. The maximum day demand was 61% of installed source capacity (975 gpm).

For demand projection, the key parameters are the unit water use rates for average day demand (ADD/SFE) and maximum day demand (MDD/SFE). The SFEs for 2020 and 2021 are adjusted for lag time to reflect actual SFEs using water. The lag time occurs for the period of construction after the SFE permit is approved. 50% of the 2020 SFEs were used and 0% of the 2021 SFEs were used in assessing these unit water use rates. The 90th percentile values estimated from these data (years 2014 – 2021) are used in future demand projections.

Table 6. Meadow Village Water Use Summary, 2014-2021

Year	ADD gpd	ADD afy	MDD gpd	MDD gpm	PF	SFE	ADD/SFE gpd/SFE	MDD/SFE gpd/SFE
2014	294,462	330	689,000	478	2.34	2363.28	125	292
2015	210,829	236	625,000	434	2.96	2478.93	85	252
2016	264,706	297	673,000	467	2.54	2663.89	99	253
2017	268,468	301	645,000	448	2.40	2905.56	92	222
2018	245,276	275	634,000	440	2.58	2954.08	83	215
2019	225,192	252	419,000	291	1.86	3165.72	71	132
2020	286,287	321	706,000	490	2.47	3182.77	90	222
2021	362,232	406	850,000	590	2.35	3182.77	114	267
						90th Percentiles	**117**	**274**

ADD – average day demand, gallons per day (gpd) and acre-feet per year (afy); MDD – maximum day demand (gpd, gpm); PF – peaking factor, MDD/ADD; SFE – single family equivalent. Unit water use rates for future demand projection shown in **Bold**.

Future water demand was estimated by applying unit water use rates to SFE growth projections (**Table 7**). The ADD value is presented in annual acre-feet so that it can be directly compared to water right volume. Meadow Village annual water use is projected to remain less than the water rights volume until sometime after 2042. The MDD value is presented in gallons per minute to provide direct comparison to installed pumping capacity.

These data show that by 2030 (2032 with lag time adjustment), the installed pumping capacity of Meadow Village wells will likely be insufficient to meet maximum day demand (**Figure 9**). The existing supply can accommodate approximately 1,858 additional SFEs, which includes 930 SFEs for which service is committed and 928 new SFEs. These SFEs bring the Meadow Village total to 5,162, a 50% increase in service population from 2021.

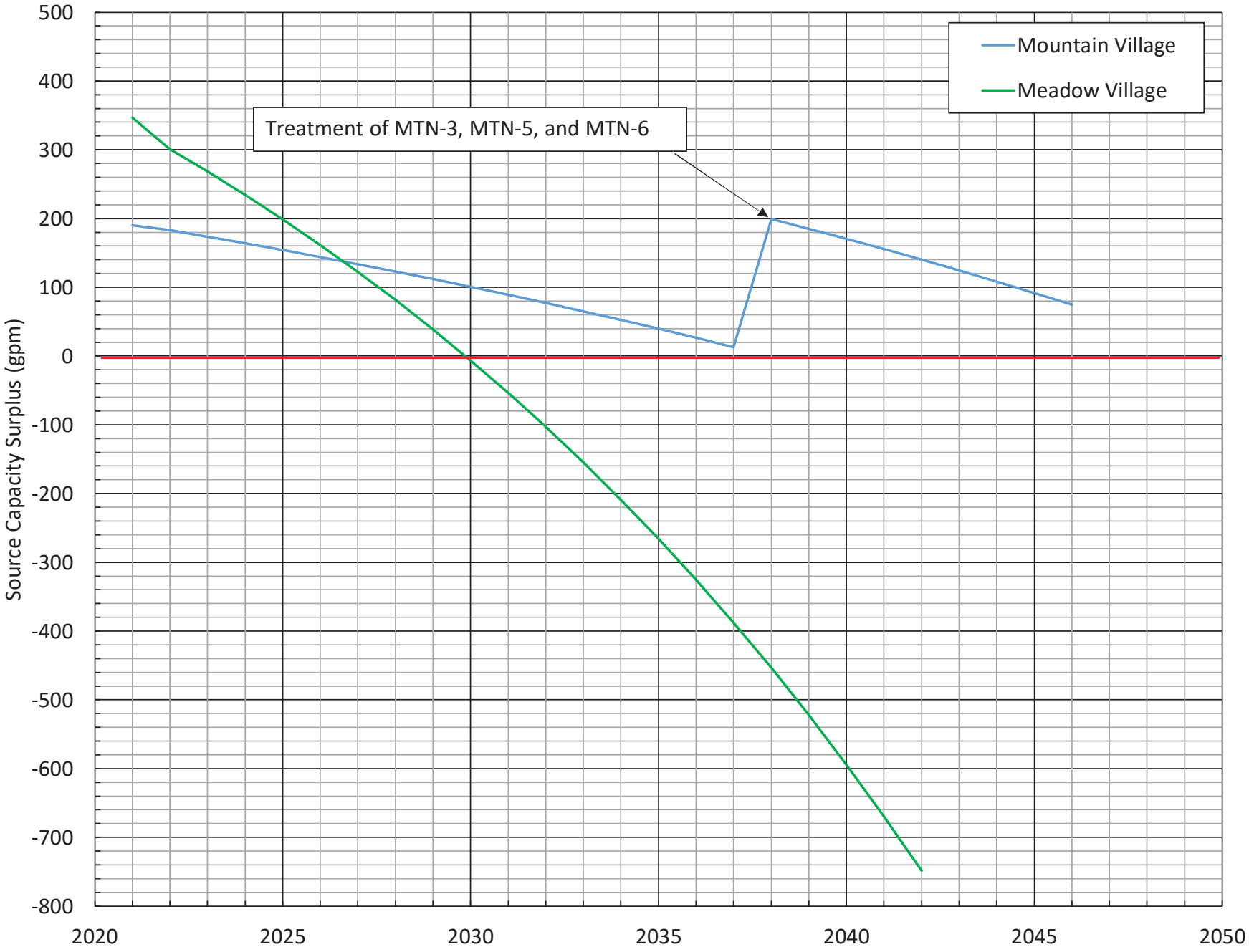

Figure 9. Source Capacity Surplus Projection

Table 7. Meadow Village Water Demand Projection, 2025-2042

Year	SFE	ADD afy	MDD gpm
2025	4,083	535	778
2030	5,162	677	984
2035	6,527	856	1244
2040	8,253	1082	1573
2042	9,065	1189	1727
SFE – single family equivalent; ADD – average day demand, acre-feet per year (afy); MDD – maximum day demand, gallons per minute (gpm)			

4.2 Mountain Village

Mountain Village water use has been declining for the past several years (**Figure 10)**. The plotted data are from the Cascade booster station flow meter, which is a total production measurement including the water that served Lone Moose condominiums, the Aspen Grove subdivision, and that is sold to Yellowstone Club. Summary data for this same period, but excluding water sold to Yellowstone Club (YC), generally indicate the same declining trend, with 2019 being a slight exception (**Table 8**). The declining trend is attributed to effective leak detection and repair, and conservation measures.

Usage data for 2021 indicates a total volume for Mountain Village, including Lone Moose condominiums and the Aspen Grove subdivision, of 276 afy. This annual volume is substantially less than the permitted water right volume. There is some additional volume related to snowmaking that may reach about 60 afy, bringing the total use to about 336 afy for Mountain Village. This annual volume does not include any of the water sold to YC which also includes additional water rights.

Maximum day demand trends from a peak in 2014 of 717 gpd/SFE to a low in 2021 of 241 gpd/SFE. The maximum day demand realized in 2021 had a pumping rate of only 326 gpm. For the purpose of projecting future water demand, the 2021 unit water use rates are used directly for future demand projection. Water demand for selected years to 2042 are provided in **Table 9**.

The existing Mountain Village source capacity, excluding supply from wells MTN-3, MTN-5, and MTN-6 can provide 540 gpm of capacity (using well MTN-6 as the largest well). This includes 55 gpm from well MTN-7 and assuming a sustainable rate of 40 gpm for the Lone Moose wells. This capacity will meet the maximum day demand of Mountain Village until year 2038 (**Figure 9**), accommodating 1,132 additional SFEs, all of which are committed, and bringing the total Mountain Village SFEs to 3,210, a 40% increase in population as compared to 2021.

Additional source capacity for supply beyond 2038 can be obtained by providing water treatment of wells MTN-3, MTN-5, and MTN-6. This additional supply would accommodate 740 SFEs, which would be fully developed in about year 2046. These additional SFEs include 413 SFEs that are already committed and 327 new SFEs. When these wells are treated, a rate reduction for well MTN-6 results in well MTN-1 becoming the largest well. Consequently, the installed capacity would be 910 gpm and the capacity with the largest well out of service would be 660 gpm.

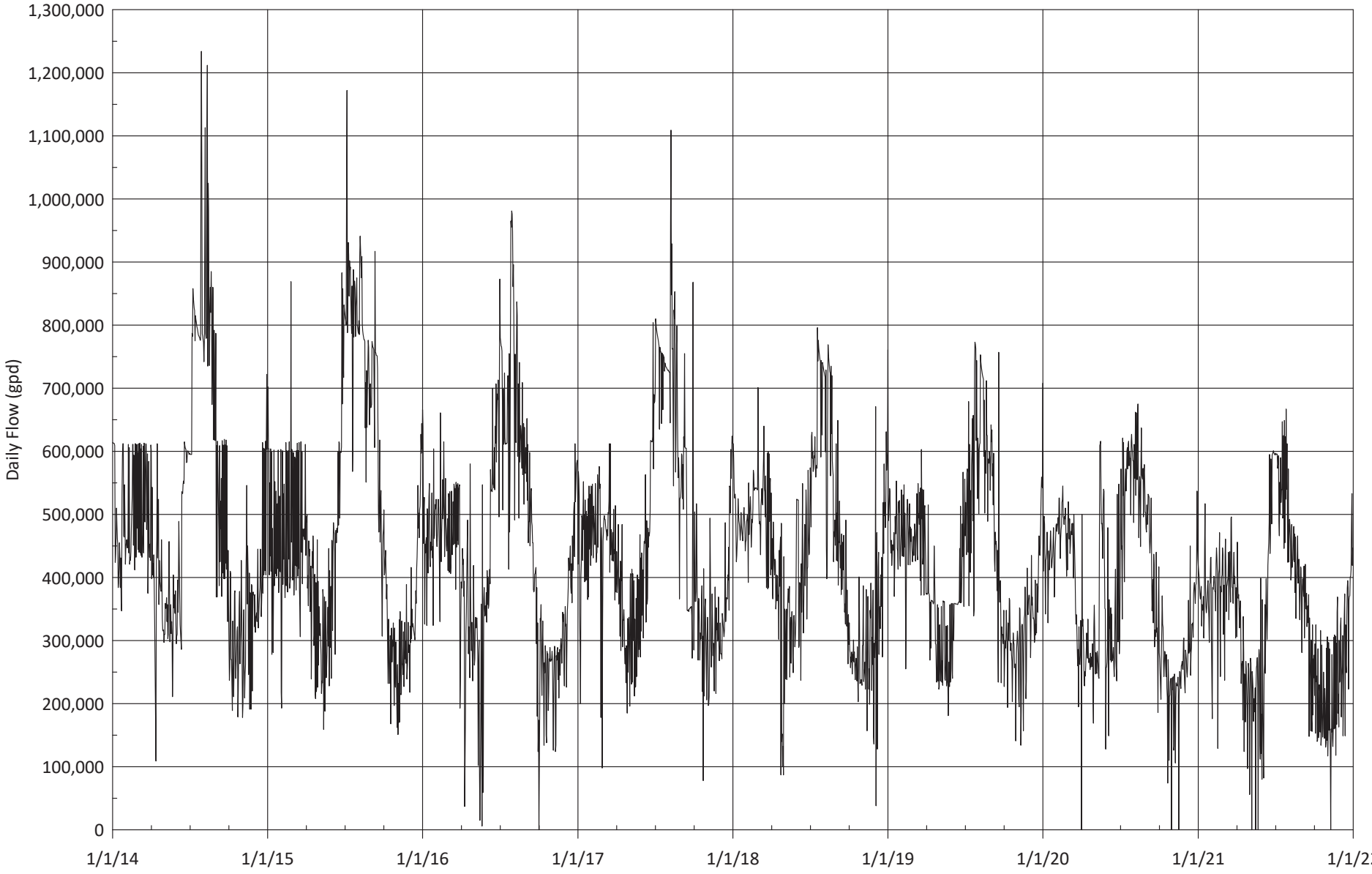

Figure 10. Mountain Village Water Use History

Table 8. Mountain Village Water Use Summary, 2014-2021

Year	ADD gpd	ADD afy	MDD gpd	MDD gpm	PF	SFE	ADD/SFE gpd/SFE	MDD/SFE gpd/SFE
2014	426,352	478	1,234,000	857	2.89	1722.16	248	717
2015	351,077	393	927,000	644	2.64	1738.83	202	533
2016	299,656	336	676,000	469	2.26	1761.67	170	384
2017	293,828	329	727,000	505	2.47	1826.45	161	398
2018	295,064	331	597,000	415	2.02	1856.57	159	322
2019	294,436	330	664,000	461	2.26	1922.89	153	345
2020	278,994	313	568,000	394	2.04	1942.61	144	292
2021	246,185	276	469,000	326	1.91	1942.61	**127**	**241**

ADD – average day demand, gallons per day (gpd) and acre-feet per year (afy); MDD – maximum day demand (gpd, gpm); PF – peaking factor, MDD/ADD; SFE – single family equivalent. Unit water use rates for future demand projection shown in **Bold**.

Table 9. Mountain Village Water Demand Projection, 2025-2042

Year	SFE	ADD afy	MDD gpm
2025	2,291	325	384
2030	2,608	370	437
2035	2,969	422	498
2040	3,381	480	567
2042	3,561	506	597

SFE – single family equivalent; ADD – average day demand, acre-feet per year (afy); MDD – maximum day demand, gallons per minute (gpm)

4.2.1 Resort Area and Cascade Systems (Future)

The Resort Area and Cascade systems may be created in the future in relation to adding water treatment for wells MTN-3, MTN-5, and MTN-6. SFE distribution in 2021 to the Resort Area and Cascade systems is approximately 1,140 SFE and 938 SFE, respectively. This distribution was determined by allocating SFEs to subdivisions and other selected properties that would be served through the Cascade system. The Cascade SFEs were then subtracted from the Mountain Village total SFE to obtain the Resort Area system SFEs. For growth projection, it was assumed the Resort Area may realize 200 new SFE over the planning period to 2042, with the remainder of the projected growth, or 1,283 SFE, being added to Cascade.

Water demand projections for the Resort Area and Cascade systems are provided in **Table 10**. Well capacities of existing wells with respect to both rate and annual volume are satisfactory to meet the demands in year 2042, indicating there are no new source capacity requirements through this planning period. It is necessary, however, to make improvements for treatment of wells MTN-3, MTN-5, and MTN-6, and this work will include pumping equipment replacements.

Table 10. Resort Area and Cascade Demand Projections

Year	SFE	ADD afy	MDD gpm
Resort Area System			
2021	1,140	162	191
2042	1,340	190	225
Supply Capacity (MTN-1, MTN-2, MTN-4, MTN-7, LM-1, LM-2)		832[A]	290[B]
Cascade System[C]			
2021	938	133	157
2042	2,220	315	372
Supply Capacity (MTN-3, MTN-5, MTN-6)		442	370

SFE – single family equivalent; ADD – average day demand, acre-feet per year (afy); MDD – maximum day demand, gallons per minute (gpm)
[A] Assumes 89 afy from MTN-7 based on 55-gpm of available capacity year round.
[B] This rate does not include well MTN-1 (250 gpm)
[C] Includes additionally Cheyenne Rd, Heavy Runner Rd, Sioux Rd, Summit View Dr, Washakie Rd, and White Otter Rd.

4.2.2 Yellowstone Club Purchased Water Use

The District sells water to Yellowstone Club (YC) through an agreement established in March 2003. The agreement specifies that up to 216,000 gpd of water will be sold to YC based on a seven-day average calculated from Monday through Sunday. Water is conveyed from the Mountain Village resort area via a booster station and pipeline to the YC water system. The booster station discharge is metered and data are archived to the District SCADA system. These data show that YC use over the period from 2014 through 2021 included excursions that exceeded the agreement, but the use has been in compliance since 2018 and exhibits a declining trend (**Figure 11**).

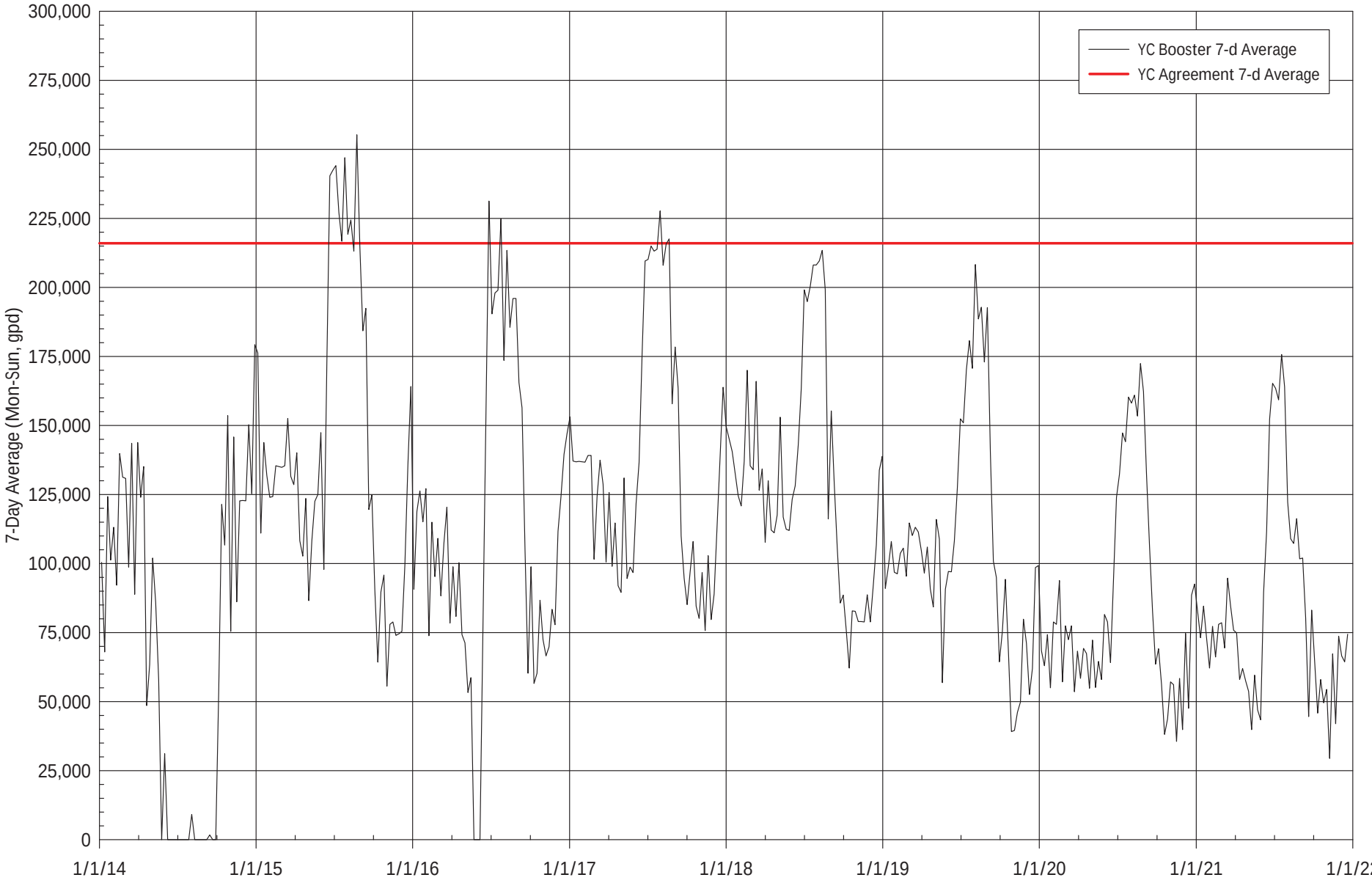

Figure 11. Yellowstone Club Purchased Water Use

5. WATER RIGHTS

The District owns water rights that appropriate sufficient water capacity to serve the public water system. This section is providing summary information on the water rights. Additional information is also provided in **Appendix C**.

5.1 Meadow Village Rights

There are three water rights for Meadow Village including two Statement of Claims and one Provisional Permit (**Table 11**). Change filings were made to these rights to add new and existing diversions. The total rate and volume that is appropriated by these rights exceeds the 2042 projected demand.

5.2 Mountain Village Rights

There are six water rights for Mountain Village including three Statements of Claims and three Provisional Permits (**Table 12**). The permit filing for wells MTN-5 and MTN-6 specified a volume inclusive of these new wells and also existing wells MTN-1, MTN-2, and MTN-3. These five wells are permitted for the total volume of 592 af per year. Volumes shown for MTN-1, MTN-2 and MTN-3 are not included in the total volume (shown in grey). These rights are designated for Commercial use, which should be changed to Municipal use in future filings.[10] The rate and volume appropriated exceeds the 2042 projected demand for Mountain Village.

5.3 Other Groundwater Rights

Other groundwater water rights are owned by the District that can be used in the public water system (**Table 13**). These rights can be used for the designated wells, and can be used to add new diversions onto the public water system. These rights have a mixture of domestic uses. They should be changed to Municipal use in future filings.

5.4 Surface Water Rights

The District also owns two surface water rights that are both Statement of Claims and were filed for the same acreage (**Table 14**). In 2016 the District filed a change on these rights for a project that isolated Little Coyote pond from the West Fork Gallatin River (not yet constructed). The change included reallocation of a fraction of the rights for Municipal use within the District service area. A diversion for municipal use is likely to have limited benefits to the District due to the late priority dates of the rights.

5.5 Place of Use

Water rights owned by the District have a Place of Use (POU) that extends over the Meadow or Mountain Villages where the water is put to beneficial use (**Figure 12**). Meadow Village water rights have a POU that extends throughout the Meadow Village area. Mountain Village water rights have a POU that extends over the Mountain Village area, and into the Yellowstone Club (YC) to the south (outside the service area). This extension to YC occurred in relation to the well MTN-7 water right filing. The existing POU does not, however, extend over the entire service area. In future filings the District should designate the entire service area as the POU and should list all of the water rights as part of a manifold system within the service area.

10 Municipal use allows a replacement well up to 450 gpm to be constructed without filing a change application. A replacement well filing is required using Form 634. Other uses must file a substantially more complex change application that includes a detailed review and public notice.

Table 11. Meadow Village Water Rights

WELL ID	WR NO.	TYPE	PRIORITY DATE	COMPLETION DATE	USE	RATE (gpm)	VOL (af)
HV-1 (MV1, MV2, MV3)	41H 122634 00	CLAIM/CHANGE	04/01/71	12/31/2033	Municipal	85	68.73
MV-1 (MV2, MV3, HV1)	41H 122635 00	CLAIM/CHANGE	04/01/71	12/31/2033	Municipal	220	177.89
MV-1 - MV-5, HV-1	41H 107416 00	PERMIT/CHANGE	11/15/99	12/31/2033	Municipal	985	1,307.38
					TOTAL	1,290	1,554.00

Table 12. Mountain Village Water Rights

WELL ID	WR NO.	TYPE	PRIORITY DATE	COMPLETION DATE	USE	RATE (gpm)	VOL (af)
MTN-1	41H 122636 00	CLAIM	01/30/74	NA	Commercial	240	*194.06*
MTN-2	41H 122637 00	CLAIM	01/30/74	NA	Commercial	80	*64.69*
MTN-3	41H 133733 00	CLAIM	01/30/74	NA	Commercial	180	*145.54*
MTN-4	41H 61672 00	PERMIT	10/21/86	12/31/2033	Commercial	124	150.00
MTN-5, MTN-6	41H 100737 00	PERMIT	04/02/97	12/31/2033	Commercial	925	592.00
MTN-7	41H 30001796	PERMIT	04/25/02	12/31/2033	Commercial	300	*241.84*
[A]Value in parentheses is volume without MTN-7 water right.					TOTAL	1,849	983.84 (742.00)[A]

Table 13. Other Groundwater Water Rights

WELL ID	WR NO.	TYPE	PRIORITY DATE	COMPLETION DATE	USE	RATE (gpm)	VOL (af)
AG-2, AG-3	41H 100681 00	PERMIT	05/13/97	12/31/2032	Mult. Domestic Lawn/Garden	50	33.52
HV-2	41H 61673 00	PERMIT	10/21/86	12/31/2033	Municipal	116	90.00
LM-1, LM-2	41H 115506 00	PERMIT	04/04/01	12/31/2032	Mult. Domestic	190	201.70
					TOTAL	356	325.22

Table 14. Surface Water Rights

SURFACE WATER NAME	WR NO.	TYPE	PRIORITY DATE	COMPLETION DATE	USE	RATE (gpm)	VOL (af)
WEST FORK GALLATIN R	41H 148445 00	CLAIM/CHANGE	6/23/1902	12/31/2037	Fish., Irr., Municipal	9.10	120.46
WEST FORK GALLATIN R	41H 148446 00	CLAIM/CHANGE	5/15/1952	12/31/2037	Fish., Irr., Municipal	9.10	120.46
					TOTAL	18.20	240.92

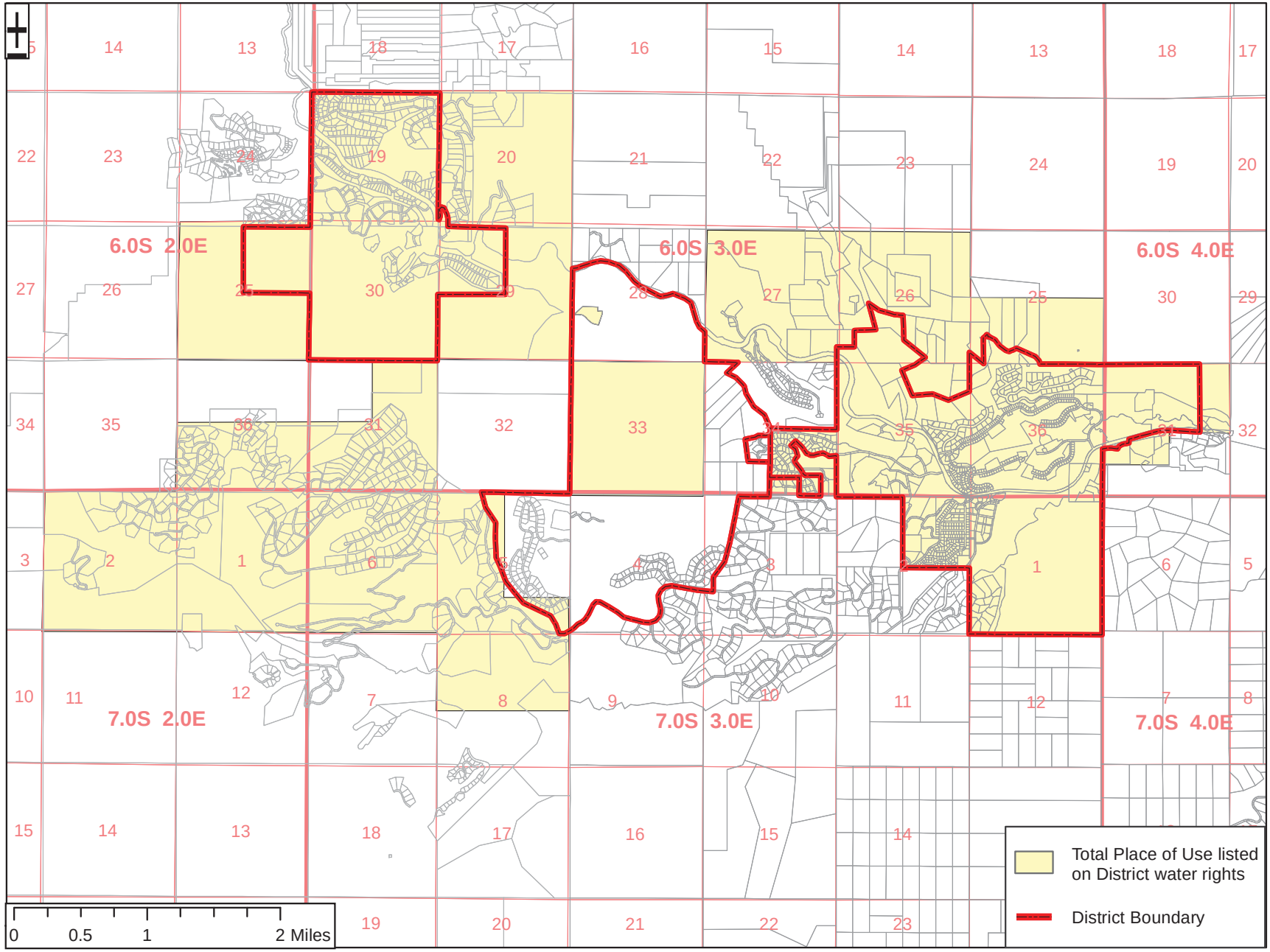

Figure 12. Water Rights Place of Use

6. SOURCE CAPACITY IMPROVEMENTS

6.1 Water Conservation

Water conservation planning and implementation has a primary purpose of reducing water use. This section evaluates conservation measures that will defer new source capacity development through water use reductions.

Water use can be separated into indoor and outdoor uses. Indoor uses account for approximately 67% of water use, with outdoor uses accounting for the remaining 33%.[11] The outdoor use is additive to the indoor use during summer months and is predominantly landscape irrigation. It is a primary driver of source capacity requirements for public water systems.

Reuse of treated wastewater effluent for irrigation can be considered a form of conservation. Communities have used reuse water for domestic lawn and garden irrigation by installing separate distribution systems for this use. Lawn and garden reuse in the Meadow Village area is considered to have a small but costly benefit and is not considered for these reasons.

Reduced irrigation from the public water system is considered the preferred alternative for conservation at Big Sky. It reduces use from the potable system and reduces overall consumptive use of the local water resources.

6.1.1 Indoor Water Use Conservation

Growth occurring in the District after about 1994 would generally be using fixtures with water use ratings consistent with modern fixtures. Indoor water audits of existing residences could be offered by the District as an educational measure for owners, and also for the District to gather data on the types of indoor uses that could be improved to result in water conservation. Gallatin River Task Force provides a rebate program on their website for residential and commercial properties, and also addresses outdoor conservation. The District contributes financially to this effort. There is opportunity for the District to expand this partnership.

6.1.2 Outdoor Water Use Conservation

Outdoor residential water use is dominated by irrigation of lawns. Conservation literature emphasizes a transition to much smaller irrigated areas totaling about 500 square feet (ft^2), or approximately 22- by 22-feet (ft).[12]

Based on air-photo analysis of 16-residences in Meadow Village irrigated areas ranged from 2,463- to 14,025-ft^2, with a mean value of 8,315 ft^2.[13] These areas included lawns, shrubs and trees. They show up as dark green on air-photos and are shown to be artificially irrigated based on contrast with adjacent lands. A reduction to 500-ft^2 of total irrigated area could reduce irrigation water use by 94% on average ((1-500/8315)*100%).

11 In 2021, Meadow Village water use was estimated as 66.67% indoor and 33.33% outdoor.

12 Vickers, A. (2001) Water Use and Conservation, WaterPlow Press, Amherst, MA, 446 pp.
AWWA (2017) Water Conservation Programs – A Planning Manual, Manual of Water Supply Practices M52, 2nd Edition.

13 1 acre = 43,560 ft^2.

The reduction in maximum day demand was estimated for reduced irrigation in Meadow Village for year 2021. Applied only to residential properties (79%) and assuming that only 25% of existing properties modify their landscape plan to achieve a 500 ft^2 irrigated area, the maximum day demand is reduced from 274 gpd/SFE to 258 gpd/SFE. By the same assumptions, the average day demand is reduced from 117 gpd/SFE to 110 gpd/SFE.

To estimate future reductions in maximum day demand, it was assumed the District requires all future residences to limit irrigated area to 500 ft^2, therefore resulting in 100% participation (the District could apply the same restrictions to commercial land uses). Future SFEs would therefore have a maximum day demand of 189 gpd/SFE. The total unit rate of water use for maximum day combines the existing and future SFEs to assess the water use reduction through the planning period to 2042 (**Tables 15** and **16**). Calculations shown assume that 25% of existing residential SFEs (that existed in 2021) reduce irrigated area to 500 ft^2 before year 2025.

Table 15. Reduced Irrigation Impact – Maximum Day Demand

Year	SFE	f	1-f	MDD gpd/SFE[A]	MDD gpm	MDD Reduction
2025	4,083	0.78	0.22	243	688	11.6%
2030	5,162	0.62	0.38	231	830	15.7%
2035	6,527	0.49	0.51	223	1009	18.9%
2040	8,253	0.39	0.61	216	1236	21.4%
2042	9,065	0.35	0.65	213	1343	22.3%

SFE – single family equivalent; f – fractional contribution of year 2021 SFEs; 1-f – fractional contribution of future SFEs; MDD – maximum day demand; MDD Reduction – decline in MDD relative to non-conserving MDD estimates from Table 6.
[A] MDD (gpd/SFE) = f * 258 + (1-f) * 189

Table 16. Reduced Irrigation Impact – Average Day Demand

Year	SFE	f	1-f	ADD gpd/SFE[A]	ADD afy	ADD Reduction
2025	4,083	0.78	0.22	103	473	11.6%
2030	5,162	0.62	0.38	99	571	15.7%
2035	6,527	0.49	0.51	95	694	18.9%
2040	8,253	0.39	0.61	92	850	21.4%
2042	9,065	0.35	0.65	91	924	22.3%

SFE – single family equivalent; f – fractional contribution of year 2021 SFEs; 1-f – fractional contribution of future SFEs; ADD – average day demand; ADD Reduction – decline in ADD relative to non-conserving ADD estimates from Table 6.
[A] ADD (gpd/SFE) = f * 110 + (1-f) * 81; 1 afy = 325,828 gallons/year.

These estimates show a conservation program that reduces residential irrigation to 500 ft^2 may result in a maximum day demand reduction of 22% by year 2042. As compared to status quo residential irrigation (cf. 1,727 gpm, Table 6), maximum day demand is reduced by 384 gpm in year 2042, the equivalent of about two new water supply wells. Present worth of these facilities is approximately $1M. The same reduction percentages are realized for the average day demand, resulting in a reduction of 265 afy (86 million gallons)

by year 2042. In addition to reduced capital costs for new wells, there are also reduced operations and maintenance costs due to reduced pump and treatment runtimes.

There is likely to be incentive and support costs for the conservation program with respect to reducing irrigated areas on existing properties. The benefit of requiring new development to adhere to reduced irrigated areas does not have an associated cost and results in 65% of the benefit by year 2042.

6.1.3 Conservation Plan and Program

The exercise above demonstrates the potential benefit of residential irrigation reduction. Additional conservation measures will further reduce indoor and outdoor uses. The next steps for the District are to implement conservation measures, the first of which should be reduced irrigation. Additional measures can be implemented in subsequent years. Other conservation measures that could be included in future years include, for example:

- Water audits
- Water wise landscape public education
- Irrigation technology
- Rain sensors (as controls for automatic irrigation)
- Soil tensiometers (as controls for automatic irrigation)
- Indoor fixtures and appliances
- Water billing rate structure
- Leak detection and repair
- Service line replacements

Many programs exist that can be reviewed and used as a basis for assessment and implementation of conservation measures. These programs normally include an array of educational, incentive-based, and mandatory measures. The District should realize that only the mandatory measures result in 100% participation—a critical factor of program success. Educational and incentive programs typically have less than 25% participation and require more effort per unit of participation than mandatory measures. These non-mandatory efforts may be construed more as conservation lip-service rather than actual conservation. Because conservation reduces overall water use, the District will need to assess revenue impacts and make adjustments to prevent shortfalls.

6.2 Groundwater Development

6.2.1 Meadow Village

The ability to develop new groundwater capacity in Meadow Village is considered limited, although some additional capacity can likely be developed from the alluvial aquifer. Bedrock wells in surrounding upland areas also have limitations due to conflicts with private wells and the ability to obtain water rights. Of the bedrock formations, the Madison appears to be the only option for a bedrock well in Meadow Village.

6.2.1.1 Alluvial Aquifer

Wells at Meadow Village produce from the alluvial aquifer on the north side of the golf course, with an average capacity of 200 gpm. Recent work that included mapping of the alluvium thickness was used to assess the potential for new well sites (**Figure 13**).[14] This work shows the alluvium thickness declines east of

14 Western Groundwater Services, LLC (2020) Meadow Village Aquifer Modeling Analysis for Indirect Potable Reuse and Firelight Meadows Subdivision Groundwater Discharge, report to AE2S (9/24/20).

well MV-4 and west of well MV-5.

Potential new production well sites are shown within the area of suitable alluvium thickness and also with maximum offset from adjacent wells (test wells TW-4 and TW-5). The TW-4 site is located within the golf course driving range and may not be available.

New production wells at these locations would have some interference effect on neighboring existing wells that could result in a decline in capacity. However, the offset distances are similar to existing wells MV-1, MV-2 and MV-3, suggesting that excessive interference may not be realized. Based on a simplified hydraulic analysis possible interference drawdown of 15% to 45% was estimated. The analysis used production rates from the new wells of 100- and 200-gpm. In total, two new wells may develop an additional 200- to 400-gpm of production. The primary risk is lost capacity from existing wells, which could be assessed from the test wells.

The impact on surface water of these sites would be similar to the existing wells, enabling new production wells to be added onto existing water rights (41H 107416 00) by filing of a change application. It would also be necessary to file a beneficial use application to add additional rate for the new wells. These filings require DNRC approval and public notice, and therefore have associated risk. The application filings could be made prior to construction of production wells.

New alluvial wells would likely have a requirement for full-time microbial treatment. The preferred option would be to upgrade the UV treatment system to accomodate the two new wells.

6.2.1.2 Bedrock Aquifers

Potential for water development in bedrock aquifers at Meadow Village has so far been shown to be difficult (**Figure 14**). Development of bedrock wells in Meadow Village is not recommended at this time but may be of greater interest in the future.

In section 1 (T7S, R3E) two wells were drilled for Gallatin Peaks Land Development, LLC. A production well was drilled to 800 feet (Uplands #1), and a test well (Test Well 1) was drilled to 840 feet. Both wells were developing groundwater from the Muddy sandstone and an intrusive sill at the same horizon. Uplands #1 was denied a water right permit due to a determination of insufficient recharge by DNRC. Test Well 1 was drilled through additional sandstone in the Thermopolis shale. Air-lift pumping indicated a maximum rate of 70 gpm and the water had a moderately strong hydrogen sulfide odor.

The District owns the Blue Grouse well that was re-entered and deepened from 960 to 1250 feet to fully penetrate the Kootenai aquifer. Total production from the well was estimated at 35 gpm and there was a moderately high iron concentration of 0.8 milligrams per liter (mg/L). The well is presently not completed.

The Madison aquifer is the remaining target and has not been drilled locally. Prior to moving ahead with a Madison well, a technical analysis should be completed to determine the likelihood of satisfactory yield and quality, and also the ability to add the well onto existing water rights.

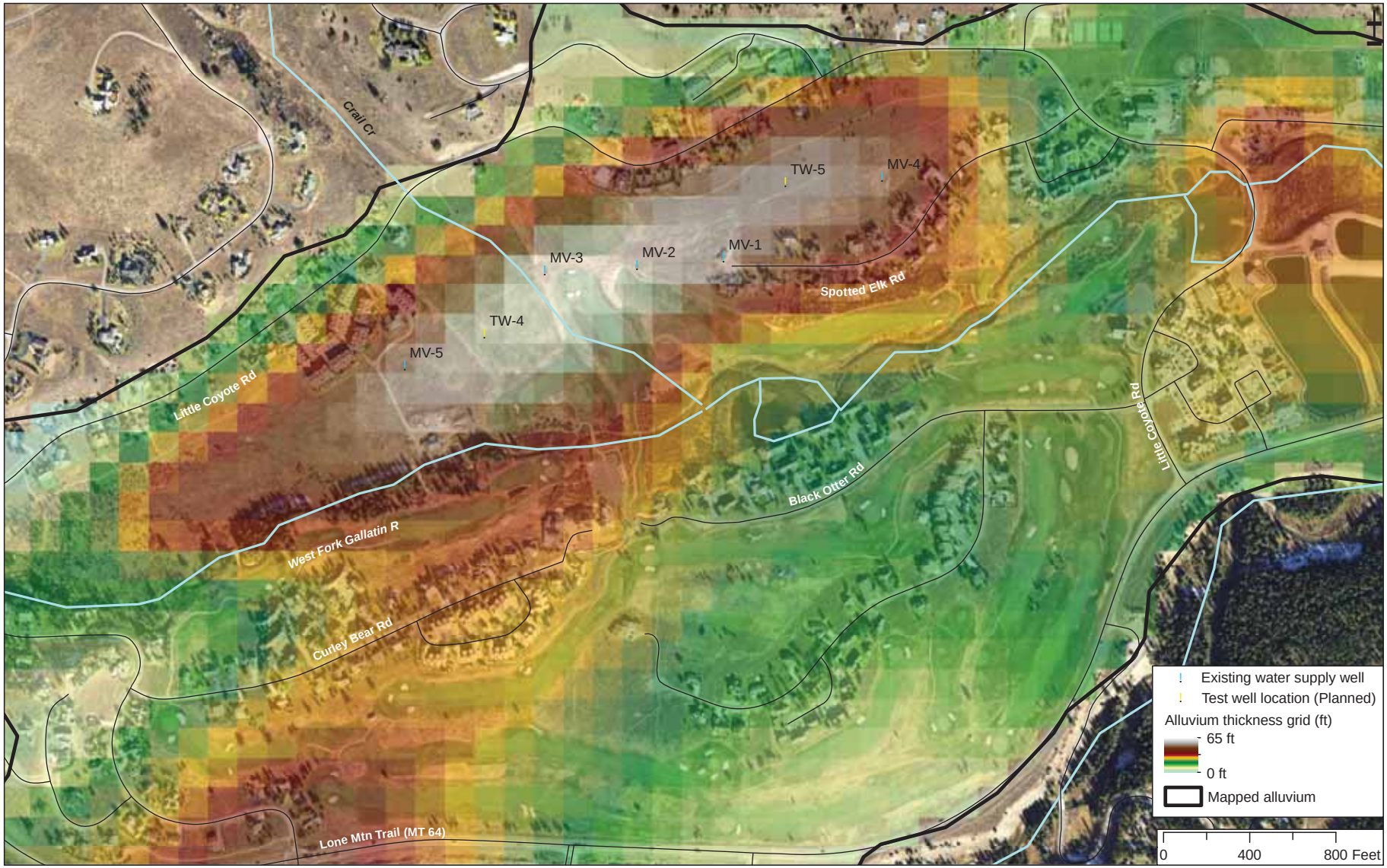

Figure 13. Meadow Village Test Well Locations

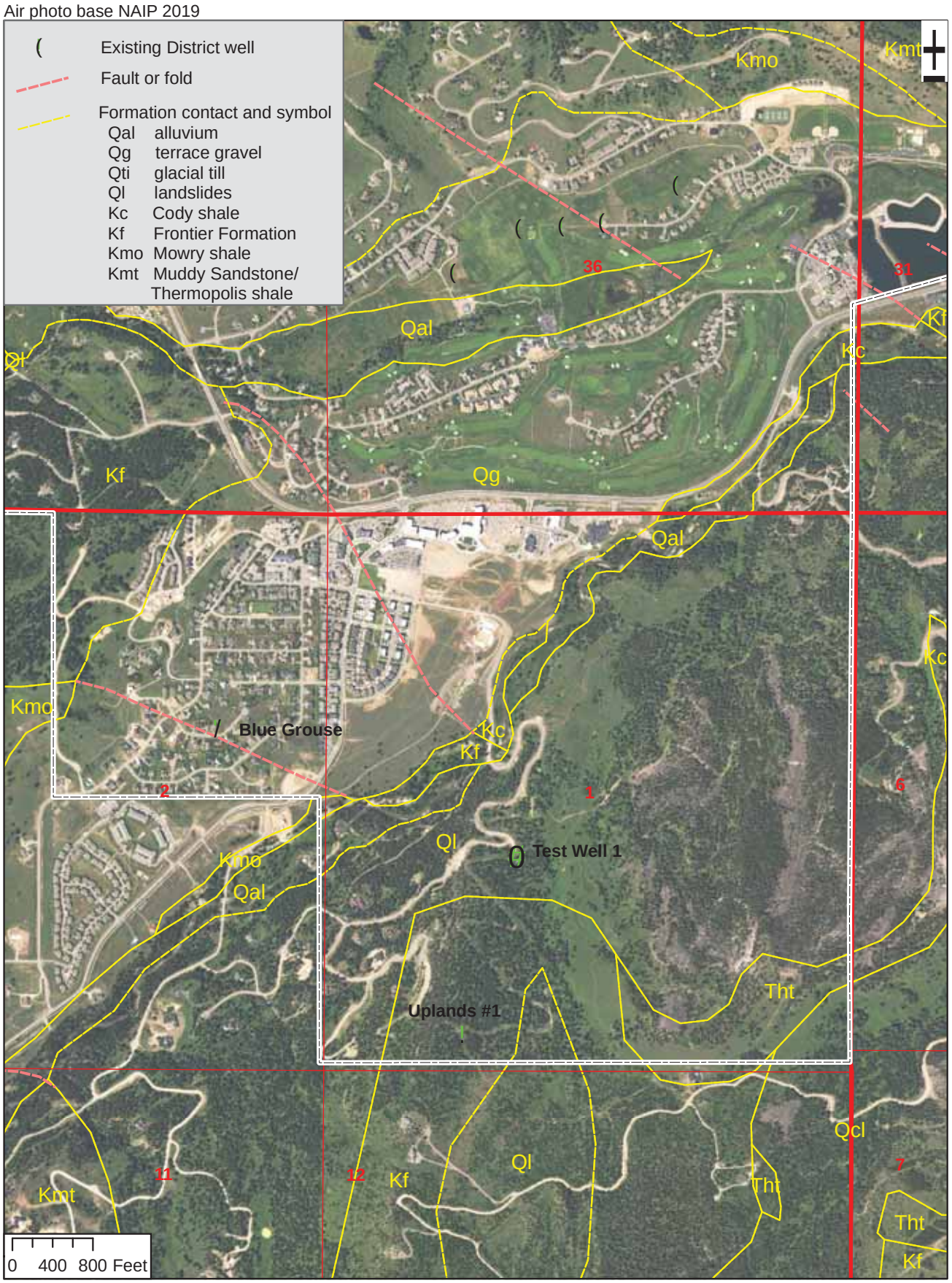

Figure 14. Meadow Village Bedrock Wells

6.2.2 Mountain Village

Starting in 2019 the District has constructed 10 test wells to explore for additional water supply in Mountain Village (**Figure 15**). The explorations targeted aquifers in alluvium, intrusive igneous rocks, and sedimentary rocks.

The last test well (TW#9) included in the drilling contract and targeting sedimentary rocks of the Kootenai formation was started in August 2021. It was drilled and cased to 100 ft and then terminated when the adjacent land owner (Middle Fork Properties, LLC) threatened a restraining order for using the access road through their property, thereby blocking the District from completing the drilling project.
These aquifer targets and the locations drilled generally represent the availability of groundwater in the Mountain Village area. There are no obvious aquifer targets that were not included in the test well drilling project.

Documentation of the results of test well drilling are provided in three reports.[15] A summary of the test well drilling results follows:

- The alluvium test wells #3 and #4 penetrated clay and clay-bound gravel identified as glacial till and then entered bedrock. There was no productive alluvium aquifer encountered;

- Test wells #1, #5, #6, #10, and #11 were targeting intrusive igneous rocks. The intrusive rock was drilled and found to be non-water bearing, although test well #6 also penetrated the top of the Kootenai formation at 995-ft and was air-lift pumped at approximately 150 gpm;

- Test wells #2 and #7 targeted the Kootenai formation. Test wells #2 and #7 fully penetrated the formation and were air-lifted at rates of 150- to 250-gpm, respectively. Pump testing of both wells indicated a permeable formation local to the wells but that was limited in recharge resulting in much lower sustained capacity;

- Test well #8 was drilled to the top of the Kootenai formation. It was producing in excess of 250 gpm from the overlying Thermopolis formation, from both fractured shale and the basal sandstone. It was pump tested and a similar result was obtained as for test wells #2 and #7, which both responded to pumping in test well #8.

Test wells #7 and #8 were being considered for completion as production wells, but this consideration has been deferred based on water use analysis for Mountain Village and additional hydraulic analysis related to pumping from supply well MTN-5 for snowmaking during the 2021-2022 ski season (**Attachment B**). The snowmaking hydraulic analysis showed that conversion of test wells #7 and #8 to production wells would have limited benefit to the overall Mountain Village supply. At the same time, water use for Mountain Village has declined substantially since 2015, resulting in no immediate need for new capacity until beyond 2042.

The test well project showed that shallow groundwater development accessible using air-rotary drilling (approximately 700-800 ft depths) was unlikely to result in high yield wells. Where good permeability was encountered and moderately high rates of air-lift pumping could be achieved during drilling, sustainability of the discharge was not indicated by pump testing. Well yields were estimated to range from 70- to 110-gpm, and annual volumes were estimated at 25- to 56-acre-feet. There was also substantial interference drawdown among test wells #2, #7, #8, and water supply well MTN-5, resulting in reduced yield for multiple

15 Memorandum, 1/5/2022, Re: 2021 Mountain Village Test Wells (#8, #10); Memorandum, 1/21/2021, Re: 2020 Mountain Village Test Wells (#3, #4, #5, #6, #7, #11); Memorandum, 2/14/2019, Re: 2019 Mountain Village Test Wells (#1, #2)

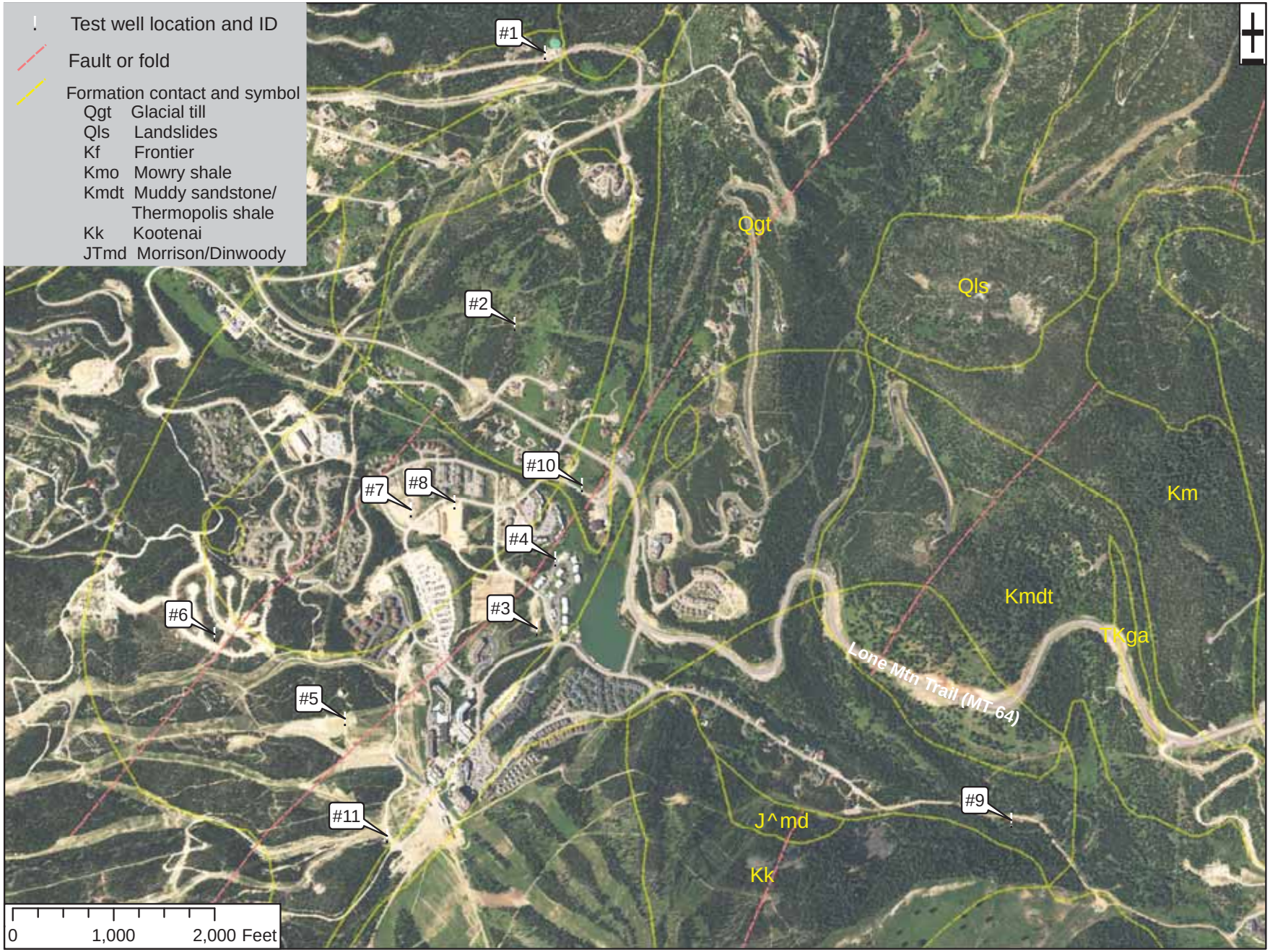

Figure 15. Mountain Village Test Well Location Map

completions (i.e., pumping rates and annual volumes are not directly additive for the wells due to pumping interference drawdown).

Drilling deeper wells to the Kootenai and the Madison aquifer is not recommended at this time, as testing data do not support greater yield potential. The data do not support deeper wells would be found to result in higher well capacity or annual volumes (there is some rate increase potential due to greater available drawdown in deeper wells). The deeper wells also require a change in drilling method to mud rotary in order to ensure a stable borehole can be maintained. The depths range from 1,100 to 2,800 ft. The deeper wells have estimated drilling contractor costs on the order of $400,000 to $2,500,000. These costs are considered prohibitively high for exploration given there is no immediate need for new source development at Mountain Village and prior Kootenai test wells exhibited limited recharge conditions.

Although a Madison test well has not been drilled, there is limited Madison outcrop in the area to the north suggesting potential for limited recharge to the formation. The geological structure also is not anticipated to undergo substantial change between the depth of the Kootenai formation and the depth of the Madison formation suggesting similar limited recharge could be found in the Madison. There is potential that acid stimulation of a Madison well would increase production[16], however, handling the spent acid solution in the Big Sky area is logistically difficult. The spent acid solution has very high total dissolved solids (e.g. 20,000 mg/L TDS) and must be transported to legal disposal sites, possibly to eastern Montana. There would be on the order of 50- to 100-trips to purge the well of the spent acid solution. Significant spill potential exists and presents additional liability to the District.

The location of test well #9 is on the Andesite Mountain anticline to the east of where the other test wells were drilled. This location has been shown to support wells with favorable pumping test results.[17] A production well at this location is estimated to yield 200- to 250-gpm of water supply but may contain iron and manganese requiring treatment (actual yield and water quality will not be known until the test well is completed). Due to the geology of this area (east dipping sedimentary rock at angles of 30- to 40-degrees), it is possible to build multiple wells in proximity to one another without drawdown interference. It may be possible to develop 500-gpm of total capacity from two or three wells. Supply from this location would have the most efficient use for Lone Moose, Aspen Grove, and Meadow Village. It would likely not be used in Mountain Village due to the pumping requirements and other required infrastructure. Due to proximity of the Middle Fork channel, water right permitting may be difficult, and therefore, water right filings should be made and approved prior to construction of production wells or related infrastructure.

6.3 Surface Water

6.3.1 West Fork Gallatin River

The District water rights for the West Fork Gallatin River allow for diversion of up to 138.85 afy for municipal use. The total rate of withdrawal for these water rights is 18.2 cfs. Diversions under these water rights have a period of use from June 1 to October 15 annually, a period of 137 days. The total volume if produced over this period averages 229 gpm.

16 The limestone formation can be dissolved by hydrochloric acid resulting in increased permeability to the well.

17 Memorandum, 11/12/2021, Re: Middle Fork Properties LLC – Water Supply Well Transfer Evaluation.

The late priority dates of these water rights (1902, 1952) generally preclude this diversion. For this reason, construction of the necessary infrastructure to use the rights is not recommended. This infrastructure would cost on the order of $2,000,000, as full compliance with the surface water treatment rule is required for use of surface water in the potable system.

6.3.2 Gallatin River Mainstem

The Gallatin River mainstem is accessible for a water supply to the District at a location near to the intersection of Highways 191 and 64. This supply alternative would divert water from the channel for treatment and distribution in the Meadow Village service area. The depletion effect of the diversion on the channel would be offset by discharge of treated effluent from the Water Resources Reclamation Facility (WRRF). This discharge would likely need to be direct in order to offset surface water depletions.

There are at least two critical permitting factors for this supply alternative. Water right permitting may be confounded by the present rules that require a change application to be filed for mitigation to offset depletions to a surface water. The District may need to work with DNRC to pass new legislation that provides a water right for treated effluent from a wastewater treatment plant, or other equivalent options.

The second factor is the ability to obtain a discharge permit for the treated effluent directly discharged to a surface water. The Gallatin River is undergoing review for impaired status, which if designated as impaired, could preclude a direct discharge. Otherwise, a direct discharge may be permitted with a mixing zone, as is typically done around the State. The discharge permit application would likely need to show an overall benefit to the Gallatin watershed is being achieved (e.g., by reducing the concentrations of nutrients from other sources) in order to gain public acceptance.

6.4 Direct Potable Reuse

Direct potable reuse (DPR) is sourced directly from the treated effluent of the District's Water Resources Reclamation Facility (WRRF). The conceptual model for DPR considered for the District would further treat a fraction of the WRRF discharge by reverse osmosis (RO), and then mix the RO treated water (i.e., permeate) directly with groundwater pumped from water supply wells.[18] The RO waste stream (i.e., concentrate) would be mixed into the WRRF discharge and be used for non-potable reuse or permitted discharges to ground- and surface-waters. Disinfection with chlorine and maintaining a chlorine residual in the distribution system would be required for DPR.

The major hurdles for the District to implement DPR will be governmental and societal. Montana presently does not allow DPR in public water systems, and citizens are likely to oppose it. These hurdles can be overcome but take time on the order of 5- to 10-years (as evidenced in CA and TX where DPR has been implemented). Trace levels of contaminants can occur in DPR water with unknown, if any, health effects, individually or synergistically. Such contaminants can become significant obstacles to community acceptance of DPR.

One of the critical limits for DPR is how the concentrate impacts irrigation water quality. The RO concentrate would be discharged back into the treated effluent for irrigation use, or other disposal methods (e.g., snowmaking, groundwater discharge). A target level for DPR could be 150 gpm of permeate for use in the public water system, with 50 gpm of concentrate. The actual rates that could be implemented would be determined through a PER study and pilot testing.

18 Other supplementary treatment processes are included pre- and post-RO treatment.

Obtaining 150 gpm for DPR is a significant benefit to the public water system and also to the treated effluent reuse. The annual reuse of DPR at 150 gpm is slightly more than 78 million gallons, and can occur over the full year. As the WRRF discharge increases, it should be possible to also increase the rate of DPR.

6.4.1 DPR Preliminary Engineering Report

A preliminary engineering study should be completed to assess treatment processes required to implement DPR in the District and to work with DEQ to develop regulations that permit DPR in Montana. This study is likely to determine other options than RO, or other processes to be used in conjunction with RO (e.g., UV). A critical factor of this study will be assessment of removing and or transforming pharmaceuticals and personal care products, and associated treatment by-products.[19]

7. PREFERRED ALTERNATIVES AND BUDGETS

This section summarizes preferred alternatives for the Source Capacity Plan 2022 Update. Budget estimates are provided in **Table 17**, and an implementation schedule is provided on **Figure 16**.

A timeline plot shows improvements to the Meadow Village source capacity required to meet demand in 2042 (**Figure 17**). These improvements include new Meadow Village wells and implementation of DPR, both of which would occur in future Source Capacity Plan updates. The timeline assumes Meadow test wells are successful and lead to new vertical wells with 250 gpm of combined total capacity put into service in 2035. It is also assumed DPR becomes a viable water source and is put into service by 2040 at 150 gpm.

Water development at the test well TW#9 site is not presently included in the District's source development planning. However; should this site become accessible, additional groundwater source capacity would be available primarily as a source to Meadow Village.

7.1 Conservation

This alternative would limit outside irrigation using water from the public water system to no more than 500 square feet (ft^2). It would provide an incentive based program for existing properties and would make the requirement mandatory for all new properties. There would be up to an approximately 22% reduction in water use by year 2042 in Meadow Village (Mountain Village was not evaluated but would realize some benefit). The District could develop and implement this program in-house. Because the alternative is being implemented in-house, there is no cost estimate included.

7.2 Meadow Village Alluvial Test Wells

This alternative constructs two test wells in the Meadow Village alluvial aquifer and includes two pumping tests to evaluate interference among the test well locations and existing Meadow Village wells. If the results of testing are favorable, the District can proceed to file for water rights. Pending approval of the water right filings, the District can construct permanent production wells and connect the wells to the public water system. The budget for this alternative is including only the test well constructions and pumping tests. If conditions were favorable, a water right filing would be the next step. Once approved, the District would then move ahead with construction of new production wells.

19 Unregulated compounds and treatment by products are also referred to as contaminants of emerging concern (CECs).

7.3 Well Water Level Instruments

This alternative installs water level measuring instruments into the District wells (14 wells in total) and connects the instruments to the SCADA system. The instrument readings will be available real-time for operation of the system and will be archived for subsequent analysis. The budget for this alternative includes the work to install and make fully operable the water level sensors including:

- Pump work to install deployment tubes down the wells;
- Conduit installation from the wells to the SCADA panel;
- Communication wiring from each sensor to SCADA;
- Downhole pressure transducers (i.e., sensors); and
- SCADA programming services.

7.4 Direct Potable Reuse (DPR)

This alternative prepares a preliminary engineering report (PER) to implement DPR in the Meadow Village water system. The purpose of the alternative is to work with DEQ to formulate regulations for DPR in public water systems. The PER will also develop the initial planning and budgeting for a DPR pilot facility to be operated over a period of several years. The actual scope of work may vary and would be determined by the consulting engineer for the project. The budget for this alternative is for the preparation of the PER.

Table 17. Preferred Alternatives Budget Estimates

Activity	Contractor	Engineer	Contingency	Total
Conservation	Not applicable	Staff	Not applicable	Staff
Well Water Level Instruments/SCADA	$ 195,795	$ 48,949	$ 24,474	$269,218
Meadow Village Alluvial Test Wells	$ 59,500	$ 34,700	$ 14,130	$108,330
Direct Potable Reuse PER	Not applicable	$ 50,000	Not applicable	$50,000
			TOTAL	$434,218

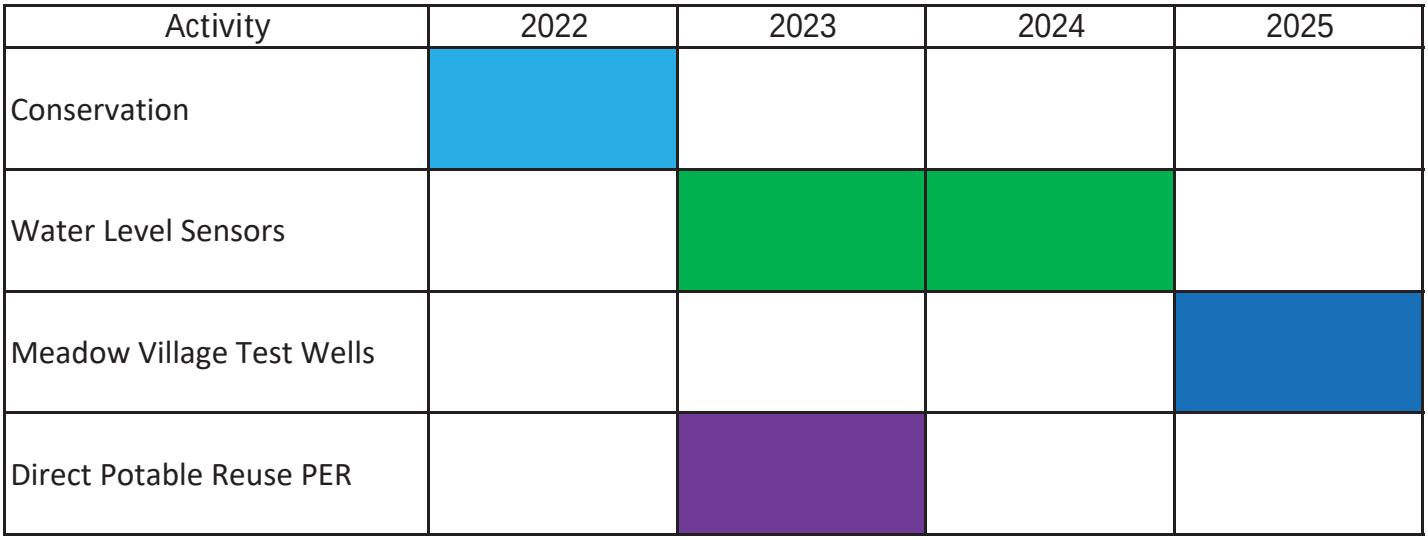

Figure 16. Implementation Schedule

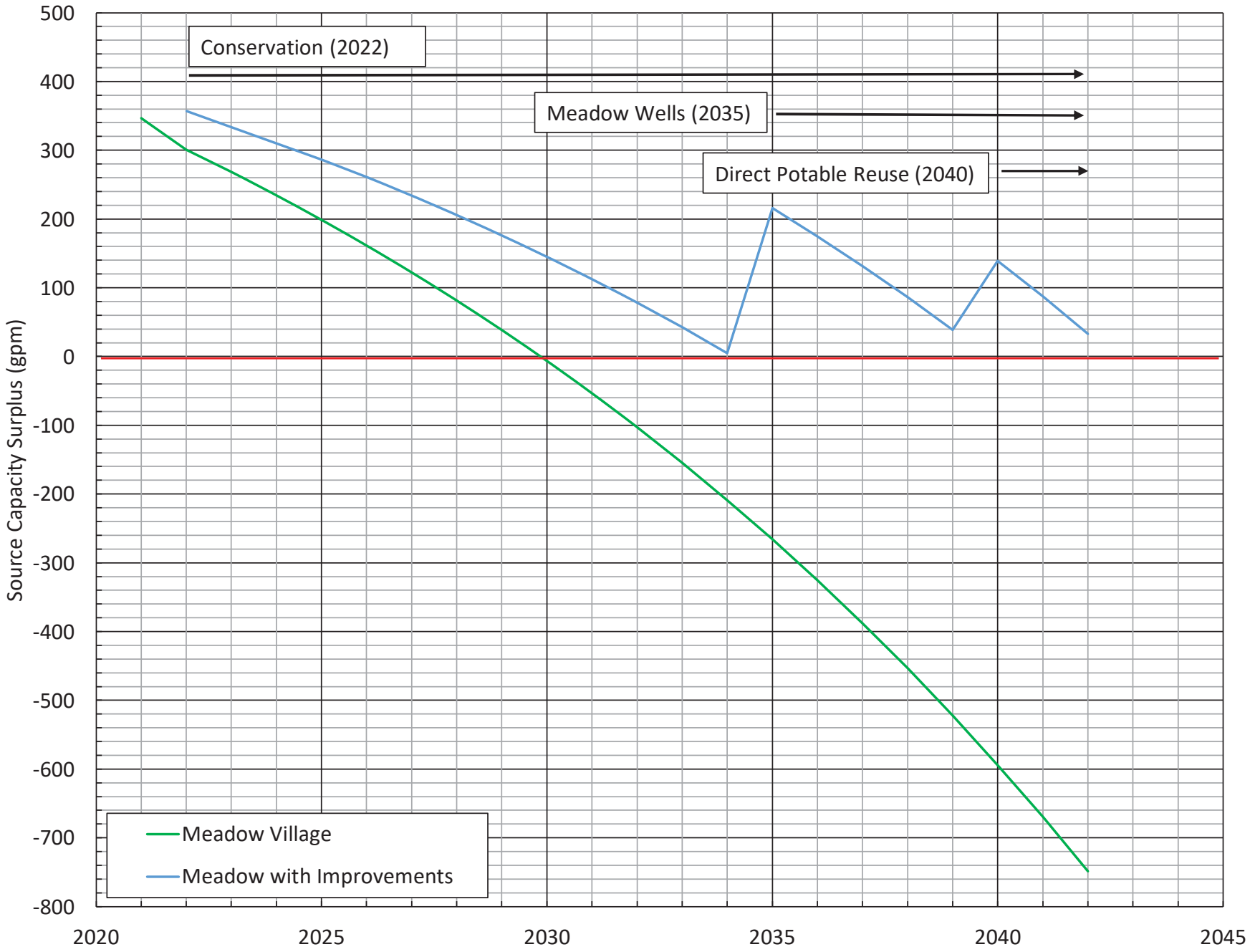

Figure 17. Meadow Village Improvements

APPENDIX A – WATER SUPPLY WELL LOGS

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 6:21:57 PM)

Site Name: BIG SKY WATER AND SEWER DISTRICT - MEADOW VILLAGE - WELL 1
GWIC Id: 103505 MEADOW VILLAGE NO. 1 (TEST WELL)
DNRC Water Right: W122635-00

Section 1: Well Owner

Owner Name
BIG SKY OF MONTANA
Mailing Address
SPOTTED ELK ROAD

City	State	Zip Code
BOZEMAN	MT	59715

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	36	SW¼ SW¼ SW¼ NE¼

County
GALLATIN
Geocode

Latitude	Longitude	Geomethod	Datum
45.2686	111.3007	MAP	NAD27

Altitude	Method	Datum	Date
6230			

Addition **Block** **Lot**

Section 3: Proposed Use of Water

MONITORING (1)

Section 4: Type of Work

Drilling Method: CABLE

Section 5: Well Completion Date

Date well completed: Sunday, August 09, 1970

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	50	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	50	6				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
27	31	6		1/4X2IN	SLOTS
34	38	6		1/4X2IN	SLOTS
41	44	6		1/4X2IN	SLOTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	0	DRILL CUTTINGS	

Section 7: Well Test Data

Total Depth: 50
Static Water Level: 11
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
200 gpm pump rate with _ feet of drawdown after _ hours of pumping.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level 19 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	1	SOILS
1	12	CLAYS & SILTS WET AT 12FT
12	19	WHEAT & PEA SIZE GRAVELS CLAYBOUND LARGER GRAVELS @ 13FT 10 GPM @ 17FT
19	21	VERY FINE TIGHT CLAYBOUND SANDS LITTLE WATER
21	23	SAME AS ABOVE BUT MORE CLAYS WET
23	24	FINE SANDS & GRAVEL (DIRTY) CLEAN GRAVELS LENSE @ 24FT
24	31	CLEANER FINE SANDS & GRAVELS 20 GPM @ 28FT
31	34	SMOOTH PEA SIZE GRAVELS DIRTY NOT MUCH WATER
34	38	VERY LOOSE COARSE CLEAN GRAVELS 40 GPM WATER
38	41	SANDS LITTLE AMOUNT OF GRAVELS
41	44	LOOSE CLEAN GRAVELS FINE TO COARSE LOTS OF WATER
44	50	FINE TO COARSE SAND & GRAVELS DIRTY & TIGHT WATER @ 47FT NOT MUCH AT 50FT
50	50	SHALES

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: VAN DYKEN DRILLING INC
License No: WWC-1
Date Completed: 8/9/1970

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
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Site Name: BIG SKY OF MONTANA * SPOTTED ELK 2
GWIC Id: 103507
DNRC Water Right: P049666-00

MEADOW VILLAGE NO. 2

Section 1: Well Owner

Owner Name
BIG SKY OF MONTANA
Mailing Address
PO BOX 1

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	36	SE¼ SE¼ NW¼

County GALLATIN **Geocode**

Latitude	Longitude	Geomethod	Datum
45.269017	111.302446	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition **Block** **Lot**

Section 3: Proposed Use of Water

PUBLIC WATER SUPPLY (1)

Section 4: Type of Work

Drilling Method: CABLE

Section 5: Well Completion Date

Date well completed: Saturday, June 12, 1982

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	59	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	59	6				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
37	56	6		1/4IN	SLOTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	0	DRILL CUTTINGS	

Section 7: Well Test Data

Total Depth: 59
Static Water Level: 14
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
285 gpm pump rate with _ feet of drawdown after 9.5 hours of pumping.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level 25 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	4	TOPSOIL
4	24	CLAYBOUND GRAVEL
24	32	WET CLAYBOUND GRAVEL
32	36	DRY CLAYBOUND GRAVEL
36	37	CLEAN SAND & GRAVELS 30 GPM
37	44	COARSE SAND & FINE GRAVELS
44	46	LOTS OF WATER-NICE FINE GRAVEL-TEST 50 GPM 2FT DRAWDOWN
46	47	TIGHTER GRAVEL-20 GPM
47	49	PEA GRAVEL & COARSE-LOTS OF WATER
49	50	PEA & WHEAT & SOME LARGER GRAVELS LOTS OF WATER
50	57	COARSE GRAVEL-MOST PLACES TESTED 20 GPM
57	59	SOFT GREY SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: VAN DYKEN DRILLING INC
License No: WWC-306
Date Completed: 6/12/1982

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
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Site Name: BIG SKY WATER AND SEWER DISTRICT - MEADOW VILLAGE - WELL 3 MEADOW VILLAGE NO. 3
GWIC Id: 166989
DNRC Water Right: Y069507-00

Section 1: Well Owner

Owner Name
LONE MOUNTAIN SPRINGS
Mailing Address
SPOTTED ELK ROAD

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	36	NW¼ SW¼ SE¼ NW¼

County
GALLATIN

Geocode

Latitude	Longitude	Geomethod	Datum
45.2688	111.304	MAP	NAD27

Altitude	Method	Datum	Date

Addition	Block	Lot
MEADOW VILLAGE		

Section 3: Proposed Use of Water
PUBLIC WATER SUPPLY (1)

Section 4: Type of Work
Drilling Method: FORWARD ROTARY

Section 5: Well Completion Date
Date well completed: Thursday, April 14, 1988

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	67	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	52.6	8				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
52.6	67	6			OPEN HOLE

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	20	CEMENT	

Section 7: Well Test Data

Total Depth: 67
Static Water Level: 33
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
_247_ gpm pump rate with _ feet of drawdown after _24_ hours of pumping.
Time of recovery _1.5_ hours.
Recovery water level _33_ feet.
Pumping water level _47_ feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	3	TOPSOIL
3	50	SAND AND GRAVEL
50	66	NICE GRAVEL
66	67	SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: VAN DYKEN DRILLING INC
License No: WWC-386
Date Completed: 4/14/1988

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
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Site Name: BIG SKY WATER AND SEWER
GWIC Id: 236777

MEADOW VILLAGE NO. 4

Section 1: Well Owner

Owner Name
BIG SKY WATER AND SEWER
Mailing Address
P.O. BOX 363

City	State	Zip Code
BIG SKY	MT	59716

Well Address
LITTLE COYOTE

City	State	Zip Code

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	36	NW¼ SW¼ NE¼

County GALLATIN **Geocode**

Latitude	Longitude	Geomethod	Datum
45.270837	111.299848	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition **Block** **Lot**

Section 3: Proposed Use of Water
PUBLIC WATER SUPPLY (1)

Section 4: Type of Work
Drilling Method: CABLE TOOL

Section 5: Well Completion Date
Date well completed: Wednesday, December 20, 2006

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	28	20
0	56	16

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	36	16	0.375		WELDED	STEEL
46	56	14	0.375		WELDED	STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
36	46	14		.1	SCREEN-CONTINUOUS-STAINLESS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	28	CEMENT	
33	33	K PAKER	

Section 7: Well Test Data

Total Depth: 56
Static Water Level: 10.4
Water Temperature: 7.22

Pump Test *

Depth pump set for test 54 feet.
305 gpm pump rate with 21.7 feet of drawdown after 72 hours of pumping.
Time of recovery 72 hours.
Recovery water level 10.42 feet.
Pumping water level _ feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks
TOTAL COMPLETION 6/30/2007

Section 9: Well Log

Geologic Source
Unassigned

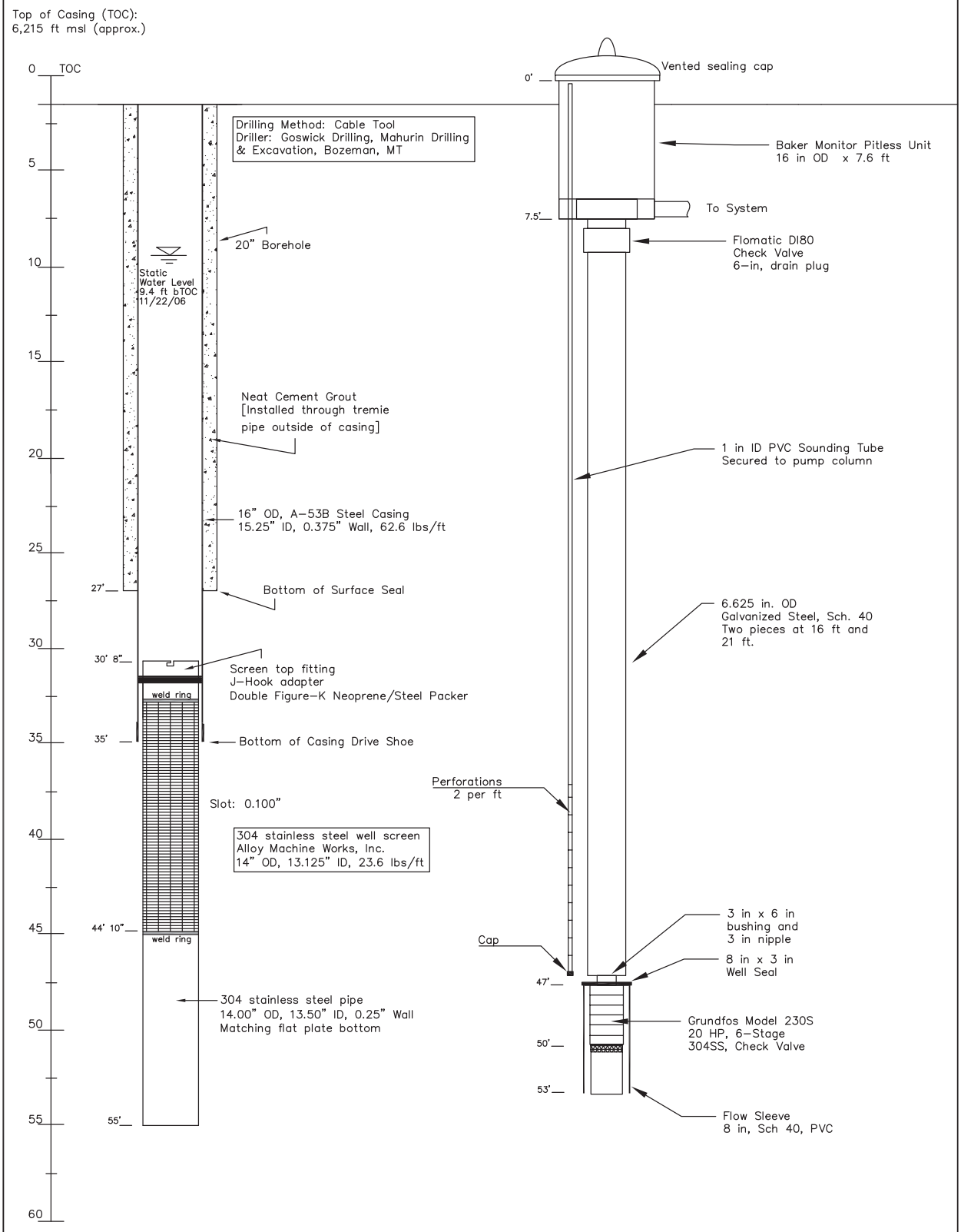
From	To	Description
0	2	TOPSOIL
2	13	BOULDERS AND CLAY
13	18	BOULDERS
18	26	MORE CLAY BOULDERS
26	30	OPEN CLAY AND ROCKS
30	34	CLAY AND SMALL GRAVEL
34	39	CLAY AND SAND
39	44	CLAY AND SAND BUT OPEN HOLE
44	47	GRAVEL AND WATER
47	56	SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name: J MAHURIN
Company: MAHURIN DRILLING
License No: WWC-358
Date Completed: 12/20/2006

Revised log reflects -2.5 ft elevation change of grade at wellhead and 1.5 ft stickup of pitless unit casing.



No horizontal scale

Depths are from top of casing of pitless unit

*Test well 3 is located 20 ft east of Meadow Village No. 4 (MV No. 4).

These measurements pre-date grade change.

SWL Test Well 3*	8.70 ft bgs 5/25/06	NAD83 UTM 12N
SWL MV No. 4	10.42 ft bgs 11/22/06	476,626 m 5,012,975 m
Test Data (gpm/ft/hrs)	305/21.7/72	NESWNE 36 6S/3E

Meadow Village No. 4 As-Built Construction

Western Groundwater Services

MONTANA WELL LOG REPORT

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Other Options

Plot this site on a topographic map
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Site Name: BIG SKY WATER AND SEWER
GWIC Id: 236778 MEADOW VILLAGE NO. 5

Section 1: Well Owner

Owner Name
BIG SKY WATER AND SEWER
Mailing Address
P.O. BOX 160670

City	State	Zip Code
BIG SKY	MT	59716

Well Address
LITTLE COYOTE

City	State	Zip Code

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	36	NE¼ NW¼ SW¼

County GALLATIN **Geocode**

Latitude	Longitude	Geomethod	Datum
45.267197	111.307642	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition **Block** **Lot**

Section 3: Proposed Use of Water
PUBLIC WATER SUPPLY (1)

Section 4: Type of Work
Drilling Method: CABLE TOOL

Section 5: Well Completion Date
Date well completed: Thursday, November 23, 2006

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	28	20
28	57	16

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	37	16	0.375		WELDED	STEEL
47	57	14	0.375		WELDED	STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
37	42	14		.070	SCREEN-CONTINUOUS-STAINLESS
42	47	14		.110	SCREEN-CONTINUOUS-STAINLESS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	28	CEMENT	
33	33	K PACKER	

Section 7: Well Test Data

Total Depth: 57
Static Water Level: 16.3
Water Temperature: 7.22

Pump Test *

Depth pump set for test 54 feet.
292 gpm pump rate with 20.2 feet of drawdown after 63 hours of pumping.
Time of recovery 72 hours.
Recovery water level 16.8 feet.
Pumping water level _ feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

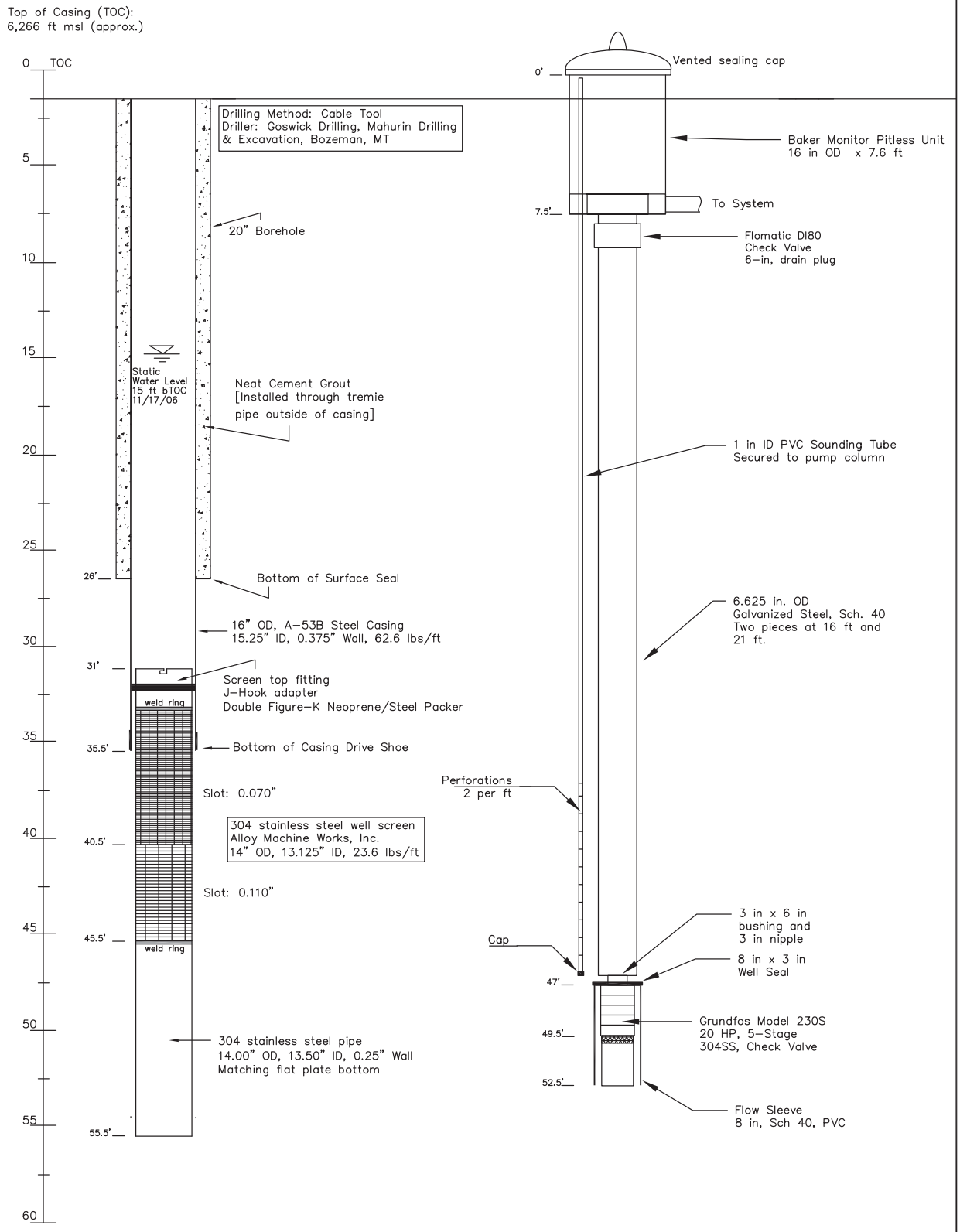
From	To	Description
0	1	TOPSOIL
1	5	CLAY LARGE ROCK
5	10	ROCK AND GRAY GRAVEL
10	15	GRAVEL AND SAND
15	33	GRAVEL AND SAND
33	46	MOSTLY SAND AND SOME GRAVEL
46	48	BOULDERS AND GRAVEL
49	50	SILTY SAND
50	57	DARK GRAY SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name: J. MAHURIN
Company: MAHURIN DRILLING
License No: WWC-358
Date Completed: 11/23/2006

Revised log reflects -3 ft elevation change of grade at wellhead and 1.5 ft stickup of pitless unit casing.



No horizontal scale

Depths are from top of casing of pitless unit

*Test well 2 is located 63 ft west of Meadow Village No. 5 (MV No. 5).

These measurements pre-date grade change.

SWL Test Well 2*	8.60 ft bgs 6/2/06	NAD83 UTM 12N
SWL MV No. 5	16.31 ft bgs 11/17/06	475,951 m 5,012,708 m
Test Data (gpm/ft/hrs)	292/20.2/63	NENWSW 36 6S/3E

Meadow Village No. 5 As-Built Construction

Western Groundwater Services

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 6:12:28 PM)

Site Name: BIG SKY OF MONTANA * WELL #1
GWIC Id: 103499 HIDDEN VILLAGE NO. 1

Section 1: Well Owner

Owner Name
BIG SKY OF MONTANA
Mailing Address

City	State	Zip Code
BOZEMAN	MT	59715

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	35	SE¼ NW¼

County
GALLATIN

Geocode

Latitude	Longitude	Geomethod	Datum
45.269927	111.324213	TRS-SEC	NAD83

Altitude	Method	Datum	Date
6410			

Addition **Block** **Lot**

Section 3: Proposed Use of Water
MONITORING (1)

Section 4: Type of Work
Drilling Method: CABLE

Section 5: Well Completion Date
Date well completed: Monday, July 27, 1970

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	45	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	45	6				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
34	44	6		1/4X2IN	SAW SLOTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	0	DRILL CUTTINGS	

Section 7: Well Test Data

Total Depth: 45
Static Water Level: 8
Water Temperature:

Bailer Test *

45 gpm with _ feet of drawdown after 2 hours.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level 18 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	3	SOILS
3	9	BUFF COLOR CLAY W/ BOULDERS EMBEDDED
9	22	BUFF COLOR CLAYBOUND GRAVELS & BOULDERS
22	29	CLAYBOUND MUSHY SANDS SOME GRAVELS
29	31	SILT SAND & GRAVELS SOME WATER
31	37	FINE SANDS RUST COLOR
37	38	SHALE LENSE
38	45	SANDSTONE WATER
45	45	COLORADO SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: VAN DYKEN DRILLING INC
License No: WWC-1
Date Completed: 7/27/1970

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
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Site Name: LONE MOUNTAIN SPRINGS * HIDDEN VILLAGE 2
GWIC Id: 103501 HIDDEN VILLAGE NO. 2

Section 1: Well Owner

Owner Name
LONE MOUNTAIN SPRINGS
Mailing Address

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	35	SW¼ NW¼ SW¼

County
GALLATIN

Geocode

Latitude	Longitude	Geomethod	Datum
45.265377	111.330656	TRS-SEC	NAD83

Altitude	Method	Datum	Date
6498			

Addition **Block** **Lot**

Section 3: Proposed Use of Water

PUBLIC WATER SUPPLY (1)

Section 4: Type of Work

Drilling Method: AIR ROTARY

Section 5: Well Completion Date

Date well completed: Monday, June 16, 1986

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	665	7

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	500	6				STEEL
0	65.8	7	0.280			STEEL
500	665	4.5				PVC-SCHED 40

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
502	505	4.5			SLOTS
525	528	4.5			SLOTS
548	551	4.5			SLOTS
571	574	4.5			SLOTS
594	597	4.5			SLOTS
617	620	4.5			SLOTS
640	643	4.5			SLOTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	500	CEMENT	
0	0	RUBBER	

Section 7: Well Test Data

Total Depth: 665
Static Water Level: -210
Closed-in Pressure: 91 psi
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
116 gpm pump rate with _ feet of drawdown after 27 hours of pumping.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level 531 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	6	TOPSOIL
6	57	SAND AND GRAVEL
57	137	SHALE - BLACK TO GRAY - MODERATELY HARD - FISSILE OIL STAINED 99-137 FEET
137	140.5	SANDSTONE - GRAY - VERY FINE TO FINE GRAINED - WITH THIN OIL STAINED SHALE STRINGERS - WATER
140.5	143	SHALE - BLACK SOFT CLAYEY - OIL STAINED
143	146.5	SANDSTONE - GRAY VERY FINE TO FINE GRAINED
146.5	154	SHALE - DARK GRAY FISSILE
154	155	SANDSTONE - GRAY VERY FINE TO FINE GRAINED
155	160	SHALE - GRAY TO BLACK CLAYEY OIL STAINED
160	170.5	SANDSTONE - GRAY VERY FINE TO FINE GRAINED - HARD TIGHT - OIL STAINED BETWEEN 160 AND 166.5
170.5	174	SHALE AND SANDSTONE - ALTERNATING 0.25 INCH LAYERS - OIL STAINED
174	195.5	SHALE - DARK BROWN TO GRAY - OIL STAINED - FEW THIN SANDSTONE STRINGERS
195.5	197	SANDSTONE - DARK GRAY - VERY FINE TO FINE GRAINED- HARD TIGHT
197	199	SHALE - DARK BROWN TO GRAY - OIL STAINED
199	200.5	SANDSTONE - GRAY - VERY FINE TO FINE GRAINED - HARD TIGHT - OIL STAINED

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: STINGER WELL DRILLING
License No: WWC-325
Date Completed: 6/16/1986

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View water quality for this site
View scanned document (2/21/2008 6:23:00 PM)

Site Name: BIG SKY WATER AND SEWER DISTRICT - MEADOW VILLAGE - WELL 2
GWIC Id: 155405 BLUE GROUSE WELL

Section 1: Well Owner

Owner Name
BIG SKY CO WATER & SEWER
Mailing Address
PO BOX 160670

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	36	SW¼ SW¼ NE¼

County GALLATIN **Geocode**

Latitude	Longitude	Geomethod	Datum
45.2694	111.3	MAP	NAD27

Altitude	Method	Datum	Date

Addition BLUE GROUSE HILLS **Block** **Lot**

Section 3: Proposed Use of Water
PUBLIC WATER SUPPLY (1)

Section 4: Type of Work
Drilling Method: ROTARY

Section 5: Well Completion Date
Date well completed: Friday, January 02, 1998

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	805	12
805	1250	8

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	800	8	0.250		THREADED	A53B STEEL
780	1170	6				A53B STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
1170	1250	8			OPEN HOLE

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	800	CEMENT	

Section 7: Well Test Data

Total Depth: 1170
Static Water Level: -265.65
Closed-in Pressure: 115 psi
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
_35_ gpm pump rate with _ feet of drawdown after _72_ hours of pumping.
Time of recovery _1.25_ hours.
Recovery water level _0_ feet.
Pumping water level _737_ feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks
WELL DEEPENED FROM 960 FT TO 1250 FT IN 1998

Section 9: Well Log

Geologic Source
300SDMS - SEDIMENTS (PALEOZOIC)

From	To	Description
0	26	GRAVEL WITH SAND
25	48	SAND & GRAVEL
48	50	SANDY CLAY
50	106.5	DARK SHALE WITH SILTSTONE STRINGERS
106.5	122	LIMESTONE & SANDSTONE STRINGERS
122	170	RED BLACK SHALE
170	246	RED/BROWN SILTSTONE & SANDSTONE
246	386	BLACK SHALE
386	395	GRAY SANDSTONE
396	405.5	BLACK SHALE
405.5	414	DARK GRAY/BLACK SANDSTONE
414	474	ANDESITE
474	481.5	LIGHT GRAY SANDSTONE
481.5	483	BLACK SHALE
483	524	GRAY SANDSTONE

Driller Certification
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: POTTS DRILLING INC
License No: WWC-512
Date Completed: 1/2/1998

Site Name: BIG SKY WATER AND SEWER DISTRICT - MEADOW VILLAGE - WELL 2
GWIC Id: 155405
Additional Lithology Records

From	To	Description
524	805	GRAY/DARK GRAY SHALE & SILTSTONE

805	812	BROWN/GRAY SANDSTONE
812	820	GRAY/WHITE SANDSTONE
820	822	BROWN/GRAY SANDSTONE
822	829	WHITE/GRAY SANDSTONE
829	836	SHALELY SILTSTONE
836	857	WHITE/GRAY SANDSTONE
857	861.5	RED SHALE
861.5	862.5	WHITE/GRAY SANDSTONE
862.5	878	SILTSTONE & SHALES
878	905	LIGHT GRAY/BROWN FISSILE SHALE
905	915	BLACK SHALE WITH INTERBEDDED GRAY
915	917	LIGHT GRAY LIMESTONE THINLY INBEDDED
917	929	FINE GRAINED BLACK/GRAY SHALE
929	935	BLACK SHALE WITH LENSES OF LIMESTONE
935	939	MOTTLED DARK GRAY SANDSTONE
939	955	GRAY SHALE
955	960	MOTTLED BROWN/GRAY SHALE
960	963	SHALE MUDSTONE MOTTLED BLUE/GREEN TO GRAY HARD
963	964	GRAY TO BLACK FINE GRAINED LIMESTONE
964	990	SHALE/MUDSTONE MOTTLED RED & GRAY WHT & BLK SANDST
990	1035	DARK GRAY LIMESTONE W/SOME RED SHALE
1035	1042	RED FINE GRAINED SHALE/MUDSTONE
1042	1046	RED TO BROWN CLAY
1046	1087	GRAY TO MAROON SILICIFIED MUDSTONE W/SOME LIMESTN
1087	1124	BLUE/GREEN TO RED SILICIFIED SHALE SLIGHTLY BROKEN
1124	1134	LIGHT GRAY FINE GRAINED STONE HARD
1134	1138	MAROON/RED SHALE/MUDSTONE
1138	1143	LIGTH GRAY FINE GRAINED STONE HARD SLIGHTLY BROKEN
1143	1172	MAROON/RED W/SOME GRAY SHALE MUDSTONE FINE GRAINED
1172	1186	BLACK WHITE GRAY BROWN SANDSTONE ROUNDED
1186	1223	BLACK/WHITE/GRAY/BROWN SANDSTONE
1223	1250	DARK GRAY TO GRAY QUARTZITE HARD

Site Name: LONE MOUNTAIN SPRINGS * HIDDEN VILLAGE 2
GWIC Id: 103501
Additional Lithology Records

From	To	Description
200.5	227	SHALE - BLACK TO GRAYISH BROWN TO DARK GREENISH- GRAY. HARD EXCEPT FOR 203-208 WHICH IS SOFT AND CLAYEY - FISSILE - OIL STAINED
227	239	SANDSTONE - DARK GRAY FINE TO MEDIUM GRAINED - HARD TIGHT TO 237 - OIL STAINED
239	297	SHALE - DARK GRAY TO DARK GREENISH GRAY TO 252 FEET THEN DARK REDDISH BROWN TO 265 FEET THEN DARK GRAY TO BLACK. FISSILE - BECOMES A SANDY SHALE AT 270 FEET. OIL STAINED BETWEEN 281 AND 285 FEET.
297	302.5	SANDSTONE - REDDISH BROWN - VERY FINE TO FINE GRAINED - HARD - FRACTURED AT 299-302 FEET.
302.5	330	SHALE - DARK GREENISH GRAY TO DARK REDDISH BROWN
330	356	SANDSTONE - DARK GREENISH GRAY TO DARK REDDISH BROEN AND GRAY - VERY FINE TO FINE GRAINED - SHALE STRINGERS FROM 330 TO 337 FEET. SLIGHT OIL STAIN FROM 347 TO 350 FEET.
356	512	SHALE - DARK GREENISH GRAY - DARK BROWN BLACK AND DARK RED. HARD AND SOFT INTERVALS - THIN BENTONITE STRINGERS FROM 390 TO 469 FEET. SCATTERED THIN SANDSTONE STRINGERS THROUGHOUT ENTIRE INTERVAL
512	544	SANDSTONE - GRAY VERY FINE TO FINE GRAINED - SOFT SILTY - MAKING WATER
544	609	ANDESITE PORPHYRY - DARK GREENISH GRAY - HARD BUT FRACTURED OR JOINTED - MAKING WATER
609	648	SANDSTONE - GRAY VERY FINE TO FINE GRAINED - FRACTURED FROM 616-619 FEET. SLIGHT OIL STAIN AT 630-632 FEET. BECOMES SHALEY SANDSTONE AT 645-648 FEET. MAKING WATER
648	665	SHALE - SANDY FISSILE - MODERATELY HARD - TIGHT OIL STAINED FROM 653-665 FEET.

MONTANA WELL LOG REPORT

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Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 5:28:02 PM)

Site Name: LONE MOOSE MEADOWS
GWIC Id: 170083 LONE MOOSE NO. 1

Section 1: Well Owner

Owner Name
LONE MOOSE MEADOWS
Mailing Address
205 E. MENDENHALL

City	State	Zip Code
BOZEMAN	MT	59715

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	28	NE¼ SW¼

County
GALLATIN

Geocode

Latitude	Longitude	Geomethod	Datum
45.28102	111.365423	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition	Block	Lot

Section 3: Proposed Use of Water
DOMESTIC (1)

Section 4: Type of Work
Drilling Method: ROTARY

Section 5: Well Completion Date
Date well completed: Wednesday, November 11, 1998

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	25	12
25	100	8
100	200	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	100	8	0.322		WELDED	STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
100	200	6			OPEN HOLE

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	25	BENTONITE & CEMENT	

Section 7: Well Test Data

Total Depth: 200
Static Water Level: 29
Water Temperature:

Air Test *

100 gpm with drill stem set at 56 feet for 24 hours.
Time of recovery 1 hours.
Recovery water level 29 feet.
Pumping water level 190 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	34	CLAY W/BROKEN SANDSTONE
34	52	RED TO GRAY SANDSTONE
52	82	GRAY SHALE & SANDSTONE
82	200	BLACK & WHITE SANDSTONE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: HAGGERTY DRILLING
License No: WWC-353
Date Completed: 11/11/1998

MONTANA WELL LOG REPORT

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Other Options

Plot this site on a topographic map
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Site Name: LONE MOOSE MEADOWS
GWIC Id: 187212

LONE MOOSE NO. 2

Section 1: Well Owner

Owner Name
LONE MOOSE MEADOWS
Mailing Address
LONE MOOSE MEADOWNS

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	28	NE¼ SW¼

County GALLATIN **Geocode**

Latitude	Longitude	Geomethod	Datum
45.28102	111.365423	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition **Block** **Lot**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY

Section 5: Well Completion Date

Date well completed: Thursday, November 16, 2000

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	20	12
20	46	8
46	100	7

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	46	8			WELDED	STEEL
20	100	6			THREADED	PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
80	100	6		.050 IN	FACTORY SLOTTED

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	20	QUIK GROUT	
43	43	6X8 FORMATION PACKER	

Section 7: Well Test Data

Total Depth: 100
Static Water Level: 12
Water Temperature:

Pump Test *

Depth pump set for test 70 feet.
200 gpm pump rate with _ feet of drawdown after 24 hours of pumping.
Time of recovery 20 hours.
Recovery water level 12 feet.
Pumping water level 48 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	5	TOP SOIL
5	35	GRAVEL
35	60	SHALE & SANDSTONE
60	90	GREY SANDSTONE
90	100	GREY & BROWN BEDROCK

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: OKEEFE DRILLING CO
License No: WWC-462
Date Completed: 11/16/2000

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
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Site Name: LONE MOOSE MEADOWS
GWIC Id: 165874

LONE MOOSE TEST WELL

Section 1: Well Owner

Owner Name
LONE MOOSE MEADOWS
Mailing Address
205 E MENDENHALL

City	State	Zip Code
BOZEMAN	MT	59715

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	28	NE¼ SW¼

County
GALLATIN

Geocode

Latitude	Longitude	Geomethod	Datum
45.28102	111.365423	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition	Block	Lot
LONE MOOSE MEADOWS		1

Section 3: Proposed Use of Water
DOMESTIC (1)

Section 4: Type of Work
Drilling Method: ROTARY

Section 5: Well Completion Date
Date well completed: Wednesday, July 23, 1997

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	220	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	48	6	0.250		WELDED	STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
48	220	6			OPEN HOLE

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	20	BENTONITE	

Section 7: Well Test Data

Total Depth: 220
Static Water Level: 0
Water Temperature:

Air Test *

100 gpm with drill stem set at 215 feet for 1 hours.
Time of recovery 1 hours.
Recovery water level 0 feet.
Pumping water level 215 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	4	TOPSOIL
4	45	GRAVEL
45	60	SHALE & SANDSTONE
60	92	GRAY SANDSTONE
92	102	GRAY / BROWN BEDROCK
102	110	BEDROCK PINK BEDROCK
110	160	BLACK SHALE SPECKS OF CLAY
160	220	BLACK & WHITE SPECKLED ROCK

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: HAGGERTY DRILLING
License No: WWC-353
Date Completed: 7/23/1997

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 6:08:29 PM)

Site Name: RADICK JOHN *ASPEN GROVE
GWIC Id: 159764

ASPEN GROVE NO. 1 (TW)

Section 1: Well Owner

Owner Name
RADICK JOHN
Mailing Address
PO BOX 160011

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	34	SW¼ SW¼ SE¼

County
GALLATIN

Geocode

Latitude	Longitude	Geomethod	Datum
45.261895	111.34081	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition **Block** **Lot**

Section 3: Proposed Use of Water

There are no uses assigned to this well.

Section 4: Type of Work

Drilling Method: ROTARY

Section 5: Well Completion Date

Date well completed: Tuesday, July 30, 1996

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	20	10
20	180	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-1.7	56.5	6	0.250		WELDED	STEEL
40	180	4.5		160.00	WELDED	PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
60	80	4.5	20	.025X1IN	FACTORY SLOTTED
100	120	4.5	20	.025X1IN	FACTORY SLOTTED
160	180	4.5	20	.025X1IN	FACTORY SLOTTED

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	20	CEMENT GROUT	

Section 7: Well Test Data

Total Depth: 180
Static Water Level: 71
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
45 gpm pump rate with _ feet of drawdown after 8.5 hours of pumping.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level 100 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	14	CLAYBOUND GRAVELS AND BOULDERS
14	21	CLAY AND BROKEN SHALE
21	31	SHALE CLAY SOFT BROWN
31	41	WEATHERED SANDSTONE GRAY SOFT WITH HARD SPOTS
41	43	BLACK SHALE SOFT
43	46	BROWN CLAY SOME SHALE
46	54	D. GRAY SHALE AND CLAY SOFT
54	72	SANDSTONE CLAY SOME SHALE VERY MIXED
72	84	BLACK SHALE CLAY 70-75 FT 5 GPM
84	91	SHALE LIGHT GRAY
91	95	STICKY CLAY AND SHALE
95	102	BLACK SHALE CLAY
102	104	SANDY SHALE HARDER D. GRAY 102-103 12 GPM
104	116	SHALES CLAY COLOR VARIES GRAY BROWN
116	121	GREENISH GRAY SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: HAYES DRILLING
License No: WWC-361
Date Completed: 7/30/1996

Site Name: RADICK JOHN *ASPEN GROVE
GWIC Id: 159764
Additional Lithology Records

From	To	Description
121	126	REDDISH BROWN SHALE HARD
126	134	SANDSTONE BLUISH GRAY
134	135	BLACK SHALE
135	145	SANDSTONE GRAY HARD
145	180	SHALES AND CLAY VARIETY OF COLORS RED BROWN GRAY BLACK

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 6:07:26 PM)

Site Name: RODDICK SKIP * PW-2
GWIC Id: 169476 ASPEN GROVE NO. 2

Section 1: Well Owner

Owner Name
RODDICK SKIP * PW-2
Mailing Address
PO BOX 160011

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	34	SE¼

County GALLATIN
Geocode

Latitude	Longitude	Geomethod	Datum
45.264592	111.336936	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition ASPEN GROVES
Block
Lot

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY

Section 5: Well Completion Date

Date well completed: Thursday, June 04, 1998

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	23	10
23	640	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-3	57	6	0.250		WELDED	STEEL
14	640	4			WELDED	PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
240	640	4		.025X1.5IN	FACTORY SLOTTED

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	23	CEMENT	
20	640	10/20 GRAVEL	

Section 7: Well Test Data

Total Depth: 640
Static Water Level: 80
Water Temperature:

Pump Test *

Depth pump set for test 240 feet.
18 gpm pump rate with _ feet of drawdown after 192 hours of pumping.
Time of recovery 96 hours.
Recovery water level 80 feet.
Pumping water level 186 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	8	CLAY BOUND GRAVEL
8	30	SOFT SHALE
30	340	SANDSTONE & SHALE
340	410	BLUE & GRAY SHALE
410	438	SANDSTONE
438	500	BLACK & GRAY SHALE
500	515	BLUE SHALE
515	640	BLACK & GRAY SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: BRIDGER DRILLING INC
License No: WWC-425
Date Completed: 6/4/1998

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 6:07:38 PM)

Site Name: RODDICK SKIP * PW-3
GWIC Id: 169477

ASPEN GROVE NO. 3

Section 1: Well Owner

Owner Name
RODDICK SKIP * PW-3
Mailing Address
PO BOX 160011

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	34	SE¼

County GALLATIN **Geocode**

Latitude	Longitude	Geomethod	Datum
45.264592	111.336936	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition ASPEN GROVES **Block** **Lot**

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY

Section 5: Well Completion Date

Date well completed: Thursday, June 04, 1998

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	22	10
22	529	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-3	38	6	0.250		WELDED	STEEL
15	529	4				PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
372	384	4		50	SCREEN-CONTINUOUS-STAINLESS
511	516	4		50	SCREEN-CONTINUOUS-STAINLESS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	38	CEMENT	

Section 7: Well Test Data

Total Depth: 529
Static Water Level: 42
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
80 gpm pump rate with _ feet of drawdown after 69 hours of pumping.
Time of recovery 72 hours.
Recovery water level 43 feet.
Pumping water level 55 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	10	CLAY & ROCKS
10	35	SHALE
35	42	GRAY SANDSTONE
42	69	BLACK & GRAY SHALE
69	76	LIMESTONE
76	88	BLACK & GRAY SHALE
88	91	LIMESTONE
91	102	GREEN SHALE
102	109	GRAY SANDSTONE
109	138	SILTSTONE & SHALE
138	215	GRAY RED & BLACK SHALE
215	233	SANDSTONE & SILTSTONE
233	387	BLACK GRAY GREEN & BLUE SHALE
387	390	HARD GRAY SANDSTONE
390	392	SOFT GRAY SHALE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: BRIDGER DRILLING INC
License No: WWC-425
Date Completed: 6/4/1998

Site Name: RODDICK SKIP * PW-3
GWIC Id: 169477
Additional Lithology Records

From	To	Description
392	394	HARD GRAY SANDSTONE
394	433	SOFT GRAY SHALE
433	441	GRAY SANDSTONE
441	512	GRAY SHALE
512	529	SANDSTONE

Contract No. 2 - Well No. 1

3 GW 2 Revised 1969
STATE PUBLISHING COMPANY

(2)

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Bureau of
Mines and Geology

057 6S 3E 30 AA

County Madison

DRILLER'S LOG 126675

MOUNTAIN VILLAGE NO. 1

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the **owner** with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner Big Sky of Montana

Address Big Sky, Montana

Date well started Aug. 11, 1972

completed Aug. 18, 1972

For Administrator's Use
File
GW 1

Type of well Drilled (Dug, driven, bored or drilled)

Equipment used Churn Drill (Churn drill, rotary or other)

Water Use: Domestic ☒ Municipal ☐ Stock ☐ Irrigation ☐

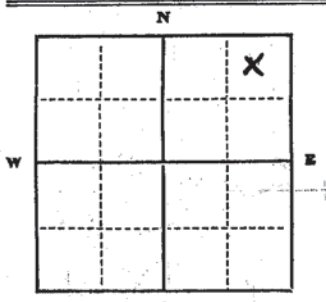
Industrial ☐ Drainage ☐ Other ☒* Garden/Lawn ☐

*Describe Recreation

USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition).

ESTIMATED ANNUAL WITHDRAWAL

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
8"	8 5/8 OD x .250	2' above ground	50			



Static water level 10 ft.*
Pumping water level 40± ft.*
at 240 gallons per minute,
measured 16 hrs. after pumping began.
*Measured from ground level.
Well developed by Pump
for 16 hours.
Power Pump HP
Remarks: (Gravel packing, cementing, packers, type of shutoff)
Grouted from 6' to 16'
15' of 8" stainless steel screen .040 slot from 49' to 64'

NE¼ NE¼ Sec. 30
T. 6S N/S R. 3E E/W

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller's Signature Milton E. Jones

Driller's Address 2103 Bridger Drive

Bozeman, Montana LICENSE NO. 17

Top of Ground (Elev. above sea level)

From (Feet)	To (Feet)	
0	20	Clay with Gravel & Rock
20	32	Tight Clay & Fine Gravel
32	34	Fine Gravel in Clay Loose
34	50	Clay bound Gravel
50	65	Gravel in Clay Loose
65	78	Silty Sand (like Quick Sand)
78	80	Gravel in Clay tight

80' Show exact depth of bottom

M:108809 #1

MOUNTAIN VILLAGE NO. 1

Montana Bureau of Mines and Geology
Ground-water Information Center Site Report
BIG SKY OF MONTANA * WELL #1

Plot this site on a topographic map

Location Information

GWIC Id: 108809
Location (TRS): 06S 03E 30 AA
County (MT): MADISON
DNRC Water Right: Not Reported
PWS Id:
Block: Not Reported
Lot: Not Reported
Certificate of Survey: Not Reported

Source of Data: LOG
Latitude (dd): 45.2892
Longitude (dd): -111.3951
Geomethod: TRS-TWN
Datum: 1927
Addition: Not Reported
Type of Site: WELL

Well Construction and Performance Data (measurements are reported below land surface)

Total Depth (ft): 64.50
Static Water Level (ft): 10.00
Pumping Water Level (ft): 46.50
Yield (gpm): 240.00
Test Type: PUMP
Test Duration: 16.00
Drill Stem Setting (ft):
Recovery Water Level (ft):
Recovery Time (hrs):

How Drilled: CHURN
Driller's Name: JONES
Driller License: WWC017
Completion Date: Aug 18, 1972
Special Conditions: None Reported
Is Well Flowing?: No
Shut-In Pressure:
Geology/Aquifer: Not Reported
Well/Water Use: PUBLIC WATER SUPPLY

Hole Diameter Information

No hole diameter records were found.

Casing Information

From (ft)	To (ft)	Dia (in)	Description
-2.0	64.5	8.0	

Annular Seal Information

From (ft)	To (ft)	Description
6.0	16.0	GROUTED

Completion Information

From (ft)	To (ft)	Dia (in)	Description
49.5	64.5	8.0	.04 SLOT SCREEN

Lithology Information

From (ft)	To (ft)	Description
0.0	20.0	CLAY W/ GRAVEL & ROCK
20.0	32.0	TIGHT CLAY & FINE GRAVEL
32.0	34.0	FINE GRAVEL IN CLAY LOOSE
34.0	50.0	CLAYBOUND GRAVEL
50.0	65.0	GRAVEL IN CLAY LOOSE
65.0	78.0	SILTY SAND (LIKE QUICKSAND)
78.0	80.0	GRAVEL IN CLAY TIGHT

Contract No. 2 - Well No. 2

3 GW 2 Revised 1969
13—3M—10/69

(2)

05 7 Madison 05 3E 30
County Madison AA

DRILLER'S LOG 126577

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the **owner** with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner Big Sky of Montana

Address
Big Sky, Montana

For Administrator's Use
File
GW 1

Date well started August 19, 1972

completed August 22, 1972

Type of well Drilled (Dug, driven, bored or drilled)

Equipment used Churn Drill (Churn drill, rotary or other)

Water Use: Domestic [✓] Municipal ☐ Stock ☐ Irrigation ☐

Industrial ☐ Drainage ☐ Other [✓]* Garden/Lawn ☐

*Describe Recreation

USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition).

ESTIMATED ANNUAL WITHDRAWAL --------------

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
8"	8 5/8 OD x .250	2' above ground	43	---	---	---

N / W / E / S

			X

NE ¼ NE ¼ Sec. 30
T. 6S N/S R. 3E E/W

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE.
EACH SMALL SQUARE REPRESENTS 40 ACRES.

Static water level 9 ft.*
Pumping water level 37 ft.*
at 80 gallons per minute,
measured 17½ hrs. after pumping began.
*Measured from ground level.
Well developed by Pump
for 17½ hours.
Power .... Pump .... HP
Remarks: (Gravel packing, cementing, packers, type of shutoff)
Grouted from 6' to 16'
10' of 8" x .040 slot
stainless steel screen
40' to 50'

Driller's Signature [illegible]

Driller's Address 2103 Bridger Drive
Bozeman, Montana LICENSE NO. 17

Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

MOUNTAIN VILLAGE NO. 2

Top of Ground (Elev. above sea level)

From (Feet)	To (Feet)	
0	16	Gravel & Rocks
16	17	Gravel
17	40	Gravel in Clay tight
40	50	Gravel in Clay loose
50	55	Yellow Clay
55	56	Grey Clay
56	60	Shale

60' Show exact depth of bottom

M:108810 #2

MOUNTAIN VILLAGE NO. 2

Montana Bureau of Mines and Geology
Ground-water Information Center Site Report
BIG SKY OF MONTANA * WELL #2

Plot this site on a topographic map

Location Information

GWIC Id: 108810
Location (TRS): 06S 03E 30 AA
County (MT): MADISON
DNRC Water Right: Not Reported
PWS Id:
Block: Not Reported
Lot: Not Reported
Certificate of Survey: Not Reported

Source of Data: LOG
Latitude (dd): 45.2892
Longitude (dd): -111.3951
Geomethod: TRS-TWN
Datum: 1927
Addition: Not Reported
Type of Site: WELL

Well Construction and Performance Data (measurements are reported below land surface)

Total Depth (ft): 50.00
Static Water Level (ft): 9.00
Pumping Water Level (ft): 37.00
Yield (gpm): 80.00
Test Type: PUMP
Test Duration: 17.50
Drill Stem Setting (ft):
Recovery Water Level (ft):
Recovery Time (hrs):

How Drilled: CHURN
Driller's Name: JONES
Driller License: WWC017
Completion Date: Aug 22, 1972
Special Conditions: None Reported
Is Well Flowing?: No
Shut-In Pressure:
Geology/Aquifer: Not Reported
Well/Water Use: PUBLIC WATER SUPPLY

Hole Diameter Information

No hole diameter records were found.

Casing Information

From (ft)	To (ft)	Dia (in)	Description
-2.0	50.0	8.0	

Annular Seal Information

From (ft)	To (ft)	Description
6.0	16.0	GROUTED

Completion Information

From (ft)	To (ft)	Dia (in)	Description
40.0	50.0	8.0	.04 SLOT SCREEN

Lithology Information

From (ft)	To (ft)	Description
0.0	16.0	GRAVEL & ROCKS
16.0	17.0	GRAVEL
17.0	40.0	GRAVEL INCLAY TIGHT
40.0	50.0	GRAVEL IN CLAY LOOSE
50.0	55.0	YELLOW CLAY
55.0	56.0	GREY CLAY
56.0	60.0	SHALE

Contract No. 2 - Well No. 3

(2)

057 6S 3E 30 AA

County Madison

DRILLER'S LOG 176576

GW 2 Revised 1969
13—3M—10/69

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Montana Bureau of Mines and Geology

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
MONTANA WATER RESOURCES BOARD

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

This form to be prepared by driller, and three copies to be filed by the **owner** with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Owner Big Sky of Montana

Address Big Sky, Montana

Date well started Aug. 25, 1972

completed Aug. 29, 1972

For Administrator's Use
File
GW 1

Type of well Drilled (Dug, driven, bored or drilled)

Equipment used Churn Drill (Churn drill, rotary or other)

Water Use: Domestic ☒ Municipal ☐ Stock ☐ Irrigation ☐

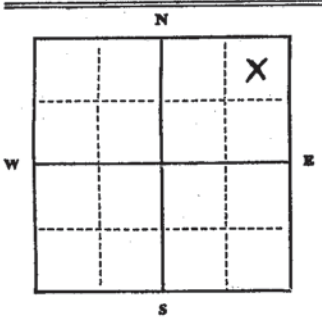
Industrial ☐ Drainage ☐ Other ☒* Garden/Lawn ☐

*Describe Recreation

USE: If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition).

ESTIMATED ANNUAL WITHDRAWAL ----------

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
8"	# 5/8 OD x .250	2' above ground	50	---	---	---



NE ¼ NE ¼ Sec. 30

T. 6S N/S R. 3E E/W

Static water level 10 ft.*

Pumping water level 46 ft.*

at 180 gallons per minute,

measured 30 mins. after pumping began.

*Measured from ground level.

Well developed by Pump

for 39 hours.

Power ..... Pump ..... HP

Remarks: (Gravel packing, cementing, packers, type of shutoff)

Grouted from 6' to 16'
15' of 8" x .040 slot
stainless steel screen
from 48' to 63'

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller's Signature Milton E Jones

Driller's Address 2103 Bridger Drive

Bozeman, Montana LICENSE NO. 17

Indicate the character, color, thickness of strata such as soil, clay, sand, gravel, shale, sandstone, etc. Show depth at which water is found and height to which water rises in well.

MOUNTAIN VILLAGE NO. 3

Top of Ground (Elev. above sea level)

From (Feet)	To (Feet)	
0	15	Top Soil & Clay bound Gravel
15	17	Gravel
17	32	Clay bound Gravel
32	37	Mostly Clay
37	40	Fine Sand
40	50	Gravel with Clay
50	55	Clay
55	78	Shale

78' Show exact depth of bottom

M:108811 #3

MOUNTAIN VILLAGE NO. 3

Montana Bureau of Mines and Geology
Ground-water Information Center Site Report
BIG SKY OF MONTANA * WELL #3

Plot this site on a topographic map

Location Information

GWIC Id: 108811
Location (TRS): 06S 03E 30 AA
County (MT): MADISON
DNRC Water Right: Not Reported
PWS Id:
Block: Not Reported
Lot: Not Reported
Certificate of Survey: Not Reported

Source of Data: LOG
Latitude (dd): 45.2892
Longitude (dd): -111.3951
Geomethod: TRS-TWN
Datum: 1927
Addition: Not Reported
Type of Site: WELL

Well Construction and Performance Data (measurements are reported below land surface)

Total Depth (ft): 63.00
Static Water Level (ft): 10.00
Pumping Water Level (ft): 46.00
Yield (gpm): 180.00
Test Type: PUMP
Test Duration: 39.00
Drill Stem Setting (ft):
Recovery Water Level (ft):
Recovery Time (hrs):

How Drilled: CHURN
Driller's Name: JONES
Driller License: WWC017
Completion Date: Aug 29, 1972
Special Conditions: None Reported
Is Well Flowing?: No
Shut-In Pressure:
Geology/Aquifer: Not Reported
Well/Water Use: PUBLIC WATER SUPPLY

Hole Diameter Information

No hole diameter records were found.

Casing Information

From (ft)	To (ft)	Dia (in)	Description
-2.0	63.0	8.0	

Annular Seal Information

From (ft)	To (ft)	Description
6.0	16.0	GROUTED

Completion Information

From (ft)	To (ft)	Dia (in)	Description
48.0	63.0	8.0	.04 SLOT SCREEN

Lithology Information

From (ft)	To (ft)	Description
0.0	15.0	TOPSOIL & CLAYBOUND GRAVEL
15.0	17.0	GRAVEL
17.0	32.0	CLAYBOUND GRAVEL
32.0	37.0	MOSTLY CLAY
37.0	40.0	FINE SAND
40.0	50.0	GRAVEL W/ CLAY
50.0	55.0	CLAY
55.0	78.0	SHALE

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 5:57:53 PM)

Site Name: LONE MOUNTAIN SPRINGS
GWIC Id: 103496

MOUNTAIN VILLAGE NO. 4

Section 1: Well Owner

Owner Name
LONE MOUNTAIN SPRINGS
Mailing Address
PO BOX 1

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	30	NE¼

County MADISON
Geocode

Latitude	Longitude	Geomethod	Datum
45.286825	111.398381	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition	Block	Lot
MOUNTAIN VILLAGE		

Section 3: Proposed Use of Water
PUBLIC WATER SUPPLY (1)

Section 4: Type of Work
Drilling Method: FORWARD ROTARY

Section 5: Well Completion Date
Date well completed: Friday, November 16, 1984

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	400	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
0	78	8				STEEL
20	400	6				PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
200	400	6			DRILLED HOLES

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	20	CEMENT	
0	0	DRILL CUTTINGS	

Screened Intervals from Morrison-Maierle (1986)
141-146
211-216
281-286
392-397
384-389 ft

Section 7: Well Test Data

Total Depth: 400
Static Water Level: 40
Water Temperature:

Pump Test *

Depth pump set for test _ feet.
110 gpm pump rate with _ feet of drawdown after 24 hours of pumping.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level 286 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	1	TOPSOIL
1	24	LOOSE CLAYBOUND GRAVEL SOME COARSE-WET
24	58	CLAYBOUND GRAVEL
58	87	CLAY & CHIPPED ROCK
87	90	SOFT SHALE
90	104	MED HARD SHALE
104	145	HARD SHALE HARD SHALE
145	149	SANDSTONE GREY & BROWN-WATER
149	151	GREY SHALE-SOFTER
151	178	HARD GREY SHALE
178	188	SANDSTONE
188	220	BLACK SHALE-HARD
220	400	GRANITE

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: VAN DYKEN DRILLING INC
License No: WWC-380
Date Completed: 11/16/1984

Form No. 603 (R 2-86)

WELL LOG REPORT

File No. ______

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

1. WELL OWNER Name: Big Sky Cascade Subdivision #1

2. CURRENT MAILING ADDRESS

3. WELL LOCATION WELL #5
¼ ¼ ¼ Section 19
Township 6 N/S Range 3 E/W County Gallatin
Gov't Lot ______, or Lot ______, Block ______
Subdivision Name ______
Tract Number ______

4. PROPOSED USE: Domestic X Stock ☐ Irrigation ☐
Other specify ______

5. TYPE OF WORK:
New well X Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary X Jetted ☐

6. DIMENSIONS: Diameter of Hole
Dia 12 in. from 0 ft. to 207' ft.
Dia ______ in. from ______ ft. to ______ ft.
Dia ______ in. from ______ ft. to ______ ft.

7. CONSTRUCTION DETAILS:
Casing: Steel Dia. 8 from +2 ft. to 180 ft.
Threaded Welded X Dia. ______ from ______ ft. to ______ ft.
Type A53B Wall Thickness .322
Casing: Plastic Dia. ______ from ______ ft. to ______ ft.
Weight ______ Dia. ______ from ______ ft. to ______ ft.

PERFORATIONS: Yes ☐ No X
Type of perforator used ______
Size of perforations ______ in. by ______ in.
______ perforations from ______ ft. to ______ ft.
______ perforations from ______ ft. to ______ ft.
______ perforations from ______ ft. to ______ ft.

SCREENS: Yes ☐ No X
Manufacturer's Name ______
Type ______ Model No ______
Dia ______ Slot size ______ from ______ ft. to ______ ft.
Dia ______ Slot size ______ from ______ ft. to ______ ft.

GRAVEL PACKED: Yes ☐ No X Size of gravel ______
Gravel placed from ______ ft. to ______ ft.

GROUTED: To what depth? 180 ft.
Material used in grouting cement slurry @ 180' to surface

8. WELL HEAD COMPLETION:
Pitless Adapter ☐ Yes ☐ No

9. PUMP (if installed)
Manufacturer's name ______
Type ______ Model No. ______ HP ______

10. WELL TEST DATA
The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
a) Air ______ Pump X Bailer ______
b) Static water level immediately before testing 0 ft. If flowing; closed in pressure ______ psi. ______ gpm.
Flow controlled by: ______ valve, ______ reducers, other, (specify) ______
c) Depth at which pump is set for test 168 + pump
d) The pumping rate: 200 gpm.
e) Pumping water level 180 ft. at 72 hrs. after pumping began.
f) Duration of test: Pumping time 72 hrs.
g) Recovery time N/A hrs.
h) Recovery water level N/A ft. at ______ hrs. after pumping stopped.

Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge at least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form.

NOTE: All wells shall be equipped with an access port ½ inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.

11. WAS WELL PLUGGED OR ABANDONED? ______ Yes X No
If yes, how? ______

12. WELL LOG

Depth (ft.) From	To	Formation
0	80	Fractured Rock
80	92	Sandstone 125 gpm
92	170	Hard Shales 200 gpm
170	207	Hard Sandstone
207	212	Soft Sticky Clay's 400 gpm
		<400gpm before grouting>
		200gpm After grouting
7		Grouted by Big Sky Concrete Company from Roundup

ATTACH ADDITIONAL SHEETS IF NECESSARY

13. DATE COMPLETED 10-4-93

14. DRILLER/CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.

Date 8-29-94
Firm Name Kevin Haggerty Drilling Inc.
Address 1940 Stucky Rd Bozeman
Signature [signature] License No. 363

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1520 EAST SIXTH AVENUE HELENA, MONTANA 59620-2301 444-6610

DNRC

well not completed by Haggerty Drilling
record info on this form

DEPARTMENT COPY
DRILLER: Please give this copy to the well owner to complete reverse side.
OWNER: Complete reverse side and send to DNRC when the well is completed and the water has been used beneficially for the intended purpose.

Form No. 603 (R 2-89)

WELL LOG REPORT

File No. ______

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

1. WELL OWNER Name: Big Sky Cascade Subdivision #1

2. CURRENT MAILING ADDRESS

3. WELL LOCATION WELL #5
¼ ¼ ¼ Section 19
Township 6 N/S Range 3 E/W County Gallatin
Gov't Lot ______, or Lot ______, Block ______
Subdivision Name ______
Tract Number ______

4. PROPOSED USE: Domestic [X] Stock [ ] Irrigation [ ]
Other specify ______

5. TYPE OF WORK:
New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [ ] Driven [ ]
Reconditioned [ ] Rotary [X] Jetted [ ]

6. DIMENSIONS: Diameter of Hole
Dia 12 in. from 0 ft. to 207' ft.
Dia ______ in. from ______ ft. to ______ ft.
Dia ______ in. from ______ ft. to ______ ft.

7. CONSTRUCTION DETAILS:
Casing Steel Dia. 8 from +2 ft. to 180 ft.
Threaded Welded [X] Dia ______ from ______ ft. to ______ ft.
Type A53B Wall Thickness .322
Casing Plastic Dia. ______ from ______ ft. to ______ ft.
Weight ______ Dia. ______ from ______ ft. to ______ ft.
PERFORATIONS: Yes [ ] No [X]
Type of perforator used ______
Size of perforations ______ in. by ______ in.
______ perforations from ______ ft. to ______ ft.
______ perforations from ______ ft. to ______ ft.
______ perforations from ______ ft. to ______ ft.
SCREENS: Yes [ ] No [X]
Manufacturer's Name ______
Type ______ Model No ______
Dia ______ Slot size ______ from ______ ft. to ______ ft.
Dia ______ Slot size ______ from ______ ft. to ______ ft.
GRAVEL PACKED: Yes [ ] No [X] Size of gravel ______
Gravel placed from ______ ft. to ______ ft.
GROUTED: To what depth? 180 ft.
Material used in grouting cement slick @ 180' to surface

8. WELL HEAD COMPLETION:
Pitless Adapter [ ] Yes [ ] No

9. PUMP (if installed)
Manufacturer's name ______
Type ______ Model No. ______ HP ______

10. WELL TEST DATA
The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
a) Air ______ Pump X Bailer ______
b) Static water level immediately before testing 0 ft. If flowing; closed in pressure ______ psi. ______ gpm. Flow controlled by: ______ valve, ______ reducers, other, (specify) ______
c) Depth at which pump is set for test 168 + pump
d) The pumping rate: 200 gpm.
e) Pumping water level 180 ft. at 72 hrs. after pumping began.
f) Duration of test: Pumping time 72 hrs.
g) Recovery time N/A hrs.
h) Recovery water level N/A ft. at ______ hrs. after pumping stopped.

Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge at least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form.

NOTE: All wells shall be equipped with an access port ½ inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.

11. WAS WELL PLUGGED OR ABANDONED? ______ Yes X No
If yes, how? ______

12. WELL LOG

Depth (ft.) From	To	Formation
0	80	Fractured Rock
80	92	Sandstone 125 gpm
92	170	Hard Shale 200 gpm
170	207	Hard Sandstone
207	212	Soft Sticky Clay's 400 gpm
		<400gpm before grouting>
		200gpm After grouting
?		Grouted by Big Sky Concrete Company from Roundup

ATTACH ADDITIONAL SHEETS IF NECESSARY

13. DATE COMPLETED 10-4-93

14. DRILLER/CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.

Date: 8-29-94
Firm Name: Kevin Haggerty Drilling Inc.
Address: 1440 Stucky Rd Bozeman
Signature: [signature] License No. 353

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1520 EAST SIXTH AVENUE HELENA, MONTANA 59620-2301 444-6610

DNRC

well not completed by Haggerty Drilling
record info on this form

DEPARTMENT COPY
DRILLER: Please give this copy to the well owner to complete reverse side.
OWNER: Complete reverse side and send to DNRC when the well is completed and the water has been used beneficially for the intended purpose.

MOUNTAIN VILLAGE NO. 6

Form No. 603 (R 2-89)

WELL LOG REPORT

File No. 94-597-10

State law requires that th... bureau's copy be filed by the water well driller within 60 ... after completion of the well.

1. WELL OWNER
Name BOYNE USA INC.

2. CURRENT MAILING ADDRESS
P.O. BOX 160001
BIGSKY, MONTANA 59716

3. WELL LOCATION WELL #6
SE ¼ NE ¼ SW ¼ Section 19
Township 6 N (S) Range 3 (E) W County GALLATIN
Gov't Lot _____, or Lot _____, Block _____
Subdivision Name _____
Tract Number _____

4. PROPOSED USE: Domestic ☐ Stock ☐ Irrigation ☐
Other ☒ specify PUBLIC SUPPLY WELL

5. TYPE OF WORK:
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

6. DIMENSIONS: Diameter of Hole
Dia. 12 in. from 0 ft. to 200 ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.

7. CONSTRUCTION DETAILS:
Casing: Steel Dia 8 5/8 from ±2 ft. to 200 ft.
Threaded ☐ Welded ☒ Dia. _____ from _____ ft. to _____ ft.
Type A53 Wall Thickness .322
Casing: Plastic Dia. _____ from _____ ft. to _____ ft.
Weight _____ Dia. _____ from _____ ft. to _____ ft.
PERFORATIONS: Yes ☒ No ☐
Type of perforator used HOLTE
Size of perforations 3/16 in. by 1 in.
1920 HOLES perforations from 160 ft. to 200 ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

SCREENS: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.

GRAVEL PACKED: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

GROUTED: To what depth? 60 ft.
Material used in grouting NEAT CEMENT

8. WELL HEAD COMPLETION:
Pitless Adapter ☐ Yes ☒ No

9. PUMP (if installed)
Manufacturer's name _____
Type _____ Model No. _____ HP. _____

10. WELL TEST DATA
The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
a) Air [redacted] Pump X Bailer _____
b) Static water level immediately before testing 14 ft. If flowing; closed-in pressure _____ psi. _____ gpm.
Flow controlled by: _____ valve, _____ reducers, _____
other, (specify) _____
c) Depth at which pump is set for test 191
d) The pumping rate: 490 gpm.
e) Pumping water level 62 ft. at 24 hrs. after pumping began.
f) Duration of test: Pumping time 24 hrs.
g) Recovery time 3 hrs.
h) Recovery water level 41.4 ft. at 3 hrs. after pumping stopped.

Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge at least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form.

NOTE: All wells shall be equipped with an access port ½ inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.

11. WAS WELL PLUGGED OR ABANDONED? _____ Yes X No
If yes, how? _____

12. WELL LOG

Depth (ft.) From	To	Formation
TOP	5	ROCK-FILL DIRT
5	20	SHATTER ROCK-SAND STONE-LIME
		STONE BLACK
20	40	SILT FINE SAND-SANDY CLAY-SHATTER
		ROCK-SAND STONE-BLACK SHALE
40	43	SAND STONE-LIGHT GREEN SHALE
43	45	STREAKS SANDY CLAY-SAND STONE-
		LIGHT GREEN SHALE
45	47	SAND STONE-LIGHT GREEN SHALE
47	48	TRACES SANDY CLAY-SAND STONE-
		GREEN & BLACK SHALE
48	60	HARD-SAND STONE-GREEN & BLACK SHALE
60	65	SAND STONE-BLACK & GRAY SHALE
65	110	BLACK SAND STONE-GRAY SHALE
110	115	GRAY TRACE CLAY-SAND STONE-BLACK
		& GRAY SHALE
115	119	SAND STONE-BLACK & GRAY SHALE
119	121	GRAY SAND STONE-VERY HARD
121	122	ROCK-GREEN & GRAY SAND STONE
122	125	ROCK-PINK & GRAY SAND STONE-HARD
125	130	ROCK-BLACK & GREEN SAND STONE
130	145	GRAY ROCK-GREEN & BLACK SAND STONE
145	151	BLACK & GRAY SAND STONE-BLACK
		TRACE SHALE
151	165	BLACK SHALE
165	167	BLACK SHALE
167	178	TRACE OF QUARTZ-BLACK SHALE
178	179	GRAY SHALE
179	180	TRACE QUARTZ-BLACK SHALE
180	200	BLACK SHALE

ATTACH ADDITIONAL SHEETS IF NECESSARY

13. DATE COMPLETED 7-27-96

14. DRILLER/CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.

7-30-96
Date

RED TIGER DRILLING
Firm Name

BOX 659 MANHATTAN, MONTANA 59741
Address

Duane L Hauser 386
Signature License No.

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1520 EAST SIXTH AVENUE HELENA, MONTANA 59620-2301 444-6810
DNRC

DEPARTMENT COPY
DRILLER: Please give this copy to the well owner to complete reverse side.
OWNER: Complete reverse side and send to DNRC when the well is completed and the water has been used beneficially for the intended purpose.

MONTANA WELL LOG REPORT

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is complied electronically from the contents of the Ground-Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Other Options

Plot this site on a topographic map
View scanned document (2/21/2008 6:03:21 PM)

Site Name: BIG SKY WATER AND SEWER DISTRICT
GWIC Id: 205931 MOUNTAIN VILLAGE NO. 7

Section 1: Well Owner

Owner Name
BIG SKY WATER AND SEWER DISTRICT
Mailing Address
PO BOX 161097

City	State	Zip Code
BIG SKY	MT	59716

Section 2: Location

Township	Range	Section	Quarter Sections
06S	03E	30	NW¼ NW¼ NE¼ NE¼

County
MADISON
Geocode

Latitude	Longitude	Geomethod	Datum
45.290145	111.397756	TRS-SEC	NAD83

Altitude	Method	Datum	Date

Addition **Block** **Lot**
MOUNTAIN VILLAGE WELL #7

Section 3: Proposed Use of Water

PUBLIC WATER SUPPLY (1)

Section 4: Type of Work

Drilling Method: ROTARY

Section 5: Well Completion Date

Date well completed: Tuesday, November 27, 2001

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	30	16
30	312	12

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	280	8	0.250			STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
270	280	8	18	1X3IN	TORCH OR PLASMA CUTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	92	BENTONITE GROUT	
251	251	FORMATION PACKER	
252	252	FORMATION PACKER	

Section 7: Well Test Data

Total Depth: 312
Static Water Level: 40
Water Temperature:

Pump Test *

Depth pump set for test 275 feet.
400 gpm pump rate with 230 feet of drawdown after 1 hours of pumping.
Time of recovery 1 hours.
Recovery water level 40 feet.
Pumping water level 270 feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

BACK FILLED WITH CUTTINGS AND BENTONITE CHIPS

Section 9: Well Log

Geologic Source
Unassigned

From	To	Description
0	60	NO RECORDS
60	65	LT. GRAY SHALE
65	75	LT. GRAY/ BROWN SANDSTONE
75	102	DARK GRAY SHALE
102	107	SHALE
107	112	DARK GRAY SHALE
112	175.5	DARK GRAY SHALE
175.5	183	GRAYISH BLUE SANDSTONE
183	205	LT. BLUE SILTSTONE
205	231	LT. BLUE/ PURPLE SHALE
231	233	ANDESITE SILL
233	241	BLACK SHALE
241	246	ANDESITE SILL
246	247	GRAY SHALE
247	249	ANDESITE SILL

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: OKEEFE DRILLING CO
License No: WWD-82
Date Completed: 11/27/2001

Site Name: BIG SKY WATER AND SEWER DISTRICT
GWIC Id: 205931
Additional Lithology Records

From	To	Description
249	250	GRAY AND BLACK SHALE
250	251	GRAY SILTSTONE
251	282	ANDESITE SILL
282	294	GRAY GREEN SILTSTONE
294	296	ANDESITE SILL
296	300	LT. BROWN QUARTZITE SANDSTONE THERMOPOLIS SANDSTONE
300	312	BLACK SHALE

APPENDIX B – SNOWMAKING MEMO

MEMORANDUM

To: Ron Edwards, Jim Muscat
Big Sky County WSD

Fr: Mark Cunnane

6595 Bear Claw Lane • Bozeman, MT 59715
(406) 585-5947

Re: Aquifer Response to Well MTN#5 Pumping for Snowmaking 2021-2022

1. INTRODUCTION AND SUMMARY

Public water system well MTN#5 was used for snowmaking water supply for the 2021-2022 ski season. The well was manually adjusted to discharge about 30- to 40-gpm for a period of 52-days, beginning on 11/12/21 and ending on 1/3/22. Water level instruments set into test wells TW#2, TW#7, and TW#8 responded to pumping and these data were analyzed to further assess yield potential and aquifer properties (**Figure 1**).[1] Well logs are attached.

Well MTN#6 was not monitored during snowmaking. However, prior testing has shown that wells MTN#5 and MTN#6 do not have a hydraulic connection. This result also would indicate that well MTN#6 is not likely to be hydraulically connected to the test wells.

Water level data analyzed for the snowmaking pumping period showed that aquifer response eventually followed a trend for a lower transmissivity formation, estimated at about 200 ft^2/d. This trend was established starting about 4- to 4.5-days after discharge from well MTN#5 began. This result is providing more information that can be used to evaluate well design capacities.

The results of this analysis indicate that operation of MTN#5 and TW#8 (as a new production well) results in the highest capacity. Under this condition, the two well system can produce 125-gpm as a maximum design capacity, and 170 acre-ft per year as the annual volume. Well MTN#5 would be operated with a design capacity of 85-gpm and TW#8 would be operated with a design capacity of 40-gpm. The annual volumes would be 120- and 50-acre-feet per year, respectively.

Individually, wells MTN#5 and TW#8 can produce about 100- and 70-gpm, respectively. The individual annual volumes would be 140- and 70- acre-feet. Completing TW#8 as a new production well would add only 25-gpm and 30-acre-feet of capacity to the Mountain Village system (above the existing supply from MTN#5). Given that the discharge from TW#8 would likely require treatment for iron and manganese, its cost effectiveness is doubtful.

Test well TW#7 would not be completed as a production well, as it has limited drawdown and this factor results in lower yield among the wells. Test well TW#2 also would not be completed as a production well, primarily due to limited yield and costs. A new well would need to be constructed at the TW#2 location and the connection to the water system would be more costly due to greater offset from existing infrastructure.

1 These instruments are owned by the District and are installed in the wells to provide long-term monitoring of static water levels. There is no instrument installed into MTN#5 as the well casing appears to have a dogleg at the top of the well that blocks passage of a downhole instrument.

2. HYDRAULIC ANALYSIS

Test wells TW#2, TW#7, and TW#8 are equipped with down-hole In-Situ, Inc. Level TROLL 500 pressure transducers (owned by District). Water level data collected during the MTN#5 pumping period show immediate and similar response to pumping in each of the test wells (**Figure 2**). Static water levels recovered to a slightly lower static level. This condition likely reflects a declining static water level through the winter months (about 2- to 3- feet of decline over 100-days).

Hydraulic analysis of these data results in estimated aquifer transmissivity of about 150 ft^2/d (**Figure 3A** – **3C**), and is consistent among the three test wells. The estimated transmissivity is directly proportional to the MTN#5 discharge rate. A value of 40-gpm was used in hydraulic analyses.[2]

A bounded aquifer model, as used for the shorter pumping tests in the test wells (conducted in 2019 to 2021) is shown to be a poor fit to the snowmaking data (**Figure 3D**). An averaged fit to the snowmaking data obtained for an unbounded confined aquifer model by applying a least squares fitting method results in aquifer transmissivity of 198 ft^2/d and storativity of 0.0002 (**Figure 3E**). These parameter values were used to estimate design capacities.

3. DESIGN CAPACITIES

Analysis was completed to assess optimal pumping capacities for well MTN#5 and test wells TW#7 and TW#8, assuming the test wells were converted to permanent production wells. Linear superposition equations were developed for the drawdown at each pumping well, resulting in one equation per well. The system of equations was then solved for discharge rate by imposing the well maximum drawdowns as solution constraints.[3] The solution was applied to determine the maximum total capacity for the multiple pumping wells. Analysis was completed for a three well system, and also a two well system that included only MTN#5 and TW#8.

Drawdown constraints were determined for each well based on the well constructions. Well MTN#5 has up to 150-ft of drawdown. Test well TW#7 has only 60-ft of drawdown, and test well TW#8 has 107-ft of drawdown.[4] Analysis was completed for maximum design rate based on 180-days of continuous pumping, and also for maximum annual volume, based on 5-years of continuous pumping. These time periods were selected given the conditions of a low transmissivity confined bedrock aquifer, which can have limited recharge.

---

2 E.g., If the discharge were actually only 30-gpm, transmissivity would be overestimated by 33% using the rate of 40 gpm in the calculations.

3 Solutions were obtained using Excel's Solver add-in program.

4 These drawdown limits were obtained from the pumping test data files, which are different than the static water levels listed on the well logs.

The optimal three-well system resulted in no pumping from TW#7, which was required in order to maintain the drawdown in the well at 60-ft. There is no reason to use this constraint if the well cannot be pumped. In the two well system, with MTN#5 and TW#8, a solution was obtained resulting in optimal design capacities as shown in **Table 1**.

Table 1. Optimal Design Capacities

Well ID	Design Rate (gpm)	Annual Volume (af/yr)
MTN#5	85	120
TW#8	40	50
TOTAL	125	170

When pumped individually, and based on the confined aquifer model as described above, wells MTN#5 and TW#8 could be pumped at 98- and 70-gpm. The annual volumes would be 140- and 100-acre-feet, respectively. There is a benefit of only 25 gpm and 30 acre-feet by pumping simultaneously from both well MTN#5 and test well TW#8. There may also be some benefit with respect to source of supply redundancy.

Figure 1. Well Location Map

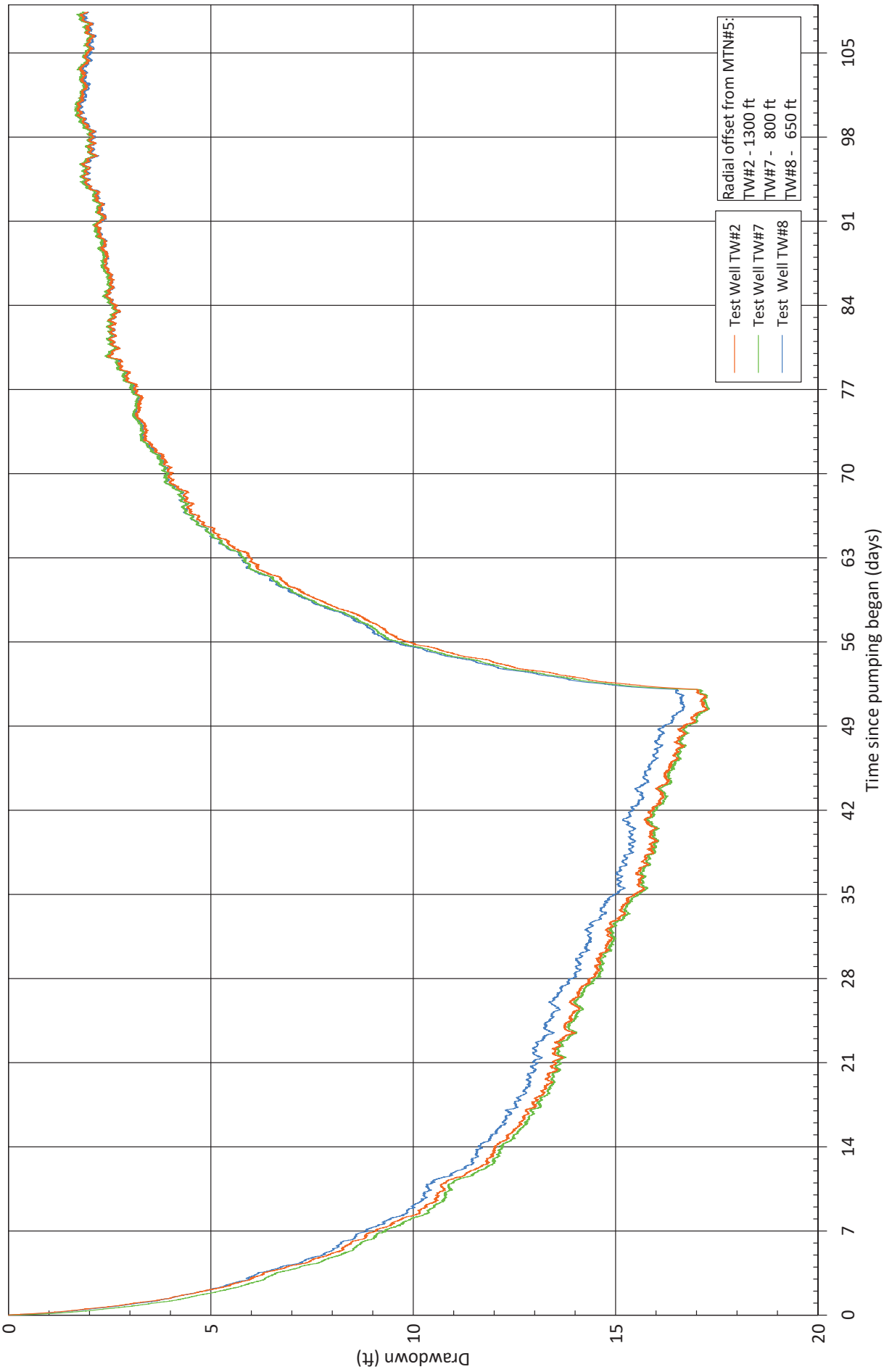


Figure 2. Test Well Drawdown Data

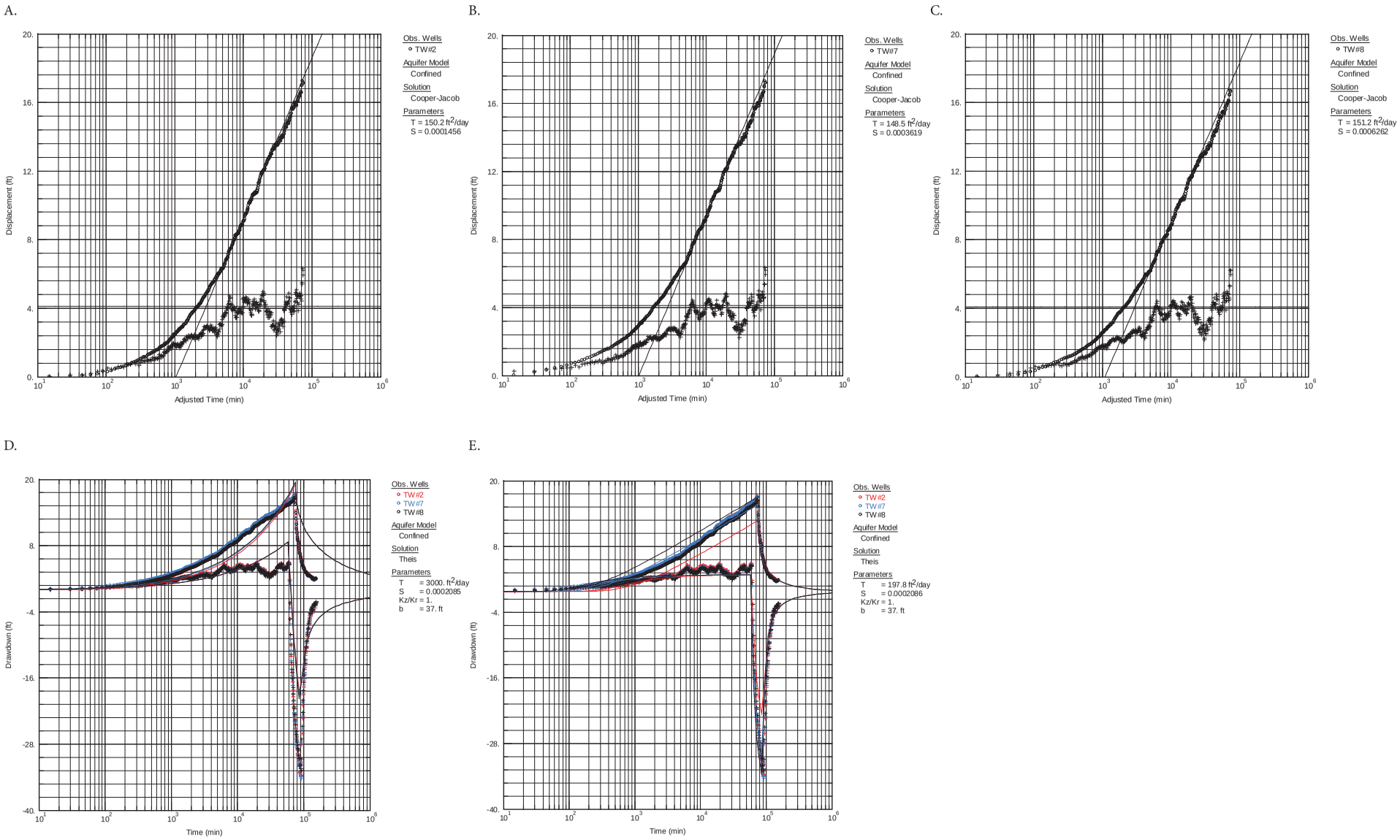
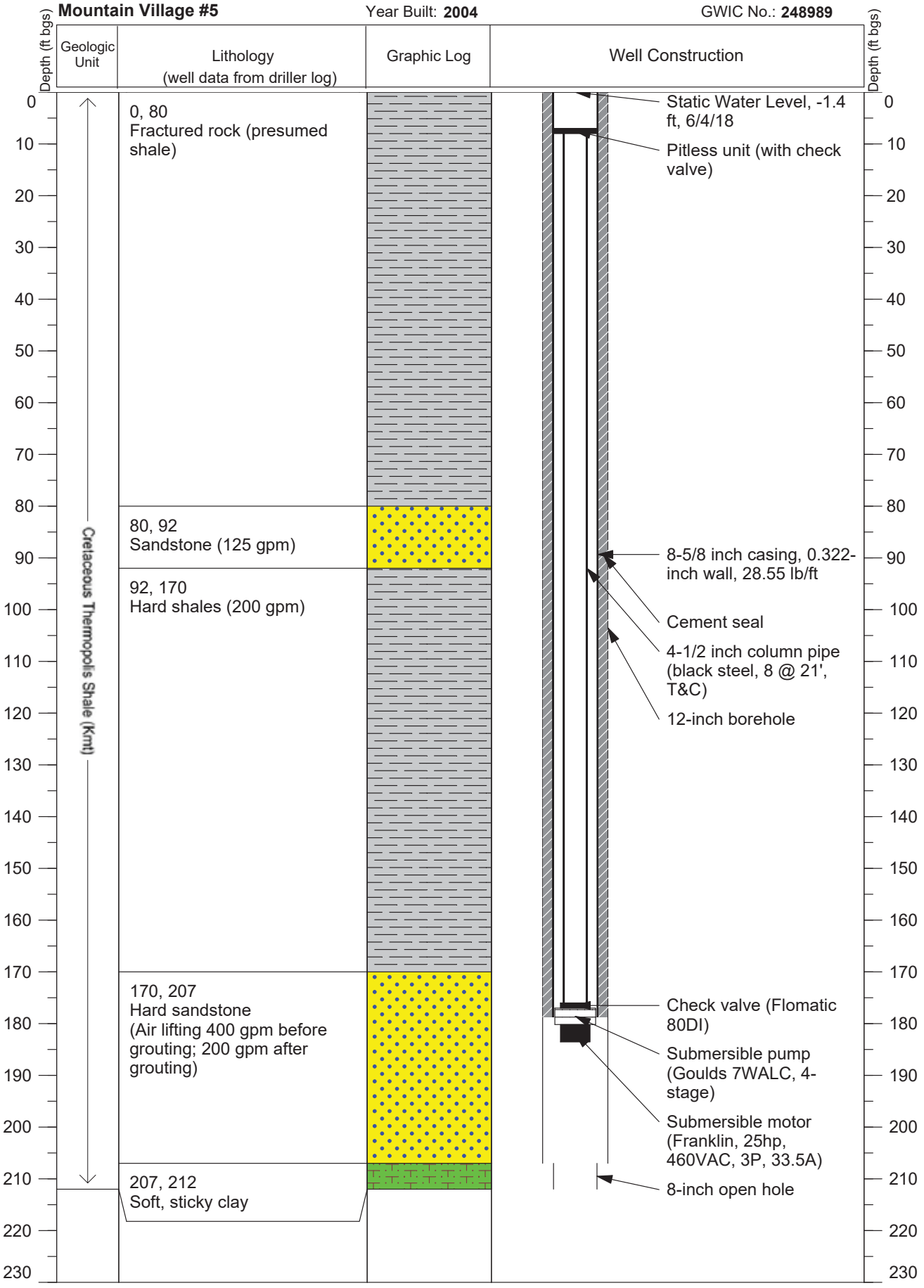
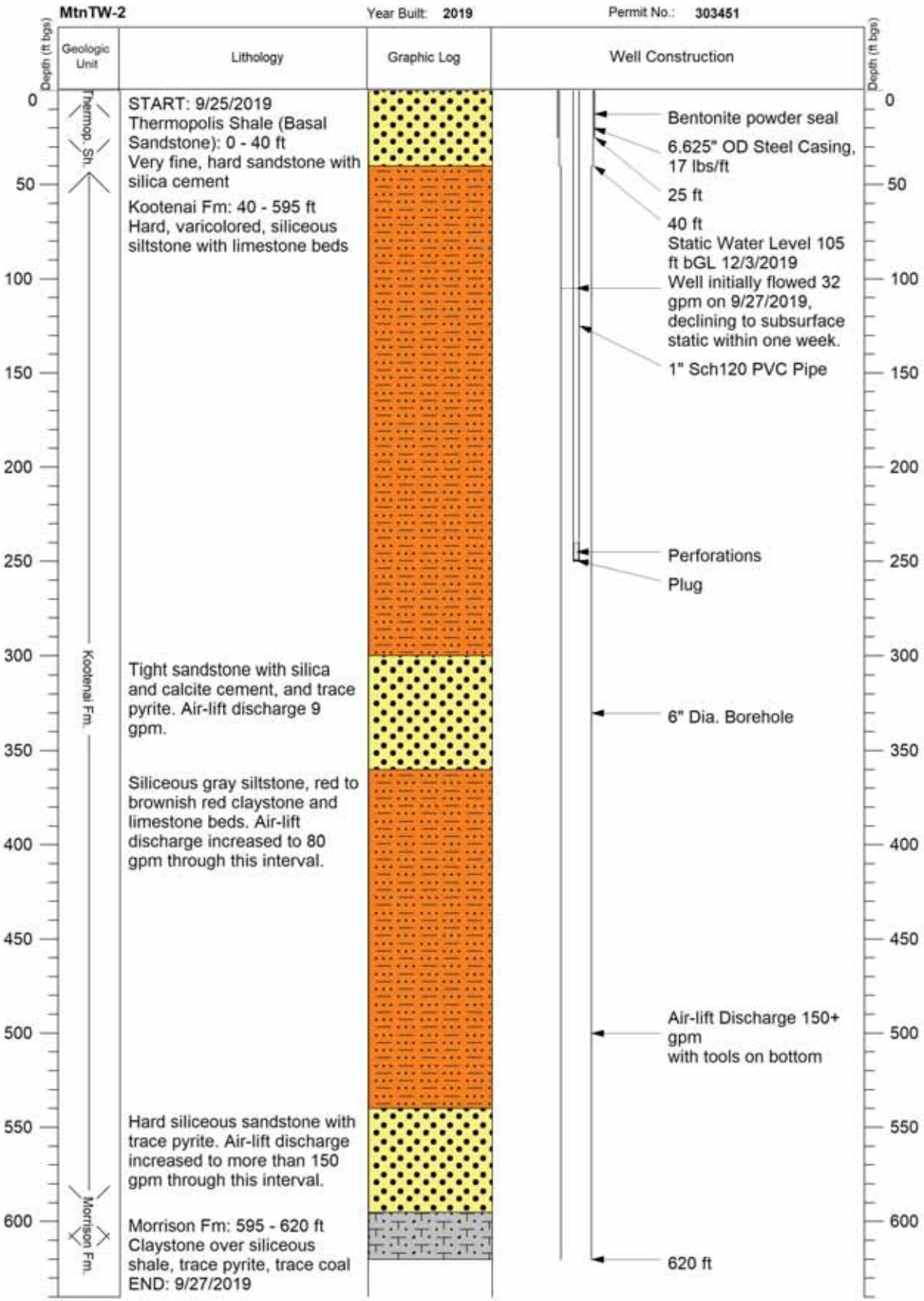


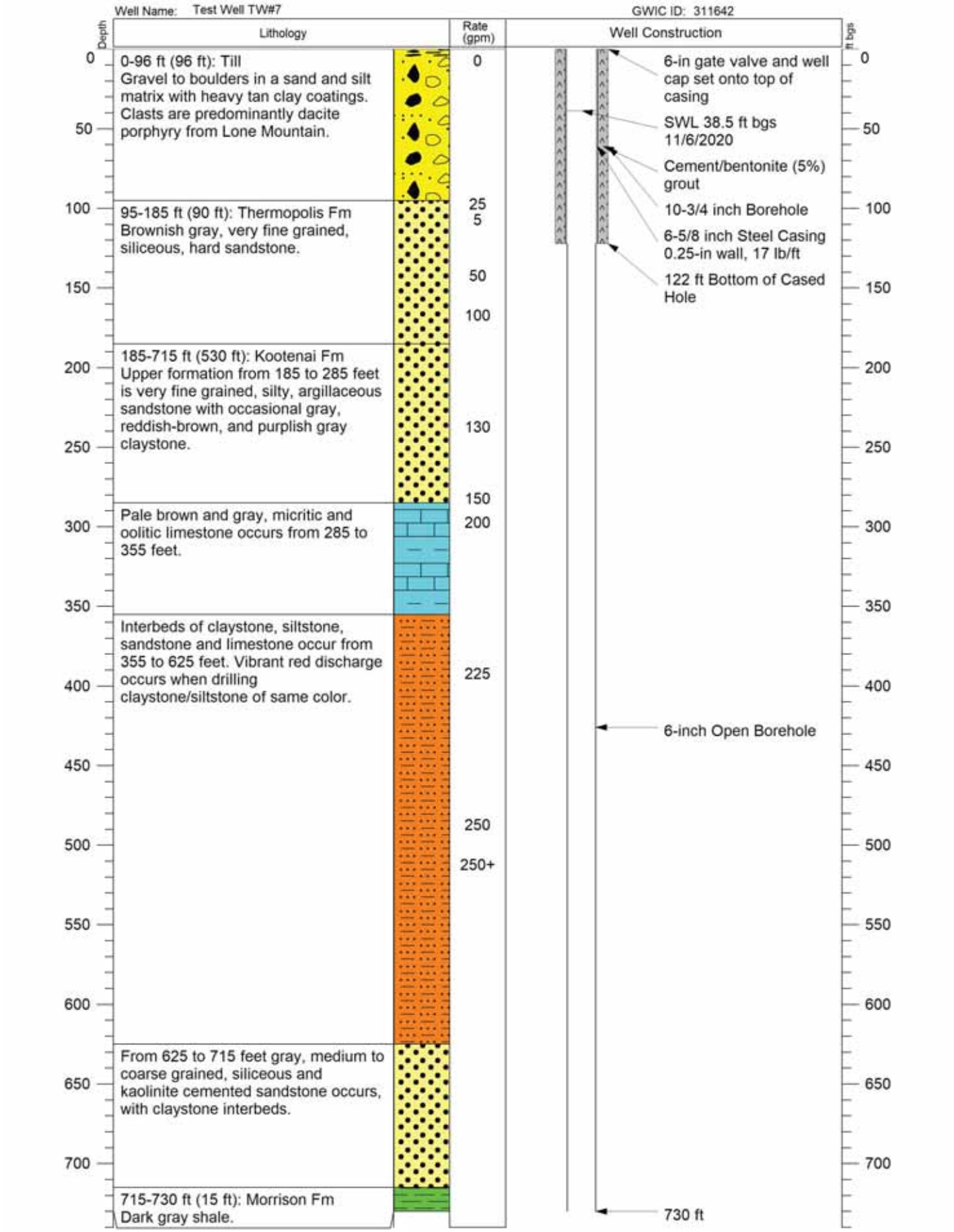
Figure 3. Hydraulic Analysis Plots

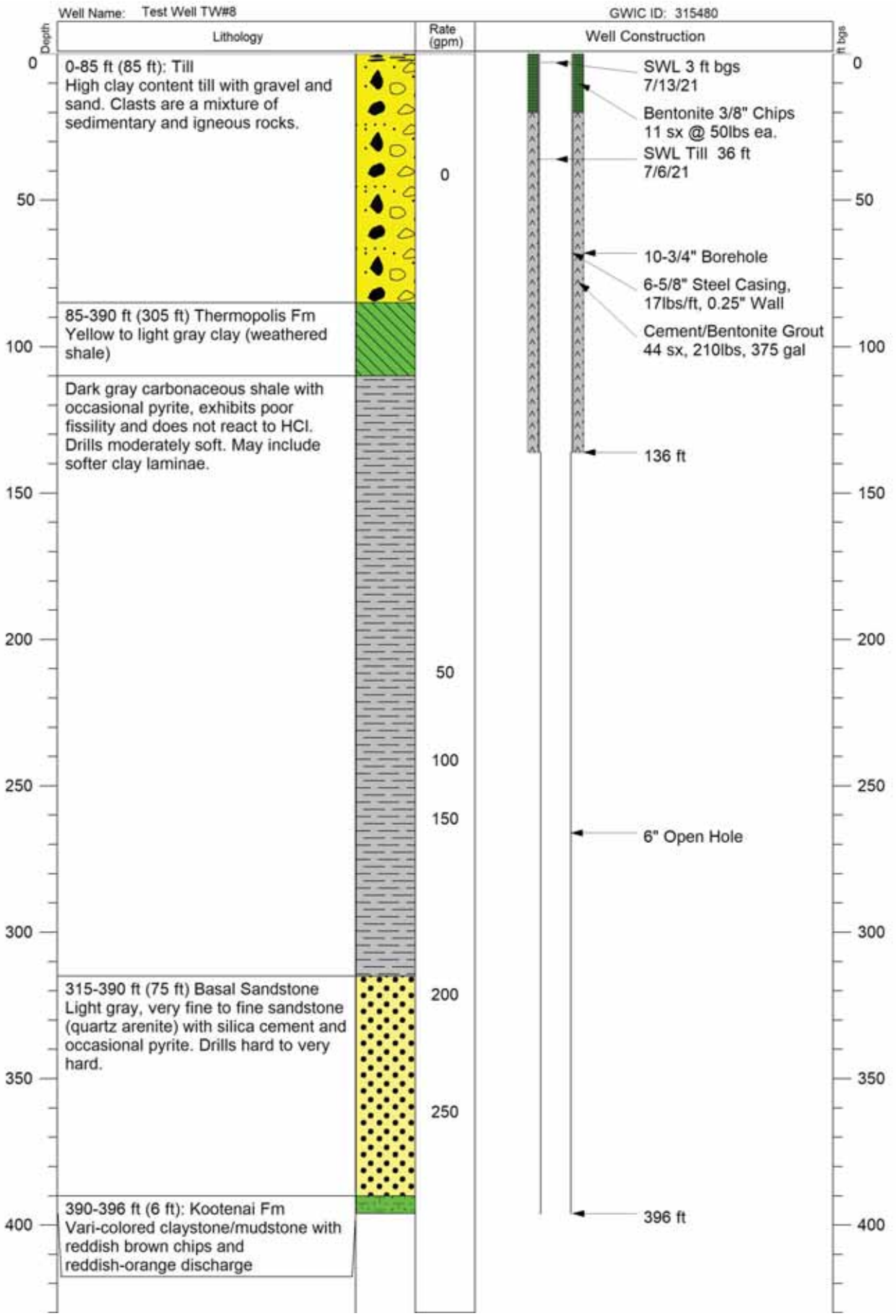
ATTACHMENTS

WELL LOGS


Mountain Village #5
Year Built: 2004
GWIC No.: 248989
Depth (ft bgs)
Geologic Unit
Lithology (well data from driller log)
Graphic Log
Well Construction
Depth (ft bgs)
0, 80
Fractured rock (presumed shale)
80, 92
Sandstone (125 gpm)
92, 170
Hard shales (200 gpm)
170, 207
Hard sandstone
(Air lifting 400 gpm before grouting; 200 gpm after grouting)
207, 212
Soft, sticky clay
Cretaceous Thermopolis Shale (Kmt)
Static Water Level, -1.4 ft, 6/4/18
Pitless unit (with check valve)
8-5/8 inch casing, 0.322-inch wall, 28.55 lb/ft
Cement seal
4-1/2 inch column pipe (black steel, 8 @ 21', T&C)
12-inch borehole
Check valve (Flomatic 80DI)
Submersible pump (Goulds 7WALC, 4-stage)
Submersible motor (Franklin, 25hp, 460VAC, 3P, 33.5A)
8-inch open hole
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230


MtnTW-2
Year Built: 2019
Permit No.: 303451
Depth (ft bgs)
Geologic Unit
Lithology
Graphic Log
Well Construction
Thermop. Sh.
Kootenai Fm.
Morrison Fm.
START: 9/25/2019
Thermopolis Shale (Basal Sandstone): 0 - 40 ft
Very fine, hard sandstone with silica cement
Kootenai Fm: 40 - 595 ft
Hard, varicolored, siliceous siltstone with limestone beds
Tight sandstone with silica and calcite cement, and trace pyrite. Air-lift discharge 9 gpm.
Siliceous gray siltstone, red to brownish red claystone and limestone beds. Air-lift discharge increased to 80 gpm through this interval.
Hard siliceous sandstone with trace pyrite. Air-lift discharge increased to more than 150 gpm through this interval.
Morrison Fm: 595 - 620 ft
Claystone over siliceous shale, trace pyrite, trace coal
END: 9/27/2019
Bentonite powder seal
6.625" OD Steel Casing, 17 lbs/ft
25 ft
40 ft
Static Water Level 105 ft bGL 12/3/2019
Well initially flowed 32 gpm on 9/27/2019, declining to subsurface static within one week.
1" Sch120 PVC Pipe
Perforations
Plug
6" Dia. Borehole
Air-lift Discharge 150+ gpm
with tools on bottom
620 ft
0
50
100
150
200
250
300
350
400
450
500
550
600


Well Name: Test Well TW#7
GWIC ID: 311642
Depth
Lithology
Rate (gpm)
Well Construction
ft bgs
0-96 ft (96 ft): Till
Gravel to boulders in a sand and silt matrix with heavy tan clay coatings. Clasts are predominantly dacite porphyry from Lone Mountain.
95-185 ft (90 ft): Thermopolis Fm
Brownish gray, very fine grained, siliceous, hard sandstone.
185-715 ft (530 ft): Kootenai Fm
Upper formation from 185 to 285 feet is very fine grained, silty, argillaceous sandstone with occasional gray, reddish-brown, and purplish gray claystone.
Pale brown and gray, micritic and oolitic limestone occurs from 285 to 355 feet.
Interbeds of claystone, siltstone, sandstone and limestone occur from 355 to 625 feet. Vibrant red discharge occurs when drilling claystone/siltstone of same color.
From 625 to 715 feet gray, medium to coarse grained, siliceous and kaolinite cemented sandstone occurs, with claystone interbeds.
715-730 ft (15 ft): Morrison Fm
Dark gray shale.
0
25
5
50
100
130
150
200
225
250
250+
6-in gate valve and well cap set onto top of casing
SWL 38.5 ft bgs 11/6/2020
Cement/bentonite (5%) grout
10-3/4 inch Borehole
6-5/8 inch Steel Casing 0.25-in wall, 17 lb/ft
122 ft Bottom of Cased Hole
6-inch Open Borehole
730 ft
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700


Well Name: Test Well TW#8
GWIC ID: 315480
Depth
Lithology
Rate (gpm)
Well Construction
ft bgs
0-85 ft (85 ft): Till
High clay content till with gravel and sand. Clasts are a mixture of sedimentary and igneous rocks.
85-390 ft (305 ft) Thermopolis Fm
Yellow to light gray clay (weathered shale)
Dark gray carbonaceous shale with occasional pyrite, exhibits poor fissility and does not react to HCl. Drills moderately soft. May include softer clay laminae.
315-390 ft (75 ft) Basal Sandstone
Light gray, very fine to fine sandstone (quartz arenite) with silica cement and occasional pyrite. Drills hard to very hard.
390-396 ft (6 ft): Kootenai Fm
Vari-colored claystone/mudstone with reddish brown chips and reddish-orange discharge
0
50
100
150
200
250
300
350
400
SWL 3 ft bgs
7/13/21
Bentonite 3/8" Chips
11 sx @ 50lbs ea.
SWL Till 36 ft
7/6/21
10-3/4" Borehole
6-5/8" Steel Casing,
17lbs/ft, 0.25" Wall
Cement/Bentonite Grout
44 sx, 210lbs, 375 gal
136 ft
6" Open Hole
396 ft

APPENDIX C – WATER RIGHTS

MEADOW VILLAGE NOS. 1, 2, 3, 4, 5
HIDDEN VILLAGE NO. 1

PROVISIONAL PERMIT NO: **41H 107416 00**
COMPLETION DATE: **12/31/2033**

This permit was filed in 1999 by the District for 985 gpm and 1,307.38 acre-feet per year from the listed diversions. It was originally filed for Meadow Village Nos. 1 – 3, and Hidden Village No. 1. In 2007, Meadow Village Nos. 4 and 5 were added by a change application. Pursuant to a request by the District in 2015, the Completion Date was extended to 12/31/2033.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

Water Right Number: 41H 107416-00 PROVISIONAL PERMIT

Version: 2 -- CHANGE AUTHORIZATION

Version Status: ACTIVE

Owners:

BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

MEADOW VILLAGE NOS. 1, 2, 3, 4, 5

HIDDEN VILLAGE NO. 1

Priority Date: NOVEMBER 15, 1999 at 11:30 A.M.

Enforceable Priority Date: NOVEMBER 15, 1999 at 11:30 A.M.

Purpose (use): MUNICIPAL

Maximum Flow Rate: 985.00 GPM

Maximum Volume: 1,307.38 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSWNE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 50.00 FEET
Static Water Level: 11.00 FEET
Casing Diameter: 6.63 INCHES
Pump Size: 25.00 HP

2		SESENW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 59.00 FEET
Static Water Level: 14.00 FEET
Casing Diameter: 6.00 INCHES
Pump Size: 20.00 HP

3		S2SENW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 67.00 FEET
Static Water Level: 33.00 FEET
Casing Diameter: 8.00 INCHES
Pump Size: 15.00 HP

4		SWSWNE	35	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 45.00 FEET
Static Water Level: 8.00 FEET
Casing Diameter: 6.63 INCHES
Pump Size: 7.50 HP

5		NESWNE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 56.00 FEET
Static Water Level: 10.40 FEET
Casing Diameter: 16.00 INCHES

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
6		NENWSW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO JANUARY 1
Diversion Means: WELL
Well Depth: 57.00 FEET
Static Water Level: 16.30 FEET
Casing Diameter: 16.00 INCHES

Purpose (Use): MUNICIPAL
Volume: 1,307.38 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			S2	25	6S	3E	GALLATIN
2				26	6S	3E	GALLATIN
3				27	6S	3E	GALLATIN
4				33	6S	3E	GALLATIN
5			SE	34	6S	3E	GALLATIN
6				35	6S	3E	GALLATIN
7				36	6S	3E	GALLATIN
8			N2	31	6S	4E	GALLATIN
9			N2SW	31	6S	4E	GALLATIN
10				1	7S	3E	GALLATIN
11			NE	2	7S	3E	GALLATIN

Remarks:

THE WATER RIGHTS FOLLOWING THIS STATEMENT ARE ASSOCIATED WHICH MEANS THE RIGHTS SHARE THE SAME OTHER.

107416-00 122634-00 122635-00

ASSOCIATED RIGHT

THIS PERMIT IS ASSOCIATED TO WATER RIGHT NOS. 41H-P49666-00, 41H-I69587-00, 41H-W122634-00, AND 41H-W122635-00. THEY SHARE COMMON WELLS, WHICH ARE MANIFOLD INTO AN EXISTING SYSTEM, USED TO SUPPLY THE MEADOW VILLAGE/ HIDDEN VILLAGE SERVICE AREA.

WATER MEASUREMENT-INLINE FLOW METER REQUIRED

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT TO RECORD THE FLOW RATE AND VOLUME OF WATER DIVERTED. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP MONTHLY WRITTEN RECORDS OF THE FLOW RATE AND VOLUME MEASUREMENTS AND SHALL SUBMIT THE RECORDS BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OR MODIFICATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. CONTACT THE REGIONAL OFFICE FOR THE CURRENT ADDRESS. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY. BOZEMAN - PH: 406-586-3136 FAX: 406-587-9726

PROGRESS REPORT REQUIRED

THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE RECORDS MUST BE SUBMITTED TO THE WATER RESOURCES REGIONAL OFFICE. CONTACT THE REGIONAL OFFICE LISTED BELOW TO OBTAIN THEIR CURRENT ADDRESS. BOZEMAN - PH: 406-586-3136 FAX: 406-587-9726

FORM NO 601 R11/96

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
48 NORTH LAST CHANCE GULCH P O BOX 201601 HELENA, MONTANA 59620-1601

Permit to Appropriate Water

THIS PROVISIONAL PERMIT TO APPROPRIATE WATER IS ISSUED TO:

BIG SKY COUNTY WATER & SEWER DIST #363
C/O RON EDWARDS
PO BOX 160670
BIG SKY MT 59716

UPON FINDING THAT THE REQUIREMENTS OF SECTION 85-2-311 MCA HAVE BEEN MET.

PERMIT NUMBER: 107416-41H

PRIORITY DATE: NOVEMBER 15, 1999 AT 11:30 A.M.

SOURCE: GROUNDWATER

DIVERSION: MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
SWSWNE SEC. 36 TWP. 06S RGE. 03E GALLATIN CO

MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
SESENW SEC. 36 TWP. 06S RGE. 03E GALLATIN CO

MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
S2SENW SEC. 36 TWP. 06S RGE. 03E GALLATIN CO

MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
SWSWNE SEC. 35 TWP. 06S RGE. 03E GALLATIN CO

TOTAL FLOW RATE: 985.00 GPM

TOTAL VOLUME: 1,307.38 ACRE FEET PER YEAR

USE: 985.00 GPM UP TO 1307.38 AC-FT (01/01-12/31)
FOR MUNICIPAL

PLACE OF USE: S2 SEC. 25 TWP. 06S RGE. 03E GALLATIN CO
FOR MUNICIPAL

SEC. 26 TWP. 06S RGE. 03E GALLATIN CO
FOR MUNICIPAL

SEC. 27 TWP. 06S RGE. 03E GALLATIN CO
FOR MUNICIPAL

SEC. 33 TWP. 06S RGE. 03E GALLATIN CO
FOR MUNICIPAL

SE SEC. 34 TWP. 06S RGE. 03E GALLATIN CO
FOR MUNICIPAL

SEC. 35 TWP. 06S RGE. 03E GALLATIN CO
FOR MUNICIPAL

SEC. 36 TWP. 06S RGE. 03E GALLATIN CO
FOR MUNICIPAL

N2 SEC. 31 TWP. 06S RGE. 04E GALLATIN CO
FOR MUNICIPAL

N2SW SEC. 31 TWP. 06S RGE. 04E GALLATIN CO
FOR MUNICIPAL

SEC. 1 TWP. 07S RGE. 03E GALLATIN CO
FOR MUNICIPAL

NE SEC. 2 TWP. 07S RGE. 03E GALLATIN CO
FOR MUNICIPAL

CONTINUED

FORM NO 601 R11/86

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
48 NORTH LAST CHANCE GULCH P O. BOX 201601 HELENA, MONTANA 59620-1601

Permit to Appropriate Water

PERMIT NUMBER: 107416-41H PAGE 2

** COMPLETION DEADLINE:
THE DEADLINE TO COMPLETE THIS PERMIT AND FILE A NOTICE OF COMPLETION OF PERMITTED WATER DEVELOPMENT (FORM 617) IS DECEMBER 31, 2015. IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, BY DECEMBER 31, 2015. OTHERWISE, THE PERMIT IS VOID.

** PRIOR RIGHTS:
THIS PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER; THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

** BACKFLOW PREVENTOR:
PURSUANT TO SECTION 85-2-505, MCA, TO PREVENT GROUNDWATER CONTAMINATION, AN OPERATIONAL BACK FLOW PREVENTOR MUST BE INSTALLED AND MAINTAINED BY THE APPROPRIATOR IF A CHEMICAL OR FERTILIZER DISTRIBUTION SYSTEM IS CONNECTED TO THE WELL.

** ASSOCIATED RIGHTS:
THIS PERMIT IS ASSOCIATED TO WATER RIGHT NOS. 41H-P49666-00, 41H-I69587-00, 41H-W122634-00, AND 41H-W122635-00. THEY SHARE COMMON WELLS, WHICH ARE MANIFOLD INTO AN EXISTING SYSTEM, USED TO SUPPLY THE MEADOW VILLAGE/ HIDDEN VILLAGE SERVICE AREA.

** WATER MEASUREMENT RECORDS REQUIRED:
THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT TO RECORD THE FLOW RATE AND VOLUME OF WATER DIVERTED. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT,. THE APPROPRIATOR SHALL KEEP MONTHLY WRITTEN RECORDS OF THE FLOW RATE AND VOLUME MEASUREMENTS AND SHALL SUBMIT THE RECORDS BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OR MODIFICATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. CONTACT THE REGIONAL OFFICE FOR THE CURRENT ADDRESS.
THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY.
BOZEMAN - PH: 406-586-3136 FAX: 406-587-9726

** PROGRESS REPORT:
THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE RECORDS MUST BE SUBMITTED TO THE WATER RESOURCES REGIONAL OFFICE. CONTACT THE REGIONAL OFFICE LISTED BELOW TO OBTAIN THEIR CURRENT ADDRESS.
BOZEMAN - PH: 406-586-3136 FAX: 406-587-9726

** OWNERSHIP UPDATE:
IF THE OWNERSHIP CHANGES ON ANY PORTION OF OR ALL OF THIS RIGHT, A WATER RIGHT OWNERSHIP UPDATE, FORM 608, MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.

FAILURE TO COMPLY WITH ANY OF THE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THE WATER RIGHT GRANTED BY THIS PERMIT.

Jan R Mack
WITNESS

Scott Compton
WATER RESOURCES REGIONAL MANAGER

DATE: AUGUST 29, 2000 WATER RIGHTS BUREAU, WATER RESOURCES DIVISION

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

CHANGE AUTHORIZATION

UPON FINDING THE REQUIREMENTS OF SECTION 85-2-402, MCA HAVE BEEN MET, APPLICATION TO CHANGE WATER RIGHT NUMBER 41H-30026963 SUBMITTED ON MARCH 5, 2007, IS APPROVED.

Application From: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716 0670

MEADOW VILLAGE NOS. 1, 2, 3, 4, 5
HIDDEN VILLAGE NO. 1

Water Right Number(s) Changed:	Wr #	Ext	Type	
	41H-107416	00	PROVISIONAL PERMIT	(This change added MV-4 and MV-5)

Authorization Limits

Flow Rate: 985.00 GPM

Volume: 1,307.38 AC-FT

Change Description:

THIS CHANGE ADDS TWO ADDITIONAL WELLS TO THE FOUR PERMITTED WELLS. ALL SIX WELLS WILL BE MANIFOLD TO SUPPLY THE PERMITTED PLACE OF USE. THE PERMITTED 985 GPM, UP TO 1,307.38 ACRE-FEET REMAINS UNCHANGED.

COMPLETION DEADLINE

THE DEADLINE TO COMPLETE THIS AUTHORIZATION AND FILE A PROJECT COMPLETION NOTICE FOR CHANGE OF APPROPRIATION WATER RIGHT (FORM 618) IS **DECEMBER 31, 2015** . IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, BY **DECEMBER 31, 2015** . OTHERWISE, THE AUTHORIZATION IS VOID.

CONDITIONAL APPROVAL

THIS AUTHORIZATION IS LIMITED TO THE AMOUNT OF THE HISTORIC USE RECOGNIZED BY THE DEPARTMENT IN THIS PROCEEDING AS SUBJECT TO CHANGE, AND WILL THEREAFTER NOT EXCEED THAT AMOUNT. IF THE HISTORIC USE IS REDUCED UNDER ADJUDICATION PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, PART 2, MCA, THIS AUTHORIZATION WILL BE LIMITED TO A LESSER AMOUNT.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS CHANGE AUTHORIZATION.

Jan R Mack
Witness Signature

Scott Compton
Water Resources Division

DATE ISSUED: JUNE 14, 2007

THE INFORMATION SHOWN BELOW REFLECTS THE ENTIRE WATER RIGHT.
AN ASTERISK (*) HAS BEEN PLACED NEXT TO EACH ITEM ALTERED BY THIS CHANGE AUTHORIZATION.

Water Right Number: 41H 107416-00 PROVISIONAL PERMIT
Version: 2 -- CHANGE AUTHORIZATION
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716 0670

Priority Date: NOVEMBER 15, 1999 at 11:30 A.M.
Enforceable Priority Date: NOVEMBER 15, 1999 at 11:30 A.M.

Purpose (use): MUNICIPAL
Maximum Flow Rate: 985.00 GPM
Maximum Volume: 1,307.38 AC-FT
Source Name: GROUNDWATER
Source Type: GROUNDWATER

***Point of Diversion and Means of Diversion:**

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSWNE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 50.00 FEET
Static Water Level: 11.00 FEET
Casing Diameter: 6.63 INCHES
Pump Size: 25.00 HP

2		SESENW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 59.00 FEET
Static Water Level: 14.00 FEET
Casing Diameter: 6.00 INCHES
Pump Size: 20.00 HP

3		S2SENW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 67.00 FEET
Static Water Level: 33.00 FEET
Casing Diameter: 8.00 INCHES
Pump Size: 15.00 HP

4		SWSWNE	35	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 45.00 FEET
Static Water Level: 8.00 FEET
Casing Diameter: 6.63 INCHES
Pump Size: 7.50 HP

*5		NESWNE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 56.00 FEET
Static Water Level: 10.40 FEET
Casing Diameter: 16.00 INCHES

*6		NENWSW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO JANUARY 1
Diversion Means: WELL
Well Depth: 57.00 FEET
Static Water Level: 16.30 FEET
Casing Diameter: 16.00 INCHES

Purpose (Use): MUNICIPAL
Volume: 1,307.38 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			S2	25	6S	3E	GALLATIN
2				26	6S	3E	GALLATIN
3				27	6S	3E	GALLATIN
4				33	6S	3E	GALLATIN
5			SE	34	6S	3E	GALLATIN
6				35	6S	3E	GALLATIN
7				36	6S	3E	GALLATIN
8			N2	31	6S	4E	GALLATIN
9			N2SW	31	6S	4E	GALLATIN
10				1	7S	3E	GALLATIN
11			NE	2	7S	3E	GALLATIN

ASSOCIATED RIGHT

THIS PERMIT IS ASSOCIATED TO WATER RIGHT NOS. 41H-P49666-00, 41H-I69587-00, 41H-W122634-00, AND 41H-W122635-00. THEY SHARE COMMON WELLS, WHICH ARE MANIFOLD INTO AN EXISTING SYSTEM, USED TO SUPPLY THE MEADOW VILLAGE/ HIDDEN VILLAGE SERVICE AREA.

WATER MEASUREMENT-INLINE FLOW METER REQUIRED

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT TO RECORD THE FLOW RATE AND VOLUME OF WATER DIVERTED. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP MONTHLY WRITTEN RECORDS OF THE FLOW RATE AND VOLUME MEASUREMENTS AND SHALL SUBMIT THE RECORDS BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OR MODIFICATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. CONTACT THE REGIONAL OFFICE FOR THE CURRENT ADDRESS. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY. BOZEMAN - PH: 406-586-3136 FAX: 406-587-9726

PROGRESS REPORT REQUIRED

THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE RECORDS MUST BE SUBMITTED TO THE WATER RESOURCES REGIONAL OFFICE. CONTACT THE REGIONAL OFFICE LISTED BELOW TO OBTAIN THEIR CURRENT ADDRESS. BOZEMAN - PH: 406-586-3136 FAX: 406-587-9726

Form No 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

PROVISIONAL PERMIT/CHANGE AUTHORIZATION NUMBERS:

41H 12263500	(Change Authorization)
41H 107416-00	(Provisional Permit)
41H 30026963	(Change Authorization)
41H 6167399	(Change Authorization)
41H 12263499	(Change Authorization)

APPROVED

The requests for additional time to complete these projects are approved because the appropriator has shown diligence in completing the projects or shown good cause for not completing the projects.

The notice of completion deadlines are extended to **December 31, 2033**.

PROGRESS REPORTS DUE: Currently Required (See Extension of Time Decision)

Water Resources Regional Office — Date: 2/17/16

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

MEADOW VILLAGE NO. 1
MEADOW VILLAGE NOS. 2, 3
HIDDEN VILLAGE NO. 1

STATEMENT OF CLAIM NO: **41H 122635 00**
COMPLETION DATE: **12/31/2033 (Change Auth.)**

This statement of claim was originally filed by Big Sky of Montana Inc. for 220 gpm and 355 acre-feet. It appears that in 1986 the Water Court reexamined the claim and determined a volume of 177.89 acre-feet per year. This reduced volume first appears in 1994 under the owner Lone Mountain Springs Water Utility, who transferred the right to the District in 1999. In 1999 a change authorization was approved adding Meadow Village Nos. 2 and 3, and Hidden Village No. 1 as diversions on the right and changing the use to Municipal. In 2015 the District filed for an extension on the Change Authorization, which was granted to 12/31/2033.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

A version with a more recent operating authority date exists. Contact DNRC for details.

Water Right Number: 41H 122635-00 STATEMENT OF CLAIM

Version: 2 -- CHANGE AUTHORIZATION

Version Status: ACTIVE

THIS AUTHORIZATION IS LIMITED TO THE AMOUNT OF THE HISTORIC USE RECOGNIZED BY THE DEPARTMENT IN THIS PROCEEDING AS SUBJECT TO CHANGE, AND WILL THEREAFTER NOT EXCEED THAT AMOUNT. IF THE HISTORIC USE IS REDUCED UNDER ADJUDICATION PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, PART 2, MCA, THIS AUTHORIZATION WILL BE LIMITED TO A LESSER AMOUNT.

Owners:
BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

MEADOW VILLAGE NO. 1
MEADOW VILLAGE NO. 2
MEADOW VILLAGE NO. 3
HIDDEN VILLAGE NO. 1

Priority Date: APRIL 1, 1971

Enforceable Priority Date: APRIL 1, 1971

Purpose (use): MUNICIPAL

Maximum Flow Rate: 220.00 GPM

Maximum Volume: 177.89 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSWNE	36	6S	3E	GALLATIN
	Period of Diversion: JANUARY 1 TO DECEMBER 31					
	Diversion Means: WELL					
2		SESENW	36	6S	3E	GALLATIN
	Period of Diversion: JANUARY 1 TO DECEMBER 31					
	Diversion Means: WELL					
3		S2SENW	36	6S	3E	GALLATIN
	Period of Diversion: JANUARY 1 TO DECEMBER 31					
	Diversion Means: WELL					
4		SWSWNE	35	6S	3E	GALLATIN
	Period of Diversion: JANUARY 1 TO DECEMBER 31					
	Diversion Means: WELL					

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			S2	25	6S	3E	GALLATIN
2				26	6S	3E	GALLATIN
3				27	6S	3E	GALLATIN
4				33	6S	3E	GALLATIN
5			SE	34	6S	3E	GALLATIN
6				35	6S	3E	GALLATIN
7				36	6S	3E	GALLATIN
8			N2	31	6S	4E	GALLATIN
9			N2SW	31	6S	4E	GALLATIN
10				1	7S	3E	GALLATIN
11			NE	2	7S	3E	GALLATIN

Remarks:

THE WATER RIGHTS LISTED FOLLOWING THIS STATEMENT ARE ASSOCIATED. THEY SHARE THE SAME WELLS. P049666-00, P107416-00, W122634-00, W122635-00

Remarks:

AUTHORIZATION TO CHANGE THE PLACE OF USE, POINTS OF DIVERSION, PURPOSE OF USE ISSUED 08/28/00. NOTICE OF COMPLETION DUE 12/31/15. SEE 41H-G(W)122635-00 .

NOTICE OF WATER RIGHT TRANSFER RECEIVED 01/20/94.

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/99.

THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE REPORTS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE.

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

C

Form No. 76-O R2/80

RECEIVED
MAR 15 1982
MONTANA D.N.R.C.
BOZEMAN FIELD OFFICE

122635 41H

STATEMENT OF CLAIM FOR EXISTING WATER RIGHTS

OTHER USES

For the Water Courts of the State of Montana

GA-U
10-105-01-01

40

1. **Owner of Water Right** BIG SKY OF MONTANA INC / / (Last / First / Middle Initial)

   Co-Owner or Other Interest Owner / / (Last / First / Middle Initial)

   Address P.O. BOX 1

   City BIG SKY State MONTANA Zip Code 59716

   Home Phone No. 995-4211 Business Phone No.

2. **Person completing form** TOUT / RAYMOND / J (Last / First / Middle Initial)

   Address P.O. BOX 806

   City BIG SKY, State MONTANA Zip Code 59716

   Home Phone No. 995-4304 Business Phone No. 995-4211

3. **Use:** (Check Only One)

FR ☐ Fish Raceways	GE ☐ Geothermal	MN ☐ Mining
FW ☐ Fish & Wildlife	NV ☐ Navigation	PG ☐ Power Generation
CM ☒ Commercial	FP ☐ Fire Protection	RC ☐ Recreation
IN ☐ Industrial	AS ☐ Agricultural Spraying	OT ☐ Other
MC ☐ Municipal	OF ☐ Oil Well Flooding	Explain

4. **Source of Water:** (Check Only One)

   ☐ Spring Name

   ☒ Well Name Spotted Elk

   ☐ Stream Name Tributary of

   ☐ Lake Name Stream

   Tributary of

   ☐ Reservoir Name Stream

   Tributary of

5. **Point of Diversion:** County GALLATIN

   SW ¼ SW ¼ NE ¼, Section 36, T 6 N/S, R 3 E/W

   Lot , Block , Subdivision Meadow Village

6. **Means of Diversion:** ONRC

   ☒ Well

   ☒ Pump Capacity 200 gpm

   ☐ Headgate with ditch or pipeline

   ☐ Instream use

   ☐ Other Explain

   PM

7. **Means of Conveyance:**

   ☐ Ditch ☐ Instream

   ☒ Pipeline ☐ Other:

8. **Place of Use:** County Gallatin

☐ Instream ☐ City or Town ☐ Other: Explain _____

_____ Lot, _____ Block, _____ ¼ _____ ¼ _____ ¼, Section 36, T 6 N/S, R 3 E/W

_____ Lot, _____ Block, _____ ¼ _____ ¼ SE ¼, Section 35, T 6 N/S, R 3 E/W

_____ Lot, _____ Block, S ½ S ½ NE ¼, Section 35, T 6 N/S, R 3 E/W

_____ Lot, _____ Block, _____ ¼ _____ ¼ _____ ¼, Section _____, T _____ N/S, R _____ E/W

_____ Lot, _____ Block, _____ ¼ _____ ¼ _____ ¼, Section _____, T _____ N/S, R _____ E/W

Subdivision MEADOW VILLAGE & Sweetgrass Hills

9. **Flow rate claimed:** 220

☐ cubic feet per second
☒ gallons per minute
☐ miner's inches

10. **Volume claimed:** 355 acre-feet per year

11. **Period(s) of use:** JAN (Month) 1 (Day) to DEC (Month) 31 (Day)

12. **Check one:**

☐ Decreed Water Right
☐ Filed Appropriation Right
☒ Use Water Right

Priority date or date of first use

8:10AM (Hour) July (Month) 1 (Day) 1971 (Year)

13. **Attach** copies of the Decree, Record of Filing or Proof of Use Right.

14. **Attach** copies of aerial photographs, U.S. Geological Survey maps or such other documents necessary to show point of diversion, place of use, place of storage, and conveyance facilities.

DMRC

15. **Notarized Statement signed by claimant.**

STATE OF MONTANA)
:ss.
County of Gallatin)

I, Raymond J. Lott, having been duly sworn, depose and say that I, being of legal age and being the claimant of this claim of existing water right, and the person whose name is signed to it as the claimant, know the contents of this claim and the matters and things stated there are true and correct.

_____

_____

Subscribed and sworn before me, this 7th day of March 19 82.

_____
Notary Public for the State of Montana

Residing at Big Sky, Montana

My Commission expires 1/15/83

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-122635-00 PRIORITY DATE:* 08:00 ~~07~~ 04/01/1971 TYPE OF RIGHT: USE CLAIM RECEIVED: 03/15/82 FEE PAID: $40

TYPE CODE: G MAX RATE: 220.00 G (MI) MAX VOLUME: 355.00 AF/YEAR MAX ACRES: 0.00

OWNERS: (M) C BIG SKY OF MONTANA
BOX 1
BIG SKY MT 59716

				LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	
SOURCES:	WL 01	WELL				SWSWNE	36	06S	03E	GA	YIELD RATE 200 G
USE:	CM 01	0.00 ACRES	PERIOD OF USE 19999999997								

		ACRES	VER. ACRES	WRS 19__	19__	LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	REMARKS
PARCELS:	001	0.00							36	06S	03E	GA	
	002	0.00						SE	35	06S	03E	GA	
	003	0.00						S2S2NE	35	06S	03E	GA	
	TOTAL	0.00											

ADDENDUMS: _YES ✓NO (_DVRS _RSRV _POU _RMRK _OWNR) COMMENTS

_SUPPLEMENTAL IF REF. RIGHT, MAX COMBINED VOLUME FOR ALL RIGHTS _,___,___.__ AF MAX COMBINED ACRES FOR ALL RIGHTS __,___.__
RIGHTS: IF SUPPLEMENTAL RIGHT, PURPOSE ID __ __ AND CLAIM ID ____ - _____ __ OF REF. RIGHT

********** FIELD VERIFICATION FORM **********

COMPARISON STATISTICS: VOLUME BASED ON FLOW RATE AND PERIOD OF USE 357.867 AF/YR - OVER CLAIMED VOLUME

BASIN OK: ✓YES _NO COMMENTS

SOURCE NAME OK: ✓YES _NO (FROM: _USGS TOPO MAP_____, _WR SURVEY) COMMENTS

TYPE CD (S/G) OK: ✓YES _NO COMMENTS

POD OK: WL 01 _YES _NO ✓APPEARS CORRECT _UNVERIFIED (FROM: ✓CLMNTS MAP _GRID ON FLNG) COMMENTS

PROOF OF USE: CLAIMED FLOW RATE OK: _YES ✓NO _NONE GIVEN COMMENTS FILING IS 2006PM

CLAIMED PRTY DATE OK: _YES ✓NO COMMENTS FILING 04/01/1971

FLOW RATE OK: ✓YES _NO COMMENTS

VOLUME OK: ✓YES _NO COMMENTS

MAL

ACKNOWLEDGEMENT OF WATER RIGHT TRANSFER
FROM
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATON
STATE OF MONTANA

WATER RIGHT NUMBER 41H -W-122635-00

****
WE HAVE RECEIVED AND RECORDED A TRANSFER OF WATER RIGHT OWNERSHIP IN WHICH YOU WERE NAMED AS A PARTY. THE RECORDS MAINTAINED BY THE WATER RIGHTS BUREAU HAVE BEEN CHANGED TO REFLECT THE NEW OWNERSHIP ACCORDING TO THE WATER RIGHT TRANSFER. THE ABSTRACT BELOW SHOWS THE CURRENT WATER RIGHT INFORMATION. BOTH BUYER AND SELLER HAVE BEEN SENT THIS ACKNOWLEDGEMENT.

PLEASE NOTE THAT THIS WATER RIGHT IS IN A TEMPORARY PRELIMINARY OR PRELIMINARY DECREE ISSUED BY THE MONTANA WATER COURTS. THE NEW OWNER MAY WISH TO DETERMINE THE STATUS OF THIS RIGHT IN THE ONGOING ADJUDICATION BY THE MONTANA WATER COURTS.

IF YOU HAVE QUESTIONS, PLEASE CONTACT YOUR LOCAL WATER RESOURCES REGIONAL OFFICE. BOZEMAN REGIONAL OFFICE, 586-3136.
**********DNRC*LOCATE*##* *0* *000000***

OWNERS: LONE MOUNTAIN SPRING WATER UTILITY
PO BOX 160066
BIG SKY MT 59716

FILMED

JUN 14 1994

PRIORITY DATE: APR 1, 1971

FLOW RATE: 220.00 GALLONS PER MINUTE (G)

VOLUME: 177.89 ACRE FEET PER YEAR (AF)

SOURCE: WELL

PURPOSE:

USE	FLOW	VOLUME (AF)	ACRES	PERIOD OF USE
COMMERCIAL	220.00 G	177.89		JAN 1 TO DEC 31

POINTS OF DIVERSION AND MEANS OF DIVERSION:

WELL:

LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY
		SWSWNE	36	06S	03E	GALLATIN

PLACE OF USE FOR COMMERCIAL:

ACRES	LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY
001				36	06S	03E	GALLATIN
002			SE	35	06S	03E	GALLATIN
003			S2S2NE	35	06S	03E	GALLATIN

** TRANSFER OF OWNERSHIP:
UPON A CHANGE IN OWNERSHIP OF ALL OR ANY PORTION OF THIS CLAIM, THE PARTIES TO THE TRANSFER SHALL FILE WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATON A WATER RIGHT TRANSFER CERTIFICATE, FORM 608, PURSUANT TO SECTION 85-2-424, MCA.

REMARKS: NOTICE OF TRANSFER RECEIVED 1/20/94.

FORM NO. 620 R10/97

State of Montana
Department of Natural Resources and Conservation
48 N. Last Chance Gulch · PO Box 201601 · Helena, Montana 59620-1601

Authorization to Change Appropriation Water Right

PURSUANT TO SECTION 85-2-402, MCA, APPLICATION TO CHANGE A WATER RIGHT NO. 41H G(W)122635-00 SUBMITTED ON FEBRUARY 12, 1999 IS APPROVED.

OWNER:	BIG SKY COUNTY WATER & SEWER DISTRICT NO. 363 C/O RON EDWARDS PO BOX 160670 BIG SKY, MT 59716
WATER RIGHT:	STATEMENT OF CLAIM
NUMBER:	41H-W122635-00
PRIORITY DATE:	APRIL 1, 1971
SOURCE:	GROUNDWATER
USE:	COMMERCIAL

MEADOW VILLAGE NO. 1
ADDS DIVERSIONS:
MEADOW VILLAGE NO. 2
MEADOW VILLAGE NO. 3
HIDDEN VILLAGE NO. 1

THE DEPARTMENT AUTHORIZES THE FOLLOWING CHANGES:

NEW PURPOSE: MUNICIPAL USE

NEW PLACE OF USE: S2 SEC 25, SEC 26, SEC 27, SEC 33, SE SEC 34, SEC 35, SEC 36 T06S R03E; N2 SEC 31, N2SW SEC 31, T06S R04E; SEC 1, NE SEC 2 T07S R03E, GALLATIN COUNTY

ADDITIONAL POINTS OF DIVERSION: SESENW SEC 36, S2SENW SEC 36, SWSWNE SEC 35, T06S R03E, GALLATIN COUNTY

****COMPLETION DEADLINE:**
THE DEADLINE TO COMPLET THIS AUTHORIZATION AND FILE A NOTICE OF COMPLETION OF CHANGE OF APPROPRIATION WATER RIGHT (FORM 618) IS DECEMBER 31, 2015. IF EYOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, AT LEAST THIRTY DAYS BEFORE DECEMBER 31, 2015. OTHERWISE, THE AUTHORIZATION IS VOID.

****PROGRESS REPORT REQUIRED:**
THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE REPORTS MUST BE SENT TO THE BOZEMAN WATER RESOURCES REGIONAL OFFICE.

****WATER MEASUREMENT RECORDS REQUIRED:**
THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CASE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE BOZEMAN WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME

FORM NO. 620 R10/97

State of Montana
Department of Natural Resources and Conservation
48 N. Last Chance Gulch • PO Box 201601 • Helena, Montana 59620-1601

Authorization to Change Appropriation Water Right

**__ASSOCIATED REMARK:__

THE CHANGE IS ASSOCIATED TO WATER RIGHT NUMBERS: 41H-P49666-00, 41H W107416, 41H I069587-00 AND 41H 122634-00. THIS IS MANIFOLD INTO AN EXISTING SYTEM, USED TO SUPPLY THE MEADOW VILLAGE/HIDDEN VILLAGE SERVICE AREA.

**__CONDITIONAL APPROVAL__

THE APPROVAL OF THIS CHANGE IS NOT BE CONSTRUED AS RECOGNITION BY THE DEPARTMENT OF THE WATER RIGHTS INVOLVED. ALL WATER RIGHTS ARE SUBJECT TO POSSIBLE MODIFICATION UNDER THE PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, MCA, AND 85-2-404, MCA.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS AUTHORIZATION TO CHANGE.

Jan R Mark
WITNESS

Scott Compton
WATER RESOURCES DIVISION August 28, 2000

Form No 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

PROVISIONAL PERMIT/CHANGE AUTHORIZATION NUMBERS:

41H 12263500	(Change Authorization)
41H 107416-00	(Provisional Permit)
41H 30026963	(Change Authorization)
41H 6167399	(Change Authorization)
41H 12263499	(Change Authorization)

APPROVED

The requests for additional time to complete these projects are approved because the appropriator has shown diligence in completing the projects or shown good cause for not completing the projects.

The notice of completion deadlines are extended to **December 31, 2033**.

PROGRESS REPORTS DUE: Currently Required (See Extension of Time Decision)

Water Resources Regional Office — Date: 2/17/16

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

HIDDEN VILLAGE NO. 1
MEADOW VILLAGE NOS. 1, 2, 3

STATEMENT OF CLAIM NO: **41H 122634 00**
COMPLETION DATE: **12/31/2033 (Change Auth.)**

This statement of claim was originally filed by Big Sky of Montana Inc for 85 gpm and 137 acre-feet per year from the Hidden Village No. 1 well. In 1986, DNRC reexamination reduced the volume to 68.73 acre-feet per year. In 1999, Lone Mountain Spring Water Utility transferred ownership to the District. Also in 1999, the District filed a change authorization that was approved adding Meadow Village Nos. 1, 2 and 3 as diversions on the right and changing the use to Municipal. In 2015, the District filed for an extension on the change to 12/31/2033.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

A version with a more recent operating authority date exists. Contact DNRC for details.

Water Right Number: 41H 122634-00 STATEMENT OF CLAIM

Version: 2 -- CHANGE AUTHORIZATION

Version Status: ACTIVE

THIS AUTHORIZATION IS LIMITED TO THE AMOUNT OF THE HISTORIC USE RECOGNIZED BY THE DEPARTMENT IN THIS PROCEEDING AS SUBJECT TO CHANGE, AND WILL THEREAFTER NOT EXCEED THAT AMOUNT. IF THE HISTORIC USE IS REDUCED UNDER ADJUDICATION PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, PART 2, MCA, THIS AUTHORIZATION WILL BE LIMITED TO A LESSER AMOUNT.

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

HIDDEN VILLAGE NO. 1
MEADOW VILLAGE NO. 1
MEADOW VILLAGE NO. 2
MEADOW VILLAGE NO. 3

Priority Date: APRIL 1, 1971

Enforceable Priority Date: APRIL 1, 1971

Purpose (use): MUNICIPAL

Maximum Flow Rate: 85.00 GPM

Maximum Volume: 68.73 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSWNE	35	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL

2		SWSWNE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL

3		SESENW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL

4		S2SENW	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			S2	25	6S	3E	GALLATIN
2				26	6S	3E	GALLATIN
3				27	6S	3E	GALLATIN
4				33	6S	3E	GALLATIN
5			SE	34	6S	3E	GALLATIN
6				35	6S	3E	GALLATIN
7				36	6S	3E	GALLATIN
8			N2	31	6S	4E	GALLATIN
9			N2SW	31	6S	4E	GALLATIN
10				1	7S	3E	GALLATIN
11			NE	2	7S	3E	GALLATIN

Remarks:

THE WATER RIGHTS LISTED FOLLOWING THIS STATEMENT ARE ASSOCIATED. THEY SHARE THE SAME WELLS. P049666-00, P107416-00, W122634-00, W122635-00.

Remarks:

AUTHORIZATION TO CHANGE THE PLACE OF USE,POINTS OF DIVERSION, PURPOSE OF USE ISSUED 08/28/00. NOTICE OF COMPLETION DUE 12/31/15. SEE 41H-G(W)122634-00 .

NOTICE OF WATER RIGHT TRANSFER RECEIVED 01/20/94.

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/99.

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

Form No 76-O R2/80

122634

41H

GA-U
ID-105-01-01
40

STATEMENT OF CLAIM FOR EXISTING WATER RIGHTS

OTHER USES

For the Water Courts of the State of Montana

RECEIVED
MAR 15 1982
MONTANA D.N.R.C.
BOZEMAN FIELD OFFICE

1. **Owner of Water Right** BIG SKY OF MONT INC / / (Last / First / Middle Initial)

Co-Owner or Other Interest Owner / / (Last / First / Middle Initial)

Address P.O. Box 1

City Big Sky State Mont Zip Code 59716

Home Phone No. 995-4211 Business Phone No.

2. **Person completing form** Tout / Raymond / J (Last / First / Middle Initial)

Address P.O. Box 806

City Big Sky Mont State Montana Zip Code 59716

Home Phone No. 995-4304 Business Phone No. 995-4211

3. **Use:** (Check Only One)

FR ☐ Fish Raceways	GE ☐ Geothermal	MN ☐ Mining
FW ☐ Fish & Wildlife	NV ☐ Navigation	PG ☐ Power Generation
CM ☒ Commercial	FP ☐ Fire Protection	RC ☐ Recreation
IN ☐ Industrial	AS ☐ Agricultural Spraying	OT ☐ Other
MC ☐ Municipal	OF ☐ Oil Well Flooding	Explain

4. **Source of Water:** (Check Only One)

☐ Spring Name

☒ Well Name Mobil Home & Hidden Village,

☐ Stream Name Tributary of

☐ Lake Name Stream

Tributary of

☐ Reservoir Name Stream

Tributary of

5. **Point of Diversion:** County Gallatin

SW ¼ SW ¼ NE ¼, Section 35, T 6 N/S, R 3 E/W

Lot , Block , Subdivision

DNRC

6. **Means of Diversion:**

☒ Well

☒ Pump Capacity 85 gpm

PM

☐ Headgate with ditch or pipeline

☐ Instream use

☐ Other Explain

7. **Means of Conveyance:**

☐ Ditch ☐ Instream

☒ Pipeline ☐ Other:

8. **Place of Use:** County Gallatin

☐ Instream ☐ City or Town ☐ Other: Explain _____

_____ Lot, _____ Block, _____ ¼ _____ ¼ SW ¼, Section 35, T 6 N/S, R 3 E/W

_____ Lot, _____ Block, _____ ¼ _____ ¼ _____ ¼, Section _____, T _____ N/S, R _____ E/W

_____ Lot, _____ Block, _____ ¼ _____ ¼ _____ ¼, Section _____, T _____ N/S, R _____ E/W

_____ Lot, _____ Block, _____ ¼ _____ ¼ _____ ¼, Section _____, T _____ N/S, R _____ E/W

_____ Lot, _____ Block, _____ ¼ _____ ¼ _____ ¼, Section _____, T _____ N/S, R _____ E/W

Subdivision _____

9. **Flow rate claimed:** 85

☐ cubic feet per second
☒ gallons per minute
☐ miner's inches

10. **Volume claimed:** 137 acre-feet per year

11. **Period(s) of use:** Jan (Month) 1 (Day) to DEC (Month) 31 (Day)

12. **Check one:**

☐ Decreed Water Right
☒ Filed Appropriation Right
☐ Use Water Right

Priority date or date of first use: 8:00AM (Hour) June (Month) 1 (Day) 1971 (Year)

13. **Attach** copies of the Decree, Record of Filing or Proof of Use Right.

14. **Attach** copies of aerial photographs, U.S. Geological Survey maps or such other documents necessary to show point of diversion, place of use, place of storage, and conveyance facilities. DNRC

15. **Notarized Statement signed by claimant.**

STATE OF MONTANA)
:ss.
County of Gallatin)

I, Raymond J. Smith, having been duly sworn, depose and say that I, being of legal age and being the claimant of this claim of existing water right, and the person whose name is signed to it as the claimant, know the contents of this claim and the matters and things stated there are true and correct.

_____

_____

Subscribed and sworn before me, this 13th day of March 1982.

_____
Notary Public for the State of Montana

Residing at Big Sky, Montana

My Commission expires 1/15/83

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-122634-00 PRIORITY DATE:* 08:00 ~~06~~ 04/01/1971 TYPE OF RIGHT: FILED CLAIM RECEIVED: 03/15/82 FEE PAID: $40

TYPE CODE: G MAX RATE: 85.00 G (MI) MAX VOLUME: 137.00 AF/YEAR MAX ACRES: 0.00

OWNERS: (M) C BIG SKY OF MONTANA
BOX 1
BIG SKY MT 59716

			LOT	BLK	QTR SEC	SEC	TWP	RGE	CO		
SOURCES: WL 01	WELL				SWSWNE	35	06S	03E	GA	YIELD RATE	85 G

USE: CM 01 0.00 ACRES PERIOD OF USE 19999999997

	ACRES	VER. ACRES	WRS 19__	19__	LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	REMARKS
PARCELS: 001	0.00						SW	35	06S	03E	GA	
TOTAL	0.00											

ADDENDUMS: _YES ✓NO (_DVRS _RSRV _POU _RMRK _OWNR) COMMENTS

SUPPLEMENTAL RIGHTS: IF REF. RIGHT, MAX COMBINED VOLUME FOR ALL RIGHTS _.___.___.__ AF MAX COMBINED ACRES FOR ALL RIGHTS __.___.__
IF SUPPLEMENTAL RIGHT, PURPOSE ID __ __ AND CLAIM ID ____ _ _____ __ OF REF. RIGHT

********** FIELD VERIFICATION FORM **********

COMPARISON STATISTICS: VOLUME BASED ON FLOW RATE AND PERIOD OF USE 138.267 AF/YR - OVER CLAIMED VOLUME

BASIN OK: ✓YES _NO COMMENTS

SOURCE NAME OK: ✓YES _NO (FROM: _USGS TOPO MAP_____, _WR SURVEY) COMMENTS

TYPE CD (S/G) OK: ✓YES _NO COMMENTS

POD OK: WL 01 _YES _NO ✓APPEARS CORRECT _UNVERIFIED (FROM: _CLMNTS MAP _GRID ON FLNG) COMMENTS

PROOF OF USE: CLAIMED FLOW RATE OK: _YES ✓NO _NONE GIVEN COMMENTS

CLAIMED PRTY DATE OK: _YES ✓NO COMMENTS FILING DATE IS 04/01/1971

FLOW RATE OK: ✓YES _NO COMMENTS

VOLUME OK: ✓YES _NO COMMENTS

PRIORITY DATE OK: ✓YES _NO (_APPLIED LAST MONTH OF YR _APPLIED LAST DAY OF MONTH) COMMENTS

PERIOD OF USE OK: ✓YES _NO COMMENTS

MRL

SELECTED OTHER USE CLAIMS
BASIN 41H
ABSTRACT OF WATER RIGHT

WATER RIGHT NUMBER 41H -W-122634-00

OWNERS: BIG SKY OF MONTANA INC
PO BOX 1
BIG SKY MT 59716

PRIORITY DATE: APR 1, 1971

FLOW RATE: 85.00 GPM

VOLUME: 68.73 ACRE FEET PER YEAR

SOURCE: WELL

PURPOSE (USE): COMMERCIAL

PERIOD OF USE: JAN 1 TO DEC 31

POINTS OF DIVERSION AND MEANS OF DIVERSION:

LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY	
		SWSWNE	35	06S	03E	GALLATIN	WELL

PLACE OF USE FOR COMMERCIAL

ACRES	LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY
001			SW	35	06S	03E	GALLATIN

REMARKS: SEE GENERAL FINDINGS OF FACT AND CONCLUSIONS OF LAW FOR FURTHER DELINEATION OF THIS RIGHT.

FORM NO. 620 R10/97

State of Montana
Department of Natural Resources and Conservation
48 N. Last Chance Gulch · PO Box 201601 · Helena, Montana 59620-1601

Authorization to Change Appropriation Water Right

PURSUANT TO SECTION 85-2-402, MCA, APPLICATION TO CHANGE A WATER RIGHT NO. 41H G(W)122634-00 SUBMITTED ON FEBRUARY 12, 1999 IS APPROVED.

HIDDEN VILLAGE NO. 1
ADDS DIVERSIONS:
MEADOW VILLAGE NO. 1
MEADOW VILLAGE NO. 2
MEADOW VILLAGE NO. 3

OWNER: BIG SKY COUNTY WATER & SEWER DISTRICT #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716

WATER RIGHT: STATEMENT OF CLAIM

NUMBER: 41H W122634-00

PRIORITY DATE: APRIL 1, 1971

SOURCE: GROUNDWATER

USE: COMMERCIAL

THE DEPARTMENT AUTHORIZES THE FOLLOWING CHANGES:

NEW **PURPOSE:** MUNICIPAL

NEW PLACE OF USE: S2 SEC 25, SEC 26, SEC 27, SEC 33, SE SEC 34, SEC 35, SEC 36 T06S R03E; N2 SEC 31, N2SW SEC 31 T06S R04E; SEC 1, NE SEC 2 T07S R03E, GALLATIN COUNTY

ADDITIONAL POINTS OF DIVERSION: SWSWNE SEC 36, SESENW SEC 36, S2 SENW SEC 36 T06S R03E, GALLATIN COUNTY

****WATER MEASUREMENT RECORDS REQUIRED:**
THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CASE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE BOZEMAN WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME.

PROGRESS REPORT REQUIRED:
THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE REPORTS MUST BE SENT TO THE BOZEMAN WATER RESOURCES REGIONAL OFFICE.

****ASSOCIATED REMARK:**
THIS CHANGE IS ASSOCIATED TO WTER RIGHT NOS. 41H P49666-00, 41H-P107416-00, 41H I069587-00 AND 41H W122635-00. THEY SHARE COMMON WELLS, WHICH ARE MANIFOLD INTO AN EXISTING SYSTEM, USED TO SUPPLY THE MEADOW VILLAGE/HIDDEN VILLAGE SERVICE AREA.

FORM NO. 620 R10/97

State of Montana
Department of Natural Resources and Conservation
48 N. Last Chance Gulch · PO Box 201601 · Helena, Montana 59620-1601

Authorization to Change Appropriation Water Right

**__COMPLETION DEADLINE:__
THE DEADLINE TO COMPLETE THIS AUTHORIZATION AND FILE A NOTICE OF COMPLETION OF CHANGE OF APPROPRIATION WATER RIGHT (FORM 618) IS DECEMBER 31, 2015. IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, AT LEAST THIRTY DAYS BEFORE DECEMBER 31, 2015. OTHERWISE, THE AUTHORIZATION IS VOID.

**__CONDITIONAL APPROVAL__
THE APPROVAL OF THIS CHANGE IS NOT BE CONSTRUED AS RECOGNITION BY THE DEPARTMENT OF THE WATER RIGHTS INVOLVED. ALL WATER RIGHTS ARE SUBJECT TO POSSIBLE MODIFICATION UNDER THE PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, MCA, AND 85-2-404, MCA.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS AUTHORIZATION TO CHANGE.

Jan R Mack
WITNESS

Scott Compton
WATER RESOURCES DIVISION AUGUST 28, 2000

Form No 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

PROVISIONAL PERMIT/CHANGE AUTHORIZATION NUMBERS:

41H 12263500	(Change Authorization)
41H 107416-00	(Provisional Permit)
41H 30026963	(Change Authorization)
41H 6167399	(Change Authorization)
41H 12263499	(Change Authorization)

APPROVED

The requests for additional time to complete these projects are approved because the appropriator has shown diligence in completing the projects or shown good cause for not completing the projects.

The notice of completion deadlines are extended to **December 31, 2033**.

PROGRESS REPORTS DUE: Currently Required (See Extension of Time Decision)

Water Resources Regional Office — Date: 2/17/16

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

HIDDEN VILLAGE NO. 2

PROVISIONAL PERMIT NO: **41H 61673 00**
COMPLETION DATE: **12/31/2033**

This permit was approved in 1987 for 116 gpm and 90 acre-feet per year from Hidden Village No. 2, as the sole point of diversion, which remains the only diversion on the right to-date. It was transferred to the District in 1999. The District subsequently filed a change application to change the use to Municipal and also to modify the Place of Use. Extension of time to complete the right was also filed by the District in 2015, and is approved for 12/31/2033.

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

Water Right Number: 41H 61673-00 PROVISIONAL PERMIT
Version: 2 -- CHANGE AUTHORIZATION
Version Status: ACTIVE

Owners:
BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: OCTOBER 21, 1986 at 01:41 P.M.
Enforceable Priority Date: OCTOBER 21, 1986 at 01:41 P.M.
Purpose (use): MUNICIPAL
Maximum Flow Rate: 116.00 GPM
Maximum Volume: 90.00 AC-FT
Source Name: GROUNDWATER
Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWNWSW	35	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL

Purpose (Use): MUNICIPAL
Volume: 90.00 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			S2	25	6S	3E	GALLATIN
2				26	6S	3E	GALLATIN
3				27	6S	3E	GALLATIN
4				33	6S	3E	GALLATIN
5			SE	34	6S	3E	GALLATIN
6				35	6S	3E	GALLATIN
7				36	6S	3E	GALLATIN
8			N2	31	6S	4E	GALLATIN
9			N2SW	31	6S	4E	GALLATIN
10				1	7S	3E	GALLATIN
11			NE	2	7S	3E	GALLATIN

Remarks:

ASSOCIATED RIGHT

THE CHANGE IS ASSOCIATED TO WATER RIGHT NUMBERS: 41H P49666-00, 41H P107416, 41H I069587-00, 41H W 122634-00, AND 41H W122635-00. THIS IS MANIFOLDINTO AN EXISTING SYSTEM, USED TO SUPPLY THE MEADOW VILLAGE/HIDDEN VILLAGE SERVICE AREA.

GROUNDWATER WASTE & CONTAMINATION

THIS RIGHT IS SUBJECT TO SECTION 85-2-505, MCA, REQUIRING A WELL BE CONSTRUCTED SO IT WILL NOT ALLOW WATER TO BE WASTED OR CONTAMINATE OTHER WATER SUPPLIES OR SOURCES, AND A FLOWING WELL MUST BE CAPPED OR EQUIPPED SO THE FLOW OF THE WATER MAY BE STOPPED WHEN NOT BEING PUT TO BENEFICIAL USE.

GROUNDWATER WELL - ACCESS PORT

THE FINAL COMPLETION OF THE WELL(S) MUST INCLUDE AN ACCESS PORT OF AT LEAST .50 INCH SO THE STATIC LEVEL OF THE WELL MAY BE ACCURATELY MEASURED.

CHANGE AUTHORIZATION REMARKS

AUTHORIZATION TO CHANGE THE PLACE OF USE, PURPOSE OF USE ISSUED 08/28/00. NOTICE OF COMPLETION DUE 12/31/15 . SEE 41H-G(P)061763-00 .

IMPORTANT INFORMATION

THIS PERMIT WILL BE USED IN CONJUNCTION WITH STATEMENT OF CLAIM NO. 122634-41H.

Remarks:

WATER MEASUREMENT-INLINE FLOW METER REQUIRED

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

WATER MEASUREMENT - ANNUAL DATA

MEASUREMENT DATA: 1998 00000.00 GPM 00000.00 AC-FT

WATER MEASUREMENT INFORMATION (OLD)

THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATERS DIVERTED, INCLUDING THE PERIOD OF TIME, AND SHALL SUBMIT SAID RECORDS UPON REQUEST TO THE WATER RESOURCES REGIONAL OFFICE LISTED BELOW. BOZEMAN, MT PH: 406-586-3136 FAX: 406-587-9726

WATER MEASUREMENT INFORMATION (OLD)

THE APPROPRIATOR SHALL INSTALL AN ADEQUATE FLOW METERING DEVICE TO ALLOW THE FLOW RATE AND VOLUME OF WATER DIVERTED TO BE RECORDED.

PROGRESS REPORT REQUIRED

THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE REPORTS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE.

OWNERSHIP UPDATE RECEIVED

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/99.

FORM NO. 601 R6/86

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1520 EAST SIXTH AVENUE HELENA, MONTANA 59620

Permit to Appropriate Water

HIDDEN VILLAGE NO. 2

THIS PROVISIONAL PERMIT TO APPROPRIATE WATER IS HEREBY ISSUED TO:

LONE MOUNTAIN SPRINGS WATER UTILITY
PO BOX 1
BIG SKY MT 59716

UPON FINDING THAT THE REQUIREMENTS OF SECTION 85-2-311 MCA HAVE BEEN MET.

PERMIT NUMBER: 61673-G41H

PRIORITY DATE: OCTOBER 21, 1986 AT 1:41 P.M.

SOURCE: GROUNDWATER WELL

TOTAL FLOW RATE: 116.00 GPM

TOTAL VOLUME: 90.00 ACRE FEET PER YEAR

DIVERSION POINT: SWNWSW SEC. 35 TWP. 06S RGE. 03E GALLATIN CO

USE: 116.00 GPM UP TO 90.00 AC-FT (JAN 01 - DEC 31)
FOR COMMERCIAL

PLACE OF USE: SW SEC. 35 TWP. 06S RGE. 03E GALLATIN CO
FOR COMMERCIAL

DIVERSION MEANS: PUMP

** REQUIREMENTS FOR PERMIT HOLDER:
THE DEADLINE FOR COMPLETION OF THIS PERMIT, AND FILING OF THE NOTICE OF COMPLETION OF PERMITTED WATER DEVELOPMENT (FORM 617) SHALL BE NOVEMBER 30, 1991, VERIFYING THAT THE APPROPRIATION OF WATER HAS BEEN COMPLETED AS PERMITTED.

** PRIOR RIGHTS:
THIS PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER; THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

** CONTAMINATION, FLOWING WELLS:
THIS PERMIT IS SUBJECT TO SECTION 85-2-505, MCA, REQUIRING THAT ALL WELLS BE CONSTRUCTED SO THEY WILL NOT ALLOW WATER TO BE WASTED, OR CONTAMINATE OTHER WATER SUPPLIES OR SOURCES, AND ALL FLOWING WELLS SHALL BE CAPPED OR EQUIPPED SO THE FLOW OF WATER MAY BE STOPPED WHEN NOT BEING PUT TO BENEFICIAL USE.

** MEASURING DEVICE:
THIS PERMIT IS SUBJECT TO THE CONDITION THAT THE PERMITTEE SHALL INSTALL AN ADEQUATE FLOW METERING DEVICE IN ORDER TO ALLOW THE FLOW RATE AND VOLUME OF WATER DIVERTED TO BE RECORDED. THE PERMITTEE SHALL KEEP A WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATERS DIVERTED, INCLUDING THE PERIOD OF TIME, AND SHALL SUBMIT SAID RECORDS TO THE DEPARTMENT UPON REQUEST.

** PROGRESS REPORT:
THIS PERMIT IS SUBJECT TO THE PERMITTEE SUBMITTING A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS PERMIT BY NOVEMBER 30 OF EACH YEAR TO THE WATER RIGHTS BUREAU FIELD OFFICE, 1201 EAST MAIN, BOZEMAN MT 59715.

** FURTHER INFORMATION:
THIS PERMIT WILL BE USED IN CONJUNCTION WITH STATEMENT OF CLAIM NO. 122634-41H.

FAILURE TO COMPLY WITH ANY TERMS AND CONDITIONS HEREIN MAY RESULT IN THE LOSS OF THE WATER RIGHT GRANTED BY THIS PERMIT.

** TRANSFER OF OWNERSHIP:
UPON A CHANGE IN OWNERSHIP OF ALL OR ANY PORTION OF THIS PERMIT, THE PARTIES TO THE TRANSFER SHALL FILE WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION A WATER RIGHT TRANSFER CERTIFICATE, FORM 608, PURSUANT TO SECTION 85-2-424, MCA.

WITNESS

ADMINISTRATIVE ASST: RONALD J GUSE

DATE: MARCH 31,1987 WATER RIGHTS BUREAU, WATER RESOURCES DIVISION

FORM NO. 620 R10/97

State of Montana
Department of Natural Resources and Conservation
48 N. Last Chance Gulch · PO Box 201601 · Helena, Montana 59620-1601

Authorization to Change Appropriation Water Right

PURSUANT TO SECTION 85-2-402, MCA, APPLICATION TO CHANGE A WATER RIGHT NO. 41H G(P)061673-00 SUBMITTED ON FEBRUARY 12, 1999 IS APPROVED.

OWNER:	BIG SKY COUNTY WATER & SEWER DISTRICT #363 % RON EDWARDS PO BOX 160670 BIG SKY, MT 59716
WATER RIGHT:	PERMIT TO APPROPRIATE WATER
NUMBER:	41H P061673-00
PRIORITY DATE:	OCTOBER 21, 1986
SOURCE:	GROUNDWATER
USE:	COMMERCIAL

THE DEPARTMENT AUTHORIZES THE FOLLOWING CHANGES:

NEW **PURPOSE:**	MUNICIPAL
NEW PLACE OF USE:	S2 SEC 25, SEC 26, SEC 27, SEC 33, SE SEC 34, SEC 35, SEC 36 T06S R03E; N2 SEC 31, N2SW SEC 31 T06S R04E; SEC 1, NE SEC 2 T07S R03E, GALLATIN COUNTY

****ASSOCIATED REMARK:**
THE CHANGE IS ASSOCIATED TO WATER RIGHT NUMBERS: 41H P49666-00, 41H P107416, 41H I069587-00, 41H W122634-00, AND 41H W122635-00. THIS IS MANIFOLD INTO AN EXISTING SYSTEM, USED TO SUPPLY THE MEADOW VILLAGE/HIDDEN VILLAGE SERVICE AREA.

****COMPLETION DEADLINE:**
THE DEADLINE TO COMPLETE THIS AUTHORIZATION AND FILE A NOTICE OF COMPLETION OF CHANGE OF APPROPRIATION WATER RIGHT (FORM 618) IS DECEMBER 31, 2015. IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, AT LEAST THIRTY DAYS BEFORE DECEMBER 31, 2015. OTHERWISE, THE AUTHORIZATION IS VOID.

****WATER MEASUREMENT RECORDS REQUIRED:**
APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED IN-LINE FLOW METER AT A POINT IN THE DELIVERY LINE APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN MONTHLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CASE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE BOZEMAN WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME

FORM NO. 620 R10/97

State of Montana
Department of Natural Resources and Conservation
48 N. Last Chance Gulch · PO Box 201601 · Helena, Montana 59620-1601

Authorization to Change Appropriation Water Right

****PROGRESS REPORT REQUIRED:**

THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. THE REPORTS MUST BE SENT TO THE BOZEMAN WATER RESOURCES REGIONAL OFFICE.

****CONDITIONAL APPROVAL**

THE APPROVAL OF THIS CHANGE IS NOT BE CONSTRUED AS RECOGNITION BY THE DEPARTMENT OF THE WATER RIGHTS INVOLVED. ALL WATER RIGHTS ARE SUBJECT TO POSSIBLE MODIFICATION UNDER THE PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, MCA, AND 85-2-404, MCA.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS AUTHORIZATION TO CHANGE.

Jan R Mack
WITNESS

Scott Compton
WATER RESOURCES DIVISION AUGUST 28, 2000

Form No 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

PROVISIONAL PERMIT/CHANGE AUTHORIZATION NUMBERS:

41H 12263500	(Change Authorization)
41H 107416-00	(Provisional Permit)
41H 30026963	(Change Authorization)
41H 6167399	(Change Authorization)
41H 12263499	(Change Authorization)

APPROVED

The requests for additional time to complete these projects are approved because the appropriator has shown diligence in completing the projects or shown good cause for not completing the projects.

The notice of completion deadlines are extended to **December 31, 2033**.

PROGRESS REPORTS DUE: Currently Required (See Extension of Time Decision)

Water Resources Regional Office — Date: 2/17/16

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

LONE MOOSE NOS. 1, 2

PROVISIONAL PERMIT NO: **41H 115506 00**
COMPLETION DATE: **12/31/2032**

This permit was approved for 190 gpm and 201.70 acre-feet per year from the two wells listed as diversions and for Multiple Domestic use. Ownership was transferred to the District in 2003. The District filed for extension of time which was approved for 12/31/2032.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

Water Right Number: 41H 115506-00 PROVISIONAL PERMIT

Version: 1 -- ORIGINAL RIGHT

Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363 LONE MOOSE NOS. 1. 2
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: APRIL 4, 2001 at 04:20 P.M.

Enforceable Priority Date: APRIL 4, 2001 at 04:20 P.M.

Purpose (use): MULTIPLE DOMESTIC

Maximum Flow Rate: 190.00 GPM

Maximum Volume: 201.70 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NESW	28	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 100.00 FEET
Static Water Level: 12.00 FEET
Casing Diameter: 8.00 INCHES
Pump Size: 20.00 HP

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
2		NESW	28	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 100.00 FEET
Static Water Level: 29.00 FEET
Casing Diameter: 8.00 INCHES
Pump Size: 20.00 HP

Reservoir: OFF STREAM

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	NESENW	28	6S	3E	GALLATIN

Current Capacity: 1.38 ACRE-FEET

Purpose (Use): MULTIPLE DOMESTIC

Households:

Volume: 201.70 AC-FT

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			NESW	28	6S	3E	GALLATIN

Remarks:

OWNERSHIP UPDATE RECEIVED

OWNERSHIP UPDATE TYPE 608 # 11374 RECEIVED 11/10/2003.

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
48 NORTH LAST CHANCE GULCH P.O.BOX 201601 HELENA, MONTANA 59620-1601

PERMIT TO APPROPRIATE WATER

UPON FINDING THE REQUIREMENTS OF SECTION 85-2-301, MCA, HAVE BEEN MET, THIS PROVISIONAL PERMIT IS GRANTED.

LONE MOOSE NOS. 1, 2

Water Right Number: 41H 115506 00 PROVISIONAL PERMIT
Version: 1 -- ORIGINAL RIGHT
Status: ACTIVE

Owners: LONE MOOSE MEADOWS LLC
1000 LONE MOOSE DR
BIG SKY, MT 59716

Priority Date: APRIL 4, 2001 at 04:20 P.M.

Purpose (use): MULTIPLE DOMESTIC

Maximum Flow Rate: 190.00 GPM

Maximum Volume: 201.70 AC-FT

Source:

Source Name: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NESW	28	6S	3E	GALLATIN

Diversion Means: WELL
Well Depth: 100.00 FEET
Static Water Level: 12.00 FEET
Casing Diameter: 8.00 INCHES
Pump Size: 20.00 HP

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
2		NESW	28	6S	3E	GALLATIN

Diversion Means: WELL
Well Depth: 100.00 FEET
Static Water Level: 29.00 FEET
Casing Diameter: 8.00 INCHES
Pump Size: 20.00 HP

Period of Diversion: JANUARY 1 to DECEMBER 31

Reservoir: OFF STREAM

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	NESENW	28	6S	3E	GALLATIN

Current Capacity: 1.38 ACRE-FEET

Purpose (Use): MULTIPLE DOMESTIC
Households:
Volume: 201.70 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31
Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			NESW	28	6S	3E	GALLATIN

COMPLETION DEADLINE
THE DEADLINE TO COMPLETE THIS PERMIT AND FILE A PROJECT COMPLETION NOTICE (FORM 617) IS DECEMBER 31, 2012. IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, BY DECEMBER 31, 2012. OTHERWISE, THE PERMIT IS VOID.

BACKFLOW PREVENTOR
PURSUANT TO SECTION 85-2-505, MCA, TO PREVENT GROUND WATER CONTAMINATION, AN OPERATIONAL BACKFLOW PREVENTOR MUST BE INSTALLED AND MAINTAINED BY THE APPROPRIATOR IF A CHEMICAL OR FERTILIZER DISTRIBUTION SYSTEM IS CONNECTED TO THE WELL.

IF THE OWNERSHIP CHANGES ON ANY PORTION OF OR ALL OF THIS RIGHT, A WATER RIGHT OWNERSHIP UPDATE, FORM #608, MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.

THIS PROVISIONAL PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER, THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS PROVISIONAL PERMIT.

Witness Signature

Scott Compton
Water Resources Division

DATE ISSUED: April 11, 2002

Form No. 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

Big Sky Water & Sewer District No. 363
%Ron Edwards
PO Box 160670
Big Sky, MT 59716

PROVISIONAL PERMIT/AUTHORIZATION NUMBER:

41H 115506-00

APPROVED

The request for additional time to complete this project is approved because the appropriator has shown diligence in completing the project or shown good cause for not completing the project.

The notice of completion deadline is extended to December 31, 2032.

PROGRESS REPORT DUE: NONE

3/26/13

Water Resources Regional Office

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

ASPEN GROVES NOS. 2, 3

PROVISIONAL PERMIT NO: **41H 100681 00**
COMPLETION DATE: **12/31/2032**

This permit was filed in 1999 for 50 gpm and 33.52 acre-feet per year from two wells for Lawn & Garden, Multiple Domestic, and Fire Protection. The wells are referred to as Aspen Groves Nos. 2 and 3. Water rights were transferred to the District in 2006. The District filed for extension of time and was approved for completion by 12/31/2032.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

ASPEN GROVE NOS. 2, 3

Water Right Number: 41H 100681-00 PROVISIONAL PERMIT

Version: 1 -- ORIGINAL RIGHT

Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: MAY 13, 1997 at 12:53 P.M.

Enforceable Priority Date: MAY 13, 1997 at 12:53 P.M.

Purpose (use): LAWN AND GARDEN
MULTIPLE DOMESTIC
OTHER PURPOSE
FIRE PROTECTION

Maximum Flow Rate: 50.00 GPM

Maximum Volume: 33.52 AC-FT

Maximum Acres: 3.06

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSWSE	34	6S	3E	GALLATIN

Period of Diversion: MAY 1 TO OCTOBER 15
Diversion Means: WELL
Well Depth: 180.00 FEET
Static Water Level: 71.00 FEET
Casing Diameter: 6.00 INCHES
Pump Size: 2.00 HP

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
2		SWSWSE	34	6S	3E	GALLATIN

Period of Diversion: MAY 1 TO OCTOBER 15
Diversion Means: WELL
Well Depth: 340.00 FEET
Static Water Level: 68.00 FEET
Casing Diameter: 6.00 INCHES
Pump Size: 3.00 HP

Purpose (Use): LAWN AND GARDEN

Irrigation Type: SPRINKLER

Volume: 3.06 AC-FT

Period of Use: MAY 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	3.06		SE	34	6S	3E	GALLATIN
Total:	3.06						

Purpose (Use): MULTIPLE DOMESTIC

Households: 89

Volume: 29.91 AC-FT

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SE	34	6S	3E	GALLATIN

Purpose (Use): OTHER PURPOSE

Volume: 0.55 AC-FT

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SE	34	6S	3E	GALLATIN

Remarks:

WATER MEASUREMENT-INLINE FLOW METER REQUIRED

THE APPROPRIATOR SHALL INSTALL AN IN-LINE FLOW METER APPROVED BY THE REGIONAL MANAGER AT A POINT IN THE DELIVERY LINE APPROVED BY THE REGIONAL OFFICE TO RECORD THE FLOW RATE AND VOLUME OF WATER DIVERTED. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP YEARLY WRITTEN RECORDS OF THE FLOW RATE AND VOLUME MEASUREMENTS AND SHALL SUBMIT THE RECORDS BY NOVEMBER 30 OF EACH YEAR. THE REGIONAL MANAGER MAY ALSO REQUEST MEASUREMENT RECORDS AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OR MODIFICATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY. 151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715 PH: 406-586-3136 FAX: 406-587-9726

PROGRESS REPORT REQUIRED

THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. SUBMIT REPORTS TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW. 151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715 PH: 406-586-3136 FAX: 406-587-9726

OWNERSHIP UPDATE RECEIVED

OWNERSHIP UPDATE TYPE 608 # 968 RECEIVED 02/04/2002.

OWNERSHIP UPDATE TYPE 608 # 30963 RECEIVED 03/01/2006.

FORM NO.601 R11/96

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
48 NORTH LAST CHANCE GULCH P.O. BOX 201601 HELENA, MONTANA 59620-1601

Permit to Appropriate Water

ASPEN GROVE NOS. 2, 3

THIS PROVISIONAL PERMIT TO APPROPRIATE WATER IS ISSUED TO:

JOHN M RADICK
PO BOX 160011
BIG SKY MT 59716

UPON FINDING THAT THE REQUIREMENTS OF SECTION 85-2-311 MCA HAVE BEEN MET.

PERMIT NUMBER: 100681-41H

PRIORITY DATE: MAY 13, 1997 AT 12:53 P.M.

SOURCE: GROUNDWATER

DIVERSION: MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
SWSWSE SEC. 34 TWP. 06S RGE. 03E GALLATIN CO

MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
SWSWSE SEC. 34 TWP. 06S RGE. 03E GALLATIN CO

TOTAL FLOW RATE: 50.00 GPM

TOTAL VOLUME: 33.52 ACRE FEET PER YEAR

USE: 50.00 GPM UP TO 3.06 AC-FT (05/01-10/15)
FOR LAWN AND GARDEN ON 3.06 ACRES

50.00 GPM UP TO 29.91 AC-FT (01/01-12/31)
FOR MULTIPLE DOMESTIC

UP TO .55 AC-FT (01/01-12/31)
FOR FIRE PROTECTION

PLACE OF USE: SE SEC. 34 TWP. 06S RGE. 03E GALLATIN CO
FOR LAWN AND GARDEN ON 3.06 ACRES

SE SEC. 34 TWP. 06S RGE. 03E GALLATIN CO
FOR MULTIPLE DOMESTIC

SE SEC. 34 TWP. 06S RGE. 03E GALLATIN CO
FOR FIRE PROTECTION

** COMPLETION DEADLINE:
THE DEADLINE TO COMPLETE THIS PERMIT AND FILE A NOTICE OF COMPLETION OF PERMITTED WATER DEVELOPMENT (FORM 617) IS DECEMBER 31, 2012. IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, AT LEAST THIRTY DAYS BEFORE DECEMBER 31, 2012. OTHERWISE, THE PERMIT IS VOID.

** PRIOR RIGHTS:
THIS PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER; THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

** BACKFLOW PREVENTOR:
PURSUANT TO SECTION 85-2-505, MCA, TO PREVENT GROUNDWATER CONTAMINATION, AN OPERATIONAL BACK FLOW PREVENTOR MUST BE INSTALLED AND MAINTAINED BY THE APPROPRIATOR IF A CHEMICAL OR FERTILIZER DISTRIBUTION SYSTEM IS CONNECTED TO THE WELL.

** WATER MEASUREMENT RECORDS REQUIRED:
THE APPROPRIATOR SHALL INSTALL AN IN-LINE FLOW METER APPROVED BY THE REGIONAL MANAGER AT A POINT IN THE DELIVERY LINE APPROVED BY THE REGIONAL OFFICE TO RECORD THE FLOW RATE AND VOLUME OF WATER DIVERTED. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP YEARLY WRITTEN RECORDS OF THE FLOW RATE AND VOLUME MEASUREMENTS AND SHALL SUBMIT THE RECORDS

CONTINUED

FORM NO.601 R11/96

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
48 NORTH LAST CHANCE GULCH P.O. BOX 201601 HELENA, MONTANA 59620-1601

Permit to Appropriate Water

BY NOVEMBER 30 OF EACH YEAR. THE REGIONAL MANAGER MAY ALSO REQUEST MEASUREMENT RECORDS AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OR MODIFICATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW.
THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY.
151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715
PH: 406-586-3136 FAX: 406-587-9726

** PROGRESS REPORT:
THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. SUBMIT REPORTS TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW.
151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715
PH: 406-586-3136 FAX: 406-587-9726

** TRANSFER OF OWNERSHIP:
UPON A CHANGE IN OWNERSHIP OF ALL OR ANY PORTION OF THIS PERMIT, THE PARTIES TO THE TRANSFER SHALL FILE WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION A WATER RIGHT TRANSFER CERTIFICATE, FORM 608, PURSUANT TO SECTION 85-2-424, MCA.

FAILURE TO COMPLY WITH ANY OF THE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THE WATER RIGHT GRANTED BY THIS PERMIT.

Jan R Mack
WITNESS

Scott Compton
WATER RESOURCES REGIONAL MANAGER

DATE: SEPTEMBER 03, 1997 WATER RIGHTS BUREAU, WATER RESOURCES DIVISION

Form No. 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

Big Sky Water & Sewer District No. 363
%Ron Edwards
PO Box 160670
Big Sky, MT 59716

PROVISIONAL PERMIT/AUTHORIZATION NUMBER:

41H 100681-00

APPROVED

The request for additional time to complete this project is approved because the appropriator has shown diligence in completing the project or shown good cause for not completing the project.

The notice of completion deadline is extended to December 31, 2032.

PROGRESS REPORT DUE: November 30, 2013

3/26/13

Water Resources Regional Office

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

MOUNTAIN VILLAGE NO. 1

STATEMENT OF CLAIM NO: **41H 122636 00**
COMPLETION DATE: **January 30, 1974**

This statement of claim was filed in 1982 for 240 gpm and 387 acre-feet per year of Commercial use from the listed diversion, now colloquially named Mountain Village No. 1. The right was verified in ca. 1983 without changes. DNRC reexamined the right and reduced the volume to 194.06 acre-feet in ca. 1985. The volume of this right was subsequently rolled into Permit 41H 100737 00 (see this right below) at the request of the Applicant (Boyne USA, Inc.). The right was transferred to the District in 1999. The completion date for claims cannot be extended.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

MOUNTAIN VILLAGE NO. 1

Water Right Number: 41H 122636-00 STATEMENT OF CLAIM

Version: 3 -- POST DECREE

Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: JANUARY 30, 1974

Enforceable Priority Date: JANUARY 30, 1974

Type of Historical Right: USE

Purpose (use): COMMERCIAL

Maximum Flow Rate: 240.00 GPM

Maximum Volume: 194.06 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSESE	19	6S	3E	MADISON

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Subdivision: CASCADE SUBD (BIG SKY) BLOCK: 001

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SE	19	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 001				
2			NW	29	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 006				
3			NE	30	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 006				
4			NE	30	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY)				

Remarks:

THE WATER RIGHTS FOLLOWING THIS STATEMENT ARE ASSOCIATED WHICH MEANS THE RIGHTS SHARE THE SAME PLACE OF USE.

100737-00 122636-00 122637-00 133733-00

NOTICE OF WATER RIGHT TRANSFER RECEIVED 01/20/94.

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/99.

Form No. 76-O R2/80

122636

4IH

STATEMENT OF CLAIM FOR EXISTING WATER RIGHTS

OTHER USES

For the Water Courts of the State of Montana

MAR 15 1982

MONTANA D.N.R.C.
BOZEMAN FIELD OFFICE

YMA-U
10-105-01-01
40

1. **Owner of Water Right** BIG SKY OF MONTANA INC / Last / First / Middle Initial

Co-Owner or Other Interest Owner / Last / First / Middle Initial

Address PO BOX 1

City BIG SKY State MONTANA Zip Code 59716

Home Phone No. _____ Business Phone No. 995-4211

2. **Person completing form** TOUT / Last RAYMOND / First J / Middle Initial

Address P.O. BOX 806

City BIG SKY State MONTANA Zip Code 59716

Home Phone No. 995-4304 Business Phone No. 995-4211

3. **Use:** (Check Only One)

FR ☐ Fish Raceways	GE ☐ Geothermal	MN ☐ Mining
FW ☐ Fish & Wildlife	NV ☐ Navigation	PG ☐ Power Generation
CM ☒ Commercial	FP ☐ Fire Protection	RC ☐ Recreation
IN ☐ Industrial	AS ☐ Agricultural Spraying	OT ☐ Other
MC ☐ Municipal	OF ☐ Oil Well Flooding	Explain _____

4. **Source of Water:** (Check Only One)

- ☐ Spring — Name _____
- ☒ Well — Name HILL
- ☐ Stream — Name _____ Tributary of _____
- ☐ Lake — Name _____ Stream _____ Tributary of _____
- ☐ Reservoir — Name _____ Stream _____ Tributary of _____

5. **Point of Diversion:** County Madison

SW ¼ SE ¼ SE ¼, Section 19, T 6 ☒N/S, R 3 E/☒W

Lot _____, Block 1, Subdivision CASCADE

GPNRL

6. **Means of Diversion:**

- ☒ Well
- ☒ Pump Capacity 240 gpm
- ☐ Headgate with ditch or pipeline
- ☐ Instream use
- ☐ Other Explain _____

PM

7. **Means of Conveyance:**

- ☐ Ditch
- ☒ Pipeline
- ☐ Instream
- ☐ Other: _____

8. **Place of Use:** County MADISON

☐ Instream ☐ City or Town ☒ Other: Explain RESORT

Lot, 1 Block, ¼ ¼ SE ¼, Section 19, T 6 N/S, R 3 E/W

Lot, 6 Block, ¼ ¼ NW ¼, Section 29, T 6 N/S, R 3 E/W

Lot, 6 Block, ¼ ¼ NE ¼, Section 30, T 6 N/S, R 3 E/W

Lot, Block, ¼ ¼ NE ¼, Section 30, T 6 N/S, R 3 E/W

Lot, Block, ¼ ¼ ¼, Section , T N/S, R E/W

Subdivision CASCADE

9. **Flow rate claimed:** 240
   - ☐ cubic feet per second
   - ☒ gallons per minute
   - ☐ miner's inches

10. **Volume claimed:** 387 acre-feet per year

11. **Period(s) of use:** JAN / 1 (Month / Day) to DEC / 31 (Month / Day)

12. **Check one:**
   - ☐ Decreed Water Right
   - ☐ Filed Appropriation Right
   - ☒ Use Water Right

Priority date or date of first use: 8:00AM (Hour) Oct (Month) / 1 (Day) / 1972 (Year)

13. **Attach** copies of the Decree, Record of Filing or Proof of Use Right.

14. **Attach** copies of aerial photographs, U.S. Geological Survey maps or such other documents necessary to show point of diversion, place of use, place of storage, and conveyance facilities.

15. **Notarized Statement signed by claimant.**

STATE OF MONTANA)
:ss.
County of Madison)

I, Raymond J Smith, having been duly sworn, depose and say that I, being of legal age and being the claimant of this claim of existing water right, and the person whose name is signed to it as the claimant, know the contents of this claim and the matters and things stated there are true and correct.

Subscribed and sworn before me, this 7th day of March 19 82.

Notary Public for the State of Montana

Residing at Big Sky, Montana

My Commission expires 1/15/83

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-122636-00 PRIORITY DATE:* 08:00 ~~10/01/1972~~ 01 30 1974 TYPE OF RIGHT: USE CLAIM RECEIVED: 03/15/82 FEE PAID: $40

TYPE CODE: G MAX RATE: 240.00 G (MI) MAX VOLUME: 387.00 AF/YEAR MAX ACRES: 0.00

OWNERS: (M) C BIG SKY OF MONTANA
BOX 1
BIG SKY MT 59716

				LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	
SOURCES:	WL 01	WELL		001		SWSESE	19	06S	03E	MA	YIELD RATE 240 G

USE: CM 01 0.00 ACRES PERIOD OF USE 199999999997

		ACRES	VER. ACRES	WRS 19__	19__	LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	REMARKS
PARCELS:	001	0.00				001		SE	19	06S	03E	MA	
	002	0.00				006		NW	29	06S	03E	MA	
	003	0.00				006		NE	30	06S	03E	MA	
	004	0.00						NE	30	06S	03E	MA	
	TOTAL	0.00											

REMARKS: SB 01 MA-CASCADE

ADDENDUMS: _YES ☑NO (_DVRS _RSRV _POU _RMRK _OWNR) COMMENTS _____

SUPPLEMENTAL RIGHTS: IF REF. RIGHT, MAX COMBINED VOLUME FOR ALL RIGHTS _,___,___.__ AF MAX COMBINED ACRES FOR ALL RIGHTS __,___.__

IF SUPPLEMENTAL RIGHT, PURPOSE ID ____ AND CLAIM ID _____ __ OF REF. RIGHT

********** FIELD VERIFICATION FORM **********

COMPARISON STATISTICS: VOLUME BASED ON FLOW RATE AND PERIOD OF USE 390.400 AF/YR -OVER CLAIMED VOLUME

BASIN OK: ☑YES _NO COMMENTS _____

SOURCE NAME OK: ☑YES _NO (FROM: _USGS TOPO MAP _____, _WR SURVEY) COMMENTS _____

TYPE CD (S/G) OK: ☑YES _NO COMMENTS _____

POD OK: WL 01 _YES ☑NO _APPEARS CORRECT _UNVERIFIED (FROM: _CLMNTS MAP _GRID ON FLNG) COMMENTS FILING IS NENE 30

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-122636-00 (CONTINUED)

PROOF OF USE: CLAIMED FLOW RATE OK: ✓YES _NO _NONE GIVEN COMMENTS _____

CLAIMED PRTY DATE OK: _YES ✓NO COMMENTS 6W2 FILING DATE IS 01/30/74

FLOW RATE OK: ✓YES _NO COMMENTS _____

VOLUME OK: ✓YES _NO COMMENTS _____

PRIORITY DATE OK: ✓YES _NO (_APPLIED LAST MONTH OF YR _APPLIED LAST DAY OF MONTH) COMMENTS _____

PERIOD OF USE OK: ✓YES _NO COMMENTS _____

AIR PHOTO VERIFICATION OF DEVELOPMENT: PHOTO NONE PHOTO DATE _____

PHOTO _____ PHOTO DATE _____

PHOTO _____ PHOTO DATE _____

TELEPHONE CONTACT: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

LETTER CONTACT: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

OWNERSHIP: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

INTERVIEW: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

FIELD INVESTIGATION: _YES ✓NO APPROVED BY __ DATE CHECKED __/__/____ BY __ COMMENTS _____

GENERAL REMARKS:

INVESTIGATED BY Mike Lesnik DATE 6/11/84

REVIEWED BY _____ DATE __/__/____

TEMPORARY PRELIMINARY DECREE
GALLATIN RIVER BASIN
BASIN 41H
ABSTRACT OF WATER RIGHT

WATER RIGHT NUMBER 41H -W-122636-00

OWNERS: BIG SKY OF MONTANA INC
PO BOX 1
BIG SKY MT 59716

PRIORITY DATE: JAN 30, 1974

FLOW RATE: 240.00 GPM

VOLUME: 194.06 ACRE FEET PER YEAR

SOURCE: WELL

PURPOSE (USE): COMMERCIAL

PERIOD OF USE: JAN 1 TO DEC 31

POINTS OF DIVERSION AND MEANS OF DIVERSION:

LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY	
	001	SWSESE	19	06S	03E	MADISON	WELL

PLACE OF USE FOR COMMERCIAL

	ACRES	LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY
001			001	SE	19	06S	03E	MADISON
002			006	NW	29	06S	03E	MADISON
003			006	NE	30	06S	03E	MADISON
004				NE	30	06S	03E	MADISON

REMARKS: SUBDIVISION:
CASCADE

SEE GENERAL FINDINGS OF FACT AND CONCLUSIONS OF LAW FOR FURTHER DELINEATION OF THIS RIGHT.

MOUNTAIN VILLAGE NO. 2

STATEMENT OF CLAIM NO: **41H 122637 00**
COMPLETION DATE: **January 30, 1974**

This statement of claim was filed in 1982 for 80 gpm and 129 acre-feet per year for Commercial use from the listed diversion, now colloquially known as Mountain Village No. 2. DNRC verified the right in ca. 1983, and then reduced the volume to 64.09 acre-feet in ca. 1985. The volume was rolled into Permit 41H 100737 00 (see this right below) at the request of the Applicant (Boyne USA, Inc.). The right was transferred to the District in 1999. The completion date for claims cannot be extended.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

MOUNTAIN VILLAGE NO. 2

Water Right Number: 41H 122637-00 STATEMENT OF CLAIM
Version: 3 -- POST DECREE
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: JANUARY 30, 1974

Enforceable Priority Date: JANUARY 30, 1974

Type of Historical Right: USE

Purpose (use): COMMERCIAL

Maximum Flow Rate: 80.00 GPM

Maximum Volume: 64.69 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NENENE	30	6S	3E	MADISON

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Subdivision: CASCADE SUBD (BIG SKY)

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SE	19	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 001				
2			NW	29	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 006				
3			NE	30	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 006				
4			NE	30	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY)				

Remarks:

THE WATER RIGHTS FOLLOWING THIS STATEMENT ARE ASSOCIATED WHICH MEANS THE RIGHTS SHARE THE SAME PLACE OF USE.

100737-00 122636-00 122637-00 133733-00

NOTICE OF WATER RIGHT TRANSFER RECEIVED 01/20/1994.

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/1999.

Form No 76-O R2/80

122637

41H

STATEMENT OF CLAIM FOR EXISTING WATER RIGHTS

OTHER USES

For the Water Courts of the State of Montana

RECEIVED
MAR 15 1982
MONTANA D.N.R.C.
BOZEMAN FIELD OFFICE

MA-U
10-105-01-01
40

1. **Owner of Water Right** BIG SKY OF MONT. INC / Last / First / Middle Initial

Co-Owner or Other Interest Owner / Last / First / Middle Initial

Address P.O. BOX 1

City BIG SKY State MONTANA Zip Code 59716

Home Phone No. 995-4211 Business Phone No.

2. **Person completing form** TOUT / Last RAYMOND / First J / Middle Initial

Address P.O. BOX 806

City BIG SKY State MONTANA Zip Code 59716

Home Phone No. 995-4304 Business Phone No. 995-4211

3. **Use:** (Check Only One)

FR ☐ Fish Raceways	GE ☐ Geothermal	MN ☒ Mining
FW ☐ Fish & Wildlife	NV ☐ Navigation	PG ☐ Power Generation
CM ☒ Commercial	FP ☐ Fire Protection	RC ☐ Recreation
IN ☐ Industrial	AS ☐ Agricultural Spraying	OT ☐ Other
MC ☐ Municipal	OF ☐ Oil Well Flooding	Explain

4. **Source of Water:** (Check Only One)

☐ Spring Name

☒ Well Name Low Dog

☐ Stream Name Tributary of

☐ Lake Name Stream

Tributary of

☐ Reservoir Name Stream

Tributary of

5. **Point of Diversion:** County MADISON

NE ¼ NE ¼ NE ¼, Section 30, T 6 ☒S, R 3 E/☐

Lot , Block , Subdivision

DNRC

6. **Means of Diversion:**

☒ Well

☒ Pump Capacity 80 gpm

PM

☐ Headgate with ditch or pipeline

☐ Instream use

☐ Other Explain

7. **Means of Conveyance:**

☐ Ditch ☐ Instream

☒ Pipeline ☐ Other:

8. **Place of Use:** County MADISON

☐ Instream ☐ City or Town ☒ Other: Explain RESORT

Lot, 1 Block, ___ ¼ ___ ¼ SE ¼, Section 19, T 6 N/S, R 3 E/W

Lot, 6 Block, ___ ¼ ___ ¼ NW ¼, Section 29, T 6 N/S, R 3 E/W

Lot, 6 Block, ___ ¼ ___ ¼ NE ¼, Section 30, T 6 N/S, R 3 E/W

Lot, ___ Block, ___ ¼ ___ ¼ NE ¼, Section 30, T 6 N/S, R 3 E/W

Lot, ___ Block, ___ ¼ ___ ¼ ___ ¼, Section ___, T ___ N/S, R ___ E/W

Subdivision CASCADE

9. **Flow rate claimed:** 80

☐ cubic feet per second
☒ gallons per minute
☐ miner's inches

10. **Volume claimed:** 129 acre-feet per year

11. ~~DNRC~~ **Period(s) of use:** 1 / 1 (Month / Day) to 12 / 31 (Month / Day)

12. **Check one:**

☐ Decreed Water Right
☐ Filed Appropriation Right
☒ Use Water Right

Priority date or date of first use: 8:00AM (Hour) Oct (Month) 1 (Day) 1972 (Year)

13. **Attach** copies of the Decree, Record of Filing or Proof of Use Right.

14. **Attach** copies of aerial photographs, U.S. Geological Survey maps or such other documents necessary to show point of diversion, place of use, place of storage, and conveyance facilities.

15. **Notarized Statement signed by claimant.**

STATE OF MONTANA)
:ss.
County of MADISON)

I, Raymond J. Saint, having been duly sworn, depose and say that I, being of legal age and being the claimant of this claim of existing water right, and the person whose name is signed to it as the claimant, know the contents of this claim and the matters and things stated there are true and correct.

Subscribed and sworn before me, this 13th day of MARCH 1982.

Notary Public for the State of Montana

Residing at BIG SKY, MONTANA

My Commission expires 1/15/83

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-122637-00 PRIORITY DATE:* 08:00 ~~10/01/1972~~ 01/30/1974 TYPE OF RIGHT: USE CLAIM RECEIVED: 03/15/82 FEE PAID: $40

TYPE CODE: G MAX RATE: 80.00 G (MI) MAX VOLUME: 129.00 AF/YEAR MAX ACRES: 0.00

OWNERS: (M) C BIG SKY OF MONTANA
BOX 1
BIG SKY MT 59716

				LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	
SOURCES:	WL 01	WELL				NENENE	30	06S	03E	MA	YIELD RATE 80 G

USE: CM 01 0.00 ACRES PERIOD OF USE 199999999997

		ACRES	VER. ACRES	WRS 19__	19__	LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	REMARKS
PARCELS:	001	0.00					001	SE	19	06S	03E	MA	
	002	0.00					006	NW	29	06S	03E	MA	
	003	0.00					006	NE	30	06S	03E	MA	
	004	0.00						NE	30	06S	03E	MA	
	TOTAL	0.00											

REMARKS: SB 01 MA-CASCADE

ADDENDUMS: _YES ✓NO (_DVRS _RSRV _POU _RMRK _OWNR) COMMENTS

SUPPLEMENTAL RIGHTS: IF REF. RIGHT, MAX COMBINED VOLUME FOR ALL RIGHTS _,___,___.__ AF MAX COMBINED ACRES FOR ALL RIGHTS __,___.__

IF SUPPLEMENTAL RIGHT, PURPOSE ID __ __ AND CLAIM ID ____ - _____ __ OF REF. RIGHT

********** FIELD VERIFICATION FORM **********

COMPARISON STATISTICS: VOLUME BASED ON FLOW RATE AND PERIOD OF USE 130.133 AF/YR - OVER CLAIMED VOLUME

BASIN OK: ✓YES _NO COMMENTS

SOURCE NAME OK: ✓YES _NO (FROM: _USGS TOPO MAP _____, _WR SURVEY) COMMENTS

TYPE CD (S/G) OK: ✓YES _NO COMMENTS

POD OK: WL 01 _YES _NO ✓APPEARS CORRECT _UNVERIFIED (FROM: _CLMNTS MAP _GRID ON FLNG) COMMENTS

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-122637-00 (CONTINUED)

PROOF OF USE: CLAIMED FLOW RATE OK: ✓YES _NO _NONE GIVEN COMMENTS _____

CLAIMED PRTY DATE OK: _YES ✓NO COMMENTS GW2 FILING 01/30/1974

FLOW RATE OK: ✓YES _NO COMMENTS _____

VOLUME OK: ✓YES _NO COMMENTS _____

PRIORITY DATE OK: ✓YES _NO (_APPLIED LAST MONTH OF YR _APPLIED LAST DAY OF MONTH) COMMENTS _____

PERIOD OF USE OK: ✓YES _NO COMMENTS _____

AIR PHOTO VERIFICATION OF DEVELOPMENT: PHOTO NONE PHOTO DATE _____

PHOTO _____ PHOTO DATE _____

PHOTO _____ PHOTO DATE _____

TELEPHONE CONTACT: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

LETTER CONTACT: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

OWNERSHIP: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

INTERVIEW: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

FIELD INVESTIGATION: _YES ✓NO APPROVED BY __ DATE CHECKED __/__/____ BY __ COMMENTS _____

GENERAL REMARKS:

INVESTIGATED BY Rick Lessick DATE 6/11/84

REVIEWED BY _____ DATE __/__/____

TEMPURARY PRELIMINARY DECREE
GALLATIN RIVER BASIN
BASIN 41H
ABSTRACT OF WATER RIGHT

WATER RIGHT NUMBER 41H -W-122637-00

OWNERS: BIG SKY OF MONTANA INC
PO BOX 1
BIG SKY MT 59716

PRIORITY DATE: JAN 30, 1974

FLOW RATE: 80.00 GPM

VOLUME: 64.69 ACRE FEET PER YEAR

SOURCE: WELL

PURPOSE (USE): COMMERCIAL

PERIOD OF USE: JAN 1 TO DEC 31

POINTS OF DIVERSION AND MEANS OF DIVERSION:

LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY	
		NENENE	30	06S	03E	MADISON	WELL

PLACE OF USE FOR COMMERCIAL

	ACRES	LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY
001			001	SE	19	06S	03E	MADISON
002			006	NW	29	06S	03E	MADISON
003			006	NE	30	06S	03E	MADISON
004				NE	30	06S	03E	MADISON

REMARKS: SUBDIVISION:
CASCADE

SEE GENERAL FINDINGS OF FACT AND CONCLUSIONS OF LAW FOR FURTHER DELINEATION OF THIS RIGHT.

MOUNTAIN VILLAGE NO. 3

STATEMENT OF CLAIM NO: **41H 133733 00**
COMPLETION DATE: **January 30, 1974**

This statement of claim was filed in 1982 for 180 gpm and 290 acre-feet per year for Commercial use from the listed diversion, now colloquially known as Mountain Village No. 3. DNRC verified the rate and volume of the right in ca. 1983, and then reexamined the right reducing the volume to 145.54 acre-feet in ca. 1985. The volume was rolled into Permit 41H 100737 00 (see this right below) at the request of the Applicant (Boyne USA, Inc.). The right was transferred to the District in 1999. The completion date for claims cannot be extended.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

MOUNTAIN VILLAGE NO. 3

Water Right Number: 41H 133733-00 STATEMENT OF CLAIM
Version: 3 -- POST DECREE
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: JANUARY 30, 1974

Enforceable Priority Date: JANUARY 30, 1974

Type of Historical Right: USE

Purpose (use): COMMERCIAL

Maximum Flow Rate: 180.00 GPM

Maximum Volume: 145.54 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NWNENE	30	6S	3E	MADISON

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Subdivision: CASCADE SUBD (BIG SKY)

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SE	19	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 001				
2			NW	29	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 006				
3			NE	30	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY) BLOCK: 006				
4			NE	30	6S	3E	MADISON
	Subdivision:		CASCADE SUBD (BIG SKY)				

Remarks:

THE WATER RIGHTS FOLLOWING THIS STATEMENT ARE ASSOCIATED WHICH MEANS THE RIGHTS SHARE THE SAME PLACE OF USE.

100737-00 122636-00 122637-00 133733-00

NOTICE OF WATER RIGHT TRANSFER RECEIVED 01/20/94.

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/99.

Form No. 76-O R2/80

RECEIVED
MAR 15 1982
MONTANA D.N.R.C.
BOZEMAN FIELD OFFICE

STATEMENT OF CLAIM FOR EXISTING WATER RIGHTS
OTHER USES
For the Water Courts of the State of Montana

133733 41H
MA-U
10-105-01-01
40

1. **Owner of Water Right** BIG SKY OF MONTANA INC. / Last / First / Middle Initial

Co-Owner or Other Interest Owner _____ / Last / _____ First / _____ Middle Initial

Address P. O. BOX 1

City BIG SKY, State MONTANA Zip Code 59716

Home Phone No. 995-4211 Business Phone No. _____

2. **Person completing form** TOUT / Last RAYMOND / First J / Middle Initial

Address P. O. BOX 806

City BIG SKY State MONT Zip Code 59716

Home Phone No. _____ Business Phone No. _____

3. **Use:** (Check Only One)

FR ☐ Fish Raceways	GE ☐ Geothermal	MN ☐ Mining
FW ☐ Fish & Wildlife	NV ☐ Navigation	PG ☐ Power Generation
CM ☒ Commercial	FP ☐ Fire Protection	RC ☐ Recreation
IN ☐ Industrial	AS ☐ Agricultural Spraying	OT ☐ Other
MC ☐ Municipal	OF ☐ Oil Well Flooding	Explain _____

4. **Source of Water:** (Check Only One)

☐ Spring Name _____

☒ Well Name LAKE

☐ Stream Name _____ Tributary of _____

☐ Lake Name _____ Stream _____

Tributary of _____

☐ Reservoir Name _____ Stream _____

Tributary of _____

5. **Point of Diversion:** County MADISON

NW ¼ NE ¼ NE ¼, Section 30, T 6 ☐N/S, R 3 E/☐

Lot _____, Block _____, Subdivision _____

6. **Means of Diversion:** ODNRC

☒ Well
☒ Pump Capacity 180 gpm
☐ Headgate with ditch or pipeline
☐ Instream use
☐ Other Explain _____

PM

7. **Means of Conveyance:**

☐ Ditch ☐ Instream
☒ Pipeline ☐ Other: _____

8. **Place of Use:** County MADISON

☐ Instream ☐ City or Town ☒ Other: Explain RESORT

Lot, 1 Block, ___ ¼ ___ ¼ SE ¼, Section 19, T 6 N/S, R 3 E/W

Lot, 6 Block, ___ ¼ ___ ¼ NW ¼, Section 29, T 6 N/S, R 3 E/W

Lot, 6 Block, ___ ¼ ___ ¼ NE ¼, Section 30, T 6 N/S, R 3 E/W

Lot, ___ Block, ___ ¼ ___ ¼ NE ¼, Section 30, T 6 N/S, R 3 E/W

Lot, ___ Block, ___ ¼ ___ ¼ ___ ¼, Section ___, T ___ N/S, R ___ E/W

Subdivision CASCADE

9. **Flow rate claimed:** 180
   - ☐ cubic feet per second
   - ☒ gallons per minute
   - ☐ miner's inches

10. **Volume claimed:** 290 acre-feet per year

11. **Period(s) of use:** JAN (Month) 1 (Day) to DEC (Month) 31 (Day)

12. **Check one:**
   - ☐ Decreed Water Right
   - ☐ Filed Appropriation Right
   - ☒ Use Water Right

   Priority date or date of first use: 8:00 AM (Hour) Oct. (Month) 1 (Day) 1972 (Year)

13. **Attach** copies of the Decree, Record of Filing or Proof of Use Right.

14. **Attach** copies of aerial photographs, U.S. Geological Survey maps or such other documents necessary to show point of diversion, place of use, place of storage, and conveyance facilities.

(6) DNRC

15. **Notarized Statement signed by claimant.**

STATE OF MONTANA)
:ss.
County of Madison)

I, Raymond J Lent, having been duly sworn, depose and say that I, being of legal age and being the claimant of this claim of existing water right, and the person whose name is signed to it as the claimant, know the contents of this claim and the matters and things stated there are true and correct.

Subscribed and sworn before me, this 7th day of March, 19 82.

Notary Public for the State of Montana

Residing at Big Sky, Montana

My Commission expires 1/15/83

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-133733-00 PRIORITY DATE:* 08:00 ~~10/01~~ 01 30 74/1972 TYPE OF RIGHT: USE CLAIM RECEIVED: 03/15/82 FEE PAID: $40

TYPE CODE: G MAX RATE: 180.00 G (MI) MAX VOLUME: 290.00 AF/YEAR MAX ACRES: 0.00

OWNERS: (M) C BIG SKY OF MONTANA
BOX 1
BIG SKY MT 59716

				LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	
SOURCES:	WL 01	WELL				NWNENE	30	06S	03E	MA	YIELD RATE 180 G

USE: CM 01 0.00 ACRES PERIOD OF USE 199999999997

		ACRES	VER. ACRES	WRS 19__	19__	LOT	BLK	QTR SEC	SEC	TWP	RGE	CO	REMARKS
PARCELS:	001	0.00					001	SE	19	06S	03E	MA	
	002	0.00					006	NW	29	06S	03E	MA	
	003	0.00					006	NE	30	06S	03E	MA	
	004	0.00						NE	30	06S	03E	MA	
	TOTAL	0.00											

REMARKS: SB 01 GA-CASCADE

ADDENDUMS: _YES ✓NO (_DVRS _RSRV _POU _RMRK _OWNR) COMMENTS _____

SUPPLEMENTAL RIGHTS: IF REF. RIGHT, MAX COMBINED VOLUME FOR ALL RIGHTS _,___,___,__ AF MAX COMBINED ACRES FOR ALL RIGHTS __,___,__

IF SUPPLEMENTAL RIGHT, PURPOSE ID __ __ AND CLAIM ID ____ _ _____ __ OF REF. RIGHT

********** FIELD VERIFICATION FORM **********

COMPARISON STATISTICS: VOLUME BASED ON FLOW RATE AND PERIOD OF USE 292.800 AF/YR - OVER CLAIMED VOLUME

BASIN OK: ✓YES _NO COMMENTS _____

SOURCE NAME OK: ✓YES _NO (FROM: _USGS TOPO MAP_____, _WR SURVEY) COMMENTS _____

TYPE CD (S/G) OK: ✓YES _NO COMMENTS _____

POD OK: WL 01 _YES _NO ✓APPEARS CORRECT _UNVERIFIED (FROM: _CLMNTS MAP _GRID ON FLNG) COMMENTS _____

AAR

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION 09/13/83

ABSTRACT OF CLAIM FOR EXISTING WATER RIGHTS

CLAIM ID 41H -W-133733-00 (CONTINUED)

PROOF OF USE: CLAIMED FLOW RATE OK: ✓YES _NO _NONE GIVEN COMMENTS _____

CLAIMED PRTY DATE OK: _YES ✓NO COMMENTS GW2 FILING 01/30 1974

FLOW RATE OK: ✓YES _NO COMMENTS _____

VOLUME OK: ✓YES _NO COMMENTS _____

PRIORITY DATE OK: ✓YES _NO (_APPLIED LAST MONTH OF YR _APPLIED LAST DAY OF MONTH) COMMENTS _____

PERIOD OF USE OK: ✓YES _NO COMMENTS _____

AIR PHOTO VERIFICATION OF DEVELOPMENT: PHOTO NONE PHOTO DATE _____

PHOTO _____ PHOTO DATE _____

PHOTO _____ PHOTO DATE _____

TELEPHONE CONTACT: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

LETTER CONTACT: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

OWNERSHIP: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

INTERVIEW: _YES ✓NO DATE COMPLETED __/__/____ BY __ COMMENTS _____

FIELD INVESTIGATION: _YES ✓NO APPROVED BY __ DATE CHECKED __/__/____ BY __ COMMENTS _____

GENERAL REMARKS:

INVESTIGATED BY Brick Leonard DATE 6/11/84

REVIEWED BY _____ DATE __/__/____

WATER RIGHT NUMBER 41H -W-133733-00

IMPORTANT NOTICE

AN ASTERISK (*) HAS BEEN PLACED NEXT TO EACH ITEM CHANGED BY ORDER OF THE MONTANA WATER COURT AFTER ISSUANCE OF THE PREVIOUS DECREE.

OWNERS: LONE MOUNTAIN SPRING WATER UTILITY
PO BOX 160066
BIG SKY MT 59716

PURPOSE (USE): COMMERCIAL

SOURCE: WELL
SOURCE TYPE: GROUNDWATER

FILMED

PRIORITY DATE: JANUARY 30, 1974
TYPE OF HISTORICAL RIGHT: USE

FLOW RATE: 180.00 GPM (.40 CFS)

VOLUME: 145.54 AF

PERIOD OF USE: JANUARY 01 TO DECEMBER 31

POINT OF DIVERSION:

LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY
01		NWNENE	30	06S	03E	MADISON

PLACE OF USE FOR COMMERCIAL:

ACRES	LOT	BLK	QTR SEC	SEC	TWP	RGE	COUNTY
001		001	SE	19	06S	03E	MADISON
002		006	NW	29	06S	03E	MADISON
003		006	NE	30	06S	03E	MADISON
004			NE	30	06S	03E	MADISON

REMARKS:

SUBD: CASCADE

NOTICE OF WATER RIGHT TRANSFER RECEIVED 01/20/94.

****
* THE FOLLOWING POTENTIAL ISSUES WERE IDENTIFIED DURING CLAIMS *
* EXAMINATION OR DURING PREVIOUS WATER COURT PROCEEDINGS. THESE *
* ISSUES MAY REMAIN UNRESOLVED IF NO OBJECTIONS ARE FILED DURING *
* THE NEXT OBJECTION PERIOD. *
* *
* *
* *
* WATER RIGHT CLAIMS W122636-00, W122637-00, *
* AND W133733-00 MAY BE DUPLICATE CLAIMS. *
* *
* THE PRIORITY DATE MAY BE QUESTIONABLE. THE DATE OF *
* FILING THE FORM GW2, NOTICE OF COMPLETION OF *
* GROUNDWATER APPROPRIATION, IS JANUARY 30, 1974. *

MOUNTAIN VILLAGE NO. 4

PROVISIONAL PERMIT NO: **41H 61672 00**
COMPLETION DATE: **December 31, 2033**

This provisional permit was filed in 1986 for 124 gpm and 150.00 acre-feet per year for Commercial use from the listed diversion, colloquially known as Mountain Village No. 4. The right was transferred to the District in 1999. In 2018, the District filed for an extension of time and was approved for a completion date of 12/31/2033.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

MOUNTAIN VILLAGE NO. 4

Water Right Number: 41H 61672-00 PROVISIONAL PERMIT

Version: 1 -- ORIGINAL RIGHT

Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: OCTOBER 21, 1986 at 01:40 P.M.

Enforceable Priority Date: OCTOBER 21, 1986 at 01:40 P.M.

Purpose (use): COMMERCIAL

Maximum Flow Rate: 124.00 GPM

Maximum Volume: 150.00 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NENWNE	30	6S	3E	MADISON

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Purpose (Use): COMMERCIAL

Volume: 150.00 AC-FT

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SE	19	6S	3E	MADISON
2			NW	29	6S	3E	MADISON
3			NE	30	6S	3E	MADISON

Remarks:

GROUNDWATER WASTE & CONTAMINATION

THIS RIGHT IS SUBJECT TO SECTION 85-2-505, MCA, REQUIRING A WELL BE CONSTRUCTED SO IT WILL NOT ALLOW WATER TO BE WASTED OR CONTAMINATE OTHER WATER SUPPLIES OR SOURCES, AND A FLOWING WELL MUST BE CAPPED OR EQUIPPED SO THE FLOW OF THE WATER MAY BE STOPPED WHEN NOT BEING PUT TO BENEFICIAL USE.

GROUNDWATER WELL - ACCESS PORT

THE FINAL COMPLETION OF THE WELL(S) MUST INCLUDE AN ACCESS PORT OF AT LEAST .50 INCH SO THE STATIC LEVEL OF THE WELL MAY BE ACCURATELY MEASURED.

IMPORTANT INFORMATION

THIS WELL IS MANIFOLD AND USED IN CONJUNCTION WITH STATEMENT OF CLAIM NO.S 122636-41H, 122637-41H AND 133733-41H.

WATER MEASUREMENT - ANNUAL DATA

MEASUREMENT DATA: 1998 00000.00 GPM 00070.12 AC-FT

WATER MEASUREMENT INFORMATION (OLD)

THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATERS DIVERTED, INCLUDING THE PERIOD OF TIME, AND SHALL SUBMIT SAID RECORDS UPON REQUEST TO THE WATER RESOURCES REGIONAL OFFICE LISTED BELOW. BOZEMAN, MT PH: 406-586-3136 FAX: 406-587-9726

WATER MEASUREMENT INFORMATION (OLD)

THE APPROPRIATOR SHALL INSTALL AN ADEQUATE FLOW METERING DEVICE TO ALLOW THE FLOW RATE AND VOLUME OF WATER DIVERTED TO BE RECORDED.

OWNERSHIP UPDATE RECEIVED

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/99.

FORM NO. 601 R6/86

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1520 EAST SIXTH AVENUE HELENA, MONTANA 59620

Permit to Appropriate Water

THIS PROVISIONAL PERMIT TO APPROPRIATE WATER IS HEREBY ISSUED TO:

LONE MOUNTAIN SPRINGS WATER UTILITY
PO BOX 1
BIG SKY MT 59716

UPON FINDING THAT THE REQUIREMENTS OF SECTION 85-2-311 MCA HAVE BEEN MET.

PERMIT NUMBER: 61672-G41H

PRIORITY DATE: OCTOBER 21, 1986 AT 1:40 P.M.

SOURCE: GROUNDWATER WELL

TOTAL FLOW RATE: 124.00 GPM

TOTAL VOLUME: 150.00 ACRE FEET PER YEAR

DIVERSION POINT: NENWNE SEC. 30 TWP. 06S RGE. 03E MADISON CO

USE: 124.00 GPM UP TO 150.00 AC-FT (JAN 01 - DEC 31)
FOR COMMERCIAL

PLACE OF USE: SE SEC. 19 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

NW SEC. 29 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

NE SEC. 30 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

DIVERSION MEANS: PUMP

** REQUIREMENTS FOR PERMIT HOLDER:
THE DEADLINE FOR COMPLETION OF THIS PERMIT, AND FILING OF THE NOTICE OF COMPLETION OF PERMITTED WATER DEVELOPMENT (FORM 617) SHALL BE NOVEMBER 30, 1996, VERIFYING THAT THE APPROPRIATION OF WATER HAS BEEN COMPLETED AS PERMITTED.

** PRIOR RIGHTS:
THIS PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER; THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

** MEASURING DEVICE:
THIS PERMIT IS SUBJECT TO THE CONDITION THAT THE PERMITTEE SHALL INSTALL AN ADEQUATE FLOW METERING DEVICE IN ORDER TO ALLOW THE FLOW RATE AND VOLUME OF WATER DIVERTED TO BE RECORDED. THE PERMITTEE SHALL KEEP A WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATERS DIVERTED, INCLUDING THE PERIOD OF TIME, AND SHALL SUBMIT SAID RECORDS TO THE DEPARTMENT UPON REQUEST.

** PROGRESS REPORT:
THIS PERMIT IS SUBJECT TO THE PERMITTEE SUBMITTING A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS PERMIT BY NOVEMBER 30 OF EACH YEAR TO THE WATER RIGHTS BUREAU FIELD OFFICE, 1201 EAST MAIN, BOZEMAN MT 59715.

** FURTHER INFORMATION:
THIS WELL IS MANIFOLD AND USED IN CONJUNCTION WITH STATEMENT OF CLAIM NO.S 122636-41H, 122637-41H AND 133733-41H.

** CONTAMINATION, FLOWING WELLS:
THIS PERMIT IS SUBJECT TO SECTION 85-2-505, MCA, REQUIRING THAT ALL WELLS BE CONSTRUCTED SO THEY WILL NOT ALLOW WATER TO BE WASTED, OR CONTAMINATE OTHER WATER SUPPLIES OR SOURCES, AND ALL FLOWING WELLS SHALL BE CAPPED OR EQUIPPED SO THE FLOW OF WATER MAY BE STOPPED WHEN NOT BEING PUT TO BENEFICIAL USE.

THE FINAL COMPLETION OF THE WELL MUST INCLUDE AN ACCESS PORT OF AT LEAST .50 INCH SO THAT THE STATIC LEVEL OF THE WELL MAY BE ACCURATELY MEASURED.

FAILURE TO COMPLY WITH ANY TERMS AND CONDITIONS HEREIN MAY RESULT IN THE LOSS OF THE WATER RIGHT GRANTED BY THIS PERMIT.

** TRANSFER OF OWNERSHIP:
UPON A CHANGE IN OWNERSHIP OF ALL OR ANY PORTION OF THIS PERMIT, THE PARTIES TO THE TRANSFER SHALL FILE WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION A WATER RIGHT TRANSFER CERTIFICATE, FORM 608, PURSUANT TO SECTION 85-2-424, MCA.

WITNESS

ADMINISTRATIVE ASST: RONALD J GUSE

DATE: MARCH 31,1987 WATER RIGHTS BUREAU, WATER RESOURCES DIVISION

FORM NO. 601 R6/86

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1520 EAST SIXTH AVENUE HELENA, MONTANA 59620

Permit to Appropriate Water

THIS PROVISIONAL PERMIT TO APPROPRIATE WATER IS HEREBY ISSUED TO:

LONE MOUNTAIN SPRINGS WATER UTILITY
PO BOX 1
BIG SKY MT 59716

MOUNTAIN VILLAGE NO. 4

UPON FINDING THAT THE REQUIREMENTS OF SECTION 85-2-311 MCA HAVE BEEN MET.

PERMIT NUMBER: 61672-G41H

PRIORITY DATE: OCTOBER 21, 1986 AT 1:40 P.M.

SOURCE: GROUNDWATER WELL

TOTAL FLOW RATE: 124.00 GPM

TOTAL VOLUME: 150.00 ACRE FEET PER YEAR

DIVERSION POINT: NENWNE SEC. 30 TWP. 06S RGE. 03E MADISON CO

USE: 124.00 GPM UP TO 150.00 AC-FT (JAN 01 - DEC 31)
FOR COMMERCIAL

PLACE OF USE: SE SEC. 19 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

NW SEC. 29 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

NE SEC. 30 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

DIVERSION MEANS: PUMP

** REQUIREMENTS FOR PERMIT HOLDER:
THE DEADLINE FOR COMPLETION OF THIS PERMIT, AND FILING OF THE NOTICE OF COMPLETION OF PERMITTED WATER DEVELOPMENT (FORM 617) SHALL BE NOVEMBER 30, 1996, VERIFYING THAT THE APPROPRIATION OF WATER HAS BEEN COMPLETED AS PERMITTED.

** PRIOR RIGHTS:
THIS PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER; THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

** MEASURING DEVICE:
THIS PERMIT IS SUBJECT TO THE CONDITION THAT THE PERMITTEE SHALL INSTALL AN ADEQUATE FLOW METERING DEVICE IN ORDER TO ALLOW THE FLOW RATE AND VOLUME OF WATER DIVERTED TO BE RECORDED. THE PERMITTEE SHALL KEEP A WRITTEN RECORD OF THE FLOW RATE AND VOLUME OF ALL WATERS DIVERTED, INCLUDING THE PERIOD OF TIME, AND SHALL SUBMIT SAID RECORDS TO THE DEPARTMENT UPON REQUEST.

** PROGRESS REPORT:
THIS PERMIT IS SUBJECT TO THE PERMITTEE SUBMITTING A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS PERMIT BY NOVEMBER 30 OF EACH YEAR TO THE WATER RIGHTS BUREAU FIELD OFFICE, 1201 EAST MAIN, BOZEMAN MT 59715.

** FURTHER INFORMATION:
THIS WELL IS MANIFOLD AND USED IN CONJUNCTION WITH STATEMENT OF CLAIM NO.S 122636-41H, 122637-41H AND 133733-41H.

** CONTAMINATION, FLOWING WELLS:
THIS PERMIT IS SUBJECT TO SECTION 85-2-505, MCA, REQUIRING THAT ALL WELLS BE CONSTRUCTED SO THEY WILL NOT ALLOW WATER TO BE WASTED, OR CONTAMINATE OTHER WATER SUPPLIES OR SOURCES, AND ALL FLOWING WELLS SHALL BE CAPPED OR EQUIPPED SO THE FLOW OF WATER MAY BE STOPPED WHEN NOT BEING PUT TO BENEFICIAL USE.

THE FINAL COMPLETION OF THE WELL MUST INCLUDE AN ACCESS PORT OF AT LEAST .50 INCH SO THAT THE STATIC LEVEL OF THE WELL MAY BE ACCURATELY MEASURED.

FAILURE TO COMPLY WITH ANY TERMS AND CONDITIONS HEREIN MAY RESULT IN THE LOSS OF THE WATER RIGHT GRANTED BY THIS PERMIT.

** TRANSFER OF OWNERSHIP:
UPON A CHANGE IN OWNERSHIP OF ALL OR ANY PORTION OF THIS PERMIT, THE PARTIES TO THE TRANSFER SHALL FILE WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION A WATER RIGHT TRANSFER CERTIFICATE, FORM 608, PURSUANT TO SECTION 85-2-424, MCA.

WITNESS

ADMINISTRATIVE ASST: RONALD J GUSE

DATE: MARCH 31,1987 WATER RIGHTS BUREAU, WATER RESOURCES DIVISION

Form No. 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

PROVISIONAL PERMIT/AUTHORIZATION NUMBER:

41H 61672-00

APPROVED

The request for additional time to complete this project is approved because the appropriator has shown diligence in completing the project or shown good cause for not completing the project.

The notice of completion deadline is extended to **December 31, 2033**.

PROGRESS REPORT DUE: NONE

K-SL 5/8/18

Water Resources Regional Office Date

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

MOUNTAIN VILLAGE NOS. 5, 6
(formerly Cascade Nos. 5 and 6)

PROVISIONAL PERMIT NO: **41H 100737 00**
COMPLETION DATE: **December 31, 2033**

This provisional permit was filed in 1997 for 925 gpm and 592 acre-feet per year for Commercial use from the listed diversions, colloquially known as Mountain Village Nos. 5 and 6. The applicant (Boyne USA, Inc.) rolled the volumes of 41H 122636 00 (MTN-1), 41H 122637 00 (MTN-2), and 41H 133733 00 (MTN-3) into the volume of this right. The rates associated with MTN-1, MTN-2, and MTN-3 were not changed. The combined appropriation is limited to 592 acre-feet per year. The right was transferred to the District in 1999. The District filed for an extension of time and was approved for completion on 12/31/2033.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

MOUNTAIN VILLAGE NOS. 5, 6
This water right also limits total annual production from Mountain Village Nos. 1 - 3 plus 5 & 6 to 592 af/yr.

Water Right Number: 41H 100737-00 PROVISIONAL PERMIT
Version: 1 -- ORIGINAL RIGHT
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: APRIL 2, 1997 at 04:15 P.M.

Enforceable Priority Date: APRIL 2, 1997 at 04:15 P.M.

Purpose (use): COMMERCIAL
COMMERCIAL USE IS FOR THE MOUNTAIN VILLAGE COMPLEX, ALSO USED FOR MULTIPLE DOMESTIC.

Maximum Flow Rate: 925.00 GPM

Maximum Volume: 592.00 AC-FT

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NWSWSE	19	6S	3E	MADISON

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 212.00 FEET
Casing Diameter: 8.00 INCHES
Pump Size: 20.00 HP

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
2		SENESW	19	6S	3E	MADISON

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 200.00 FEET
Static Water Level: 14.00 FEET
Casing Diameter: 8.63 INCHES
Pump Size: 75.00 HP

Purpose (Use): COMMERCIAL
Volume: 592.00 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1				19	6S	3E	MADISON
2			NW	29	6S	3E	MADISON
3			N2	30	6S	3E	MADISON

MOUNTAIN VILLAGE COMPLEX, AND CASCADE SUBDIVISION.

Remarks:

THE WATER RIGHTS FOLLOWING THIS STATEMENT ARE ASSOCIATED WHICH MEANS THE RIGHTS SHARE THE SAME PLACE OF USE.

100737-00 122636-00 122637-00 133733-00

Remarks:

ASSOCIATED RIGHT

THIS PERMIT IS ASSOCIATED TO WATER RIGHT NOS. 41H-W122636-00, 41H-W133733-00, AND 41H-W122637-00. THIS IS A MANIFOLD SYSTEM, AND THEY HAVE OVERLAPPING PLACES OF USE. THE COMBINED APPROPRIATION SHALL NOT EXCEED 592 ACRE-FEET PER ANNUM.

GROUNDWATER WASTE & CONTAMINATION

THIS RIGHT IS SUBJECT TO SECTION 85-2-505, MCA, REQUIRING A WELL BE CONSTRUCTED SO IT WILL NOT ALLOW WATER TO BE WASTED OR CONTAMINATE OTHER WATER SUPPLIES OR SOURCES, AND A FLOWING WELL MUST BE CAPPED OR EQUIPPED SO THE FLOW OF THE WATER MAY BE STOPPED WHEN NOT BEING PUT TO BENEFICIAL USE.

GROUNDWATER WELL - ACCESS PORT

THE FINAL COMPLETION OF THE WELL(S) MUST INCLUDE AN ACCESS PORT OF AT LEAST .50 INCH SO THE STATIC LEVEL OF THE WELL MAY BE ACCURATELY MEASURED.

WATER MEASUREMENT - STATIC WATER MEASUREMENTS REQUIRED

THE APPROPRIATOR SHALL INSTALL AN IN-LINE FLOW METER APPROVED BY THE REGIONAL MANAGER AT A POINT IN THE DELIVERY LINE APPROVED BY THE REGIONAL OFFICE TO RECORD THE FLOW RATE AND VOLUME OF WATER DIVERTED. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. THE APPROPRIATOR SHALL TAKE STATIC WATER LEVEL MEASUREMENTS. IF THE SOURCE IS A FLOWING WELL, THE APPROPRIATOR SHALL INSTALL A PRESSURE MONITORING DEVICE APPROVED BY THE REGIONAL MANAGER TO MEASURE HYDROSTATIC PRESSURE OF THE AQUIFER. STATIC WATER LEVEL MEASUREMENTS SHALL BE RECORDED ONLY AT A TIME WHEN THE WATER LEVEL IS STATIC. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP MONTHLY WRITTEN RECORD OF THE FLOW RATE, VOLUME, AND STATIC LEVEL MEASUREMENTS AND SHALL SUBMIT THE RECORDS BY NOVEMBER 30 OF EACH YEAR. THE REGIONAL MANAGER MAY ALSO REQUEST MEASUREMENT RECORDS AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OR MODIFICATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY. 151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715 PH: 406-586-3136 FAX: 406-587-9726

SPECIAL MEASUREMENT REPORT TYPE INFORMATION

CHARTS 02 & 08

PROGRESS REPORT REQUIRED

THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. SUBMIT REPORTS TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW. 151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715 PH: 406-586-3136 FAX: 406-587-9726

DEPARTMENT RIGHT OF ACCESS

THIS PERMIT IS SUBJECT TO THE AUTHORITY OF THE DEPARTMENT TO REVOKE THE PERMIT IN ACCORDANCE WITH 85-2- 314, MCA, AND TO ENTER ONTO THE PREMISES FOR INVESTIGATIVE PURPOSES IN ACCORDANCE WITH 85-2-115, MCA.

OWNERSHIP UPDATE RECEIVED

NOTICE OF WATER RIGHT TRANSFER RECEIVED 03/05/99.

FORM NO.601 R11/96

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
48 NORTH LAST CHANCE GULCH P.O. BOX 201601 HELENA, MONTANA 59620-1601

Permit to Appropriate Water

MOUNTAIN NOS. 5 & 6

See also limitation of associated rights to 592 af

THIS PROVISIONAL PERMIT TO APPROPRIATE WATER IS ISSUED TO:

LONE MOUNTAIN SPRINGS WATER UTILITY
PO BOX 160066
BIG SKY MT 59716

UPON FINDING THAT THE REQUIREMENTS OF SECTION 85-2-311 MCA HAVE BEEN MET.

PERMIT NUMBER: 100737-41H

PRIORITY DATE: APRIL 02, 1997 AT 4:15 P.M.

SOURCE: GROUNDWATER

DIVERSION: MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
NWSWSE SEC. 19 TWP. 06S RGE. 03E MADISON CO

MEANS: WELL

PERIOD OF DIVERSION: 01/01-12/31
SENESW SEC. 19 TWP. 06S RGE. 03E MADISON CO

TOTAL FLOW RATE: 925.00 GPM

TOTAL VOLUME: 592.00 ACRE FEET PER YEAR

USE: 925.00 GPM UP TO 592.00 AC-FT (01/01-12/31)
FOR COMMERCIAL

COMMERCIAL USE IS FOR THE MOUNTAIN VILLAGE COMPLEX, ALSO USED FOR MULTIPLE DOMESTIC.

PLACE OF USE: SEC. 19 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

NW SEC. 29 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

N2 SEC. 30 TWP. 06S RGE. 03E MADISON CO
FOR COMMERCIAL

MOUNTAIN VILLAGE COMPLEX, AND CASCADE SUBDIVISION.

** COMPLETION DEADLINE:
THE DEADLINE TO COMPLETE THIS PERMIT AND FILE A NOTICE OF COMPLETION OF PERMITTED WATER DEVELOPMENT (FORM 617) IS DECEMBER 31, 2018. IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, AT LEAST THIRTY DAYS BEFORE DECEMBER 31, 2018. OTHERWISE, THE PERMIT IS VOID.

** PRIOR RIGHTS:
THIS PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER; THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

** BACKFLOW PREVENTOR:
PURSUANT TO SECTION 85-2-505, MCA, TO PREVENT GROUNDWATER CONTAMINATION, AN OPERATIONAL BACK FLOW PREVENTOR MUST BE INSTALLED AND MAINTAINED BY THE APPROPRIATOR IF A CHEMICAL OR FERTILIZER DISTRIBUTION SYSTEM IS CONNECTED TO THE WELL.

** ASSOCIATED RIGHTS:
THIS PERMIT IS ASSOCIATED TO WATER RIGHT NOS. 41H-W122636-00, 41H-W133733-00, AND 41H-W122637-00. THIS IS A MANIFOLD SYSTEM, AND THEY HAVE OVERLAPPING PLACES OF USE. THE COMBINED APPROPRIATION SHALL NOT EXCEED 592 ACRE-FEET PER ANNUM.

** WASTE AND CONTAMINATION:
THIS RIGHT IS SUBJECT TO SECTION 85-2-505, MCA, REQUIRING A WELL BE CONSTRUCTED SO IT WILL NOT ALLOW WATER TO BE WASTED OR CONTAMINATE OTHER WATER

CONTINUED

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
48 NORTH LAST.CHANCE GULCH P.O. BOX 201601 HELENA, MONTANA 59620-1601

Permit to Appropriate Water

SUPPLIES OR SOURCES, AND A FLOWING WELL MUST BE CAPPED OR EQUIPPED SO THE FLOW OF THE WATER MAY BE STOPPED WHEN NOT BEING PUT TO BENEFICIAL USE.
THE FINAL COMPLETION OF THE WELL(S) MUST INCLUDE AN ACCESS PORT OF AT LEAST .50 INCH SO THE STATIC LEVEL OF THE WELL MAY BE ACCURATELY MEASURED.

** WATER MEASUREMENT RECORDS REQUIRED:
THE APPROPRIATOR SHALL INSTALL AN IN-LINE FLOW METER APPROVED BY THE REGIONAL MANAGER AT A POINT IN THE DELIVERY LINE APPROVED BY THE REGIONAL OFFICE TO RECORD THE FLOW RATE AND VOLUME OF WATER DIVERTED. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. THE APPROPRIATOR SHALL TAKE STATIC WATER LEVEL MEASUREMENTS. IF THE SOURCE IS A FLOWING WELL, THE APPROPRIATOR SHALL INSTALL A PRESSURE MONITORING DEVICE APPROVED BY THE REGIONAL MANAGER TO MEASURE HYDROSTATIC PRESSURE OF THE AQUIFER. STATIC WATER LEVEL MEASUREMENTS SHALL BE RECORDED ONLY AT A TIME WHEN THE WATER LEVEL IS STATIC. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP MONTHLY WRITTEN RECORD OF THE FLOW RATE, VOLUME, AND STATIC LEVEL MEASUREMENTS AND SHALL SUBMIT THE RECORDS BY NOVEMBER 30 OF EACH YEAR. THE REGIONAL MANAGER MAY ALSO REQUEST MEASUREMENT RECORDS AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OR MODIFICATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE ACCURATELY.
151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715
PH: 406-586-3136 FAX: 406-587-9726

** PROGRESS REPORT:
THE APPROPRIATOR SHALL SUBMIT A PROGRESS REPORT OF THE WORK COMPLETED UNDER THIS RIGHT BY NOVEMBER 30TH OF EACH YEAR UNTIL COMPLETION OF THE PROJECT. SUBMIT REPORTS TO THE WATER RESOURCES REGIONAL OFFICE AT THE ADDRESS LISTED BELOW.
151 EVERGREEN DRIVE, SUITE C, BOZEMAN, MT 59715
PH: 406-586-3136 FAX: 406-587-9726

** DEPARTMENT RIGHT OF ACCESS:
THIS PERMIT IS SUBJECT TO THE AUTHORITY OF THE DEPARTMENT TO REVOKE THE PERMIT IN ACCORDANCE WITH 85-2- 314, MCA, AND TO ENTER ONTO THE PREMISES FOR INVESTIGATIVE PURPOSES IN ACCORDANCE WITH 85-2-115, MCA.

** TRANSFER OF OWNERSHIP:
UPON A CHANGE IN OWNERSHIP OF ALL OR ANY PORTION OF THIS PERMIT, THE PARTIES TO THE TRANSFER SHALL FILE WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION A WATER RIGHT TRANSFER CERTIFICATE, FORM 608, PURSUANT TO SECTION 85-2-424, MCA.

FAILURE TO COMPLY WITH ANY OF THE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THE WATER RIGHT GRANTED BY THIS PERMIT.

Jan R Mack
WITNESS

Scott Compton
WATER RESOURCES REGIONAL MANAGER

DATE: JULY 08, 1997 WATER RIGHTS BUREAU, WATER RESOURCES DIVISION

ATTACHED COMMENTS

2.) SOURCE OF WATER SUPPLY

This beneficial water use permit application is for two recently constructed production wells in Big Sky's Mountain Village. These wells are situated 800' apart and are located directly south of White Otter Road. Well #1 and #2 will be manifolded together and discharge into a 1.5 million gallon storage tank. This tank, which will be constructed during the summer season, shall be positioned in the upper portion of the Cascade Subdivision. Each of these wells is under the ownership of Boyne USA and Lone Mountain Springs, Inc. Not only will the water from these wells be utilized within the Cascade Subdivision, but also throughout the entire Mountain Village complex. The enclosed Capital Improvements Plan illustrates the specific locations of the wells.

4.) MEANS OF DIVERSION

Both wells have been constructed. At the present time, each well has been pump tested; however, pumps have not yet been sized or selected.

Well #1 is 212' deep and contains no perforations or screens. (See the enclosed well log.) MTN-5

Well #2 is 200' deep and is perforated from 160' to 200'. (See the enclosed well log.) MTN-6

9.) AMOUNT OF WATER, PURPOSE OF USE, AND PERIOD OF USE

The flow rate that is being requested (**925 gpm**) on this application was determined by our aquifer testing activities (step drawdown, constant rate, and recovery tests). Well #1 was pumped at a rate greater than **225 gpm** for approximately 17 hours. Drawdown equilibrium was achieved at a depth of 169.07' under a pumping rate of 225 gpm. Well #2 was stressed at a rate of **700 gpm** for 18 hours. Stabilized drawdown occurred at a depth of 86.7' under this pumping rate. For convenience, all aquifer testing data is provided in this submittal.

In order to apply for the correct volume of water (**592 ac-ft**), the total average daily water demand for the entire Mountain Village had to be determined. According to the enclosed **Engineer's Report**, the current average daily demand is 341,740 gpd. Over the next twenty years, an increase of 186,357 gpd is anticipated. Thus, the total average daily demand shall be **528,097 gpd**.

Over a years time, an average daily demand of 528,097 gpd will accumulate to a demand volume of 592 ac-ft.

528,097 gpd X 365 days = 192,755,405 gallons/year

192,755,405 gallons X 1 cf/7.48 gallons = 25,769,439 cf/year

25,769,439 cf/year X 1 ac-ft/43,560 cf = **592 ac-ft**

Form No. 616 R

2/2017

NOTICE OF ACTION FOR EXTENSION OF TIME

BIG SKY COUNTY WATER & SEWER DISTRICT NO. 363
PO BOX 160670
BIG SKY, MT 59716

PROVISIONAL PERMIT/AUTHORIZATION NUMBER

41H 10073700

APPROVED

The request for additional time to complete this project is approved because the appropriator has shown diligence in completing the project or shown good cause for not completing the project.

The notice of completion deadline is extended to **December 31st, 2033**

PROGRESS REPORT DUE: NONE

K.S.A. 11/5/21

Water Resources Regional Office — Date

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

MOUNTAIN VILLAGE NO. 7

PROVISIONAL PERMIT NO: **41H 30001796**
COMPLETION DATE: **December 31, 2033**

This well and its water right were completed as part of an agreement between the District and several land development companies (Developers, **Appendix C**).[1] The provisional permit application was filed by the District in 2002 using data and information provided by Developers' consultant. The permit provides for 300 gpm and 241.84 acre-feet per year from the listed diversion, colloquially known as Mountain Village No. 7. The DNRC hydrogeologist memorandum summarizes substantial interference impacts of MTN-7 on existing well MTN-4. The District filed for an extension of time in 2014 that was approved for 12/31/2033.

[1] Yellowstone Mountain Club, LLC, Yellowstone Development, LLC, Spanish Peaks Development, LLC, Blixseth Group, Inc., and Lone Moose Meadows, LLC.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

MOUNTAIN VILLAGE NO. 7

Water Right Number: 41H 30001796 PROVISIONAL PERMIT
Version: 1 -- ORIGINAL RIGHT
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: APRIL 25, 2002 at 11:58 A.M.

Enforceable Priority Date: APRIL 25, 2002 at 11:58 A.M.

Purpose (use): COMMERCIAL

Maximum Flow Rate: 300.00 GPM

Maximum Volume: 241.84 AC-FT

Maximum Acres: 36.50

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NWNENE	30	6S	3E	MADISON

Period of Diversion: JANUARY 1 TO DECEMBER 31
Diversion Means: WELL
Well Depth: 280.00 FEET
Static Water Level: 40.00 FEET
Casing Diameter: 12.00 INCHES

Reservoir: OFF STREAM

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	SESWNE	31	6S	3E	MADISON

Current Capacity: 1.84 ACRE-FEET

Purpose (Use): COMMERCIAL
Volume: 241.84 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1				6	7S	3E	MADISON
2			S2SWSW	31	6S	3E	MADISON
3			W2	5	7S	3E	MADISON
4			S2SE	5	7S	3E	MADISON
5			N2	8	7S	3E	MADISON
6				1	7S	2E	MADISON
7			S2	36	6S	2E	MADISON
8			S2	31	6S	3E	MADISON
9			NE	31	6S	3E	MADISON
10				2	7S	2E	MADISON
11				19	6S	3E	MADISON
12				30	6S	3E	MADISON
13				29	6S	3E	MADISON
14				25	6S	2E	MADISON
15				20	6S	3E	MADISON

Remarks:

Remarks:

ASSOCIATED RIGHT

THIS WATER RIGHT WILL BE ASSOCIATED WITH THE FOLLOWING WATER RIGHTS VIA A MANIFOLD SYSTEM, 41H-17415. 41H-61672, 41H-100737, 41H-122636.

WATER MEASUREMENT-WATER USE MEASURING DEVICE

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED WATER USE MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN YEARLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

PERMIT TO APPROPRIATE WATER

UPON FINDING THE REQUIREMENTS OF SECTION 85-2-311, MCA, HAVE BEEN MET, THIS PROVISIONAL PERMIT IS GRANTED.

Water Right Number: 41H 30001796 PROVISIONAL PERMIT
Version: 1 -- ORIGINAL RIGHT
Status: ACTIVE

MOUNTAIN VILLAGE NO. 7

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716 0670

Priority Date: APRIL 25, 2002 at 11:58 A.M.
Purpose (use): COMMERCIAL
Maximum Flow Rate: 300.00 GPM
Maximum Volume: 241.84 AC-FT
Maximum Acres: 36.50

Source:
Source Name: GROUNDWATER
Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NWNENE	30	6S	3E	MADISON

Diversion Means: WELL
Well Depth: 280.00 FEET
Static Water Level: 40.00 FEET
Casing Diameter: 12.00 INCHES
Period of Diversion: JANUARY 1 to DECEMBER 31

Reservoir: OFF STREAM

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	SESWNE	31	6S	3E	MADISON

Current Capacity: 1.84 ACRE-FEET

Purpose (Use): COMMERCIAL
Volume: 241.84 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31
Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1				6	7S	3E	MADISON
2			S2SWSW	31	6S	3E	MADISON
3			W2	5	7S	3E	MADISON
4			S2SE	5	7S	3E	MADISON
5			N2	8	7S	3E	MADISON
6				1	7S	2E	MADISON
7			S2	36	6S	2E	MADISON
8			S2	31	6S	3E	MADISON
9			NE	31	6S	3E	MADISON
10				2	7S	2E	MADISON
11				19	6S	3E	MADISON
12				30	6S	3E	MADISON
13				29	6S	3E	MADISON
14				25	6S	2E	MADISON
15				20	6S	3E	MADISON

COMPLETION DEADLINE
THE DEADLINE TO COMPLETE THIS PERMIT AND FILE A PROJECT COMPLETION NOTICE (FORM 617) IS **DECEMBER 31, 2013**. IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, BY **DECEMBER 31, 2013**. OTHERWISE, THE PERMIT IS VOID.

ASSOCIATED RIGHT

THIS WATER RIGHT WILL BE ASSOCIATED WITH THE FOLLOWING WATER RIGHTS VIA A MANIFOLD SYSTEM, 41H-17415. 41H-61672, 41H-100737, 41H-122636.

WATER MEASUREMENT-WATER USE MEASURING DEVICE

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT APPROVED WATER USE MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN YEARLY RECORD OF THE FLOW RATE AND VOLUME OF ALL WATER DIVERTED INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

BACKFLOW PREVENTOR

PURSUANT TO SECTION 85-2-505, MCA, TO PREVENT GROUND WATER CONTAMINATION, AN OPERATIONAL BACKFLOW PREVENTOR MUST BE INSTALLED AND MAINTAINED BY THE APPROPRIATOR IF A CHEMICAL OR FERTILIZER DISTRIBUTION SYSTEM IS CONNECTED TO THE WELL.

IF THE OWNERSHIP CHANGES ON ANY PORTION OF OR ALL OF THIS RIGHT, A WATER RIGHT OWNERSHIP UPDATE, FORM #608, MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.

THIS PROVISIONAL PERMIT IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY. FURTHER, THIS PERMIT IS SUBJECT TO ANY FINAL DETERMINATION OF EXISTING WATER RIGHTS, AS PROVIDED BY MONTANA LAW.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS PROVISIONAL PERMIT.

Witness Signature

Water Resources Division

DATE ISSUED: NOVEMBER 14, 2003

DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION

JUDY MARTZ
GOVERNOR

DIRECTOR'S OFFICE (406) 444-2074
TELEFAX NUMBER (406) 444-2684

STATE OF MONTANA

WATER RESOURCES DIVISION (406) 444-6601
TELEFAX NUMBERS (406) 444-0533 / (406) 444-5918

48 NORTH LAST CHANCE GULCH
PO BOX 201601
HELENA, MONTANA 59620-1601

To: Porter Desanko, Water Rights Specialist
Bozeman Water Resources Regional Office

From: Bill Uthman, Hydrogeologist
Water Management Bureau

Date: July 23, 2003

Re: Big Sky Water and Sewer District Application #30001796-41H

Introduction

Big Sky Water & Sewer District has applied for a Water Use Permit for a groundwater appropriation in NW NE NE Section 30 of Township 6 South, Range 3 East near Big Sky in Madison County. The application requests 300 gallons per minute (gpm) and up to 241.84 acre-feet per year from January 1 to December 31, inclusive each year for domestic and irrigation uses. The groundwater appropriation will be obtained from well #7 drilled to 280 feet and completed in a fractured igneous sill intruded into the Muddy Sandstone Formation with production zones from 253 to 280 feet. Well yield and drawdown tests were conducted at 300 gpm for 34 hours.

Discussion

The applicant demonstrated that groundwater is physically available at a 300-gpm discharge from well #7 for 34 hours, which is longer than the proposed periods of cyclic pumping. The yield tests also demonstrated that well #7 and existing well #4, located about 255 feet away, create significant mutual drawdown interference impacts. The applicant states that the mutual drawdown interference is acceptable, but that pumping schedules for each well need to be carefully controlled to prevent excessive pumping, that would create adverse drawdown impacts that would cause decreases in well production. The applicant recommends that pumping periods for well #7 be limited to cyclic pumping of up to 12 hours per day to prevent excessive drawdown interference in well #4. Each pumping period will be followed by a 12-hour period of water-level recovery. The importance of cyclic pumping is emphasized in the applicant's documentation and also is reflected in the proposed annual volume of 241.84 acre-feet to be appropriated. Only by adhering to a cyclic pumping schedule of up to 12 hours per day can the applicant limit the appropriated volume to that requested and also prevent significant drawdown impacts to well #4.

The applicant addressed the potential for adverse impact to other water users by explaining that all groundwater rights in Section 30 are those of the Big Sky Water & Sewer District. However, in Township 6 South, Range 2 East there are water rights registered to other water users. There is 1 groundwater right in Section 20 about 1 mile from well #7 and 5 groundwater rights in Section 24, the closest of which is about 5,000 feet away. The applicant did not demonstrate whether these wells would be impacted by the proposed appropriation. The applicant states that there are probably no immediate and observable impacts to the neighboring wells. However, hydrogeologic principles suggest that there will be a long-term adjustment of the potentiometric surface as a result of the proposed groundwater appropriation. The volume to be pumped from the aquifer will be obtained from the existing natural supply of water, that includes surface water and aquifer storage. If the aquifer is not hydrologically connected to a surface-water source, the groundwater appropriation will be obtained entirely from aquifer storage with a resulting eventual decline of the potentiometric surface throughout the area.

The applicant also is required to address the potential for adverse impacts to surface-water availability because the proposed appropriation is located within the Upper Missouri River Basin that is legislatively closed to new surface-water appropriations. The applicant states that the aquifer is confined and lies more than 250 feet below ground surface; thus, they argue that the aquifer is not in "direct connection" with any surface-water source in the vicinity of the well.

Conclusion

The applicant demonstrated that groundwater is physically available at a 300-gpm discharge for a 34-hour period, which is longer than the proposed periods of cyclic pumping. The applicant emphasizes that well #7 should only be pumped cyclically to limit drawdown impacts and prevent reductions in well production. The proposed cyclic pumping of 12 hours per day also is reflected in the proposed volume to be appropriated.

The applicant addressed the potential for adverse impact to other water users by stating that they own all water rights within a radius of about 1 mile. Although the applicant contends that they will not adversely impact other water users, they have not addressed this issue through groundwater-level monitoring or predictive analysis. The groundwater appropriation is expected to cause some eventual decline of the potentiometric surface, but it is unknown if it will be adverse. The applicant addressed the potential for impact to surface water by explaining that the aquifer is confined and is not in "direct connection" with area streams.

Form No. 616 R12/2008

NOTICE OF ACTION FOR EXTENSION OF TIME

Big Sky County Water & Sewer District No. 363
PO Box 160670
Big Sky, MT 59716

PROVISIONAL PERMIT/AUTHORIZATION NUMBER:

41H 30001796

APPROVED

The request for additional time to complete this project is approved because the appropriator has shown diligence in completing the project or shown good cause for not completing the project.

The notice of completion deadline is extended to December 31, 2033

PROGRESS REPORT DUE: NONE

January 17, 2014
Water Resources Regional Office

NOTICE

Montana Department of Natural Resources and Conservation
Water Resources Division
PO BOX 201601
Helena, MT 59601-1601

SURFACE WATER RIGHT
MIDDLE FORK WEST GALLATIN RIVER

STATEMENT OF CLAIM NOS: **41H 148445 00 & 41H 148446 00**
COMPLETION DATE: **12/31/2037 (Change Authorization)**

The District filed a change application for these statements of claims in 2016 as part of a project to modify Little Coyote pond to an off-stream reservoir and to change the allowed types of use. The new uses include Municipal for up to 139.85 acre-feet during the period from 6/1 to 10/15 annually within the District service area.

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

A version with a more recent operating authority date exists. Contact DNRC for details.

Water Right Number: 41H 148445-00 STATEMENT OF CLAIM
Version: 5 -- CHANGE AUTHORIZATION
Version Status: ACTIVE

THIS AUTHORIZATION IS LIMITED TO THE AMOUNT OF THE HISTORIC USE RECOGNIZED BY THE DEPARTMENT IN THIS PROCEEDING AS SUBJECT TO CHANGE, AND WILL THEREAFTER NOT EXCEED THAT AMOUNT. IF THE HISTORIC USE IS REDUCED UNDER ADJUDICATION PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, PART 2, MCA, THIS AUTHORIZATION WILL BE LIMITED TO A LESSER AMOUNT.

Owners:
BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: JUNE 23, 1902

Enforceable Priority Date: JUNE 23, 1902

Purpose (use):
MUNICIPAL
FISHERY
INSTREAM FISHERY

Irrigation Type: SPRINKLER

Maximum Flow Rate: 9.10 CFS

Historical Flow Rate: 9.10 CFS

Maximum Volume: 120.46 AC-FT

Historical Diverted Volume: 120.46 AC-FT

Historical Consumptive Volume: 99.27 AC-FT

Source Name: WEST GALLATIN RIVER, WEST FORK

Source Type: SURFACE WATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31 **Flow Rate:** 9.10 CFS
Diversion Means: HEADGATE

2		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JUNE 1 TO OCTOBER 15
Diversion Means: INSTREAM

3		NENESE	31	6S	4E	GALLATIN

Period of Diversion: JUNE 1 TO OCTOBER 15
Diversion Means: INSTREAM

WATER IMPOUNDED IN LITTLE COYOTE POND IS DIVERTED BY PUMP AND CONVEYED TO THE PLACE OF USE.

Reservoir: OFF STREAM **Reservoir Name** LITTLE COYOTE POND

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	SESENE	36	6S	3E	GALLATIN

Diversion to Reservoir: DIVERSION # 1
Dam Height: 11.50 FEET
Depth: 10.00 FEET
Surface Area: 2.50 ACRES
Current Capacity: 14.00 ACRE-FEET

Period of Use: JUNE 1 to OCTOBER 15

Purpose (Use): MUNICIPAL

Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			NE	25	6S	2E	GALLATIN
2				19	6S	3E	GALLATIN
3			W2SWSW	20	6S	3E	GALLATIN
4			S2SW	25	6S	3E	GALLATIN
5			SW	26	6S	3E	GALLATIN
6			SWSE	26	6S	3E	GALLATIN
7			S2	28	6S	3E	GALLATIN
8			S2NW	28	6S	3E	GALLATIN
9			NW	29	6S	3E	GALLATIN
10				30	6S	3E	GALLATIN
11				33	6S	3E	GALLATIN
12			S2	34	6S	3E	GALLATIN
13			NW	34	6S	3E	GALLATIN
14				35	6S	3E	GALLATIN
15				36	6S	3E	GALLATIN
16			N2	31	6S	4E	GALLATIN
17			W2SW	31	6S	4E	GALLATIN
18				1	7S	3E	GALLATIN
19			NE	2	7S	3E	GALLATIN
20			W2W2	3	7S	3E	GALLATIN
21				4	7S	3E	GALLATIN
22			E2	5	7S	3E	GALLATIN
23			E2NW	5	7S	3E	GALLATIN

Purpose (Use): FISHERY

Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			E2SENE	36	6S	3E	GALLATIN

Purpose (Use): INSTREAM FISHERY

Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			E2SENE	36	6S	3E	GALLATIN
2			SWNW	31	6S	4E	GALLATIN
3			S2SENW	31	6S	4E	GALLATIN
4			S2SWNE	31	6S	4E	GALLATIN
5			SWSENE	31	6S	4E	GALLATIN
6			N2NESE	31	6S	4E	GALLATIN
7			NWSW	32	6S	4E	GALLATIN
8			S2NESW	32	6S	4E	GALLATIN
9			S2NWSE	32	6S	4E	GALLATIN
10			S2NESE	32	6S	4E	GALLATIN

Remarks:

THE WATER RIGHTS FOLLOWING THIS STATEMENT ARE SUPPLEMENTAL WHICH MEANS THE RIGHTS HAVE OVERLAPPING PLACES OF USE. THE RIGHTS CAN BE COMBINED TO IRRIGATE ONLY OVERLAPPING PARCELS. EACH RIGHT IS LIMITED TO THE FLOW RATE AND PLACE OF USE OF THAT INDIVIDUAL RIGHT. THE SUM TOTAL VOLUME OF THESE WATER RIGHTS SHALL NOT EXCEED THE AMOUNT PUT TO HISTORICAL AND BENEFICIAL USE.

148445-00 148446-00

THE MEANS OF DIVERSION, VOLUME, AND PERIOD OF DIVERSION WERE AMENDED BY THE WATER COURT PURSUANT TO SECTION 85-2-233(6), MCA.

STARTING IN 2008, PERIOD OF DIVERSION WAS ADDED TO MOST CLAIM ABSTRACTS, INCLUDING THIS ONE.

Remarks:

WATER MEASUREMENT - MUNICIPAL DIVERTED VOLUME LIMITATION:

UNDER BOTH STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00, THE APPROPRIATOR MAY DIVERT A COMBINED MAXIMUM OF 139.85 AF ANNUALLY FROM LITTLE COYOTE POND FOR MUNICIPAL PURPOSES.

THE TOTAL DIVERTED VOLUME FOR STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00 IS 240.92 AC-FT. UNDER THIS CHANGE AUTHORIZATION, THE SUM OF THE VOLUMES FOR THE INDIVIDUAL PURPOSES IS 221.85 AC-FT. A VOLUME OF 19.06 AC-FT IS UNATTRIBUTED TO A SPECIFIC PURPOSE.

41H 148445-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148445-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT THE FULL HISTORICALLY DIVERTED VOLUME OF 52.97 AF TO THE HISTORICAL POINT OF DIVERSION IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR.

THE PROTECTED REACH ENCOMPASSES THE STRETCH OF THE WEST FORK OF THE WEST GALLATIN RIVER FROM LITTLE COYOTE POND AT A POINT IN THE SESENE OF SECTION 36, T06 S, R03 E, TO THE WEST FORK?S CONFLUENCE WITH THE WEST GALLATIN RIVER AT A POINT IN THE SENESE OF SECTION 33, T06 S, R04 E. THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 35.00 GPM ALONG THIS REACH BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 159.8 GPM ALONG THIS REACH FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A TEMPORARY INSTREAM PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE AUTHORIZATION IS A CONTINUOUS FLOW RATE OF 319.6 GPM OR A 30-DAY PULSED FLOW RATE OF 70.00 GPM, BOTH EQUATING TO 42.38 AF OF CONSUMED VOLUME BEING PROTECTED EACH YEAR.

41H 148445-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - FISHERY CHANGE (LITTLE COYOTE POND):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148445-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 5.90 GPM ALONG THE NEW INLET AND DIVERSION WORKS IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 26.96 GPM ALONG THE NEW INLET AND DIVERSION WORKS FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A FISHERIES PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE AUTHORIZATION IS A CONTINUOUS FLOW RATE OF 11.80 GPM OR A 30-DAY PULSED FLOW RATE OF 53.92 GPM, BOTH EQUATING TO 7.15 AF OF HISTORICALLY CONSUMED AND DIVERTED VOLUME BEING PROTECTED EACH YEAR.

WATER MEASUREMENT PLAN - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH INSTREAM FLOW PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 70.00 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 319.6 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 70.00 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER MEASUREMENT PLAN - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH FISHERY PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 11.80 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 53.92 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN

Remarks:

MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 11.80 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER RIGHT OWNERSHIP UPDATE RECEIVED 03/05/1999.

WATER MEASUREMENT RECORDS REQUIRED - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE WATER PROTECTED ALONG THE NEW INLET AND DIVERSION WORKS OF LITTLE COYOTE POND ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT - MUNICIPAL VOLUME MEASUREMENT RECORDS REQUIRED:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

WATER MEASUREMENT RECORDS REQUIRED - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE PROTECTED REACH OF THE WEST FORK OF THE WEST GALLATIN RIVER IN GALLATIN COUNTY ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST DURING THE TEMPORARY CHANGE AUTHORIZATION. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

A version with a more recent operating authority date exists. Contact DNRC for details.

Water Right Number: 41H 148446-00 STATEMENT OF CLAIM

Version: 5 -- CHANGE AUTHORIZATION

Version Status: ACTIVE

THIS AUTHORIZATION IS LIMITED TO THE AMOUNT OF THE HISTORIC USE RECOGNIZED BY THE DEPARTMENT IN THIS PROCEEDING AS SUBJECT TO CHANGE, AND WILL THEREAFTER NOT EXCEED THAT AMOUNT. IF THE HISTORIC USE IS REDUCED UNDER ADJUDICATION PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, PART 2, MCA, THIS AUTHORIZATION WILL BE LIMITED TO A LESSER AMOUNT.

Owners:
BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716-0670

Priority Date: MAY 15, 1952

Enforceable Priority Date: MAY 15, 1952

Purpose (use):
MUNICIPAL
FISHERY
INSTREAM FISHERY

Irrigation Type: SPRINKLER

Maximum Flow Rate: 9.10 CFS

Historical Flow Rate: 9.10 CFS

Maximum Volume: 120.46 AC-FT

Historical Diverted Volume: 120.46 AC-FT

Historical Consumptive Volume: 99.27 AC-FT

Source Name: WEST GALLATIN RIVER, WEST FORK

Source Type: SURFACE WATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31 **Flow Rate:** 9.10 CFS

Diversion Means: HEADGATE

2		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JUNE 1 TO OCTOBER 15

Diversion Means: INSTREAM

3		NENESE	31	6S	4E	GALLATIN

Period of Diversion: JUNE 1 TO OCTOBER 15

Diversion Means: INSTREAM

WATER IMPOUNDED IN LITTLE COYOTE POND IS DIVERTED BY PUMP AND CONVEYED TO THE PLACE OF USE.

Reservoir: OFF STREAM **Reservoir Name** LITTLE COYOTE POND

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	SESENE	36	6S	3E	GALLATIN

Diversion to Reservoir: DIVERSION # 1

Dam Height: 11.50 FEET

Depth: 10.00 FEET

Surface Area: 2.50 ACRES

Current Capacity: 14.00 ACRE-FEET

Period of Use: JUNE 1 to OCTOBER 15

Purpose (Use): MUNICIPAL

Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			NE	25	6S	2E	GALLATIN
2				19	6S	3E	GALLATIN
3			W2SWSW	20	6S	3E	GALLATIN
4			S2SW	25	6S	3E	GALLATIN
5			SW	26	6S	3E	GALLATIN
6			SWSE	26	6S	3E	GALLATIN
7			S2	28	6S	3E	GALLATIN
8			S2NW	28	6S	3E	GALLATIN
9			NW	29	6S	3E	GALLATIN
10				30	6S	3E	GALLATIN
11				33	6S	3E	GALLATIN
12			S2	34	6S	3E	GALLATIN
13			NW	34	6S	3E	GALLATIN
14				35	6S	3E	GALLATIN
15				36	6S	3E	GALLATIN
16			N2	31	6S	4E	GALLATIN
17			W2SW	31	6S	4E	GALLATIN
18				1	7S	3E	GALLATIN
19			NE	2	7S	3E	GALLATIN
20			W2W2	3	7S	3E	GALLATIN
21				4	7S	3E	GALLATIN
22			E2	5	7S	3E	GALLATIN
23			E2NW	5	7S	3E	GALLATIN

Purpose (Use): FISHERY

Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			E2SENE	36	6S	3E	GALLATIN

Purpose (Use): INSTREAM FISHERY

Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			E2SENE	36	6S	3E	GALLATIN
2			SWNW	31	6S	4E	GALLATIN
3			S2SENW	31	6S	4E	GALLATIN
4			S2SWNE	31	6S	4E	GALLATIN
5			SWSENE	31	6S	4E	GALLATIN
6			N2NESE	31	6S	4E	GALLATIN
7			NWSW	32	6S	4E	GALLATIN
8			S2NESW	32	6S	4E	GALLATIN
9			S2NWSE	32	6S	4E	GALLATIN
10			S2NESE	32	6S	4E	GALLATIN

Remarks:

THE WATER RIGHTS FOLLOWING THIS STATEMENT ARE SUPPLEMENTAL WHICH MEANS THE RIGHTS HAVE OVERLAPPING PLACES OF USE. THE RIGHTS CAN BE COMBINED TO IRRIGATE ONLY OVERLAPPING PARCELS. EACH RIGHT IS LIMITED TO THE FLOW RATE AND PLACE OF USE OF THAT INDIVIDUAL RIGHT. THE SUM TOTAL VOLUME OF THESE WATER RIGHTS SHALL NOT EXCEED THE AMOUNT PUT TO HISTORICAL AND BENEFICIAL USE.

148445-00 148446-00

THE MEANS OF DIVERSION, VOLUME, AND PERIOD OF DIVERSION WERE AMENDED BY THE WATER COURT PURSUANT TO SECTION 85-2-233(6), MCA.

STARTING IN 2008, PERIOD OF DIVERSION WAS ADDED TO MOST CLAIM ABSTRACTS, INCLUDING THIS ONE.

Remarks:

41H 148446-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148446-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT THE FULL HISTORICALLY DIVERTED VOLUME OF 52.97 AF TO THE HISTORICAL POINT OF DIVERSION IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR.

THE PROTECTED REACH ENCOMPASSES THE STRETCH OF THE WEST FORK OF THE WEST GALLATIN RIVER FROM LITTLE COYOTE POND AT A POINT IN THE SESENE OF SECTION 36, T06 S, R03 E, TO THE WEST FORK?S CONFLUENCE WITH THE WEST GALLATIN RIVER AT A POINT IN THE SENESE OF SECTION 33, T06 S, R04 E. THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 35.00 GPM ALONG THIS REACH BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 159.8 GPM ALONG THIS REACH FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A TEMPORARY INSTREAM PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE AUTHORIZATION IS A CONTINUOUS FLOW RATE OF 319.6 GPM OR A 30-DAY PULSED FLOW RATE OF 70.00 GPM, BOTH EQUATING TO 42.38 AF OF CONSUMED VOLUME BEING PROTECTED EACH YEAR.

WATER MEASUREMENT - MUNICIPAL DIVERTED VOLUME LIMITATION:

UNDER BOTH STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00, THE APPROPRIATOR MAY DIVERT A COMBINED MAXIMUM OF 139.85 AF ANNUALLY FROM LITTLE COYOTE POND FOR MUNICIPAL PURPOSES.

41H 148446-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - FISHERY CHANGE (LITTLE COYOTE POND):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148446-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 5.90 GPM ALONG THE NEW INLET AND DIVERSION WORKS IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 26.96 GPM ALONG THE NEW INLET AND DIVERSION WORKS FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A FISHERIES PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE IS A CONTINUOUS FLOW RATE OF 11.80 GPM OR A PULSED FLOW RATE OF 53.92 GPM, BOTH EQUATING TO 7.15 AF OF CONSUMED AND DIVERTED VOLUME BEING PROTECTED EACH YEAR.

THE TOTAL DIVERTED VOLUME FOR STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00 IS 240.92 AC-FT. UNDER THIS CHANGE AUTHORIZATION, THE SUM OF THE VOLUMES FOR THE INDIVIDUAL PURPOSES IS 221.85 AC-FT. A VOLUME OF 19.06 AC-FT IS UNATTRIBUTED TO A SPECIFIC PURPOSE.

WATER MEASUREMENT PLAN - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH FISHERY PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 11.80 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 53.92 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 11.80 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER MEASUREMENT PLAN - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH INSTREAM FLOW PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 70.00 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 319.6 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN

Remarks:

MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 70.00 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER RIGHT OWNERSHIP UPDATE RECEIVED 03/05/1999.

WATER MEASUREMENT RECORDS REQUIRED - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE PROTECTED REACH OF THE WEST FORK OF THE WEST GALLATIN RIVER IN GALLATIN COUNTY ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST DURING THE TEMPORARY CHANGE AUTHORIZATION. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT RECORDS REQUIRED - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE WATER PROTECTED ALONG THE NEW INLET AND DIVERSION WORKS OF LITTLE COYOTE POND ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT - MUNICIPAL VOLUME MEASUREMENT RECORDS REQUIRED:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

CHANGE AUTHORIZATION

UPON FINDING THE REQUIREMENTS OF SECTION 85-2-402, MCA HAVE BEEN MET, APPLICATION TO CHANGE WATER RIGHT NUMBER 41H-30104096 SUBMITTED ON FEBRUARY 13, 2017, IS APPROVED.

Application From:
BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716 0670

Water Right Number(s) Changed:

Wr #	Ext	Type
41H-148445	00	STATEMENT OF CLAIM
41H-148445	00	STATEMENT OF CLAIM
41H-148446	00	STATEMENT OF CLAIM
41H-148446	00	STATEMENT OF CLAIM

Authorization Limits

Flow Rate: 18.20 CFS

Volume: 240.92 AC-FT

Change Description:

THE APPLICANT IS AUTHORIZED TO CHANGE THE PURPOSE, PLACE OF USE, POINT OF DIVERSION, AND PLACE OF STORAGE FOR STATEMENT OF CLAIMS 41H 148445-00 AND 41H 148446-00.

THE NEW PURPOSES ARE MUNICIPAL, TEMPORARY INSTREAM FLOW, AND FISHERY. THE APPLICANT IS AUTHORIZED TO CHANGE 161.73 AF TO A MUNICIPAL PURPOSE AND TO CHANGE ITS PLACE OF USE TO THE SERVICE AREA OUTLINED BY THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY FOR THE BIG SKY COUNTY WATER AND SEWER DISTRICT #363.

THE CAPACITY AND SURFACE AREA OF THE RESERVOIR WILL BE REDUCED, MAKING A TOTAL OF 7.15 AF OF WATER AVAILABLE. THIS VOLUME OF WATER WILL BE PROTECTED ALONG THE INLET CHANNEL AND DIVERSION WORKS FOR A FISHERY PURPOSE.

THE POINT OF DIVERSION FOR LITTLE COYOTE POND IS AUTHORIZED TO BE CHANGED FROM AN ON-STREAM DAM TO A HEADGATE AND WILL REMAIN WITHIN THE SAME 10-ACRE LEGAL LAND DESCRIPTION, IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY.

THE APPLICANT IS AUTHORIZED TO CHANGE TEMPORARILY THE PURPOSE OF A PORTION OF THE VOLUME TO INSTREAM FLOW IN THE WEST FORK OF THE WEST GALLATIN RIVER FOR A PERIOD OF FIVE YEARS. UP TO 52.97 AF OF HISTORICALLY DIVERTED VOLUME IS PROTECTABLE TO THE LOCATION OF THE NEW HEADGATE IN THE SESENE OF SECTION 36, T06, R03 E, GALLATIN COUNTY. THE HISTORICALLY CONSUMED VOLUME OF 42.38 AF IS PROTECTABLE ALONG A DOWNSTREAM REACH FROM LITTLE COYOTE POND TO THE CONFLUENCE OF THE WEST FORK WITH THE WEST GALLATIN RIVER AT A POINT IN THE SENESE OF SECTION 33, T06 S, R04. THE APPLICANT SHALL TAKE STREAMFLOW MEASUREMENTS AT A SUITABLE CROSS-SECTION LOCATED NEAR THE NENESE OF SECTION 31, T06 S, R04 E, GALLATIN COUNTY.

COMPLETION DEADLINE

THE DEADLINE TO COMPLETE THIS AUTHORIZATION AND FILE A PROJECT COMPLETION NOTICE FOR CHANGE OF APPROPRIATION WATER RIGHT (FORM 618) IS **DECEMBER 31, 2037** . IF YOU CANNOT MEET THE DEADLINE, FILE A FORM 607, APPLICATION FOR EXTENSION OF TIME, BY **DECEMBER 31, 2037** . OTHERWISE, THE AUTHORIZATION IS VOID.

CONDITIONAL APPROVAL

THIS AUTHORIZATION IS LIMITED TO THE AMOUNT OF THE HISTORIC USE RECOGNIZED BY THE DEPARTMENT IN THIS PROCEEDING AS SUBJECT TO CHANGE, AND WILL THEREAFTER NOT EXCEED THAT AMOUNT. IF THE HISTORIC USE IS REDUCED UNDER ADJUDICATION PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, PART 2, MCA, THIS AUTHORIZATION WILL BE LIMITED TO A LESSER AMOUNT.

TEMPORARY CHANGE/PERMIT OR INTERIM PERMIT EXPIRATION

THIS RIGHT EXPIRES ON **OCTOBER 17, 2022**.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS CHANGE AUTHORIZATION.

Witness Signature

Water Resources Division

DATE ISSUED: OCTOBER 27, 2017

THE INFORMATION SHOWN BELOW REFLECTS THE ENTIRE WATER RIGHT.
AN ASTERISK (*) HAS BEEN PLACED NEXT TO EACH ITEM ALTERED BY THIS CHANGE AUTHORIZATION.

Water Right Number: 41H 148445-00 STATEMENT OF CLAIM
Version: 5 -- CHANGE AUTHORIZATION
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716 0670

Priority Date: JUNE 23, 1902
Enforceable Priority Date: JUNE 23, 1902

Purpose (use): MUNICIPAL
FISHERY
INSTREAM FISHERY

Maximum Flow Rate: 9.10 CFS

Historical Flow Rate: 9.10 CFS

Maximum Volume: 120.46 AC-FT

Historical Diverted Volume: 120.46 AC-FT

Historical Consumptive Volume: 99.27 AC-FT

Source Name: WEST GALLATIN RIVER, WEST FORK
Source Type: SURFACE WATER

***Point of Diversion and Means of Diversion:**

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31 **Flow Rate:** 9.10 CFS
Diversion Means: HEADGATE

*2		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JUNE 1 TO OCTOBER 15
Diversion Means: INSTREAM

*3		NENESE	31	6S	4E	GALLATIN

Period of Diversion: JUNE 1 TO OCTOBER 15
Diversion Means: INSTREAM

***Reservoir:** OFF STREAM **Reservoir Name:** LITTLE COYOTE POND

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	SESENE	36	6S	3E	GALLATIN

Dam Height: 11.50 FEET
Depth: 10.00 FEET
Surface Area: 2.50 ACRES
Current Capacity: 14.00 ACRE-FEET

***Purpose (Use):** MUNICIPAL
Volume: 80.87 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			NE	25	6S	2E	GALLATIN
*2				19	6S	3E	GALLATIN
*3			W2SWSW	20	6S	3E	GALLATIN
*4			S2SW	25	6S	3E	GALLATIN
*5			SW	26	6S	3E	GALLATIN
*6			SWSE	26	6S	3E	GALLATIN
*7			S2	28	6S	3E	GALLATIN
*8			S2NW	28	6S	3E	GALLATIN
*9			NW	29	6S	3E	GALLATIN
*10				30	6S	3E	GALLATIN
*11				33	6S	3E	GALLATIN
*12			S2	34	6S	3E	GALLATIN
*13			NW	34	6S	3E	GALLATIN
*14				35	6S	3E	GALLATIN
*15				36	6S	3E	GALLATIN
*16			N2	31	6S	4E	GALLATIN
*17			W2SW	31	6S	4E	GALLATIN
*18				1	7S	3E	GALLATIN
*19			NE	2	7S	3E	GALLATIN
*20			W2W2	3	7S	3E	GALLATIN
*21				4	7S	3E	GALLATIN
*22			E2	5	7S	3E	GALLATIN
*23			E2NW	5	7S	3E	GALLATIN

Purpose (Use): FISHERY
Volume: 3.57 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			E2SENE	36	6S	3E	GALLATIN

Purpose (Use): INSTREAM FISHERY
Volume: 26.49 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			E2SENE	36	6S	3E	GALLATIN
*2			SWNW	31	6S	4E	GALLATIN
*3			S2SENW	31	6S	4E	GALLATIN
*4			S2SWNE	31	6S	4E	GALLATIN
*5			SWSENE	31	6S	4E	GALLATIN
*6			N2NESE	31	6S	4E	GALLATIN
*7			NWSW	32	6S	4E	GALLATIN
*8			S2NESW	32	6S	4E	GALLATIN
*9			S2NWSE	32	6S	4E	GALLATIN
*10			S2NESE	32	6S	4E	GALLATIN

IMPORTANT INFORMATION

WATER MEASUREMENT - MUNICIPAL DIVERTED VOLUME LIMITATION:

UNDER BOTH STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00, THE APPROPRIATOR MAY DIVERT A COMBINED MAXIMUM OF 139.85 AF ANNUALLY FROM LITTLE COYOTE POND FOR MUNICIPAL PURPOSES.

41H 148445-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148445-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT THE FULL HISTORICALLY DIVERTED VOLUME OF 52.97 AF TO THE HISTORICAL POINT OF DIVERSION IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR.

THE PROTECTED REACH ENCOMPASSES THE STRETCH OF THE WEST FORK OF THE WEST GALLATIN RIVER FROM LITTLE COYOTE POND AT A POINT IN THE SESENE OF SECTION 36, T06 S, R03 E, TO THE WEST FORK?S CONFLUENCE WITH THE WEST GALLATIN RIVER AT A POINT IN THE SENESE OF SECTION 33, T06 S, R04 E. THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 35.00 GPM ALONG THIS REACH BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 159.8 GPM ALONG THIS REACH FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A TEMPORARY INSTREAM PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE AUTHORIZATION IS A CONTINUOUS FLOW RATE OF 319.6 GPM OR A 30-DAY PULSED FLOW RATE OF 70.00 GPM, BOTH EQUATING TO 42.38 AF OF CONSUMED VOLUME BEING PROTECTED EACH YEAR.

THE TOTAL DIVERTED VOLUME FOR STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00 IS 240.92 AC-FT. UNDER THIS CHANGE AUTHORIZATION, THE SUM OF THE VOLUMES FOR THE INDIVIDUAL PURPOSES IS 221.85 AC-FT. A VOLUME OF 19.06 AC-FT IS UNATTRIBUTED TO A SPECIFIC PURPOSE.

41H 148445-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - FISHERY CHANGE (LITTLE COYOTE POND):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148445-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 5.90 GPM ALONG THE NEW INLET AND DIVERSION WORKS IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 26.96 GPM ALONG THE NEW INLET AND DIVERSION WORKS FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A FISHERIES PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE AUTHORIZATION IS A CONTINUOUS FLOW RATE OF 11.80 GPM OR A 30-DAY PULSED FLOW RATE OF 53.92 GPM, BOTH EQUATING TO 7.15 AF OF HISTORICALLY CONSUMED AND DIVERTED VOLUME BEING PROTECTED EACH YEAR.

WATER MEASUREMENT PLAN - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH FISHERY PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 11.80 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 53.92 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 11.80 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER MEASUREMENT PLAN - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH INSTREAM FLOW PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 70.00 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 319.6 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START

AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 70.00 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER MEASUREMENT INFORMATION

WATER MEASUREMENT RECORDS REQUIRED - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE WATER PROTECTED ALONG THE NEW INLET AND DIVERSION WORKS OF LITTLE COYOTE POND ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT RECORDS REQUIRED - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE PROTECTED REACH OF THE WEST FORK OF THE WEST GALLATIN RIVER IN GALLATIN COUNTY ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST DURING THE TEMPORARY CHANGE AUTHORIZATION. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT - MUNICIPAL VOLUME MEASUREMENT RECORDS REQUIRED:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

THE INFORMATION SHOWN BELOW REFLECTS THE ENTIRE WATER RIGHT.
AN ASTERISK (*) HAS BEEN PLACED NEXT TO EACH ITEM ALTERED BY THIS CHANGE AUTHORIZATION.

Water Right Number: 41H 148445-00 STATEMENT OF CLAIM
Version: 3 – CHANGE AUTHORIZATION
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716 0670

Priority Date: JUNE 23, 1902
Enforceable Priority Date: JUNE 23, 1902

Purpose (use): FISHERY
IRRIGATION
MUNICIPAL

Maximum Flow Rate: 9.10 CFS

Historical Flow Rate: 9.10 CFS

Maximum Volume: 120.46 AC-FT

Historical Diverted Volume: 120.46 AC-FT

Historical Consumptive Volume: 99.27 AC-FT

Maximum Acres: 60.00

Source Name: WEST GALLATIN RIVER, WEST FORK

Source Type: SURFACE WATER

***Point of Diversion and Means of Diversion:**

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31 **Flow Rate:** 9.10 CFS

Diversion Means: HEADGATE

***Reservoir:** OFF STREAM **Reservoir Name:** LITTLE COYOTE POND

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	SESENE	36	6S	3E	GALLATIN

Dam Height: 11.50 FEET

Depth: 10.00 FEET

Surface Area: 2.50 ACRES

Current Capacity: 14.00 ACRE-FEET

***Purpose (Use):** FISHERY

Volume: 3.57 AC-FT

Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			E2SENE	36	6S	3E	GALLATIN

Purpose (Use): IRRIGATION

Climatic Area: 5 - LOW

Volume: 26.49 AC-FT

Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	100.00		SE	36	6S	3E	GALLATIN
2	100.00		SW	36	6S	3E	GALLATIN
3	35.00		S2S2NE	36	6S	3E	GALLATIN
4	5.00		SENW	36	6S	3E	GALLATIN
Total:	240.00						

***Purpose (Use):** MUNICIPAL
Volume: 80.87 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			NE	25	6S	2E	GALLATIN
*2				19	6S	3E	GALLATIN
*3			W2SWSW	20	6S	3E	GALLATIN
*4			S2SW	25	6S	3E	GALLATIN
*5			SW	26	6S	3E	GALLATIN
*6			SWSE	26	6S	3E	GALLATIN
*7			S2	28	6S	3E	GALLATIN
*8			S2NW	28	6S	3E	GALLATIN
*9			NW	29	6S	3E	GALLATIN
*10				30	6S	3E	GALLATIN
*11				33	6S	3E	GALLATIN
*12			S2	34	6S	3E	GALLATIN
*13			NW	34	6S	3E	GALLATIN
*14				35	6S	3E	GALLATIN
*15				36	6S	3E	GALLATIN
*16			N2	31	6S	4E	GALLATIN
*17			W2SW	31	6S	4E	GALLATIN
*18				1	7S	3E	GALLATIN
*19			NE	2	7S	3E	GALLATIN
*20			W2W2	3	7S	3E	GALLATIN
*21				4	7S	3E	GALLATIN
*22			E2	5	7S	3E	GALLATIN
*23			E2NW	5	7S	3E	GALLATIN

IMPORTANT INFORMATION

41H 148445-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - FISHERY CHANGE (LITTLE COYOTE POND):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148445-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 5.90 GPM ALONG THE NEW INLET AND DIVERSION WORKS IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 26.96 GPM ALONG THE NEW INLET AND DIVERSION WORKS FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A FISHERIES PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE AUTHORIZATION IS A CONTINUOUS FLOW RATE OF 11.80 GPM OR A 30-DAY PULSED FLOW RATE OF 53.92 GPM, BOTH EQUATING TO 7.15 AF OF HISTORICALLY CONSUMED AND DIVERTED VOLUME BEING PROTECTED EACH YEAR.

WATER MEASUREMENT - MUNICIPAL DIVERTED VOLUME LIMITATION:

UNDER BOTH STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00, THE APPROPRIATOR MAY DIVERT A COMBINED MAXIMUM OF 139.85 AF ANNUALLY FROM LITTLE COYOTE POND FOR MUNICIPAL PURPOSES.

THE TOTAL DIVERTED VOLUME FOR STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00 IS 240.92 AC-FT. UNDER THIS CHANGE AUTHORIZATION, THE SUM OF THE VOLUMES FOR THE INDIVIDUAL PURPOSES IS 221.85 AC-FT. A VOLUME OF 19.06 AC-FT IS UNATTRIBUTED TO A SPECIFIC PURPOSE.

THE IRRIGATION PLACE OF USE AUTHORIZED IN THIS VERSION IS A MAXIMUM OF 60 ACRES WITHIN THE HISTORICAL 240-ACRE PLACE OF USE.

WATER MEASUREMENT PLAN - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH FISHERY PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 11.80 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 53.92 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 11.80 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER MEASUREMENT INFORMATION

WATER MEASUREMENT RECORDS REQUIRED - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE WATER PROTECTED ALONG THE NEW INLET AND DIVERSION WORKS OF LITTLE COYOTE POND ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT - MUNICIPAL VOLUME MEASUREMENT RECORDS REQUIRED:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

THE INFORMATION SHOWN BELOW REFLECTS THE ENTIRE WATER RIGHT.
AN ASTERISK (*) HAS BEEN PLACED NEXT TO EACH ITEM ALTERED BY THIS CHANGE AUTHORIZATION.

Water Right Number: 41H 148446-00 STATEMENT OF CLAIM
Version: 3 -- CHANGE AUTHORIZATION
Version Status: ACTIVE

Owners: BIG SKY COUNTY WATER & SEWER DIST #363
% RON EDWARDS
PO BOX 160670
BIG SKY, MT 59716 0670

Priority Date: MAY 15, 1952
Enforceable Priority Date: MAY 15, 1952

Purpose (use): FISHERY
IRRIGATION
MUNICIPAL

Maximum Flow Rate: 9.10 CFS
Historical Flow Rate: 9.10 CFS
Maximum Volume: 120.46 AC-FT
Historical Diverted Volume: 120.46 AC-FT
Historical Consumptive Volume: 99.27 AC-FT
Maximum Acres: 60.00
Source Name: WEST GALLATIN RIVER, WEST FORK
Source Type: SURFACE WATER

***Point of Diversion and Means of Diversion:**

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1		SESENE	36	6S	3E	GALLATIN

Period of Diversion: JANUARY 1 TO DECEMBER 31 **Flow Rate:** 9.10 CFS
Diversion Means: HEADGATE

***Reservoir:** OFF STREAM **Reservoir Name:** LITTLE COYOTE POND

Govt Lot	Qtr Sec	Sec	Twp	Rge	County
	SESENE	36	6S	3E	GALLATIN

Dam Height: 11.50 FEET
Depth: 10.00 FEET
Surface Area: 2.50 ACRES
Current Capacity: 14.00 ACRE-FEET

Purpose (Use): FISHERY
Volume: 3.58 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			E2SENE	36	6S	3E	GALLATIN

Purpose (Use): IRRIGATION
Climatic Area: 5 - LOW
Volume: 26.48 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	100.00		SE	36	6S	3E	GALLATIN
2	100.00		SW	36	6S	3E	GALLATIN
3	35.00		S2S2NE	36	6S	3E	GALLATIN
4	5.00		SENW	36	6S	3E	GALLATIN
Total:	240.00						

***Purpose (Use):** MUNICIPAL
Volume: 80.86 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			NE	25	6S	2E	GALLATIN
*2				19	6S	3E	GALLATIN
*3			W2SWSW	20	6S	3E	GALLATIN
*4			S2SW	25	6S	3E	GALLATIN
*5			SW	26	6S	3E	GALLATIN
*6			SWSE	26	6S	3E	GALLATIN
*7			S2	28	6S	3E	GALLATIN
*8			S2NW	28	6S	3E	GALLATIN
*9			NW	29	6S	3E	GALLATIN
*10				30	6S	3E	GALLATIN
*11				33	6S	3E	GALLATIN
*12			S2	34	6S	3E	GALLATIN
*13			NW	34	6S	3E	GALLATIN
*14				35	6S	3E	GALLATIN
*15				36	6S	3E	GALLATIN
*16			N2	31	6S	4E	GALLATIN
*17			W2SW	31	6S	4E	GALLATIN
*18				1	7S	3E	GALLATIN
*19			NE	2	7S	3E	GALLATIN
*20			W2W2	3	7S	3E	GALLATIN
*21				4	7S	3E	GALLATIN
*22			E2	5	7S	3E	GALLATIN
*23			E2NW	5	7S	3E	GALLATIN

IMPORTANT INFORMATION

WATER MEASUREMENT - MUNICIPAL DIVERTED VOLUME LIMITATION:
UNDER BOTH STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00, THE APPROPRIATOR MAY DIVERT A COMBINED MAXIMUM OF 139.85 AF ANNUALLY FROM LITTLE COYOTE POND FOR MUNICIPAL PURPOSES.

THE TOTAL DIVERTED VOLUME FOR STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00 IS 240.92 AC-FT. UNDER THIS CHANGE AUTHORIZATION, THE SUM OF THE VOLUMES FOR THE INDIVIDUAL PURPOSES IS 221.85 AC-FT. A VOLUME OF 19.06 AC-FT IS UNATTRIBUTED TO A SPECIFIC PURPOSE.

41H 148446-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - FISHERY CHANGE (LITTLE COYOTE POND):
IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148446-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.
THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 5.90 GPM ALONG THE NEW INLET AND DIVERSION WORKS IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 26.96 GPM ALONG THE NEW INLET AND DIVERSION WORKS FOR A PERIOD OF 30 DAYS EACH YEAR.
THE TOTAL FLOW RATE PROTECTED FOR A FISHERIES PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE IS A CONTINUOUS FLOW RATE OF 11.80 GPM OR A PULSED FLOW RATE OF 53.92 GPM, BOTH EQUATING TO 7.15 AF OF CONSUMED AND DIVERTED VOLUME BEING PROTECTED EACH YEAR.

WATER MEASUREMENT PLAN - FISHERY CHANGE (LITTLE COYOTE POND):
THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH FISHERY PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 11.80 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 53.92 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.
IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.
IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 11.80 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

THE IRRIGATION PLACE OF USE AUTHORIZED IN THIS VERSION IS A MAXIMUM OF 60 ACRES WITHIN THE HISTORICAL 240-ACRE PLACE OF USE.

WATER MEASUREMENT INFORMATION

WATER MEASUREMENT - MUNICIPAL VOLUME MEASUREMENT RECORDS REQUIRED:
THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.

WATER MEASUREMENT RECORDS REQUIRED - FISHERY CHANGE (LITTLE COYOTE POND):
THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE WATER PROTECTED ALONG THE NEW INLET AND DIVERSION WORKS OF LITTLE COYOTE POND ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

***Purpose (Use):** MUNICIPAL
Volume: 80.86 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			NE	25	6S	2E	GALLATIN
*2				19	6S	3E	GALLATIN
*3			W2SWSW	20	6S	3E	GALLATIN
*4			S2SW	25	6S	3E	GALLATIN
*5			SW	26	6S	3E	GALLATIN
*6			SWSE	26	6S	3E	GALLATIN
*7			S2	28	6S	3E	GALLATIN
*8			S2NW	28	6S	3E	GALLATIN
*9			NW	29	6S	3E	GALLATIN
*10				30	6S	3E	GALLATIN
*11				33	6S	3E	GALLATIN
*12			S2	34	6S	3E	GALLATIN
*13			NW	34	6S	3E	GALLATIN
*14				35	6S	3E	GALLATIN
*15				36	6S	3E	GALLATIN
*16			N2	31	6S	4E	GALLATIN
*17			W2SW	31	6S	4E	GALLATIN
*18				1	7S	3E	GALLATIN
*19			NE	2	7S	3E	GALLATIN
*20			W2W2	3	7S	3E	GALLATIN
*21				4	7S	3E	GALLATIN
*22			E2	5	7S	3E	GALLATIN
*23			E2NW	5	7S	3E	GALLATIN

Purpose (Use): FISHERY
Volume: 3.58 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			E2SENE	36	6S	3E	GALLATIN

Purpose (Use): INSTREAM FISHERY
Volume: 26.48 AC-FT
Period of Use: JUNE 1 to OCTOBER 15

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
*1			E2SENE	36	6S	3E	GALLATIN
*2			SWNW	31	6S	4E	GALLATIN
*3			S2SENW	31	6S	4E	GALLATIN
*4			S2SWNE	31	6S	4E	GALLATIN
*5			SWSENE	31	6S	4E	GALLATIN
*6			N2NESE	31	6S	4E	GALLATIN
*7			NWSW	32	6S	4E	GALLATIN
*8			S2NESW	32	6S	4E	GALLATIN
*9			S2NWSE	32	6S	4E	GALLATIN
*10			S2NESE	32	6S	4E	GALLATIN

IMPORTANT INFORMATION

41H 148446-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - FISHERY CHANGE (LITTLE COYOTE POND):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148446-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 5.90 GPM ALONG THE NEW INLET AND DIVERSION WORKS IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 26.96 GPM ALONG THE NEW INLET AND DIVERSION WORKS FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A FISHERIES PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE IS A CONTINUOUS FLOW RATE OF 11.80 GPM OR A PULSED FLOW RATE OF 53.92 GPM, BOTH EQUATING TO 7.15 AF OF CONSUMED AND DIVERTED VOLUME BEING PROTECTED EACH YEAR.

THE TOTAL DIVERTED VOLUME FOR STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00 IS 240.92 AC-FT. UNDER THIS CHANGE AUTHORIZATION, THE SUM OF THE VOLUMES FOR THE INDIVIDUAL PURPOSES IS 221.85 AC-FT. A VOLUME OF 19.06 AC-FT IS UNATTRIBUTED TO A SPECIFIC PURPOSE.

41H 148446-00 FLOW RATES NOT TO EXCEED VOLUME LIMITATION - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

IN THE EVENT THAT THE APPROPRIATOR MAKES A CALL FOR WATER OR A WATER COMMISSIONER IS APPOINTED, THE FOLLOWING OPERATION OF PROTECTION REPRESENTING UNDIVIDED, CONTINUOUS FLOW RATES OF WATER RIGHT 41H 148446-00 MUST BE FOLLOWED TO PREVENT EXCEEDING FLOW RATE AND VOLUME LIMITATIONS ON THE WATER RIGHT. THE APPROPRIATOR MAY PROTECT THE FOLLOWING AMOUNTS.

THE APPROPRIATOR MAY PROTECT THE FULL HISTORICALLY DIVERTED VOLUME OF 52.97 AF TO THE HISTORICAL POINT OF DIVERSION IN THE SESENE OF SECTION 36, T06 S, R03 E, GALLATIN COUNTY, BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR.

THE PROTECTED REACH ENCOMPASSES THE STRETCH OF THE WEST FORK OF THE WEST GALLATIN RIVER FROM LITTLE COYOTE POND AT A POINT IN THE SESENE OF SECTION 36, T06 S, R03 E, TO THE WEST FORK?S CONFLUENCE WITH THE WEST GALLATIN RIVER AT A POINT IN THE SENESE OF SECTION 33, T06 S, R04 E. THE APPROPRIATOR MAY PROTECT A CONTINUOUS FLOW RATE OF 35.00 GPM ALONG THIS REACH BETWEEN JUNE 1 AND OCTOBER 15 OF EACH YEAR. ALTERNATELY, THE APPROPRIATOR MAY PROTECT A PULSED FLOW RATE OF 159.8 GPM ALONG THIS REACH FOR A PERIOD OF 30 DAYS EACH YEAR.

THE TOTAL FLOW RATE PROTECTED FOR A TEMPORARY INSTREAM PURPOSE UNDER BOTH WATER RIGHTS INVOLVED IN THIS CHANGE AUTHORIZATION IS A CONTINUOUS FLOW RATE OF 319.6 GPM OR A 30-DAY PULSED FLOW RATE OF 70.00 GPM, BOTH EQUATING TO 42.38 AF OF CONSUMED VOLUME BEING PROTECTED EACH YEAR.

WATER MEASUREMENT - MUNICIPAL DIVERTED VOLUME LIMITATION:

UNDER BOTH STATEMENTS OF CLAIM 41H 148445-00 AND 41H 148446-00, THE APPROPRIATOR MAY DIVERT A COMBINED MAXIMUM OF 139.85 AF ANNUALLY FROM LITTLE COYOTE POND FOR MUNICIPAL PURPOSES.

WATER MEASUREMENT PLAN - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH FISHERY PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 11.80 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 53.92 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 11.80 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER MEASUREMENT PLAN - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR SHALL INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1 OF EVERY YEAR WHICH INSTREAM FLOW PROTECTION PLAN THEY WILL FOLLOW FOR THAT YEAR. AS DESCRIBED IN THIS DOCUMENT, THE TWO PROTECTION PLANS ARE TO PROTECT, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00, (1) A DISTRIBUTED FLOW RATE OF 70.00 GPM FROM JUNE 1 TO OCTOBER 15 OR (2) A PULSED FLOW RATE OF 319.6 GPM FOR A 30-DAY PERIOD. THE APPROPRIATOR SHALL ALSO INFORM THE BOZEMAN WATER RESOURCES OFFICE THE START

AND END DATES OF THE 30-DAY PERIOD.

IF THE APPROPRIATOR ELECTS TO PROTECT THE DISTRIBUTED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER MONTH. IF THE APPROPRIATOR ELECTS TO PROTECT THE PULSED FLOW RATE, THEN MEASUREMENTS SHALL BE TAKEN A MINIMUM OF ONCE PER WEEK.

IF THE APPROPRIATOR DOES NOT INFORM THE BOZEMAN WATER RESOURCES OFFICE BY JUNE 1, THEN THE DEFAULT PLAN OF OPERATION FOR THIS AUTHORIZATION SHALL BE A DISTRIBUTED FLOW RATE OF 70.00 GPM THAT IS PROTECTABLE FROM JUNE 1 TO OCTOBER 15, UNDER BOTH WATER RIGHTS 41H 148445-00 AND 41H 148446-00.

WATER MEASUREMENT INFORMATION

WATER MEASUREMENT RECORDS REQUIRED - TEMPORARY INSTREAM CHANGE (WEST FORK OF THE WEST GALLATIN RIVER):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE PROTECTED REACH OF THE WEST FORK OF THE WEST GALLATIN RIVER IN GALLATIN COUNTY ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST DURING THE TEMPORARY CHANGE AUTHORIZATION. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT RECORDS REQUIRED - FISHERY CHANGE (LITTLE COYOTE POND):

THE APPROPRIATOR OR A DESIGNEE SHALL MEASURE THE WATER PROTECTED ALONG THE NEW INLET AND DIVERSION WORKS OF LITTLE COYOTE POND ACCORDING TO THE MEASUREMENT PLAN DESCRIBED IN THIS DOCUMENT USING DEPARTMENT-APPROVED MEASURING DEVICES. MEASUREMENT RECORDS SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICES SO THEY ALWAYS OPERATE PROPERLY AND MEASURE FLOW RATE ACCURATELY.

WATER MEASUREMENT - MUNICIPAL VOLUME MEASUREMENT RECORDS REQUIRED:

THE APPROPRIATOR SHALL INSTALL A DEPARTMENT-APPROVED MEASURING DEVICE AT A POINT APPROVED BY THE DEPARTMENT. WATER MUST NOT BE DIVERTED UNTIL THE REQUIRED MEASURING DEVICE IS IN PLACE AND OPERATING. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL KEEP A WRITTEN RECORD OF THE VOLUME OF ALL WATER DIVERTED, INCLUDING THE PERIOD OF TIME. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES THE VOLUME ACCURATELY.